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B. Nimalathanan
A. Ramanan
K. Thabotharan

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Preface

It gives us a great pleasure in presenting this Proceedings of the Abstracts of JUICE-2012. The aim of JUICE-2012 is straightforward: To bring together leading researchers of the local and international community and to attract original research papers of high quality focusing on the theme "Capacity development in a post-war context". In this regard, this proceedings carries 255 abstracts that were accepted for presentation and publication in JUICE-2012 out of the 441 submitted papers. This edition of the proceedings was designed to group the papers in the following tracks nurturing the theme of JUICE-2012: Agriculture, Applied Sciences and Technology, Commerce and Management, Education, Health and Medical Sciences, Humanities and Fine Arts, Information Sciences and Technology, Pure Sciences, and Social Sciences. Papers included in this proceedings had covered a wide range of topics addressing the challenges faced by a post-war society with regard to capacity development. In addition to this JUICE-2012 was glorified by the contribution made by the eminent keynote speakers of various tracks. It is our genuine hope that JUICE-2012 will create a space for our society to thrive in the capacity development perspective after three decades of devastating war. We congratulate the authors on their contribution towards the success of JUICE-2012. We would like to sincerely thank the track PICs for their contribution in handling the papers and reviewers of JUICE-2012 for their professional commitment in reviewing the papers promptly. Mr. S. Gobinaath had extended immense assistance while we were compiling the papers from the tracks.

July 2012

B. Nimalathan
A. Ramanan
K. Thabotharan

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Track A:
Agriculture

Facets, Features and Forms of Firm-level Innovation in the Agribusiness Sector of Sri Lanka

K.S.L. Abeykoon¹, S.M.M. Ikram^{2†}, U.K. Jayasinghe Mudalige²,
J.C. Edirisinghe² and S.N. Dissanayake¹

¹Department of Agribusiness Management, Wayamba University of Sri Lanka

²Department of Agricultural Systems, Rajarata University of Sri Lanka

[†]ikram_mohideen@yahoo.co.uk

Abstract: As for any enterprise, innovation is considered as one of the most important factors to enhance competitiveness of agribusiness firms in both national and international markets. The managerial requirement of creating, shaping, and managing innovation, however, cannot be fulfilled without an understanding of forms and processes of innovation that is in practice within these enterprises. The fact in extant literature remains that the specific role of innovation in the context of the agribusiness sector in Sri Lanka is not yet fully explored. In this shed of light, the specific objective of this study was to undertake a qualitative exploration of various facets of firm-level innovation in Sri Lankan agribusiness sector with a focus of selected key sub-sectors, including: agricultural inputs, processed fruits/vegetables, plantation products, dairy products, meat/fish processing, diversified agribusinesses, which have been deemed excellent in performance over the years. In-depth face-to-face interviews with a senior manager of ten companies selected for the purpose were carried out with a support of a structured interview schedule. The interviews were voice recorded, transcribed and analyzed using N-Vivo (version 7.0) software package to derive underlying insights and isolate cognitive factors that pertain to innovation within these firms. Using the node development tools in N-Vivo, data were coded to create distinct labels within three broad categories, including: type of innovation, internal dimensions, and external context. Two forms of innovation were identified such as an incremental innovation of their existing product lines and innovations that lead to productivity and process improvements. In addition, these companies believe in the marketing of value added products as a form of innovation. Adoption and implementation of quality processes and systems was accentuated as an important element of organizational innovativeness. Furthermore, links with external institutions and quality of human capital were highlighted as important factors determining the innovation drive of these organizations. Interestingly there were no substantial indications in the results for firms being engaged greatly in other forms of innovation as exemplified in management/organizational behavior literature such as strategic, administrative and marketing innovation.

Keywords: Agribusiness Sector, Innovation, Qualitative Data Analysis

WHO and GHS Classification of Pesticides: Its Implications under Sri Lankan Scenario

L.S. Abeyasinghe¹, L. Nugaliyadde, M.H.R. Mohamed, K.H.S. Chaminda,
M.D.P. Kanderathne, D.I. Ranaweera, T.P. Madushani, H.K.R. Sampath and
W.M.A.S. Weerakkody

Faculty of Agriculture, University of Ruhuna, Sri Lanka ¹sandika@agecon.ruh.ac.lk

Abstract: Information on the hazardous nature of chemicals is important in the production, transport, use and disposal of the chemicals in a more environmental safer manner. The UN in 2009 created the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) with the aim of having a unified system for classifying chemicals (including pesticides) according to their health, environmental and physical hazards and to help replace the WHO Recommended Classification of Pesticides by Hazard and other classifications adopted region-wise. We compared the 43 insecticides, 27 fungicides and 25 herbicides, recommended for agricultural use in Sri Lanka, based on the above two scales with a view to examine the implications that may encounter once the classification is implemented. The recommended insecticides included 10 Oregano Phosphates, 8 Carbamates, 5 Pyrethroids, 4 Neo-nicotinoids, 2 Phenyl Pyrazoles, 7 Insect Growth Regulators, 3 Moulting Accelerating Compounds, and 4 bio-pesticides. The recommended fungicides included 27 different compounds with different modes of actions. The herbicides included a total of 25 pre- and post- plant herbicides with different chemistries. Based on the LD50 values, WHO system categorizes pesticides into class Ia (Extremely Hazardous), Ib (Highly Hazardous), II (Moderately Hazardous), III (Slightly Hazardous) and IV while the GHS scheme classifies pesticides into category 1 (Fatal), 2 (Fatal), 3 (Toxic), 4 (Harmful) and 5 (May be Harmful). We observed about 25% of pesticides classified under WHO class II (moderately hazardous) will fall under GHS Category 4 (harmful). Furthermore, the proposed phasing out of WHO class II pesticides from agriculture use would not be easier as some of these products would fall into GHS Category 3 along with WHO class III pesticides. Furthermore, we also observed that some of the WHO class II products, having specific Mode of Actions would be important in integrating for the management of resistance development in some major pests to pesticides. A survey conducted among 60 Agriculture Scientists and Industry Personnel revealed that they are not well aware of the GHS Scheme and the implications that these changes would bring to the pesticide usage in agriculture.

Analysis of Family-Women Participation in Agricultural Production in Valikamam Area, Jaffna District, Sri Lanka

T. Abira[†] and A. Sireeranhana

Department of Agricultural Economics, University of Jaffna, Sri Lanka

[†]tabira85@yahoo.com

Abstract: This study focused analysis of women participation in agricultural production in Valikamam area of Jaffna, Sri Lanka. Both economic and non economic factors are responsible for women participation. In this context the present study has been conducted to assess the women participation in agricultural production as a family-women involvement in agricultural activities. It examines the influence of selected socio-economic characteristic of family-women that affect their motivation and participation in agricultural production. A random as well as purposive sampling method was used to select respondents for this study. Total sample size was 185, which is representing the women participation in agricultural production in the Valikamam area, Jaffna district. The research was carried out with the use of well structured questionnaire to obtain the necessary data. The compiled data were analyzed within the probit model and descriptive statistics. The empirical results revealed that woman age coefficient shows negative and significant at $p < 0.05$ level, marginal effect increase from its mean value the probability for the women involvement in agricultural production will decreased by 0.73774%. Educational level coefficient shows positive sign and significant at $p < 0.05$ level, marginal effect of education shows, family-women involvement increase by 19.03%. Years of experience, coefficient is positive and significant at $p < 0.01$ levels, marginal effect shows the family-women involvement increase by 1.276%. Income level, this variable treated as log form and coefficient of income shows negative and significant, that marginal effect increase from its mean, family-women participation will decreased only by 8.29%. Extension services coefficient shows positive sign and significant at $p < 0.05$ level. Tenure rights variable and dummy variable were used and coefficient negative sign. Level of contribution Coefficient shows positive and significant at $p < 0.1$ level. Marginal effect that increases in its mean value resulted 4.376% increase the family-women participation. The women contribution to the agricultural production is highly in family-women, that they give financial support to their farming activities. The family-women age, income level and tenure rights had inverse relationship with participation in agriculture while, educational level, years of experience, extension services and level of contribution had positive relationship. This study pointed out that, despite the influence of other socio-economic variables, there is high level of commitment in agricultural production. The level of their contribution is an indication of their level of commitment in agriculture.

Keywords: Family-women, Agricultural production, Valikamam, Probit

Climate Change and its Awareness among Paddy Farmers in Central Province of Sri Lanka

P.C.B. Alahakoon^{1†}, W.A.D.P. Wanigasundera¹ and R. Pallawala²

¹Department of Agricultural Extension, University of Peradeniya, Sri Lanka

²Practical Action, South Asia

[†]prasad_uop@yahoo.com

Abstract: Global climate change (CC) is the severest threat that is faced by the contemporary world. It has been experienced that the negative impacts of the CC are recently increasing in Sri Lanka. Paddy sector is one of the most vulnerable sectors in the country, to the effects of CC. Central province, where small scale and mostly rain-fed paddy farming is practiced, is highly vulnerable to the natural disasters and other negative impacts of CC. This study was conducted to assess the status of CC using long term metrological data and the perceptions of paddy farming community on CC in Kandy district and to assess their awareness on CC and on adaptation to the CC impacts. Yatinuwara Divisional Secretariat Divisions (DSD) in the mid country wet zone and Kundasale DSD in the mid country intermediate zone were selected for the study. Using multistage sampling, 32 farmers were selected from 12 villages of each DSD for the social survey. Meteorological data for 33 years for the DSDs were collected from the Department of Agriculture, Sri Lanka. Both descriptive and inferential statistics were used in the analysis. Results showed that the mean annual rainfall and rainy days have been increased in both DSDs and the mean annual temperature has increased in Yatinuwara. Majority of the respondents in Kundasale (84%) and Yatinuwara (81%) believed that there is a climate change in the area. Perception analysis has shown that, Kundasale farmers had more correct perceptions on CC than that of Yatinuwara. The farmers' knowledge on adaptation strategies to the CC, overall attitudes on CC were significantly higher than that of Yatinuwara. The level of education and income showed a significant positive relationship with the overall attitudes on CC. It is recommended to develop and implement strategies to communicate the past trends and the predictions of CC correctly to the farmers. Data from hundreds of rainfall stations available throughout the country would be useful here. Conducting training programs to increase awareness and changing attitudes of farmers on important adaptation strategies to the CC such as soil moisture conservation also recommended.

Response of Fertilizer of some Sri Lankan Traditional Rice Cultivars during the Vegetative Phase

U.G.S. Amarasingha[†], A.L. Ranawake and S.G.J.N. Senanayake

Faculty of Agriculture, University of Ruhuna, Sri Lanka

[†]ugashamila@gmail.com

Abstract: Traditional rice cultivars in Sri Lanka conserve different abiotic and biotic tolerant traits but the yield of traditional rice cultivars is not as much of improved cultivars. Abiotic stress tolerance of some traditional rice cultivars were evaluated in previous studies at Faculty of Agriculture, Mapalana, Sri Lanka and this study attempted to understand the possibility of enhancing the yield and yield components of traditional rice cultivars by altering the fertilizer dose. A field experiment was carried out from October 2011 to April 2012 at the Faculty of Agriculture. There is a fertilizer recommendation suggested by the Department of Agriculture, Sri Lanka for modern rice cultivars. Traditional rice cultivars are considered to be weaker in response to fertilizer. Four different fertilizer levels namely No fertilizer, half the recommended dose, recommended dose and twice the recommended dose were evaluated with forty Sri Lankan traditional rice cultivars to understand the response of them on different agronomic parameters. Germinated seeds were planted in rows with 15cm×20cm spacing. Twenty plants were managed for each line and three lines were maintained for one replicate of cultivar. Experiment was conducted with four replicates. Effect of fertilizer on the plant height, number of tillers/plant and number of leaves/plant were measured at three weeks after transplanting. These parameters were significantly differed with the fertilizer doses. The highest number of tillers and highest number of leaves were observed under the half the recommended dose. Plant height was significantly increased under the recommended dose while the lowest plant height was recorded under twice the recommended dose. Correlation of these parameters and other yield components with the final yield is yet to be computed.

Waste Management in Agri-Food Processing Sector in Sri Lanka: Triggering the Firms' Compliance to Environmental Regulation

W.K.A.M.D.S. Aththanayake¹, J.M.M. Udugama^{2†}, U.K. Jayasinghe Mudalige² and H.M.T.K. Herath²

¹Department of Agricultural Economics and Extension, Faculty of Agriculture, Rajarata University of Sri Lanka

²Department of Agribusiness Management, Faculty of Agriculture and Plantation Management, Wayamba University of Sri Lanka

†menukaudugama@gmail.com

Abstract: The purpose of this study was to examine empirically the impact of a system of private (market) and public (regulatory) incentives for a firm to comply with the environmental management practices recommended by the Ministry of Environment for the agri-food processing sector in Sri Lanka. Four specific environmental management practices recommended by the Ministry to manage solid waste generated in a firm were of particular interest in this analysis, including: (1) 3R system, (2) composting unit, (3) biogas unit, and (4) good manufacturing practices. It was hypothesized that the: (i) cost and financial implications; (ii) increased internal efficiency of the firm; (iii) market-forces such as sales, commercial pressure and reputation, and (iv) government regulation can have a significant influence on agro-processing firms. With the support of a structured questionnaire, the data were collected by means of a face-to-face interview with the owner/top executive of firms (n=153) that did not adopt a single SWMP indicated above and belonging to five sub-sectors based on the type of product (i.e. processed foods, coconut products etc.) and their size (from very large to very small). The data revealed that firms did not comply with any of the above recommendations by year 2009, but were supposed to adopt which by the end of year 2011. The data were subjected to Kruskal-Wallis Test for analysis. The outcome highlights that prevailing government regulation and liability laws on solid waste management did not trigger firms to comply with them. Further, firms' voluntary actions on adoption of these practices are constrained by the costs/financial implications faced. Moreover, market forces and internal efficiency did not play a key role in this regard. However, it was observed that relative impact of these incentives varied significantly with respect to the firm/plant characteristics such the type of and scale/size of firms. This highlights the importance of bringing strict regulation into the industry to ensure firm compliance with environmental regulation. Simultaneously, care must be taken to strengthen the base of positive market incentives faced by individual firms to prevent them from full or partial exit from the industry due to strict regulation.

Keywords: Economic Incentives, Environmental Quality Management, Food Processing Sector, Regulation, Waste Management Controls

Development and Quality Evaluation of Ready to use Rice Based Curry Leaf Cracker

P.M.T.G. Basnayake, T. Somarathna and K.G.L.R. Jayathunge

thikshanis@yahoo.com

Abstract: The study was conducted to determine the suitable rice variety with suitable rice flour percentage for manufacturing rice flour cracker with suitable percentage of curry leaf pieces. Different rice flour levels with curry leaf levels were selected at primarily. Rice flour level with 75% and 15% of wheat flour level was selected and incorporated with 5% of curry leaf pieces form with different rice varieties (AT 405 brown rice varieties, BG 358 short white rice variety and H4 traditional rice varieties) to find out the most preferred type of cracker by using a sensory evaluation. Physical, chemical and microbial analysis was measured. The result showed that rice based curry leaf cracker AT 405 was better in overall quality than BG 358 and H4 rice varieties and it is feasible to substitute wheat flour with rice flour up to 75% to produce good quality cracker. Based on the microbial analysis could not identify any microbial contamination of the products. This study might serve different consumption pattern of rice in Sri Lankan cuisine.

Keywords: Amylose content, Cracker, Physiochemical and organoleptic qualities, Rice flour, Sensory analysis

Biofilmed Biofertilizers for Maize (*Zea mays* L.): Effect on Plant Growth under Reduced Doses of Chemical Fertilizers

U.V.A. Buddhika^{1†}, G. Seneviratne¹ and C.L. Abayasekara²

¹Institute of Fundamental Studies, Sri Lanka

²Department of Botany, University of Peradeniya, Sri Lanka

[†]aruniruh@gmail.com

Abstract: Maize is cultivated as a second crop next to rice in tropical conditions and depends on chemical fertilizers (CF) which contribute to detrimental ecological consequences. As a recent development, formulated fungal-bacterial biofilms (FBBs) of nitrogen fixing bacteria and fungi have shown potentials to be used as biofertilizers in agriculture, termed biofilmed biofertilizers (BFBFs). Therefore, current study was focused on the effect of developed BFBFs on plant growth and soil nutrient availability under CF reduction. A greenhouse soil pot experiment was conducted for 60 days using treatments; 100% CF (Recommended dose by the Department of Agriculture), 50% CF, 50% CF + BFBF1 and 50% CF + BFBF2, two BFBFs formulations. Plant photosynthetic efficiency and total plant dry weight were measured after 45 and 60 days of plant growth, respectively, and soil available ammonium (NH_4^+), nitrate (NO_3^-), phosphate (PO_4^{3-}) and soil organic carbon (SOC) were measured following standard methods at 60 days of plant growth. Initial availabilities of NH_4^+ , NO_3^- , and PO_4^{3-} were 42.76, 15.08, and 2.41 $\mu\text{g/g}$ soil, respectively. Results showed that 50% reduction of CF did not affect plant growth, since nutrient use efficiency was presumably improved by the BFBF. Enhanced plant photosynthetic efficiency under BFBF application was possibly due to sufficient chlorophyll content in plant leave, caused by adequate supply of NH_4^+ . In contrast, reduced availability of PO_4^{3-} (0.24 $\mu\text{g/g}$ soil) under BFBF2 could be due to plant uptake, possibly through the enhanced root growth. Thus, BFBF can reduce CF input in maize agriculture for a sustainable system. Further experiments under field conditions are however needed to evaluate their potential use in maize cultivation.

Keywords: Fungal-bacterial biofilms, Biofertilizers, Soil available nutrients, Plant photosynthesis

Callus Induction and Plantlet Regeneration Ability of Selected Sri Lankan Traditional Rice Cultivars (*Oryza sativa* L.) in Caryopses Culture

N. Dahanayake[†], A.L. Ranawake and U. Wanitunga

Department of Agricultural Biology, University of Ruhuna, Sri Lanka

[†]nilanthi@agbio.ruh.ac.lk

Abstract: A total of forty Sri Lankan traditional rice varieties (*Oryza sativa* L.) were examined for their callus induction, growth and regeneration ability at Laboratory of Agricultural Biology, Faculty of Agriculture, University of Ruhuna. Surface sterilized rice seeds (caryopses) were cultured on four different callus induction media supplemented with 1.5, 2.5, 3mg/l 2,4 - dichlorophenoxy acetic acid (2,4-D) and 0.1 mg/l 6 - benzyladenine (BA) on Murashige and Skoog's (MS) basal medium. Proliferated calli were regenerated on 3 different regeneration media supplemented with 1.5, 2, 2.5, 3 mg/l BA with 0.1 mg/l naphthaleneacetic acid (NAA). Eighty seven point five % of rice cultivars were able to produce callus on callus induction medium and among them 12.5 % of rice cultivars regenerated shoots. 100% callus induction was recorded by 75% of tested rice cultivars on 2.5 mg/l 2,4-D MS basal medium while the callus induction percentages were 30% and 32.5% in 1.5 mg/l 2,4-D and 3 mg/l 2,4-D media, respectively. The callus growth of rice cultivars showed significant difference with the cultivar and with the medium. By the 4th week of callus induction the maximum diameter of the callus recorded by rice cultivar *Herath* on 2.5 mg/l 2,4-D with 0.1 mg/l BA MS basal medium. The regeneration ability of rice cultivars were varied from 0 % to 100% while the highest regeneration was recorded in rice cultivar *Herath* on regeneration medium supplemented with 2.5 mg/l BA and 0.1 mg/l NAA. Callus induction % were varied from 0% - 100% while *Dik wee*, *Herath*, *Pachchai Perumal* and *Rathu wee* were observed significantly highest callus formation. *Sudu bala wee*, *Kahata wee* (long grain), *Sudu heenati*, *Kahata samba* and *Muthumala* failed to initiate callus on any of the medium. The highest shoot regeneration percentage was found in *Herath* (100%) while *Mas samba*, *Seedevi*, *Dostara heenati* and *Rathel* were also categorized in to the same DMRT (Duncan's Multiple Range Test) group with *Suduru Samba*. The highest number of shoots (8 shoots/callus) was recorded in *Sudhu samba* compared to other varieties (0.1-8per explant). There was a significant interaction between callus induction medium and rice cultivar as well as regeneration medium and rice cultivar.

Keywords: *Oryza sativa* L., Traditional rice, callus, Regeneration

The Determinants of Labor Outmigration in Tea Plantation Sector in Badulla District

R.A.P.I.S. Dharmadasa[†] and M. De Zoysa

Uva Wellassa University, University of Ruhuna, Sri Lanka

[†]sdharmadasa@gmail.com

Abstract: This study is an attempt to find out the determinants of labor outmigration from tea plantation sector in Badulla District. A simple random sample of 378 households was drawn from the total worker population of the selected tea estates. The data were gathered using pretested questionnaire and a logistic regression model was estimated to find the determinants of migration. Results suggests that experience of household head in tea estate work, family size, total income from tea, number of dependents in a family and race affect the migration decision negatively. Hence higher the non farm income higher will be the propensity to migrate.

Keywords: Logistic Regression, Outmigration, Tea Estate Sector

Incorporation of Plant Based Gelling Agents as the Stabilizer to Replace Gelatine in Set-yoghurt

N.K. Jayasinghe^{1†}, J.K. Vidanarachchi¹, K.F.S.T. Silva¹,
P. Thavarajah², D. Thavarajah³ and U. Mallikarachchi⁴

¹Department of Animal Science, University of Peradeniya, Sri Lanka

²School of Food Systems, North Dakota State University, Fargo, USA

³Department of Plant Science, North Dakota State University, Fargo, USA

⁴National Aquatic Resources Research and Development Agency, Sri Lanka

†nadeeshajayasinghe@gmail.com

Abstract: Yoghurts were prepared with incorporating pea fibre, “Kitul” flour, carrageenan and alginate as stabilizers to determine the best replacer for gelatine. They were organoleptically evaluated and stored at 7±1°C. Further the yoghurt were examined for colour and texture as physical properties and were subjected to chemical analyses such as pH, titratable acidity (TA) and water holding capacity (WHC) for 9 days with a three days interval. Colour attributes of prepared yoghurts were measured using a colour reader, which gives L*, a* and b* values directly. Texture profile and the gel strengths of the samples were measured using a digital penetrometer which was coupled to a dynamometer with a load cell of 5kN and cross head speed of 1 mm/s and equipped with a 1.27 cm flat faced cylindrical Teflon® plunger. Maximum force needed to cut the surface of the sample was determined. Enumeration of lactic acid bacteria (LAB) and Coliforms were done in order to compare the microbiological properties of yoghurts. Pea fibre and 0.5% of pea fibre (out of 0.5%, 0.6%, 0.7%, 0.8% and 0.9% incorporation levels) stabilised yoghurts were rated best based on the sensory evaluations as the best replacer for gelatine while being the most suitable level of incorporation. In pH and TA, there was a significant difference between all the treatments and the length of storage. WHC values were significantly different between treatments and “Kitul” flour obtained the highest WHC at 6th day. Lowest L* highest a* and lowest b* values (p<0.05) were obtained from “Kitul” flour added yoghurts. Carrageenan obtained the highest (p<0.05) score for gel strength and in the texture analysis of yoghurts carrageenan incorporated yoghurts received the highest score. In the viability counts of LAB, there was a significant difference between all the treatments and the length of storage. Pea fibre 0.5% added yoghurts were free from Coliforms. Results from the present study suggests pea fibre as the probable alternative stabilizer for gelatine and 0.5% of pea fibre as the best incorporation level in set-yoghurt preparation in order to obtain proper sensory and rheological properties to be accepted by consumers.

Keywords: Alginate, Carrageenan, “Kitul” flour, Pea fibre, Rheological properties, Yoghurt

Bioassay Guided Isolation of *Cassia alata* Stem Bark Extract

S. Jeyasakthy[†], R. Srikanan¹, J.P. Jeyadevan¹, A.C. Thavaranjit² and
T. Manoranjan¹

¹Department of Chemistry, University of Jaffna, Sri Lanka

²Department of Botany, University of Jaffna, Sri Lanka

[†]sjejasakthy@gmail.com

Abstract: Plants have the ability to synthesize chemical compounds that help them to defend against attack from a wide variety of predators such as insects, fungi and herbivorous mammals. Although some of these compounds, whilst being toxic to plant predators, turn out to be effective drugs for human diseases. Most medicinal plants are used as biological alternatives to synthetic fungicides. For example, we found that *Cassia alata* is an important medicinal plant in the subfamily Caesalpinioideae. In the preliminary work on this project, extracts of leaves and stem bark of the *Cassia alata* we obtained through sequential extraction method using hexane, ethylacetate and methanol. Antifungal assay and preliminary phytochemical analysis carried out. On these extract revealed higher antifungal activity by the ethylacetate extract of stem bark of *C.alata* against *Pythium* sp and *Alternaria* sp. Objective of the present study is identifying the antifungal active compounds present in the ethylacetate crude of stem bark of *C.alata*. In this study, we carried out bioassay guided isolation of ethyl acetate extract of *C.alata* stem bark using column chromatography. The ethyl acetate extract was fractionated into five fractions by VLC method. Based on the TLC analysis, these five fractions were combined into two fractions (A and B) and the antifungal bioassay was performed with different concentrations (50, 25 and 12.5 ppm) of the fractions A and B against the fungi *Alternaria* sp, *Aspergillus* sp, *Collectotrichum* sp, *Fusarium* sp and *Trichoderma* sp. The fraction B showed higher antifungal activity against all tested fungi. Subsequently column chromatographic analysis was carried out on the fraction B to identify the active antifungal compound/s. We were able to successfully isolate three pure compounds from fraction B of ethyl acetate extract of stem bark of *C.alata*, which is believed to possess antifungal activity. These three compounds have to be characterized through NMR studies and mass spectrometry. Further analysis of these three compounds can be carried out to reconfirm their antifungal potentials.

In vitro Antagonistic effect of *Trichoderma* spp. against Tomato Damping off Pathogen *Pythium aphanidermatum*

E.C. Jeyaseelan[†], S. Tharmila and K. Niranjana

Department of Botany, Faculty of Science, University of Jaffna

[†]christyeyaseelan@gmail.com

Abstract: *Pythium aphanidermatum* is an aggressive pathogen, causing damping off disease in tomato seedlings. In the present study an attempt was made to study the antagonistic effect of *Trichoderma viride* and *Trichoderma harzianum* against *P. aphanidermatum* *in vitro* condition. In dual culture method both antagonist and pathogen were grown in same potato dextrose agar (PDA) plate at 28±1°C, and the radial growth of the pathogen was compared with control (plates only with pathogen). The effect of volatile compounds released from the antagonists was studied by growing the pathogen on a PDA plate over the antagonistic fungus growing PDA plate, and the effect was determined by comparing the radial growth of pathogen in treatment and control. The bioactivity of non volatile metabolites of antagonists was detected by growing pathogen on a medium where already antagonists grew on cellophane discs for three days. In order to extract the active non volatile metabolites, antagonists were grown in potato dextrose broth for three days. Then the broth was centrifuged at 9000rpm for 20 minutes, the supernatant was passed through 0.34µm Millipore filter. Bioactivity of different dilutions of above extracts was tested by poison food technique. All the experiments were repeated three times. The results of dual culture method showed that both *T. harzianum* and *T. viride* had antagonistic effect on the growth of *P. aphanidermatum* and the effect varied significantly ($p < 0.05$), where they revealed 78.1% and 38.1% of inhibition, respectively. The volatile metabolites of both antagonists revealed inhibition on the mycelial growth at 24 hours incubation. However, amount of inhibition produced by *T. harzianum* (51.7%) was significantly ($p < 0.05$) higher than that produced by *T. viride* (37.7%) and also they lost the inhibitory effect at 48 hours. Non volatile metabolites of *T. harzianum* and *T. viride* expressed 100% and 74% inhibitions, respectively. Interestingly, in both treatments the inhibitory effect was remained even after 48 hours. Non volatile metabolic extracts of antagonists also showed growth inhibition on test pathogen and their effect varied with the concentration. *T. viride* expressed slightly higher inhibitory effect than that produced by *T. harzianum*. In conclusion, the antagonistic fungi, *T. harzianum* and *T. viride* have inhibitory effect on the plant pathogenic fungi *P. aphanidermatum* *in vitro*. However, further nursery bed and field studies are needed to ensure their bioactivity on *P. aphanidermatum*.

Productive and Reproductive Performance of Nili Ravi Buffaloes at the Nikawaratiya Farm in the Intermediate Zone of Sri Lanka

H. Kansana and J. Sinniah[†]

Department of Animal Science, University of Jaffna, Sri Lanka

[†]jeyalngawathani@gmail.com

Abstract: The objective of the study was to evaluate the production capacity and reproduction parameters of Nili-Ravi buffaloes at the National Livestock Development Board farm, Nikaweratiya, Sri Lanka. Data on age at first calving, lactation length, dry period, total milk yield, calving interval, gestation length, lactation number, birth weight and calving to service period were collected for the period of 1990–2010 and analyzed using the statistical package SAS 6.12. The estimated LS mean value for production traits of lactation milk yield, lactation length, calving interval and birth weight were 1612.54 kg/lac, 288.46 days, 12.94 months and 30.29 Kg, respectively. The raw means of age at first calving, calving to service period, gestation period and dry period were 49.27 ± 08.14 months, 138.32 ± 54.46 days, 309.92 ± 25.37 days and 77.97 ± 29.24 days, respectively. Milk yield was significantly influenced by age at first calving, lactation length, birth weight and season of calving. The lactation length was significantly influenced only by lactation number. Calving interval was significantly influenced by season of calving, dry period and lactation length. But birth weight was significantly influenced only by sex of calves.

Keywords: Nili Ravi, Productive Parameters, Reproductive Parameters, Sri Lanka

Effect of Seed Inoculated Rhizobium on Nodule Formation, Yield and Seed Physical Properties of Cowpea

K.N. Kumara Sharma and A.G.B. Aruggoda[†]

Department of Agricultural and Plantation Engineering, The Open University of Sri Lanka
[†]agbar@ou.ac.lk

Abstract: Soil fertility and productivity depend on soil chemical, physical and biological properties. Sri Lanka is an agricultural country and extensive use of inorganic fertilizers by the farmers has harmful impact on human and the environment. Therefore, promoting application of organic fertilizer is a need. Legumes are not only grown as human food but also improve soil fertility through biological nitrogen fixation. Rhizobium, a soil borne bacteria living in nodules of legume plants, fixes aerial nitrogen on a symbiotic association. Thus it reduces nitrogen requirement of legume and make the legume based cropping system sustainable. The response of cowpea variety Waruni to seed inoculated Rhizobium, cattle manure, and inorganic nitrogen fertilizer was investigated conducting field experiments. The results indicate that the seed inoculated rhizobia increased number of nodules and nodules dry weight per plant, 100 seed weight, number of pods per plant, yield, hydration coefficient and cookability. Control treatment significantly increased total defects and non-soakers. Moisture content was not showed statistically significant different among the treatments. When perform the correlation analyses the moisture content showed non significant effect with other seed physical properties. Cookability showed significant positive correlation with non-soaker seeds and non-soaker seeds showed highly significant ($p < 0.0001$) positive correlation with total defects. Seed inoculated *Rhizobium* had the highest performances in nodule formation, yield and seed physical properties. Present study concludes that the seed inoculated *rhizobium* is successfully applied in legume fertilization as a supplement to the inorganic fertilizer as well as to reduce the amount of organic fertilizer.

Effects of Soil Moisture Stress on the Catalase Enzyme Activity of Selected Chilli (*Capsicum annuum* L.) Cultivars during the Flowering Stage and the Impact on Yield

S. Mahendran

Department of Agricultural Biology, Eastern University, Sri Lanka
thevamahen@yahoo.com

Abstract: An experiment was conducted to determine the effects of soil moisture stress on the catalase enzyme activity of three chilli cultivars namely; MI2, KA2 and 'Arunalu'. Moisture stress was imposed for a period of 15 days during the flowering stage. Control plants were watered regularly to Field Capacity at 5 days interval. The treatments were arranged factorially following the Randomized Complete Block Design with six treatments and four replications. The probability level of significance was maintained at $p < 0.05$. A number of ten leaves representing ten plants were randomly collected from each replicate of the treatments on the 15th day from the commencement of the stress to determine the catalase activity. A similar procedure was followed for the control treatments as well after watering. The quantity of H_2O_2 produced was calculated using standard $KMnO_4$ and the activity of this enzyme was expressed as μg of $H_2O_2 g^{-1}m^{-1}$. Moisture stress significantly increased the catalase activity of all the chilli cultivars 'Arunalu' showed the lowest H_2O_2 content followed by KA2 and MI2. In other words, the catalase activity was significantly highest in the 'Arunalu' cultivar followed by KA2 and MI2. In addition, the catalase activity was significantly higher in KA2 than MI2 chilli cultivar. Catalase is an important enzyme which converts H_2O_2 into non toxic form. During photorespiration, the H_2O_2 is produced. H_2O_2 is highly toxic to plants and thus reduce the tolerance capacity of the plants to abiotic stress. Higher catalase activity resulting in lower hydrogen peroxide accumulation indicates higher drought tolerance. Based on the above observation, 'Arunalu' was able to develop better stress tolerance than the other two cultivars. It was also observed that moisture stress significantly reduced the yield of all the chilli cvs. The highest reduction was observed in the MI2 followed by KA2 and 'Arunalu'. There was no significant difference in the yield of KA2 and 'Arunalu'. These two cultivars were able to produce substantially high yield under water deficit situation. The stress tolerance feature of 'Arunalu' characterized by high catalase activity would have helped maintain the growth and development despite a severe drought condition. Thus 'Arunalu' was able to survive and produce well under this situation.

Keywords: Catalase, Soil moisture stress, Yield

Development of a Soil Database for Land Management and Environmental Applications in the Dry Zone of Sri Lanka

R.B. Mapa

Department of Export Agriculture, Faculty of Animal Science and Export Agriculture, Uva Wellassa University, Sri Lanka
maparb@yahoo.com

Abstract: The Dry zone of Sri Lanka is the area receiving less than a mean annual rainfall of 1750 mm which covers about 1/3rd of the land area. Agriculture is the major live hood of the people in this area. Therefore, knowledge of the soil resource plays a major part in planning and management of agriculture. Until recently the soils of these areas were studied and classified according to the Great Soil Groups. With recent developments there is a need to study the soil of the Dry zone in more detail, classify them according to international methods and use the knowledge for land use planning. Therefore, the objective of this study was to characterize the soils of the Dry zone of Sri Lanka, map them, and to develop a soil database for use of land use planning of the region. This study was conducted from 2007 to 2010 and the soil series were identified using auger holes, road cuts and previous information. A benchmark site was selected for each soil series and landscape features and soil profile was described. Soil physical and chemical parameters were characterized for each soil horizon using standard methods. The soil physical parameters include soil texture, bulk density, hydraulic conductivity, wet and dry aggregate stability and available water. The soil pH, electrical conductivity, cation exchange capacity, base saturation, organic carbon, available P and total N were the chemical parameters evaluated. These data were used to classify the soils according to Soil Taxonomy and FAO methods for agro-technology transfer. A total of 51 soil series were identified categorizing them to the soils derived from erosional surfaces or decomposing parent material, soils of coastal plains and soils of the flooded plains. The database has been developed to view the landscape characters, soil profile description, physical and chemical parameters of each soil horizon. In addition a colour plate of the landscape features and soil profile is also included for easy identification by the users. The database could be used to propose soil conservation practices, 'irrigation methods and frequencies' and fertilizer management practices to manage these soils in a sustainable manner.

Market Oriented Extension Services to Increase Food Security among Farming Communities in Sri Lanka

K.K.P. Perera[†] and S. De Silva

Department of Agricultural Extension, University of Peradeniya, Sri Lanka

[†]kumudupdn@gmail.com

Abstract: High transaction cost, inefficient value chains and lack of capacity to meet market demands for quality, quantity and timeliness have put small farmers in a disadvantaged position in the highly unpredictable market environment in Sri Lanka. Hence, strengthening farming communities through market oriented extension services (MOES) become inevitable. The objective of this paper is to determine the effectiveness of MOES in ensuring food security among farming communities in Sri Lanka. Five cases including 50 farmers of private organizations and/or public-private partnerships, practicing MOES were selected and both quantitative and qualitative data were collected by using a pre-tested interview schedule, key informant discussions and observations to achieve the research objective. Innovative MOES activities and performance of agro-enterprises were analyzed. The results revealed that in the conventional agricultural extension system, many producers attempt to produce higher volumes at lower costs (cost leadership) in contrast to MOES where producers attempt to gain competitive advantage through product differentiation (organic and natural products, premium quality, value addition etc.) and niche marketing at local and international markets. Combination of scientific knowledge obtained through better advisory service with traditional indigenous knowledge help the farmers in the MOES system to focus on both production (crop selection, planning, and cultural practices) and marketing (post-harvest handling, quality standards, packing, transportation, hygiene, etc) aspects of their enterprise. Better linkages and coordination of business activities such as production, marketing, distribution and finance, as well as continuous Research and Development (R&D) in respective areas; help the actors in the value chain to increase their profits. The weaknesses of the traditional farmer organizations have been addressed in the new system through forming empowered, networked and profit oriented farmer groups. Innovative and differentiated products with high quality standards; additional benefits or services that justify higher prices; focus on high -end supermarkets, final processers, and export markets; and promotion through branding and value addition in various advertising media help the farmers to gain profitability, sustainability and equity. In conclusion MOES can provide better solutions to all the actors in agricultural value chain in order to ensure the food security among farming communities.

Keywords: Market orientation, Food security, Value chain

Seed Germination of Kiribadu (*Ipomoea mauritiana*) as Influenced by Soaking Time and Sowing Media

N.D.N. Priyadarshani

Department of Crop Science, University of Ruhuna, Sri Lanka
nilukanakandala@gmail.com

Abstract: Kiribadu (*Ipomoea mauritiana*) is a very important medicinal plant. Tuberos roots (yams) of Kiribadu use in indigenous medicine to treat various diseases and disorders. Kiribadu seeds contain hard seed coat therefore, takes long time for germination that is poor under natural condition. Objective of the present study was to find out a suitable seed treatment and sowing media to expedite the germination and seedling survival of *I. mauritiana*. For this purpose, two separate experiments were set up at the Department of Crop Science, University of Ruhuna of Sri Lanka. In experiment-I, four different soaking times (i.e. 6, 12, 18, 24 hrs) were used to determine best soaking time for germination of *I. mauritiana* seeds. Numbers of germinated seeds were counted daily to determine germination % and days taken for germination was also recorded. In experiment-II, four different potting mixtures (i.e. sand, coir dust, top soil and coir dust: top soil 1:1) and five replicates were used to select the best sowing media for *I. mauritiana* seedling survival. Seeds soaked in water for period of 18 hours (best soaking period from experiment-I) were used for the purpose. Results revealed that the highest germination percentage (90%) and rapid germination were observed in seeds soaked in water for 18 hrs (in petri dishes). Seeds in control started to germinate at 5 days and it was recorded very poor germination percentage (13.6%). Fungus attack was observed in seeds soaked in 24 hrs. Coir dust media was shown rapid and higher germination (81%) followed by coir dust: top soil (1:1) media (78%). Therefore, seeds soaked in water for 18 hrs and planted in coir dust media appeared to be most promising treatments to obtain rapid and highest germination percentage of *I. mauritiana* seeds.

Keywords: *Ipomoea Mauritiana*, Medicinal Plant, Seed Germination, Sowing Media

Studies on Rooting of Kollankola
(*Pogostemon heyneanus Benth*) as Affected by Potting Media,
Cutting Types and a Rooting Hormone

N.D.N. Priyadarshani, H.K.M.S. Kumarasinghe and S. Subasinghe

Department of Crop Science, Faculty of Agriculture, University of Ruhana, Sri Lanka
nilukanakandala@gmail.com

Abstract: Kollankola (*Pogostemon heyneanus*) is a very important medicinal herb in indigenous medicine as well as perfumery and soap industry. Kollankola leaves, stems, flowers, fruits and roots are used for the Ayurvedic preparations and essential oil production as fresh or dried form. Having insect repellent properties, this also used for the pesticide preparations. Kollankola generally propagated through stem cuttings. For the field planting of Kollankola, successfully rooted stem cuttings are essential. Current market price of dried Kollankola leaves is about Rs. 150/kg at local markets. However, there is no any systematic cultivation to fulfill annual Kollankola requirement in Sri Lanka. Availability of sufficient amount of quality planting materials creates problems in large scale cultivation of Kollankola. Present study was focused on media, cutting types and hormone on rooting of Kollankola stem cuttings and thereby improves the availability of quality planting materials. For this purpose, two separate pot experiments were carried out at the medicinal plant garden, Faculty of Agriculture, University of Ruhuna. Experiment I was to select proper potting mixture for successful rooting of Kollankola stem cuttings. For this experiment, ten different potting mixtures [such as sand alone, top soil alone, coir dust alone, mixtures of sand: top soil (1:1), sand: coir dust (1:1), sand: compost (1:1), top soil: coir dust(1:1), top soil: compost (1:1), sand: compost: coir dust (1:1:1), sand: top soil: compost (1:1:1)] were used to select proper media for successful rooting. Experiment II was designed to select suitable cutting type and hormone effect on rooting of Kollankola stem cuttings. As assign in different treatments, soft wood, semi hard wood and hard wood cuttings were used with or without Indole butyric acid (IBA). Results revealed that sand: compost: coir dust (1:1:1) potting mixture showed the significantly higher ($P<0.05$) survival percentage, higher rooted cutting percentage, higher number of roots and higher root length and 3000 mg/L IBA treated semi hardwood cuttings recorded significantly higher ($p<0.05$) number of roots, higher root length, higher survival percentage and higher rooted cuttings percentage. Therefore, IBA treated semi- hardwood stem cuttings and sand: compost: coir dust (1:1:1) potting mixture could be used to obtain successfully rooted Kollankola stem cuttings.

Keywords: Hormone, Kollankola, Potting mixture, Stem cuttings

QTL Analysis of Salinity Tolerance at Seedling Stage in Rice (*Oryza sativa* L.)

A.L. Ranawake^{1,2†} and C. Nakamura

¹Department of Agricultural Biology, Faculty of Agriculture,
University of Ruhuna, Sri Lanka

²Laboratory of Plant Genetics, Department of Agro-environmental Science,
Kobe University, Japan

†lankaranawake@agbio.ruh.ac.lk

Abstract: Salt tolerant QTLs at the seedling stage of rice was studied using green shoot length as a parameter, which was measured after salinity stress. Under salinity stress from electrical conductivity level 4 dS/m, Hyogokithanishiki *Japonica* parent showed more tolerance than Hokuriku-142 *Indica* parent. QTLs associated with salt tolerance were identified using 163 recombinant inbred lines derived from these parents. A linkage map constructed with 95 simple sequence repeat markers was integrated with the bioassay data for QTL analysis. Dormancy broken seeds were surface sterilized. Acceleration of uniform seed germination was performed by keeping surface-sterilized seeds at 35°C for 6 days in distilled water. Germinated seeds were grown in 1 ppm Hyponex (N:P:K: 6:10:5) solution for one week. Hyponex solution was refreshed on every other day for better aeration. Saline Hyponex solutions were prepared with electrical conductivity 5 dS/m by adding NaCl and plants were subjected to salinity stress. Green shoot length was measured at the end of the experiment. A salinity tolerant QTL was identified by composite interval mapping with LOD score 9.6 on chromosome 4 after 8-day salinity stress at electrical conductivity 5 dS/m. It indicated that this QTL explained 53.4% of the phenotypic variance and *indica* parent contributed salinity tolerant alleles for the QTL. According to the 1000 time permutation test at composite interval mapping, this QTL exceed the threshold LOD value. Chromosome four has been identified as a candidate chromosome possessing salinity tolerance in this study and in previous studies for different traits.

Keywords: *Indica* X *Japonica*, Electrical Conductivity, Recombinant Inbred Lines

Development of a Ripened Jack (*Artocarpus heterophyllus*) Fruit Incorporated Set Yoghurt

N. Sarmini^{1†}, K.F.S.T. Silva² and J. Sinniah¹

¹Department of Animal Science, University of Jaffna, Sri Lanka

²Department of Animal Science, University of Peradeniya, Sri Lanka

[†]sarmini30@gmail.com

Abstract: Yoghurt is one of the most popular fermented dairy products widely consumed all over the world. In majority of the countries, the increase in the per capita annual consumption of yoghurt has been attributed to both the ever-increasing availability of fruit or flavoured yoghurt, and to the diversity of presentations of the product. This study was conducted to develop a value added set type fruit yoghurt with the acceptable combination of milk and ripened jack fruit (*Artocarpus heterophyllus* Lain). Various levels of jack fruit chunks (3-5 mm) viz. 3, 5, and 7 percent (w/v) were used in the preparation of fruit yoghurt. On the basis of various sensory attributes, yoghurt containing 5 % jack fruit chunks was selected as optimum. Selected yoghurt sample from sensory panel and control (Plain yoghurt) were analysed for proximate composition, E-coli count, shelf life and sensory attributes such as appearance, aroma, colour, fruit distribution, mouth feel, texture, taste and overall acceptability. The means for total solids, fat, protein and fibre % for the control samples were 19.73±0.12, 4.00±0.06, 3.30±0.02 and 0.00±0.00, respectively whereas for the 5% jack fruit chunks added yoghurt samples the means were 21.98±0.05, 4.11±0.03, 3.31±0.01 and 0.04±0.01, respectively. The products were packaged in plastic cartons and stored under refrigerated conditions at 4±1^oC for a period of three weeks. The pH and syneresis increased significantly (p<0.05) and titratable acidity decreased significantly (p<0.05) with storage. E-coli were not detected on first day of storage at 10⁻¹ dilution. The samples comply with the Sri Lankan Standards for solids- non-fat content (Minimum % by mass 8) and E-coli counts. The product was acceptable for a period of 15 day at 4±1^oC. Yoghurt sample prepared by incorporating 5% jack fruit chunks resulted in superior organoleptic properties and nutritional qualities when compared to control sample, thus illustrating the sustainability of jack fruit incorporation in commercial yoghurt production at a low cost.

Keywords: Yoghurt, Jack fruit, Milk, Shelf life

Development of Chicken Burgers by Incorporating Kohila (*Lasia spinosa*) and Oyster Mushroom (*Pleurotus ostreatus*)

R.M.H. Tharangani[†], A.K.I. Jayantha and H.W. Cyril

Department of Animal Science, University of Peradeniya, Sri Lanka

[†]htharangani@gmail.com

Abstract: Chicken burgers were prepared by incorporation of blanched Kohila (*Lasia spinosa*) and Oyster mushroom (*Pleurotus ostreatus*) with an objective of developing a low cost healthy meat product. The reference batch of chicken burgers (chicken meat, fat, bread-crumbs and other ingredients were 60%, 20%, 4% and 16% of the formulation, respectively) was formulated by using bread-crumbs as the extender. In the experiment, bread-crumbs were replaced by Kohila and mushroom with different combinations, separately. Through sensory evaluations, (75% blanched Kohila and 25% bread-crumbs) T1, (75% blanched mushroom and 25% bread-crumbs) T2 and (50% blanched Kohila and 50% blanched mushroom) T3 were selected as the best extender formulations. Chicken burgers prepared by using these different extender formulations were subjected to nutritional properties analysis: Crude protein, fat and ash content by proximate analysis and keeping quality determination: pH using pH meter, rancidity using Thiobarbituric Acid Reactive Substances test (TBARS) and Water Holding Capacity (WHC) using filter paper method. Moreover, cost analysis was conducted. Based on the sensory evaluation test, T1 showed higher median values ($p < 0.05$) for aroma, taste, appearance and overall acceptability. Protein, ash and fat contents of all three treatments were not significantly different. The moisture content of T2 was the highest ($p < 0.05$). The fiber content of T1 was the highest ($p < 0.05$) and followed by T3 and T2, respectively. A positive relationship showed between the added amount of Kohila and the fiber content. pH values of all three samples have increased during the storage only up to second week and then gradually decreased with storage time. Up to the second week of storage, WHC of all the treatments were increased significantly and then reduced with storage time. High WHC of the second week of storage were in agreement with high pH of the products at the corresponding storage time period. There was no significant difference among treatments in relation to the TBARS values but rancidity has increased during the storage period in all the treatments. The cost of production per burger of T1, T2 and T3 were Rs 6.04, Rs 6.58 and Rs 6.31, respectively. Therefore, Kohila can be used in burger production as an alternative for bread-crumbs up to 75% by improving the healthiness of the end product without any organoleptic failures while reducing the cost of production. Use of oyster mushroom is not economical as compared to the Kohila in chicken burger production.

Evaluation of Fungicides against Banana Stem Rot Fungus, *Marasmiellus* sp. under *in Vitro* Condition

N. Thiruchelvan[†], K. Pakeerathan, G. Thirukkumaran and
G. Mikunthan

Department of Agricultural Biology, University of Jaffna, Sri Lanka
[†]nthiru84@gmail.com

Abstract: Banana (*Musa* sp) is an important fruit crop cultivated throughout the year and is the traditional mainstay of Northern Sri Lanka's livelihood. Occurrence of pests and diseases is the major constraint in banana cultivation and *Marasmiellus* stem rot is a recently reported fungal disease to banana fields in northern region. A study carried out in 2010-11 revealed that the disease was found spreading slowly among the banana growing areas in Jaffna peninsula, because of the threat imposed by this disease it should be checked at the initial stage. This *in vitro* study aims to screen locally available fungicides to develop control measures for the stem rot of banana. The fungus was isolated from the diseased banana plants and pure culture was maintained in potato dextrose agar. Five broad spectrum fungicides at two levels of concentrations as manufacture recommended level and half of the recommended level were evaluated, using poison food technique, against the radial growth of mycelia of *Marasmiellus* sp (Basidiomycetes: Agaricales: Tricholomataceae) isolated from diseased banana. It was observed that these fungicides Copper 50% (w/w) WP as copper oxychloride (Coblite), Thiram 80% (Pomarsol forte WP 80%), Captan 50%(w/w) WP (Captan), Metalaxyl 8% (w/w)+Mancozeb 64% (w/w) WP (Ridoaxyl) and Chlorothalonil 75% (w/w) WP (Max) at both concentrations inhibited mycelia growth of the fungus. All fungicides significantly differed from the control except Coblite. The highest percentage inhibition was recorded as 86.76% (11.92 mm Mean Colony Diameter (MCD)) from the manufacture recommended level of concentration (0.5g/100ml) of Metalaxyl 8% (w/w) + Mancozeb 64% (w/w) WP indicating combined effect of two compatible fungicides, followed by Chlorothalonil at both concentrations 0.15g/100ml and 0.075g/100ml were inhibited 64.09% (32.32 mm MCD) and 61.02% (35.08 mm MCD) of colony growth respectively. This investigation revealed that, Mancozeb and Metalaxyl in combination and Chlorothalonil based fungicides can be the best option for effective control of *Marasmiellus* sp. and prevent further spread of the banana stem rot from suspected areas and also best method to treat planting material at planting. However; field level investigation has to be carried out to confirm the application.

Keywords: Banana, Stem rot, Fungicides, *in vitro*, *Marasmiellus*

RoI Gene Expression Offers the Positive Selection of Marker-free Transgenic *Solanum Melongena*

G. Thirukkumaran^{1†} and M. Mii²

¹Department of Agricultural Biology, University of Jaffna, Sri Lanka

²Laboratory of Plant Cell Technology, Graduate School of Science and Technology, Chiba University, Japan

†thirukkumaranag@yahoo.com

Abstract: Safety of genetically modified plants has led to a demand for technologies allowing the production of transgenic plants without selectable markers. Multi-Auto-Transformation (MAT) vector system consists of positive selection, using oncogene *rol* (root loci), with a site-specific recombination and DNA removal system, that generates morphologically normal marker-free transgenic plants without antibiotic selective-agent. This study describes *rol*-type MAT vector (pMAT101) containing *lacZ* gene as a model gene and the removable cassette with *gus* gene in the T-DNA region which was used to produce morphologically normal transgenic *Solanum melongena* employing *rol* gene as the selectable marker gene and *gus* gene as a reporter gene. Leaf explants inoculated with pMAT101 produced twenty one adventitious roots which had fourteen hairy roots with GUS expression on agar-solidified, MS medium without both plant growth regulators and selective-agent under dark condition. These hairy roots produced more than hundred shoots with Ri syndrome such as dwarfism, wrinkled leaves, and an over abundance of roots as a consequence of the morphogenic action of *rol* gene. They eventually produced morphologically normal shoots without GUS expression on the same fresh MS medium under 16h photoperiod. Molecular analysis of DNA from the hairy roots, shoots with Ri syndrome and morphologically normal shoots revealed that the normal shoots had only *lacZ* gene, and the removable cassette consisting of *rol*, *R* (recombinase) and *gus* genes was excised. In our studies, *rol* gene has been used as positive selection marker with MAT vector system which was designed to remove the oncogene or rhizogene from transgenic plants after transformation by inserting these genes between two directly oriented recombination sites and recover the normal phenotype to overcome the effect of oncogenes. This study proved that the chimeric *rol* genes can be used as a visible selection marker for *Agrobacterium*-mediated transformation of *Solanum melongena*. Moreover the production of phenotypically normal marker-free transgenic plants is possible without using selective chemical agents when employing *rol*-type MAT vector and it is a promising method to save time and work for the generation of marker-free normal transgenic *Solanum melongena* and related species with repeated transformation with various useful genes.

Keywords: MAT vector, Removable cassette, *rol* (root loci) gene, Site-specific recombination

The Sustainable use of Household Roof Top Rainwater Harvesting System in Ampara District, Sri Lanka

N. Vimalaraj and M. Sugirtharan[†]

Department of Agric. Engineering, Eastern University, Sri Lanka
[†]sugirtharan818@yahoo.com

Abstract: This study was conducted at three Tsunami resettlement villages namely Kalugolla, Thandiyadi, Kavadiyiddi in the Ampara district, Sri Lanka to find the present status and sustainability of the rain water harvesting project that are implemented immediately after the Tsunami. Total number of households with the rainwater harvesting tank is 194 in those three villages. Information was gathered from 75 households (25 households in each village) using a structured questionnaire, personal interview, direct observation and the secondary data were also collected from relevant departments. Descriptive statistics were used to analyse the results using Statistical Package for Social Sciences (SPSS). The study revealed that, the availability of water in most of the rainwater harvesting tank is limited to 8 months (October to May). As far as the usage of water from rainwater harvesting is concerned, about 4% of the people are using the rainwater harvesting tank only for the drinking purpose, at the same time 40% of the people are using for drinking, toilet and cleaning purpose. Similarly, 52% of the people are using in the rainwater harvesting tank for the multipurpose such as drinking, toilet cleaning, washing and for irrigation. The results show that maintenance and usage of these tanks were good in most of the houses in the study areas even without the monitoring team of the implementing organizations. Nearly 67.3% of the people are maintaining the tanks well for the drinking purpose whereas only 4% of tanks and pipe lines are damaged by children and livestock. However, it was found that, the people from Thandiyadi are not utilizing the water from rainwater harvesting tank for drinking purpose in most of the days due to the introduction of water supply scheme by the National Water Supply and Drainage Board (NWSDB) to that area. Though the project is not successful at present in Thandiyadi village, it served a lot to the people residing in that area in providing drinking water immediately after Tsunami. The rainwater harvesting project is successful in other areas because, they do not have any alternative source for drinking water. However, the capacity of existing tanks is insufficient to store rainwater to meet the drinking water demand during dry period. The people from these areas are collecting water from tube well that are located from neighbouring villages during dry period. The quality of the harvested rainwater has never been checked in these villages. Therefore, it is necessary to check the qualities of water periodically or to fix the filters with regular maintenance are very important as far as their health is concerned. A complete study of the areas including groundwater potential and possibilities for future pipe born water supply, length of dry spell and potential family size should also be considered in selecting the location during planning and implementation of the rainwater harvesting tank to the success of it.

Keywords: Rainwater Harvesting, Water supply, Water quality, Ground Water

Rapid and Early Detection and Molecular Serotyping of *Listeria monocytogenes* in Milk and Milk Products in Sri Lanka

W.A.S. Wijendra^{1†}, K.A.K.C. Kulatunga¹ and R. Ramesh²

¹Department of Microbiology, Medical Research Institute, Sri Lanka

²Department of Molecular Biology, Medical Research Institute, Sri Lanka

[†]was_wij@yahoo.com

Abstract: From a public health standpoint, it is extremely important to identify the contaminated food vehicle and remove it from food distribution channels as rapidly as possible. A rapid PCR method was developed for early detection and molecular serotyping of *L. monocytogenes* in dairy products. This method includes Modified DNA extraction procedure to remove the PCR inhibitors and followed by a nested PCR to increase the sensitivity of the detection. This method of detection was found to be more reliable and easy to perform compare to the conventional method thus would reduce additional morbidity and mortality of human cases of listeriosis. Outbreak investigations offer unique opportunities to identify the source of contamination of implicated foods, to learn more about the transmission of *L. monocytogenes* in humans, and to identify measures to prevent future cases and in view of this raw milk, pasteurized milk, Ice cream, curd, yoghurt and cheese samples were collected randomly from many parts of the country and tested by PCR for the presence of *L. monocytogenes*. Out of 266 samples, 78 became positives in which the highest number of *L. monocytogenes* (42%) detected from raw milk. This number (42%) is higher in comparison to other countries, which indicate hygienic conditions of milking, and the subsequent manipulations in the production line of the milk products are substandard in our country. Out of the total strains detected by PCR 61.51%, 11.53% and 4% belong to serotypes 1/2a, 1/2b and 1/2c, respectively. Most of these raw milk isolates represented serotypes (1/2a and 1/2b) previously been linked to multiple human listeriosis outbreaks. These results indicate the seriousness of the *L. monocytogenes* contamination in the dairy industry in Sri Lanka alarming the concerned authorities to take appropriate remedial measures to keep the situation under control. The nested PCR method developed here is cost effective and suitable for developing countries. First time in Sri Lanka the serotypes 1/2a and 1/2b circulating in the country were identified from the dairy products representing different parts of the country. This opens the avenue for more research on identifying more serotypes in circulation and to trace their lineage.

Investigation of Yield Performance of Vegetable
Cowpea (*Vigna Uniquiculata*) with Animal Manure
Application at Kaluwanchikudy Area

R. Yoganathan, H.K.L.K. Gunasekera^{1†} and R. Hariharan²

¹Department of Agricultural and Plantation Engineering, The Open University of Sri Lanka

²Department of Agriculture, Batticaloa, Sri Lanka

[†]hkgun@ou.ac.lk

Abstract: The field experiment was conducted to investigate the yield performance of vegetable cowpea with animal manure application at Kaluwanchikudy area. The Randomized Complete Block Design (RCBD) was used for this experiment. Poultry manure, cattle manure and goat manure were evaluated with and without agriculture department recommended level of inorganic fertilizer for vegetable cowpea. The highest crop yield was obtained by the application of poultry manure combined with the recommended inorganic fertilizer. The lowest yield was obtained by the application of goat manure only. In addition the results revealed that goat manure and cattle manure were inferior to poultry manure as a source of organic manure for vegetable cowpea cultivation. The animal manures combined with chemical fertilizer gave a higher yield than treatment which was applied only animal manure. The soil analysis after each crop showed that the nitrogen content and phosphorus content of poultry manure treated plots were higher than other treatments. But potassium content was higher in goat manure treated plots. The results further revealed that poultry manure has a beneficial effect on crop growth and yield compared with other treatments. Therefore, the combined use of poultry manure with inorganic fertilizer application (DOA recommendation) has been recognized as the most suitable way of ensuring high crop yield.

Keywords: Animal Manure Application, Inorganic Fertilizer, Vegetable cowpea, Yield performance

Track B:
Applied Sciences
&
Technology

Boiler Design for Power Generation using Coconut Shells

G. Thivagarán, S. Tharani[†], S. Vinoth and M. Pathmavel

Department of Mechanical Engineering, University of Peradeniya
tharanis30@yahoo.com

Abstract: The aim of this study is to design a boiler for a small scale steam power plant and to industrialise the design, considering coconut shells; a renewable energy source with lower cost, as the source of energy. The study was concentrated on steam cycle, classifications of boilers, requirements of a perfect steam boiler, design and operation of boilers, boiler accessories, boiler selection and heat balance in a boiler. In addition analysis was done on on-going small scale power plant projects in Sri Lanka. To get superheat steam and to work with high pressure, a vertical water tube boiler was selected. The calorific value of 20,000 coconut shells was calculated by the Bomb calorimeter experiment, and the value found to be 606.4kW. The steam cycle was designed according to the available data and the boiler calculations were done by using trial and error method using ASME boiler design manual, solid work and the software ANSYS. Over view of the project design is: Available power from boiler 485.12kW, isentropic efficiency 80%, Turbine output 122.5kW, Power output 115 kW, Flow rate 0.144 kg/s, Cycle efficiency 25.2%, Overall efficiency 19%, Water tube boiler Efficiency 80%, operating pressure 30 bar, Design pressure 32.4 bar, Capacity of the boiler 522 kg/h, Mass flow rate of the water 0.144kg/s, Mass flow rate of the gas 1.66 kg/s, Heat transfer area 29.31m², Outer diameter of a tube 25mm, Wall thickness 2 mm, Inner diameter of a tube 21 mm, Length of a tube 2.44 m, Number of tubes 160, Overall heat transfer coefficient 40.24 W/m²°C.

Reliable Electric Power Supply to Jaffna Study on the Jaffna Medium Voltage Network

N. Yoganathan[†], A. Ananthasingam, R. Shailajah, S. Arunprasanth,
A. Atputharajah and M.A.R.M. Fernando

Department of Electrical and Electronic Engineering, Faculty of Engineering,
University of Peradeniya, Sri Lanka
[†]yniro2@ee.pdn.ac.lk

Abstract: Energy plays a major role in development of a nation. Therefore, proper studies of energy usage are important for a sustainable development. Especially in Jaffna, the electrical energy consumption increases rapidly during the recent past years. It has been reported that the electricity produced in Jaffna region have (i) low reliability, (ii) large network losses, (iii) high generation cost and (iv) high environmental pollution. Recent research and development has introduced advance technologies up to smart grid concept to make the electrical network smarter, which operates the grids effectively and efficiently. As a post war development in Jaffna, it is important to have proper study and then implement the latest and stable technology, as the best solution for the betterment to the community thus the country. This paper presents the modelling of the existing Jaffna Medium Voltage (MV) network. This study has resulted few over loaded transformers in the MV network. Therefore, if the network remains same and with the rapid increase in demand, this will leads many places with under voltage or over loading problems. Further properly modelled study will help to implement automated network concept, which can efficiently operate the network with high reliability, good power quality and low losses.

Keywords: Energy, Medium Voltage, Voltage violation and Jaffna Electric Power Network

Track C:
Commerce
&
Management

Informal Financial System in Sri Lanka: Special Reference to Rural Areas

A.M.P. Adikari

Department of Social Sciences, Faculty of Social Sciences and Humanities,
Rajarata University of Sri Lanka, Sri Lanka
priyangani.adikari@yahoo.com

Abstract: An effective financial system is required to mobilize resource from surplus sector to deficit sector. This service is provided by both formal and informal financial markets in an economy. Informal financial markets provide very important service in meeting financial needs of units who are not deal with the process of formal financial markets. Characteristics of informal financial services in Sri Lanka can be studied under Rural, Urban and Estate sectors. This study examines the informal financial services in Sri Lanka with special reference to rural areas. Primary data and secondary data are used this study. Secondary data are extracted from the documentary sources. Primary data are gathered through questionnaire conducted with a random sample of 100 household drawn from the list of household available with Grama Niladhari. This sample are selected from a purposively selected villages namely Deyyanwela, Arama and Aranayake that are located in three different Grama Niladhari divisions of Aranayake Divisional Secretariat area. The data says that Majority of the respondents are engaging in both financial markets, formal as well as informal financial market, while total of 23% respondent engage in informal financial sector. Pawning, trade credit, crop mortgages, single purpose credit services and direct lending are identified as informal credit services in the research areas. Direct lending service is the most utilized financial service by the respondents. As evidenced in data, most of the respondents' reason for preferring informal financial services is closeness and personal relationship. The research reveals that informal financial services are still playing in rural areas though there can be seen strong spread of formal financial services. It is concluded that integrating informal financial market with formal financial market will increase the scope of the financial transactions and create people confidence in the system thereby encouraging those in the informal sector to patronize the formal sector.

Keywords: Crop Mortgage, Direct Lending, Financial Market, Informal Financial Service, Pawning, Trade Credit

The Demographic Variables and Their Impact on Job Satisfaction of Bank Employees

S.M.C.M. Aloysius

Department of Human Resource Management, University of Jaffna, Sri Lanka
shanthamahenthiran@yahoo.com

Abstract: The study investigated the influence of demographic variables on job satisfaction of the bank employees. Job satisfaction is one of the major determinants of the physical, psychological and the social wellbeing of an employee. The main objective of the study was to find out the gender differences in the level of satisfaction where the work environment perceived as male dominated. For the purpose of this study 62 employees have been selected from private banks in Jaffna district, using simple random sampling. A self administrated questionnaire issued them with 5 point Likert scale which consists of three parts. Two hypotheses were formulated and tested in the study. Even though 84% of female reported the work environment is male dominated, the level of job satisfaction is higher than their male counterparts (80% whereas the male 72%). The analysis proved there is no major difference caused in job satisfaction due to the demographic variables other than sex.

Keywords: Demographic variables, Job satisfaction, Male domination

An Empirical Study on Occupational Stress and Job Satisfaction of Employees in Private Banks in Northern Region of Sri Lanka

A.S. Aravinthon^{1†} and T. Velnampy²

¹Hongkong and Shanghai Banking Corporation Limited, Jaffna, Sri Lanka

²Department of Accounting, University of Jaffna, Sri Lanka

†sivanathanaravinthon@hsbc.com.lk

Abstract: Stress may prove an asset as long as it is tolerable and helps in creating healthy competition. Organizational excellence and individual success are achieved via well managed stress. Nowadays all organizations have recognized the fact that an organization can gain competitive advantage in market only if it has employees who possess positive work related attitudes. Literature of occupational stress highlights that occupational stress has the influence on the organizational activities and especially job satisfaction of employees. The negative characteristics of jobs, not only create stressful, emotional mental and physical state within the work setting, but also create stressful conditions in the nonworking life. These negative or stressful job characteristics could result in both negative work outcomes. The study was made to identify and measure the factors which determine the occupational stress and job satisfaction with the sample of 291 respondents in 04 private banks (16 Branches) in Northern Province of Sri Lanka. The relationship between occupational stress and job satisfaction and impact of occupational stress on job satisfaction were also identified, using appropriate tools. Majority of the respondents are in the lower level component of occupational stress and job satisfaction respectively, constituting 86.7% and 8.95% whereas only 5.3% and 0.4% of respondents are at the high level component of occupational stress and job satisfaction respectively. Descriptive statistics revealed that the physical environments of occupational stress, basic and sociological needs of job satisfaction are highly rated with the mean and standard deviation. Study found a relationship between occupational stress and job satisfaction (0.369, $p > 0.01$). All six components such as physical environment, organizational factors, job design, management practices, career development and social stressors are correlated with job satisfaction. According to R^2 value (0.121), occupational stress is contributed to determine the job satisfaction by 12.1%. Significant difference between personal characteristics on occupational stress and job satisfaction was also identified in this study. There were no significant difference between gender group, marital status, monthly income, position and family size on the variable of occupational stress & job satisfaction.

Keywords: Job attitudes, Job satisfaction, Occupational stress

Bank Employees' Perceptions of Branch Managers' Leadership Styles and Organizational Commitment

C. David and A.A. Arulrajah[†]

Department of Management, Eastern University of Sri Lanka, Sri Lanka

[†]antonarulrajah@yahoo.com

Abstract: Transactional leadership style is highly task-orientated and directive but transformational leadership is highly relationship-oriented and participative. In this setting, the purpose of this study is to explore the leadership styles of branch managers and the organizational commitment of employees of selected banks in Ampara District of Sri Lanka. This study consists of two research objectives. First is to identify the branch manager's leadership style perceived to be either more transformational or more transactional and second is to assess the impact of the perceived branch manager's leadership styles on employees' organizational commitment. Data were collected in a survey on a sample composed of 186 respondents chosen among employees of selected bank branches by using structured questionnaire. In this process, stratified random sampling method was applied. Results showed that branch managers' leadership style tends to be more transactional than transformational. Findings of this study also revealed that there is a strong positive relationship between organizational commitment and transactional as well as transformational leadership styles of managers.

Keywords: Transactional leadership, Transformational leadership, Organizational commitment

The Application of a Relationship Marketing Perspective in Public and Private Licensed Commercial Banks in Sri Lanka

Y. Dhanushanthini

Department of Accountancy, Sri Lanka Advanced Technological Education, Jaffna, Sri Lanka

dhanul780@yahoo.com

Abstract: During the past years, the traditional transaction approach to marketing has been challenged and relationship marketing is suggested as a better option. Relationship marketing has changed the focus of marketing to a new direction from short term orientation to a long term perspective. Because of the increasing competition, practitioners have again changed the business philosophy from relationship marketing to relationship marketing orientation to compete effectively giving to their customers a little bit higher than expected. In that manner, they found, branding as a powerful tool that can be used to differentiate their products and services from their competitors. Normally service organizations, especially the banking sectors are relationship oriented and mainly focus on customer retention and long term relationship with buyer-seller. Because of the high competition, organizations are seeking to have the relationship marketing as a competitive advantage perspective. In order to enjoy competitive advantage, organizations are concentrating on developing competencies that help firms to satisfy their customer wants and needs more effectively and efficiently than competitors. The general objectives of this research is to identify the impact of relationship marketing orientation (RMO) on brand equity and to examine the existing Relationship Marketing Orientation (RMO) in both public and private licensed commercial banks, Sri Lanka. A conceptual model has been developed to link RMO and brand equity. Questionnaire was used to collect data from 1000 household customers, that they have been selected from 100 licensed commercial banks that comprised of public and private based on non probability sampling method (quota sampling method). Multiple regression, one sample t-test and independent sample t-test has been used for the analysis. Findings revealed that there is a positive and significant impact of RMO on brand equity in Sri Lankan licensed commercial banks in Sri Lanka.

Keywords: Brand equity, Licensed Commercial Banks, Relationship Marketing, Relationship Marketing Orientation

Determinants of Dividend Payout Ratios: Evidence from Colombo Stock Exchange (CSE) in Sri Lanka

P. Elangkumaran

Advanced Technological Institute, Trincomalee, Sri Lanka
vpelango@yahoo.com

Abstract: This study seeks to examine the determinants of dividend payout ratios of listed companies in Colombo Stock Exchange (CSE) Sri Lanka. In this paper, Researcher has used Lintner dividend model and its extended versions for analysis of dividend determinates. Growth in sales, earnings per share, price earnings ratio, market value to book value, cash flow, leverage, liquidity and return on assets are used as independent variables while dividend payout is the dependent variable. The analyses are performed using data derived from the financial statements of twenty eight listed companies of Colombo Stock Exchange (CSE) during the period of 2010/2011. The present study used the correlation coefficient to identify the relationship between variables and linear regression to find out the associations between determinants and the dividend payout. It is found that only 37.20% of dividend payout can be explained by determinants variables. Through multiple correlation analysis it is found 60.99% correlation between dividend payout and the defined determinants variables. On the other hand considering individually there is a positive relationship between dividend payout ratios and growth in sales (GS), earning per share (EPS), market to book value (MB), liquidity (LIQ) and return on asset (ROA). And also show negative relationship between dividend payout ratio and price earnings ratio (P/E), Cash flow (CF), and leverage (LEV). The main value of this study is the identification of the factors that influence the dividend payout policy decisions of listed firms in Sri Lanka.

Keywords: Dividend payout, Colombo Stock Exchange, Market Value

Working Capital Management and Profitability: An Analysis of Listed Commercial Banks in Sri Lanka

G.R.M. Gamlath¹ and Y. Rathirane²

¹Central Environmental Authority, Sri Lanka

²Department of Financial Management, University of Jaffna, Sri Lanka
¹methikalakwin2008@yahoo.com, ²rathi.yogen@yahoo.com

Abstract: Decisions relating to working capital and short term financing are referred to as working capital management. These involve managing the relationship between a firm's short-term assets and its short-term liabilities. The goal of working capital management is to ensure that the firm is able to continue its operations and that it has sufficient cash flow to satisfy both maturing short-term debt and upcoming operational expenses. Working capital management is one of the essential determinants of firms' market value because it directly affects the profitability. This study investigates the relationship between working capital management and profitability of Colombo Stock Exchange (CSE) listed commercial banks in Sri Lanka. The objective of the study is to identify the linkage between the working capital management and profitability and its impact on profitability. The relation between the working capital management and profitability is examined using Pearson's correlation analysis and the effects on profitability is found out using the regression analysis by using a sample of 07 annual financial statements of listed commercial banks in Sri Lankan covering period 2007-2011. The working capital management consists of the variables of current ratio (CR), loan to deposit ratio (LDR) and cash ratio (CSR) and the profitability represents the net profit margin (NPM), return on assets (ROA) and return on capital employed (ROCE). According to Pearson's correlation analysis, the dependent variables; NPM & ROA has a positive insignificant relationship with all independent variables where as the dependent variable ROCE has positive relationship with LDR & CSR and has a negative relationship with CR. According to the Regression analysis, the CSR has great impact on NPM and ROA than other components which are influenced by other factors such as savings, interest rates other than current ratio and Loan to Deposit ratio. Therefore, working capital management has a great impact on the profitability with keeping an optimal level of liquidity of the Sri Lankan listed commercial banks and the value of the managers of commercial banks will have to increase value of the firm thereby controlling the level of optimal working capital position.

Keywords: Working Capital Management, Profitability, Current ratio, Loan to Deposit ratio, Cash ratio

Ownership Structure and Capital Structure Interaction: Evidence from Sri Lankan Panel Data

C. Gunathilaka

Department of Finance, University of Sri Jayawardenepura, Sri Lanka
silvermailbox2@yahoo.com

Abstract: The study examines the interaction of capital structure and ownership structure using a sample of sixty five (65) firms listed in the Colombo Stock Exchange. Equity block holders are identified and grouped as 'Parent company', 'other Institutional shareholders' and 'Managers'. Generalized Method of Moments (GMM) estimator is employed for an unbalanced panel data for years, from 2006 to 2010. The dynamic tests reveal that there is a significant negative influence of profitability, asset structure, and operating risk on the debt ratio of firms. Growth is insignificant and affects negatively to leverage. The size has a significant positive impact on financial leverage. The institutional ownership and managerial ownership is negatively related to the leverage while ownership concentration with a parent company positively affects the leverage. This suggests that concentrated ownership and high debt level together causes high risk for firms. Hence, the firms would prefer a lower debt ratio as means of risk reduction. In contrast, the parent company ownership does not raise risk and therefore firms prefer higher debt level. Further the institutional investors seek low geared firms in reducing the risk of investment. The findings also indicate that the large firms have easy access to the credit market and become more levered. The firms use retained earnings largely, hence the increased revenue results in low debt ratio. The results also indicate an application of pecking order theory for finance and that the institutional investors are seeking for low geared firms. Hence the firms are subject to the control by market forces.

Keywords: Capital Structure, Ownership Structure, Dynamic Panel Data

Measuring Business - IT Alignment Status and IT Governance: Special Reference to Selected Companies in Sri Lanka

A. Ilmudeen

Management and Information System Unit, Faculty of Management and Commerce,
South Eastern University of Sri Lanka, Sri Lanka
ilmudeen16@gmail.com

Abstract: The purpose of this paper is to measure the IT alignment status and IT governance position among three selected companies in Sri Lanka. Identifying an organization's alignment status provides an excellent vehicle for understanding and improving the business-IT relationship. IT governance is the responsibility of executives and the board of directors, and consists of the leadership, organizational structures and processes that ensure that the enterprise's IT sustains and extends the organization's strategies and objectives. This paper provides a comprehensive mechanism for organizations to evaluate business-IT alignment in terms of where they are and what they can do to improve alignment. A survey research method was applied to gather data. Questionnaire consists 39 questions to measure business-IT alignment and 59 questions to measure IT governance status. The selected companies' alignment measured in different domains by focusing every aspect of the IT. It shows that the organization with a better set of IT governance is likely to score better in terms of business-IT alignment and vice versa. This research shows Hirdaramani group score highest business-IT alignment and possess highest IT governance position. The company EAM Maliban textile scores low business-IT alignment and has low IT governance. Finally Daya group score average Business-IT alignment and IT governance.

Demographic Profile of Micro, Small and Medium Entrepreneurs in South Eastern Region (SER) of Sri Lanka

M.B.M. Ismail

Department of Management, South Eastern University of Sri Lanka, Sri Lanka
mbmismail@seu.ac.lk

Abstract: Kotler (1997) defines demographic variables as demographic characteristics such as age, gender, family size, income, occupation, and so on. Demographic profile of entrepreneurs is the demographic characteristics of micro, small and medium entrepreneurs who run entrepreneurships in South Eastern Region. Objective of this research is to identify the demographic profile of Micro, Small and Medium Entrepreneurs in South Eastern Region of Sri Lanka. Population includes all Micro, Small and Medium Entrepreneurs (MSME) operating in South Eastern Region (SER). 121 entrepreneurs have been selected as sample size using convenience sampling method. Data are presented and analyzed using Excel with a version of 2007. It is found that there are 57, 54 and 10 Micro, Small and Medium Entrepreneurs who engage in micro, small and medium enterprises. Majority of the entrepreneurs who fall in the age category of 35 to 49 are young. Male entrepreneurs dominate female entrepreneurs. A majority of the entrepreneurs have 3 to 4 children as their family size. Entrepreneurs hide their definite income from their enterprises. Also, they occupy different roles in their business depending on the situation. A large number of entrepreneurs have studied G. C. E. (O/L) and G. C. E. (A/L). It is concluded that age, gender, family size, income, occupation and education have been identified as demographic profile of MSME in SER of Sri Lanka.

Keywords: Demographic Profile, South Eastern Region

HRM, Ethics and the Other: A Re-thinking of Managing Workforce Diversity in Post-war Sri Lanka

D. Jayawardena

Department of Business Administration, University of Sri Jayewardenepura, Sri Lanka
dhammika@sjp.ac.lk

Abstract: New socio-economic space emerged in post-war work organizations in Sri Lanka, it is argued, is promising in promoting and managing workforce diversity. Yet, it is suspicious whether the phenomenon of HRM, being the officially recognized apparatus of managing diversity as well as employment in work organizations, is in a position to accommodate this emerging reality in post-war work organizations in Sri Lanka since the phenomenon, as literature suggests, is keen to overlook the presence of the other in the work milieu. Nevertheless, HRM's denial in recognizing the other as other not only creates a doubt about the phenomenon's ability of managing workforce diversity. It also raises the question of ethics in HRM. This paper critically explores ethics in HRM vis-à-vis managing workforce diversity in post-war work organizations in Sri Lanka. This paper examines how the phenomenon of HRM, chiefly via its language, has portrayed men and women in contemporary work organizations as a "new" subject – human resource. This subjectification process – through which one becomes a subject– as this study dissects it, is, however, unable to recognize diversity among men and women in the work milieu. Instead it objectifies individual subjects and thus denies the presence of the other as other. This denial of other's presence, as it explicates, also always tends to dehumanize men and women in post-war work organizations in Sri Lanka. In this context this paper concludes by arguing that the phenomenon of HRM creates an indissoluble ethical paradox within which individual subjects become objects of management, if not objectified subjects.

The Accounting System of the Vavuniya South Tamil Pradesiya Sabha

T. Karthika[†] and J.S. Thevaruban

Department of Finance and Accountancy, Vavuniya Campus of the University of Jaffna,
Sri Lanka

[†]karthiga05@yahoo.com

Abstract: Local government is the third and lowest level of government in Sri Lanka - after the central government and provincial councils. The words "local government" imply a political and administrative structure (or organization) which has the "power" to regulate the affairs of people in a particular province or local territory as part of a larger land mass or nation. This study is mainly focused on the "Accounting System of the Vavuniya South Tamil Pradesiya Sabha". Therefore, the main issue of this study is to examine that, what are the problems faced by the Vavuniya South Tamil Pradesiya Sabha and how they can practice accounting system in an efficient and effective way. Through this study the researcher is attempted to solve these problems such as why there is always delay in the operations of accounting activities at the Vavuniya Tamil Pradesiya Sabha and what are the defects in the accounting system. That is, how to avoid the delays in the operations and remedial actions for sort-out the defects in the accounting system of the Pradesiya Sabha. The objectives of the study are to investigate the efficient and effectiveness of accounting system which is adopted by the Vavuniya Tamil Pradesiya Sabha, and to analyze which accounting system is (computerized and manual) increase the efficient and effectiveness of accounting system. For the study purpose primary data was gathered from the employees of the Vavuniya South Tamil Pradesiya Sabha through the questionnaire which includes some variable such as accounting system is the independent variable. This accounting system consists of manual accounting system and computerized accounting system. Manual accounting system and computerized accounting system are intervening variables. Efficiency and effectiveness in accounting system are the dependent variables. Secondary data was taken from reports, hand books, circulars, magazines, and annual reports. Data were entered into the SPSS 16.0 package. According to the primary data analysis, assets value, investment and cash balance are continuously increasing. Based on the secondary data analysis, 62.5% of the employees prefer the current accounting system (manual accounting system) of the organization. 87.5% of the employees prefer to adopt the computerized accounting system within the Vavuniya South Tamil Pradesiya Saba. According to the correlation analysis, there is a positive relationship between manual accounting system and efficiency and effectiveness of the accounting system (Pearson's correlation takes a value of +0.555) and also there is a positive relationship between computerized accounting system and efficiency and effectiveness of the accounting system (Pearson's correlation takes a value of +0.560). Therefore both accounting systems are supported to the efficient and effectiveness of the accounting system of the Vavuniya South Tamil Pradesiya Sabha.

Keywords: Manual Accounting System, Computerized Accounting System, Accounting System, Efficiency and effectiveness of the Accounting System

An Evolution of Customer Relationship Management: A Conceptual Approach

M. Karunanithy^{1†} and K. Kajendra²

¹Department of Marketing, University of Jaffna, Sri Lanka

²Department of Marketing, University of Colombo, Sri Lanka

†karuna6767@ymail.com

Abstract: This concept paper is a review of academic literature on Customer Relationship Management (CRM) and provides a comprehensive bibliography by seeing the development / usefulness of the definition about CRM. Around two hundred and fifty online databases were searched and out of which only fifty articles were found directly relevant to look into the development of CRM definition. Further, it provides a comprehensive idea developed on CRM from its populated period (1990s - 2010s). Identified articles were classified into three periods 1990s, 2000s and 2010s. These articles were reviewed independently to see the conceptual development of the phrase CRM. Papers and researches on CRM fall on various categories like, General, Marketing, Sales, Service and Support, IT and IS and further number of sub-categories. Here, it is considered only general category related papers which is very common among the research publications. It was found how the CRM phrase considered and importance was given from its populated period to 2010s.

Keywords: Customer Relations, Relationship Management, Research Work

Influence of Intellectual Capital Practices in Achieving Corporate Performance: Special Reference to Business Sectors in Colombo Stock Exchange

C. Larojan[†] and J.S. Thevaruban

Department of Finance and Accountancy, Faculty of Business Studies, Vavuniya Campus of the University of Jaffna, Sri Lanka

[†]claroan@yahoo.com

Abstract: The aim of this research paper is to investigate the influence of Intellectual Capital practices in achieving Corporate Performance in business sectors in Colombo Stock Exchange (CSE). This is an exploratory study based on analysing secondary data to examine the extent to which the 100 listed companies in 20 business sectors are adopting methodologies for reporting intellectual capital in their annual reports as of March 31, 2011. The Value Added Intellectual Coefficient (VAIC) has been employed to measure the Intellectual Capital together with the measurements of value creation efficiencies of capital employed, physical capital, human capital, and structural capital of selected firms. The authors construct Ordinary Least Square method of regression model to examine the relationship between influences of Intellectual Capital in achieving Corporate Performance. The results indicate that significant differences in market and book values of the 100 listed companies were found. Levels of voluntary disclosure of Intellectual Capital items are relatively low while disclosures are dominated by customer relations items. The results support the hypothesis that firms' Intellectual Capital has a positive impact on market value and Corporate Performance, and may be an indicator for future Corporate Performance. In addition, the authors found investors may place different value on the three components of value creation efficiency (physical capital, human capital, and structural capital). The analysis indicate that influence of Intellectual capital practices on Corporate performance are mixed, and findings suggest that human capital is very efficient than physical capital and structural capital. The results suggest the need for further developments in Sri Lanka Accounting Standards (LKAS) to take into account Intellectual Capital disclosure in annual reports of companies. This paper makes an original contribution to the growing body of empirical studies on Intellectual Capital reporting in Sri Lanka and describes the usefulness of Intellectual Capital reporting in Sri Lanka. The results of the study provide directions towards building a strong knowledge base for future Intellectual Capital development.

Keywords: Corporate Performance, Colombo Stock Exchange (CSE), Intellectual Capital, Sri Lanka Accounting Standard (LKAS)

An Analysis on Consumer Perception towards Supermarkets in Urban Areas of Jaffna District

R. Meenambekai[†] and T. Mahinthan

¹Department of Economics and Management, Faculty of Business Studies, Vavuniya Campus of the University of Jaffna, Sri Lanka

²Analytical Instruments (Pvt) Ltd, Sri Lanka

[†]meenambeka@hotmail.com

Abstract: Supermarkets play a key role among the people in today's busy lifestyle. It is observed that there is a huge flow of products into the retail markets in Jaffna district in the post conflict period. This research study attempted to analyze the consumer perception toward the supermarkets in urban areas of Jaffna district. The research problem associated with this research study is to investigate the impact of consumer perception toward the purchasing decision at supermarkets. The main objective of this study is to identify factors influencing on consumer perception towards supermarkets and modern retail outlets. For this purpose, 100 respondents were selected by using Area Probability Sampling method with an association of Judgment Sampling and data gathered from them through questionnaire and personal interviewing. The data analysis covered Univariate analysis, rank order and cross tab analyses by using the version 16.0 of SPSS package. The findings showed that more than 70% of the respondents have accepted the supermarket and modern retailing concept and the marketing mix and demographic elements influence mostly on the perception of buyers and their satisfaction that leads to the acceptance of supermarket concept in Jaffna district.

Keywords: Consumer Perception, Demographic Factors, Marketing Mix, Store Preference

Control Activities and its Impact on the Performance of Private Banks (Jaffna District)

P.Muraleetharan

Department of Accounting, University of Jaffna, Sri Lanka
piriyamuraleetharan@yahoo.co.in

Abstract: This study was undertaken with the objective of finding out the relationship between control activities and performance of the private banks in Jaffna District, Sri Lanka. The study is based on thirty employees in the organizations. Internal control and performance measured by chi square and regression analysis. The study finds control activities and performance are statistically significant in determining performance. Perhaps most importantly, the study finds positive relationship between control activities and performance. Further the study suggests that work performed by the organizations have been implemented in the past and the work schedules take into consideration the goals of internal control. The study further points out that keen attention should be paid on to adopt efficient management information system and training of the staff. All these enhance the staff productivity and reducing costs and also ensure the efficient operation of the firms and financial performance of their operation as well.

Keywords: Control Activities, Financial Performance, Market performance

An Empirical Investigation of News Impact on Stock Market Volatility during War and Post-war Periods in Sri Lanka

T.U.I. Peiris

Department of Accountancy and Finance, Faculty of Management Studies,
Sabaragamuwa University of Sri Lanka
ushan@sab.ac.lk

Abstract: This paper fits Exponential Generalized Auto-Regressive Conditional Heteroskedasticity (EGARCH) and Threshold GARCH (TGARCH) models to the daily closing All Share Price Index (ASPI) of Colombo Stock Exchange (CSE) for the War and Post-war Periods to recognize the leverage and news impact in CSE. The empirical results indicate that the news impact is symmetric and the leverage effect does not exist during the war periods. However, in the post-war period leverage effect exists and the news impact is asymmetric. During both these periods a positive returns shock to CSE produces lower volatility than a negative returns shock. Also the relationship between volatility and returns is negative for both the periods.

Keywords: Leverage, News Impact, Egarch, Tgarch

Organisational Growth and Performance: Special Reference to Commercial Bank of Ceylon PLC in Sri Lanka

K. Priya^{1†} and S. Thusha²

¹Department of Accounting, University of Jaffna, Sri Lanka

²Department of Financial Management, University of Jaffna, Sri Lanka

[†]priyakogulan@gmail.com

Abstract: This study was undertaken with the objective of find out the relationship between Organisational Growth and Performance: The special reference to Commercial Bank of Ceylon PLC (CBC) in Sri Lanka. Using a multiple regression analysis was examined for the period of 1996-2010 (15Years). In this study, dependent variable that is, net profit, operating profit, return on investment, return on equity, return on average asset, return on average shareholder. The independent variables are measured by number of employees, number of advances, number of depositors and gross income. Secondary data were collected for this study. Data were gathered from books, journals and annual reports etc. The present study is confined only to the CBC PLC as a whole. Now a day's CBC PLC is the largest and the most admired private bank which is contributed to the development of economy of Sri Lanka. Banks and other financial institutions are a unique set of business firms whose assets and Liabilities, regulatory restrictions, economic functions and operating make them an important subject of research, particularly in the conditions of the emerging financial sectors in Sri Lanka. Banks' performance monitoring, analysis and control needs special analysis in respect to their operation and performance results from the viewpoint of different audiences, like investors/owners, regulators, customers/clients, and management themselves. Some historical notes on the development of the banking system and the financial sectors are presented in this research paper. Different versions of financial ratio analysis are used for the bank performance analysis using financial statement items as initial data sources. The usage of a modified version applied in this research paper. Empirical results of the commercial banking system performance analysis are also presented.

Keywords: Organisational growth, Performance, Sustainability

Impact of Employees Stress on Job Performance in the Public Sector Organizations: Special Reference to Eastern Province

S. Priyadharsan

Department of Business and Management Studies, Trincomalee Campus,
Eastern University of Sri Lanka, Sri Lanka
ssubathini@yahoo.com.au

Abstract: This research is identifying the impact of employees stress on job performance in the public sector organization. Special reference to Chief Secretary Cluster of Eastern Province. Undoubtedly in every organization, a small group of the working population suffers from stress. Public sector organizations employees are normative commitment. The purpose of this study is under government scheme for recruitment of unemployed graduates, 3641 Graduates were recruited as Programme Assistants to the North East Public Service during 2005, but at presently only 638 employees are working in the Eastern province. Impact of high stress entails low organizational commitment, which directly contributes to voluntarily termination of employees and may lead to low overall firm's performance. Objective of the research is to identify the factors influences on stress in the organization, to identify the impacts of stress on job performance, to measure the which factor is highly influence on job performance and to reduce the employee stress and enhance the job performance through various activities. Conceptual frame work included individual stress, organizational stress and environmental stress. Selected sample is 122 programme assistant based on the five years experience. The data analysis included the univariate, bivariate and multivariate analysis. The findings of the study show that all three variables have negative relationship with job performance, particularly organizational stress highly impact of job performance. As per the multiple regression analysis, 58 percent of the variance is found in the job performance. Further research found the rest of the 42 percent of the variance. Some recommendations are suggested to improve their job performance.

Keywords: Job performance, Work Place Stress

Cash Conversion Cycle and Profitability: A Case Study of Selected Listed Manufacturing Companies in Sri Lanka

S. Rathika[†] and B. Nimalathasan

Department of Accounting, Faculty of Management Studies and Commerce,
University of Jaffna, Sri Lanka

[†]rathika005@gmail.com

Abstract: The present study provides cash conversion cycle (CCC) and profitability of selected listed manufacturing companies during the period from financial year 2006 to 2010. In order to select the sample, convenience sampling technique was used. Further the study suitably used secondary data. Correlation and regression analysis were performed. Results revealed that CCC and profitability (i.e., Return on Assets (ROA)) are negatively correlated with the value of -0.663 which is highly significant at five percent level. A result of the regression analysis is CCC is 0.439 which means 43.9 percent impact on profitability. This study would hopefully benefit to the academicians, researchers, policy makers and practitioners of Sri Lankan and other similar countries through exploring the impact of CCC and on profitability and pursuing policy to improve the current status of it.

Keywords: Cash Conversion Cycle, Manufacturing Companies, Profitability

Women Empowerment and Entrepreneurship Development through Micro Credit under Post-war Development: A Special Reference to Jaffna

Y. Rathirane^{1†} and S.D. Semasinghe²

¹Department of Financial Management, University of Jaffna, Sri Lanka

²Department of Commerce and Financial Management, University of Kelaniya, Sri Lanka
rathi.yogen@yahoo.com

Abstract: The micro credit programmes serve as a vital role for women empowerment and entrepreneurship development in the developing countries as well as in Sri Lanka. As a result of 30 years of an internal armed conflict, women and children not only lost male relatives in struggle, but comprised of the displaced. Most of the households in Sri Lanka are now headed exclusively by women. This study focuses on women empowerment and entrepreneurship development through micro credit programme under post war development in Jaffna District selecting five rural areas which were Chankanai, Sandilipay, Vaddukodai, Uduvil and Kondavil in Jaffna. The main objective of this study was to identify the linkage with micro credit and women empowerment and entrepreneurship development. Further it has an objective to identify the impact of micro credit on women empowerment and entrepreneurship development. The empowerment is explained through social, interpersonal and economic and the entrepreneurship development has been mentioned by the self employment opportunities for agriculture, small business, fishing and farming. The microcredit programme is illustrated by the factors such as amount of loan, interest rate, recovery of loan and flexibility. The information has been gathered by primary data which has been distributed through the close ended questionnaire to the rural women in the above selected areas and 66 responded out of 77 in which 15 numbers from each area. Relationship between the micro credit programmes and women empowerment and entrepreneurship development is examined using Statistical Package for Social Sciences (SPSS). It is concluded that the empowerment regarding the social, interpersonal and economic and Entrepreneurship development has a significant relationship with the microcredit programme and its impact on women empowerment and entrepreneurship development is crucial. It is suggested that the microcredit facilities are essential in empowering women and develop the women entrepreneurs under post war development because most of the house heads are the women in rural areas and for keeping enhancement in an effective way it should be concentrated with providing other Micro Finance services such as education, health nutrition, training and skill development by using modern technology other than micro credit loan facilities.

Keywords: Entrepreneurship Development, Micro credit, Post-war Development and Women Empowerment

**Learner Support Services and Performance of the Students:
A Survey on BBM (Online) Degree Programme of the
University of Jaffna, Sri Lanka**

Y. Rathirane^{1†} and B. Nimalathasan²

¹Department of Financial Management, University of Jaffna, Sri Lanka

²Department of Accounting, University of Jaffna, Sri Lanka

[†]rathi.yogen@yahoo.com

Abstract: A critical element of an effective succession program for online students is learner support services. The students' performance depends on variety of factors and the learner support also is important to determine the performance. In the conventional method of teaching students can get all support from the institution. But in the Online teaching method there is no face to face interaction between students and teachers, students feel isolation and decrease in motivation level to study because of lack of self direction and management,. Therefore, the present study is designed to linkage between learner support services and students' performance of the Bachelor of Business Management (BBM) Online Degree Programme in the University of Jaffna. The study suitably used both primary and secondary data. In this case, the researchers selected 60 students from BBM online degree programme conveniently. The opinions of thirty nine respondents were captured from questionnaire. Correlation and Regression analysis have been made. The results revealed that there is a significant relationship between the learner support services and performance of the students because the learner support services and the students' performance have strong positive correlation at the 0.01 significant levels. Further it is concluded that the students' performance depends on effective learner support services. To avoid the drawbacks of learner support services and the possible suggestions from the study by getting feedback from the students that the facilities such as usage of modern technology, ie using video conferencing, uploading the contents with PowerPoint presentation with sound recording and the advance instructions regarding examination and other face to face activities and the effective administrative procedures should be enhanced as learner support services in order to improve the performance. Outcomes of the study would benefit the academicians, researchers, policy makers, and practitioners of Sri Lanka and other similar countries.

Keywords: Learner Support Services, Online Learning, Students' Performance

Impact of Big-Five Personality on Job Stress of Staff: A Case Study of Regional Directorate of Health Services Office, Jaffna

T. Raveendran

Department of Human Resource Management, University of Jaffna, Sri Lanka
rthanes@jfn.ac.lk

Abstract: Despite the enormous growth in research on personality due to the development of big five personality model, still there is inadequate research among the organizations in Jaffna context. This study attempts to fill the gap by exploring the effects of the personality traits on job stress. This study examined the “Big Five” personality dimensions in relation to Job Stress by surveying a sample of 38 staff at Regional Directorate of Health Services Office, Jaffna. The objective of this study was to examine the effects of personality variables (extraversion, conscientiousness, openness, agreeableness and neuroticism) on job stress among the staff working in the Regional Directorate of Health Services Office. The study was based on self reported questionnaire. The ‘Big Five’ traits of personality were measured using Goldberg’s (1999b) International Personality Item Pool (IPIP). Stress was assessed with Perceived Stress Scale (PSS-10) (Cohen, Kamarck and Mermelstein, 1983). The analysis of data included assessments of reliability, correlations and regression analysis. Analyses of responses revealed that conscientiousness and openness were found to have significant and negative impact on job stress. Neuroticism, on the other hand, had significant positive impact on job stress. This study gives an understanding of the influence of personality variables on job stress of employees. From the findings, the management of Regional Directorate of Health Services Office can consider the personality potentials of the staff and focus on the type of personality to be developed among the staff. In addition, during the interview process, top management can consider certain personality characteristics, specifically those who exhibit high conscientiousness and openness traits and low neuroticism. Given that there may be other personality factors that also affect and moderate job stress related outcomes, researchers interested in this area should try to explore these factors in future.

Keywords: Personality, Big-five Traits, Job Stress

Employees' Job Satisfaction on Accomplishing Routine Tasks: A Study of Programme Assistants in the Northern Provincial Council, Sri Lanka

K. Selvakumaran^{1†}, E.S. Wickeremasinghe² and W.A. Upananda³

¹Centre for Livelihood Credit Management Services (NP), Kilinochchi, Sri Lanka

²Faculty of Business Studies and Finance, Wayamba University of Sri Lanka, Sri Lanka

³Department of Banking and Finance, Wayamba University of Sri Lanka, Sri Lanka

†kulasinganselvakumaran@yahoo.com

Abstract: Job satisfaction describes feelings and attitudes of employees generate towards their jobs. The objective of this research study is to ascertain the levels of job satisfaction and analyzing the predictors of job satisfaction experienced amongst the programme assistants in the Northern Provincial Council (NPC). For the purpose, 137 programme assistants (N=137) were sampled by using stratified random sampling method. The questionnaire measures job satisfaction on six job facets in three dimensions, namely, extrinsic factors: pay, promotions, supervision; General factors: co-workers, working condition, and Intrinsic factor: work itself. This study found that Programme Assistants of NPC were not satisfied with their jobs in key facets. Therefore Provincial Council should take measures to restructure promotion system, appropriate salary scale and providing other pay benefits. Further, NPC should consider improving working conditions, and nature of work.

Keywords: Factors affecting Job satisfaction, Job satisfaction, Northern Provincial Council of Sri Lanka, Programme Assistants

Impact of Board Structure on Performance of Listed Financing Sector in Sri Lanka

S. Sivasubramaniam and S.Anandasayanan

Department of Financial Management, University of Jaffna, Sri Lanka
saseelas@yahoo.com

Abstract: Over recent years, corporate governance has become a major and highly contentious issue in all advanced economies, as well as in developing countries. Board size and composition constitute two of the most prevalent corporate governance factors, attracting wide theoretical attention. This paper examines the relationship between two of the most pertinent corporate governance factors—that is, the size of the Board of Directors and the proportion of non-executive directors—and firm performance on a sample of 19 listed companies from financial sector over the period 2008-2010. Results reveal that board size and board composition significantly impact on return on equity and Tobin Q of the firms in financial sector. Further there is a negative relationship between the board size and firm performance but the positive relationship between board composition and the firm performance.

Keywords: Corporate Governance, Firm Performance, Board Size, Board Composition

Institutional Barriers to Small Scale Business Development in Jaffna District

S. Thevaranchany^{1†} and S. Subajini²

¹Department of Human Resource Management, University of Jaffna, Sri Lanka

²Sampath Bank, Trincomalle, Sri Lanka

[†]thevaranchany@yahoo.com

Abstract: The present study intended the title “Institutional Barriers to Small scale business development in Jaffna District”. Institutional barriers perform on many levels; from grass-roots contact with possible customers to political, country-specific agendas and these can be constraints inherent in a development program. In Northern Province many infrastructure facilities are now on going. Therefore it is a wonderful opportunity for the youngsters to develop their entrepreneurial activities. Like other war-time and post-war countries such as Lebanon, Tanzania and Nigeria start post war development in country through Small Scale business development. The main objective of this research was to ascertain the conception of Small scale entrepreneurs about obstacles they face while developing their Businesses in Jaffna District. There are 113 Small scale businesses in Jaffna District. But the researcher selected the 50 establishments. It represents 44% of the whole population. The researchers used convenience random sampling method to select the small scale entrepreneurs in Jaffna. The structured questionnaire and Interview were used to collect data and it was analyzed by universal analysis, by using SPSS computer package such as regression and correlation. The overall results were found according to the discussion that the institutional barriers which have adversely affected the small scale business development in Jaffna district (sig:0.000) and then this study indicates that awareness (sig:0.001) and competition (sig:0.001) are the most important barriers to small scale business development. So the research objectives are achieved through this survey. In addition to the above, this study offers some suggestion to overcome these barriers.

Factors Affecting the Consumers' Choices of Toothpaste in Jaffna, Sri Lanka

S. Vaikunthavasan

Department of Marketing, University of Jaffna, Sri Lanka
sathanavaikunthavasan@yahoo.com

Abstract: Dynamic business environment is highly competitive and rapidly changing. Rivals supply creates more confusion for the selection of suitable product for the consumers. Marketing mixes and many factors usually create a meaningful difference in a brand's performance. The objectives of this paper were to identify the important factors influencing on consumer choices and to measure the effect of the factors on consumer choice of toothpaste. Responses were collected from 100 customers from four major food cities in the Jaffna. Convenient sampling technique was used in selecting the customers. To draw the valid conclusion and test them empirically, an exhaustive use of statistical technique of Factor Analysis was made. To further determine the reliability of the data, Kaiser-Meyer-olkin (KMO), Bartlett Test of sphericity and Anti-image correlation were determined. The present study attained four factors as customer delight, product excellence, product attractiveness and advertising. This research revealed that customers had more emphasis on the customer delights than other factors. Customer delight was derived from credibility, availability and fit and finish aspect of toothpaste. However, almost next important weight was given to product excellence as quality, variety and value for money. Third important factor was product attractiveness that consists of branding and packaging attributes. Further product awareness was also last influencing factor and all aspect of product was communicated by advertising. Therefore, it can be concluded that the consumer toothpaste choices have highly depended on the adaptability of all the above mentioned factors.

Keywords: Consumer Choice, Customer Delight, Product Attractiveness, Product Performance

Human Resource Management Practices and Employee Trust in Private Sector Banks

L.D. Victor

Department of Management, Faculty of Commerce and Management,
Eastern University, Sri Lanka
vldila@yahoo.com

Abstract: The rising importance of people to the very success of the business, organizations will survive in an increasingly competitive environment if they ignore people related business concerns (Schuler and Walker, 1990). Many researchers have pointed out that human resource management practices (HRMP) impact on the outcomes such as employee satisfaction, employee commitment, employee retention, employee presence, employee involvement, employee trust, employee loyalty, organizational fairness [Edgar and Geare (2005) and Paauwe and Richardson (1997)]. Some of the authors indicate that these outcomes and HRMP can lead to a firms performance such as profits, market value of the company, market share, increase in sales, productivity, product service quality, customer satisfaction, development of products/services and future investments. The purpose of this study is to find out the HRMP and employee trust in private sector banks. The data for this study is collected from 200 employees selected from private banks. In this study, researcher concerning about two variables, HRMP: recruitment and selection, training and development, performance appraisal and rewarding; and Trust. The researchers used the questionnaire to collect the primary data. Inferential statistics was used to analyze the data. In that regression was done to find out the relationship between independent and dependent variable. The researchers used SPSS 16.0 to analyze the data. The results reveals that HRMP, which are recruitment and selection, performance appraisal and rewarding have the positive impact on trust. And training and development don't have the impact on trust.

Keywords: Recruitment and selection, Training and development, Performance appraisal, Rewarding, Trust

Impact of Rewards on Retention of Workers: A Study of Operative Level Employees in the Apparel Industry

T.D. Weerasinghe^{1†}, C.K. Batagoda¹ and M.G.N.L. Nadeera²

¹Department of Human Resource Management,
University of Sri Jayewardenepura, Sri Lanka

²Department of Public Administration,
University of Sri Jayewardenepura, Sri Lanka

[†]tdtmdananjaya@gmail.com

Abstract: The purpose of this study was to investigate the impact of rewards on employee retention and to construct a model which could be used to predict the retention intention of operative level employees in apparel industry. This was carried out as a cross sectional field study among a sample of 320 operative level employees in the apparel industry. Convenience sampling was applied to select the sample and the investigation was done in three leading garment factories in the industry. A self administered pre tested questionnaire was used to collect data which was met the accepted standards of validity and reliability. Correlation test was used to analyse data with the stepwise regression analysis to fit a regression model. P-value was used to test mentioned hypotheses. It was found that basic salary, welfare and incentives significantly correlated with the retention of employees. The fitted regression model explained 67.7% variation in dependent variable where basic salary and welfare were taken as the best two predictors of retention intention in the tested domain. Basic salary was more important in predicting employee retention than the welfare as standardized coefficient of beta was greater. It could be recommended to review basic salaries and welfare facilities given for operative level workers in garment factories.

End of Track C

Track D:
Education

Principal Role in the Schools where the Programme of School Improvement (PSI) is being: A Case Study with Reference to the Gampaha District Schools

C.K. Arachchi

Department of Social Science Education, University of Colombo, Sri Lanka
chaou05@yahoo.com

Abstract: This study was designed to investigate the nature of the role of the principals in the Gampaha district schools where the Programme of School Improvement (PSI) is being implemented in Sri Lanka. This study used qualitative case study approach to study the research problem. Data were gathered from the principals, Deputy Principals and teachers in the schools located in the Gampaha district. Data were gathered from the participants administering semi structured interviews. The study reports the series of interviews with the principals, the deputy principals and the teachers with regard to principal's roles in several areas namely; school based teacher development, human resource management, decision making, financial management, school governing boards, the participatory management and major challenges of the principal's role. The main research questions were: what changes have occurred in the principal's role with respect to management and administration after the implementation of PSI, and what challenges were faced by the principal in the school with respect to management and administration after the implementation of PSI. The findings suggest that there are no massive changes in the role of school principals as a result of the introduction of the Programme of School Improvement (PSI). However, the study indicates that the workload of the school principals following the introduction of the PSI has increased. In addition, the role of the school principal has also increased in association with the emerging role in working with the school development committee, and in relation to the decision-making and the human resources management. At present, the decision making process in the PSI implemented schools is more transparent than earlier. However, selection process of members for the school development committees is not very much democratic. It is recommended that a specific supervisory body for monitoring the schools has to be established where the PSI is being implemented, and an effective PSI awareness programme is essential to get maximum benefits of the PSI system in Sri Lanka.

Keywords: School Based Management, Programme of School Improvement, principal's role, School Management, Decision Making, Leadership

Decision Making in the Sri Lankan Schools of the Programme of School Improvement is being: A Case Study with Reference to the Matara District Schools

C.K. Arachchi¹ and S.D. Edirisinghe²

¹Department of Social Science Education, University of Colombo, Sri Lanka

²Department of Commerce & Financial Management, University of Kelaniya, Sri Lanka

¹chaou05@yahoo.com, ²swarnadammi@gmail.com

Abstract: In 2006, the Ministry of Education of Sri Lanka implemented the Programme of School Improvement (PSI) in the government schools in Sri Lanka. In order to gain success of the PSI, School Development Committee (SDC) and School Management Team (SMT) were introduced as the main decision making bodies in those schools. Participatory decision making is one of the key elements of the PSI system. Current decision making process is rather different than the earlier decision making in the government schools in Sri Lanka. Therefore the studying about the decision making process in the PSI schools is imperative. This study design to investigate the nature of the decision making process in the schools where the Programme of School Improvement (PSI) is being implemented. This study used a qualitative case study approach to study the research problem with special reference to the Matara district PSI implemented schools. Purposive sampling technique was employed to select participants in this study, and data were analysed using thematic analysing technique. The measurement of community involvement in SDCs provides some indicators of low community involvement in decision making and management. The mechanism of selection of the members for the SDCs is not transparent, and the community of schools lacks knowledge of the selection process in the SDCs and PSI concept. According to the responses of the majority of the past pupils, the parents and the teachers of SDCs and principals influence to select members for the SDCs in the PSI schools. Thus, it seems that there is no democratic and genuine participatory decision making process in the PSI schools. Moreover, the situation in the SDC meetings is also not much participative. It is needed for drawing attention of higher authority on PSI implementation since now this implementation is taking place without any proper supervision.

Keywords: Decision Making, Programme of School Improvement, School Based Management, Participatory Decision Making

Adding a New Dimension to Teaching and Learning in Sri Lankan Schools

S.Y. Ekanayake[†] and P. Sethunga

Department of Education, University of Peradeniya, Sri Lanka
[†]syatigamma@yahoo.com

Abstract: This research study was motivated by previous research which found that the use of mobile phones could enhance the effectiveness of teaching and learning. The aim of this paper is to present the findings of three secondary level science lesson implementations in which the mobile phones were integrated in teaching and learning processes. A group of secondary level science teachers developed these lessons as small groups. The study used qualitative approach and data were collected using observation via video, audio recording and written materials. Then they were analyzed using Thematic Analysis with the support of NVivo8 qualitative data analysis software. Four themes were derived as 'mobile phones supported to bring the outside world into the classroom', 'mobile phones supported to enhance students' engagement in science teaching and learning', 'mobile phones supported to share information' and 'mobile phones supported to assess students' science learning and behaviour'. The findings show that the integration of mobile phones in science lessons helped to get students' attention towards the lesson, provided more opportunities to students' active participation, connected students' science learning with their home environment as well as their school garden and provided more opportunities to assess students' learning during and after the lessons. Therefore, mobile phones have the potential to add a new dimension to science teaching and learning and enhance the effectiveness of it.

Keywords: Science Lesson, Science Learning, Inegration of Mobile Phones in Lessons

Pronunciation Difficulties Confronted in Akkaraipattu Zonal Educational Division: A Special Reference on Two Selected Schools of Grade 10 & 11 Students

M.B.M. Ismail^{1†} and A. Ilmudeen²

¹Department of Management, South Eastern University of Sri Lanka

²Management Information System Unit, South Eastern University of Sri Lanka

[†]mbmismail@seu.ac.lk

Abstract: The pronunciation is playing a vital role in the field of spoken language. Everybody wants to speak English like a native speaker. But, English pronunciation is always a big problem for them. People can use simple words and grammar structures that make people to understand Language communication. People cannot use 'simple pronunciation' when people speak English. The good English pronunciation will make people to understand others' speech easily. Then, People will be willing to listen to those who communicate. This research paper aims at exploring reasons for pronunciation difficulties confronted by selected school's students and to solve student's pronunciation difficulties. Understanding this issue leads to a greater solutions to solve difficulties confronted by the students. Primary Sampling Units (PSU) are Schools that are from two schools such as National School of Addalaichenai and National School of Akkaraipattu in Akkaraipattu Zonal Educational Division. Secondary Sampling Units (SSU) are grade 10 and 11 school students. Researchers have prepared the questionnaire to evaluate students' pronunciation abilities. Incorrect pronunciation, louder pronunciation than silent pronunciation and quick pronunciation without a stoppage were the pronunciation difficulties faced by students in schools. Fluency in English pronunciation cannot be expected from school children due to several reasons. Mother tongue interference, Inexperience of phonology, Lack of knowledge in English phonetic script, inappropriate teacher's guidance, lack of practice were identified as reasons for pronunciation difficulties. Since pronunciation played a pivotal contribution in communication students' skills, careful preparation of students, support from parents and teachers from students' early stage should be developed among students.

Keywords: Pronunciation, Interference, Phonetic

Bilingualism and Bilingual Education in Jaffna

T. Karunakaran[†] and S.K. Kannathas

English Language Teaching Centre, University of Jaffna, Sri Lanka

[†]karuenglish@yahoo.com

Abstract: Bilingualism refers to the ability to speak two languages fluently. Multilingualism is then the mastery of more than two languages on a high level of proficiency. International surveys indicate that there are many more bilinguals and multilinguals in the world's population than there are monolinguals. In many parts of the world, children are educated through the medium of a second or foreign language. Moreover, for many people, bilingualism or multilingualism constitutes the normal every day experience. English, specifically, is crucial in today's world. English has become the world's second language. It is claimed that the world today suffers from English fever that English is necessary if one wants to communicate with the rest of world, in business or during holidays, and this causes the increasing demand for learning English. This research was undertaken to study the current practice of bilingual education implemented in Government schools in Jaffna. This study examined current situation of bilingual education in two National schools in Jaffna. The study of bilingual education progress included interviews with students, parents and teachers, observation of classrooms and questionnaires for teachers and students. Socio-cultural factors prone to influence bilingual learning progress in Jaffna were their social status, economic status, parent's attitude, and language preference of language use, cultural aspects of Tamil society and perceptions of bilingual education from different communities. We have described a bilingual research which took place in the national schools, Jaffna Hindu College and Vembadi Girls' High School. Subjects of this research were students, teachers and parents. Factors of influence taken into consideration were social status, economic status, parent's attitude, language preference of language use, cultural aspects of Tamil society perceptions of bilingual education from different communities. Responses from teacher, parents and children describe the current scenario of bilingual practice in these two schools.

Keywords: Bilingualism, Bilingual education, Multilingualism

Creating Multimedia Learning Materials: A Pedagogical Perspective

S. Karunanayaka

Department of Secondary and Tertiary Education, Faculty of Education,
The Open University of Sri Lanka, Sri Lanka
spkar@ou.ac.lk

Abstract: Multimedia learning materials are considered a powerful tool in education, due to its unique presentation capabilities and distinct pedagogical value. Design and development of multimedia learning materials is a complex effort which essentially requires careful pedagogical considerations. Contemporary conceptions of learning mainly support a constructivist theoretical approach which emphasizes knowledge construction by learners, rather than behaviorist or cognitivist theories that suggest prescriptive instructional strategies resulting in transfer of knowledge to learners. Unlike traditional linear technologies which compel users to remain passive, multimedia technology allows users to become active, and involved in learning, while providing information in multiple modes. Thus, multimedia can be used not only to provide multisensory representation of ideas, but also to engage users in constructing knowledge. Based on a project implemented by the Faculty of Education at the Open University of Sri Lanka to design and develop a set of multimedia as supplementary materials in a professional development programme for teachers, this paper presents a reflective case study on the pedagogical perspectives on creating multimedia learning materials. It aims at exploring the ways in which pedagogical principles can guide the design of multimedia to support a meaningful learning to provide useful insights for designers of multimedia learning materials.

The Perception of the Visiting Academics on Contact Sessions in an ODL System

S. Karunanayake[†] and N.M.R.K. Nawarathne

Department of Secondary and Tertiary Education, Faculty of Education,
The Open University of Sri Lanka

[†]skaru@ou.ac.lk

Abstract: This study investigated the perception of the visiting academics on contact sessions in an Open and Distance Learning (ODL) system. Questionnaires and interviews were used to collect information from the twenty-five visiting academics who are conducting contact sessions in Sinhala medium of the Post Graduate Diploma in Education Programme (PGDE) during the academic year 2010/2011. Findings indicated that all academics were aware of how to conduct contact sessions in an ODL system. The orientation workshops on contact sessions have helped visiting academics to update their knowledge on how to conduct contact sessions in an interactive manner in an ODL system. Further the visiting academics expect the department to organize a series of workshops to orient them to conduct contact sessions by using new technology to enhance their abilities in this regard. All visiting academics were satisfied with the information provided by the department on how to conduct contact sessions. But majority of the visiting academics were dissatisfied with the student prior preparation when attending the contact sessions. Some external academics were not satisfied with the facilities provided in the centres, such as library facilities, multimedia to enhance their teaching and learning process. Majority of the visiting academics have stated that the number of contact sessions for each subject should be increased. In order to improve the quality of contact sessions in line with ODL approach the number of suggestions were made by the external academics to incorporate in the PGDE programme.

Keywords: Contact Sessions, Open and Distance Learning (ODL), Visiting Academics

Managing Personal and Professional Roles: Comparative Study on Professional Mobility of Women Teachers in India and Sri Lanka

S. Kugamoorthy

Department of Secondary & Tertiary Education, Faculty of Education,
The Open University of Sri Lanka, Sri Lanka
skuga@ou.ac.lk

Abstract: With an increased participation in higher education, women are entering the work force in all sectors in larger numbers. Therefore, the status of women has improved to some extent. But in the family/society the most commonly held stereotyped view of women is that they should limit their activities to the role of a home-maker, wife and mother. Currently, there are many factors which remain as obstacles in the women teacher's upward mobility in an institution. This study attempts to find out the factors influencing women teachers to manage their personal and professional roles for their professional mobility. Quantitative research approach was used in this study within a framework of a survey research design. This study was conducted on women teachers, at primary, secondary and tertiary levels of education in two different socio-cultural contexts i.e. India and Sri Lanka. This study was undertaken in the Sivagangai District of Tamil Nadu, India and Colombo District, Sri Lanka. Among the total sample of 600 women teachers, 494 women teachers responded to this study. The sample included 240 women teachers from Sivagangai District, Tamil Nadu, India and 254 women teachers from Colombo District, Sri Lanka. Two types of instruments were used for data collection namely (a) Professional Mobility Aspiration Scale (PMAS) and (b) Professional Mobility Determinants Inventory (PMDI). The dependent variable of the study is professional mobility aspiration, and independent variables are personal factors and institutional factors. The data obtained were tabulated and analyzed applying statistical techniques such as percentage and chi-square. The study revealed that among the personal factors, role conflict as a working woman, a wife and a mother, child care, child education, care of family and family-work conflict emerge while among the institutional factors work load, limited promotional opportunities, official bottlenecks, work-family conflict and lack of work recognition are major barriers for their aspiration for promotions are noted. In both the countries both personal factors and institutional factors are significantly associated with professional mobility of women teachers at 0.01 level. It is understood that due to various personal and professional reasons women teachers need to manage their family-work conflict and work-family conflict for their professional mobility. Overall, the analysis appears to suggest that women teachers should develop appropriate time management behavior to balance their multiple roles performed in their family life and professional life.

Keywords: Women Teachers, Professional Mobility, Personal Roles, Professional Roles

Professional Development of Teachers: A Post-war Contextual Study in the Vanni Districts

S. Kugamoorthy[†], G.D. Lekamge, T. Thanaraj and S.S. Zarookdeen

Department of Secondary and Tertiary Education, Faculty of Education,
The Open University of Sri Lanka

[†]skuga@ou.ac.lk

Abstract: This study attempts to identify the professional development needs and aspirations of graduate teachers and assess their problems and issues to fulfil such needs and aspirations under the post-war context in three Vanni districts of Sri Lanka which have been undergoing devastating experience for the last three decades due to civil war. The main purpose of this study is to make recommendations to relevant regional and national policy makers to formulate effective strategies to develop a network to continuously upgrade professional competencies of graduate teachers. Using a mixed research method the survey design was applied to collect data from a sample of about five hundred graduate teachers and also from other stakeholders such as education officers, principals and In-service advisors mainly through questionnaires and interviews. The data were analysed using descriptive statistical techniques. The analysis revealed that the majority of the graduate teachers in the three districts did not have any professional training for a long time and whatever training they received were limited to a few components of professional development. Incidentally about fifty percent of the graduate teachers did not receive any pre-service training before their recruitment. They identified various factors such as personal problems, official bottlenecks, transport difficulties, lack of higher education institution in the districts and lack of motivation due to civil unrest etc. for their current status in professional competency. However almost all the teachers expressed their willingness to get their professional skills updated and requested for appropriate networking and structures to be established in their districts. There is a solid demand for the Open University of Sri Lanka's educational programmes. Many respondents also regretted that their working environment was not conducive to show the best of their professional performance and requested immediate inputs to improve their working environment. The study has put forward many suggestions and recommendations for the relevant authorities with regard to the professional improvement of the teachers in the Vanni districts.

Keywords: Professional Development, Effective Strategies, Mixed Research Method, Professional Training

Implementation of Integrating Information and Communication Technology (ICT) in the Classroom in Secondary Schools in Sri Lanka

V. Lindakumbura[†] and E.K.S.K. Embekke

Department of Education, Faculty of Arts, University of Peradeniya, Sri Lanka
[†]lindakumbura@gmail.com

Abstract: Implementation of ICT in classrooms in the secondary schools is a complex and challenging task. Students, teachers, the management of the school and the ICT supports are affected by and affect the implementation. One of the major steps needed to qualify the facilitation of the change process is to actually understand what problems and challenges in the implementation of integrating ICT leads to and how it affects practices. In this research, interactive factors affecting implementation (Fullan, 2000) are used as a theoretical framework for analysis of implementation process. Therefore, this study has made an attempt to find out the training courses conducted to facilitate teachers to integrate ICT in the classroom, students' and teachers' attitudes toward integrating ICT in the classroom, what kind of Computer software used by the teachers, problems encountered by both teachers and students and skills needed by the teachers and students in the teaching learning process. Both quantitative and qualitative methodologies were utilized in this study. Three Educational zones from the Kandy district have been selected randomly. Among these three zones 20 schools which have Computer Learning Centres (CLC) have been randomly selected. As a teacher sample 100 teachers who utilize ICT as a tool in their classroom practices have been selected. In addition, 200 students who use ICT in their classroom have been selected as the student sample. Questionnaires, Observation and interviews were utilized. The short term courses designed by the Ministry of Education do not meet with the requirements of the teachers. Therefore, courses should be designed to facilitate teachers to uplift their subject knowledge, integration of ICT in the classroom and pedagogical skills. The school administration should also motivate teachers to utilize ICT in the teaching learning process. As far as students are concerned, basic English and ICT knowledge of the students should be improved before integrating ICT in the classroom. In order to meet the challenges of this innovation of the teaching learning process, a systematic monitoring system, supervision system and evaluation system should be introduced.

Keywords: Information and Communication Technology, Monitoring System

A Study on the Job Satisfaction of Secondary School Teachers: The Case of Kandy District in Sri Lanka

P. Panditharatne[†] and S. Wijesundara

Department of Education, University of Peradeniya, Sri Lanka

[†]ppranpri7@gmail.com

Abstract: The main purpose of this paper is to describe the level of job satisfaction and to identify the factors that affect the job satisfaction of secondary school teachers in Kandy district. The theoretical frame work used in this study was the “Three Domain Model” which was created by Dinham and Scott, (2000) by revising the Herzberg’s two-factor theory. The study used a ‘mixed’ method design that included a questionnaire survey and a multiple case study. A questionnaire created for the “Teacher 2000 project” by Dinham and Scott, (1998) was adapted in this study to determine the level of job satisfaction and to identify the factors affecting it the sample for the study consisted of 507 secondary school teachers in Kandy district. Present paper discussed only the results of the quantitative phase. It was revealed that the overall job satisfaction of secondary school teachers were low (34.2%). Moreover, the respondent’s initial satisfaction with teaching had changed towards dissatisfaction over time. The application of factor analysis resulted in the extraction of eight factors which fell into all three domains (Dinham and Scott, 2000). The corebusiness of teaching factors included: student achievement, professional self growth, collegial support. The school level factors included: school leadership, climate, decision making and the system level/societal factors included, merit promotion, school reputation, status and image of teachers, workload and the impact of educational reforms. Respondents were most satisfied with corebusiness of teaching factors except with the professional self development factor. They were least satisfied as a whole with System level/Societal factors, School level factor and the opportunities for the professional self development. School level factors showed the most variation, reflecting the influence of the leadership style of the principal. The findings suggest that the actions to improve teacher satisfaction are most likely to be effective at the school level. The confirmatory factor analysis showed that the instrument could explain 61% of the total variance. Therefore, we have decided to conduct case studies (second phase) on selected teachers, to identify further factors which have not included in the Three Domain Model, that affect teacher job satisfaction.

Keywords: Job satisfaction, Secondary School Teachers, Three Domain Model

Identifying Students Perceptions and Improving Supervisors Support for Completion of Research Dissertations

K.D.R.L.J. Perera^{1†}, G.D. Lekamge¹, S.P. Karunanayaka¹, A. Ariyaratne² and S. Kugamoorthy¹

¹Department of Secondary and Tertiary Education, Faculty of Education,
The Open University of Sri Lanka, Sri Lanka

²Department of Early Childhood and Primary Education, Faculty of Education,
The Open University of Sri Lanka, Sri Lanka

[†]kdper@ou.ac.lk

Abstract: The number of students enrolled in post graduate programmes in Universities worldwide has been improved substantially in the recent past with the increasing social demand for higher education and the incorporation of open and distance learning methods. Many graduate students are adult learners with diverse characteristics and backgrounds. As an essential component of the post graduate programmes, students are required to complete a research dissertation under a supervisor that could project discipline values such as conceptual innovation, methodological rigor, and substantive content. But a considerable amount of students do not complete their research dissertations due to various reasons. In this paper we propose some valuable actions to be taken to improve the completion rate of dissertations in Master of Education Degree Programme. It was revealed that the majority of students' main expectations from participating in the intervention programme were to complete the research. In addition, their motivation has increased to complete the research due to the action research. Further, the presentations/discussions used during the workshops were very useful and they were satisfied with the intervention programme. The most needed support was related to frequent guidance, opportunity to contact by phone/email, immediate feedback, effective communication and friendly support. In addition to supervisors support there were personal, family and work place problems. It was suggested that there should be continuous workshop and guidance. Moreover, they needed immediate feedback for chapters. Further, they needed study leave, direction to individual supervisors and deadlines. It was suggested that this type of intervention programme should be started at the beginning of the programme. Most of the students proceeded to complete the research. And also almost all have appreciated the intervention programme. The action research was a very effective procedure to complete the research dissertations.

A Study on the Effectiveness of the Teaching Practice Component in the Diploma in Early Childhood and Primary Education Programme

D.M.W. Munasinghe

Department of Early Childhood and Primary Education, Faculty of Education,
The Open University of Sri Lanka, Sri Lanka
malinimunasinghe@yahoo.com

Abstract: Distance education as a vehicle for the delivery of course content, as well as complete academic programmes, continues to grow rapidly in the world. Distance education or distance learning is a field of education that focuses on the pedagogy, technology and instructional system design that aim to deliver education to students who are not physically “on site” as in a traditional classroom or campus. There are theoretical and practical courses given through the distance mode. Teaching practice is the most important aspect and any individual should have the competence to teach, because teaching directly affects the child who studies in the classroom. Successful teachers are not simple charismatic, persuasive and expert presenters; they should also have the knowledge, skills and techniques of making productive use of teaching materials to suit the varying levels of the learners. Therefore, teachers should have adequate teaching practice skills to teach in the classroom. Diploma in Early Childhood and Primary Education (Dip. in ECPE) programme is one of the programmes conducted by the Open University of Sri Lanka. Teaching practice is one main component that completes the programme. This research inquires whether the teaching practice component of the Dip. in ECPE programme provides adequate training to students to teach preschool and primary schools children of different ability levels, simultaneously.

**Effects of Socioeconomic Status of Parents on Educational
Attainment of the Undergraduates of the University of Jaffna:
A Comparative Study on Arts and
Law Students**

A. Nithlavarnan[†] and M. Sinnathamby

Department of Education, Faculty of Arts, University of Jaffna, Sri Lanka
[†]anithlavarnan@gmail.com

Abstract: This study has attempted to describe and explain the relationship between parents' socioeconomic status and undergraduates' educational attainment using a case study approach. The objectives of the study were: to estimate the relationship between parents' educational level, income level and occupations; with undergraduates' educational performance in Faculty of Arts, University of Jaffna in the year 2011. A convenient sample of arts and law students attending a socioeconomically diverse University of Jaffna was utilized as the basis for conducting an undergraduate student survey (n=40). Data for the study were collected through the use of questionnaires for undergraduates, interview with lecturers and head of the Departments, documentary analysis of the university records and observation. Both qualitative and quantitative methods of study were used. The researchers used Tables, charts and Pearson's correlation to describe and analyze quantitative data while qualitative data were analyzed on the basis of themes. The results showed that there was a positive correlation between the parents' level of education, income and occupation with pupil's educational performance. Students from higher socioeconomic backgrounds tend to have higher levels of under graduate academic achievement because they enter university with cultural capital that they acquired prior to university. This study recommends that parents should continue to improve on their education levels through adult education programmes. Secondly, undergraduates from low socioeconomic backgrounds should try to persevere through financial hardships and remain in university because schooling eventually has a redeeming effect on their poor plight. Lastly, undergraduates who obtain low grades should be helped to develop academic curiosity in fields which are more relevant to them. Graduate students can become academically liberated from the cultural effects of their socioeconomic origins.

Keywords: Educational Attainment, Socioeconomic Status, Undergraduates

Issues in Developing Speaking Skills at Tertiary Level

S. Ravindran

English Language Teaching Centre, University of Jaffna, Sri Lanka
ravindran_shan@yahoo.com

Abstract: The last few decades have witnessed the rise of English from its position as an International language, to that of global language: a medium through which people from all parts of the world can communicate with each other. A good command of English is a crucial benchmark for both professional competition and personal development. However, there has been an ongoing debate over the proficiency of the second language. Among the four basic skills of listening, speaking, reading and writing, speaking has received little attention, and is therefore the weakest. It is at the tertiary level that the ESL learners realize the importance and the need for developing speaking skills. Their need intensifies when seeking better jobs. There are various issues involved in the non development of the skill. In this study fifty eight second year students from the Faculty of Arts University of Jaffna were selected on a random basis. A qualitative method is used to collect data. Questionnaires were circulated to the students to gather data. Interviews were conducted with the staff and class room observation was utilized. Objectives of this study were to find the cause and remedies for the non development of the speaking skills and to facilitate the development of the speaking skills at the tertiary level. The causes and remedies for developing speaking skills of the second year students were found. The findings revealed the issues for the non development of the speaking skill of ESL learners.

Keywords: Issues in Speaking Skills, Tertiary level, Homogenous Group ESL Learners, ESL Learning

Experiences and Challenges of Teaching Science at Junior Secondary Level

N.G.P. Samarasekara[†] and P.R.K.A. Vitharana

Department of Education, Faculty of Arts, University of Peradeniya, Sri Lanka
[†]ngp.samarasekara@gmail.com

Abstract: Transformation of a conventional society into a conceptualized innovative scientific society is a herculean task. Educating science needs the confrontation of misconceptions and formation of correct concepts. Educational reforms in Sri Lanka were introduced with the intention of transforming the nation towards a scientific society. Even after four decades of such reforms, the national level GCE O/L science achievement is not that satisfactory and still remains at 62%. Therefore, the scope of this study was to investigate the historical basis of science education in schools, pros and cons of present educational reforms and the challenges faced in achieving the national educational goals. To achieve the above objectives, the study was conducted through a critical review of literature on education reforms and a questionnaire survey on factors affecting the teaching-learning process using a random sample of 126 (13%) Sinhala medium science teachers in the Kandy district, central province. Data were collected on qualifications, training, teaching methods, teaching aids and student achievements at the G.C.E. O/L examination. According to the findings, 'integrated science' had been introduced in 1972 for the first time at the junior secondary level to facilitate day to day life of people. Two minor revisions were followed; in 1985, 'introductory science' was introduced to year five and in 1998, 'science' was changed to 'environmental science' for grade six. The present reform; student centered, activity based 5E learning cycle was introduced in 2006. Although it is too early to conclude its performance, the teacher survey revealed that this particular method is not yet properly implemented by them due to various reasons. Majority of teachers still use other teaching methods and therefore some schools perform 100% while the others stay at 4.5%. Although, the teacher qualifications and their training are at a satisfactory level, equity of resources, use of proper teaching methods and change of students' attitudes are still found to be challenging factors to achieve the national educational goals.

Keywords: 5E Learning Cycle, Concepts, Curriculum Reforms, Integrated Science

Teacher's Satisfaction of Assessment Process of Competency based Curriculum in Primary School Education in Sri Lanka

P. Senivirathne[†] and T. Mukunthan

Department of Early Childhood and Primary Education, Faculty of Education,
The Open University of Sri Lanka

[†]psene@ou.ac.lk

Abstract: Assessment is one of the main components in the curriculum process. From 1997 Government has drawn attention to enhance assessment procedure in the primary education. Therefore the government has planned several training programs for developing teacher's capacity in this purpose. In this study researchers try to identify the teacher's satisfaction of Assessment process of Competency Based Curriculum at Primary Level. Grade 1 to Grade 5 is considered as primary level in the Sri Lankan Education System. Competency based curriculum and formative and summative evaluations are used in the primary levels. At present the government pays more consideration for the formative assessment methods than summative assessment methods. There are three objectives in this study. Those are: (i) To identify assessment methods that teachers use at primary level (ii) To find out teachers satisfaction to assess children at primary level (iii) To find out the problems faced by teachers of assessment process in the Primary level. Survey method was used for data collection in this study. The researchers collected data from 123 teachers through questionnaires. Formative (continuous assessment-subjective, common, portfolio and anecdotal report) and summative methods (teacher made question papers, term test and question paper made by external resource person) are used by every class teachers as assessment methods. Most of the primary class teachers (46%) strongly agree to do subjective records. Because first language, mathematics and environment related activities, are the main subjects in the primary curriculum. Teachers feel that, subjective records are convenient to assess the children. 83% of the primary teachers agree or strongly agree to maintain common assessment records. 61% of the teachers agree or strongly agree to maintain essential learning competencies. According to the new education reforms teachers have to assess students' performances. They are assessing students through summative and formative assessment methods. But their satisfactions varies about those assessment methods. Teachers face internal and external problem is to assess children.

Keywords: Assessment Process, Teachers' Satisfaction, Competency based Curriculum

Perceived Competencies and Expected Behaviour of a Trainer in an Education Management Training Environment

T. Thanaraj

Department of Secondary and Tertiary Education, Faculty of Education,
The Open University of Sri Lanka, Sri Lanka
tthan@ou.ac.lk

Abstract: Since the changes in technology are intense and unprecedented in contemporary human history with its impact on almost all aspects of human life, organizations have invariably adopted training as a tool to fill the competency-gap of their employees to keep pace with such changes and also to enhance the employability of their employees in order to avoid extinction. They spend huge amount of resources to achieve this goal and for their survival. This additional emphasis on training has transformed training as a profession and the trainers as professionals. Hence, trainers need to possess a set of relevant competencies as well as acceptable behavioural patterns to be effective in their training activities. Education sector is no exception in this trend. This paper is an outcome of a study in which attempts were made to identify the essential competencies and behaviour of a trainer in an education management training environment in Sri Lanka as perceived by the participants of a particular training of a trainers (TOT) programme. Survey research design was applied among the sample which was a set of forty out of ninety six trainees in that programme with the questionnaire as main data collection tool. Further, sixteen experienced trainers were also interviewed and several sessions of the said TOT programme were observed. The study revealed that thorough knowledge of the subject or topic, strong communication skills and expertise in training methods particularly in andragogical methods are the three major competencies an effective trainer should possess. In terms of trainer's expected behaviour in a training environment, five most important behavioural traits have surfaced in the study. They were: allow participants' to express their views; be friendly and humorous and keep the class lively; be thoroughly prepared and systematic in your delivery; integrate theory with practice and always maintain clarity in expression. The study also has brought out the important factors that make a training programme ineffective.

Keywords: Competencies, Behaviour, Training, Trainer

Expansive Learning among Undergraduates in the Social Sciences in Sri Lanka

S. Wijesundera^{1†} and R. Murphy²

¹Department of Education, University of Peradeniya, Sri Lanka

²School of Education, University of Nottingham, UK

[†]subhashiniew@yahoo.com

Abstract: This paper presents a model for understanding student learning in undergraduate education in the social sciences in Sri Lanka. The model is based on Cultural Historical Activity Theory and a longitudinal qualitative study conducted in a Sri Lankan University. The experiences of a group of undergraduates following a four year degree course in Psychology were studied over a 3-4 year time period using classroom observations, semi-structured interviews, reflective accounts and documentary review techniques. Student learning in the undergraduate course was conceptualized as a network of interacting activity systems which weaves together people and cultural tools. In the analysis of individual differences in achieving expansive learning there emerged five interacting factors which included: a student's past history of education; goal setting; motivation for transforming identity; mobilizing resources and views on the object and tools used in the course. These factors do not operate in isolation and they interact within an individual's socio-cultural context of learning, which simultaneously operates with the collaborative activity of student learning in the undergraduate course. The above findings are synthesized into a model for understanding student learning in undergraduate education and the implications for practice are discussed.

Keywords: Expansive Learning, Social Sciences, Cultural Historical Activity Theory

**தமிழ்மொழி மூல க.பொ.த உயர்தர மாணவர்களின்
கணித பாடக் கற்கைகளுக்கான வளங்களை மேம்படுத்துதல்**

அ. ஹரிசன்^{1†}, அ. சம்பந்தன்²

¹கணினி விஞ்ஞான பீடம், கொழும்புப் பல்கலைக்கழகம், இலங்கை

²கணினி விஞ்ஞான பீடம், போட்ஸ்மோர்த் பல்கலைக்கழகம், ஐக்கிய இராச்சியம்
[†]mathswin@gmail.com

சுருக்கம்: வரையறுக்கப்பட்ட வளங்களினூடு போட்டித் தன்மையுடன் கற்று, பல்கலைக்கழக அனுமதியைப் பெறமுடியும் மாணவர் சமூகத்திற்கும், மிகக் குறுகிய வளங்களுடன் அவர்களுக்குக் கற்பிக்க முனையும் ஆசிரியர் சமூகத்திற்கும் இடையிலான ஒரு சமநிலையைப் பேணுவது அவசியமாகின்றது. க.பொ.த உயர்தர வகுப்பில் கணிதபாடம் கற்கும் மாணவர்களுக்கான வளங்கள் பற்றியும் அக் கணித பாடத்தைக் கற்பிக்கும் ஆசிரியர்கள் பயன்படுத்தும் வளங்கள் பற்றியும் அறிந்து கொள்வதும், மாணவர்களுக்கும் ஆசிரியர்களுக்கும்ிடையே சமநிலையைப் பேணுவதற்கான வழிமுறையை கண்டறிந்து கொள்வதும் இந்த ஆய்வின் குறிக்கோள்களாகும். இலங்கையின் போர்க்காலத்திற்கு முன்னரும், போர்க்காலத்திலும், போர் முடிவடைந்த பின்னரும் இன்று வரையான காலப்பகுதியிலும் க.பொ.த உயர்தர மாணவர்களின் கணித பாடக் கற்கைகளுக்கான வளங்கள் எவையென்பது பற்றியும் அவை எவ்வாறு பயன்படுத்தப்பட்டன, எவ்வாறு பயன்படுத்தப்படுகின்றன மற்றும் எவ்வாறு மேம்படுத்தப்படலாம் என்பது பற்றியும் இக்கட்டுரை தெளிவுபடுத்துகிறது. அத்தோடு, தமிழ்மொழி மூல க.பொ.த உயர்தர மாணவர்களின் கணிதபாடக் கற்கைகளுக்கான வளங்களை மேம்படுத்துவதன் மூலம், போட்டித்தன்மையுடன் கற்கும் மாணவ சமூகத்திற்கும் குறைந்த வசதிகளுடன் கற்பிக்கும் ஆசிரிய சமூகத்திற்குமிடையே சமநிலை எய்தப்படலாம் என்பதையும் இந்த ஆய்வுக்கட்டுரை சுட்டி நிற்கின்றது. எதிர்கால மாணவ சமூகத்திற்கான ஆக்கபூர்வமான பங்களிப்புகளை வழங்கக்கூடிய திட்டங்கள் பற்றியும் அவை எவ்வாறு செயற்படுத்தப்படலாம் என்பது பற்றியும் இக்கட்டுரை விளக்குகின்றது.

**கிளிநொச்சி மாவட்டத்திலுள்ள இடைநிலை வகுப்பு மாணவர்களது
இசைக்கல்வியின் இன்றைய நிலை**

கி. கருணா

இசைத்துறை, யாழ். பல்கலைக்கழகம், இலங்கை
kkaruna67@yahoo.com

சுருக்கம்: இசை உளவியல் ரீதியாக மனித உள்ளத்தைச் சமநிலைப்படுத்தும் ஒரு அம்சமாகக் காணப்படுகின்றமை இவ் ஆய்வின் முக்கியத்துவத்தினை வலியுறுத்துகின்றது. கல்வி ஒரு மனித உரிமையென பிள்ளைகள் உரிமை பற்றிய சர்வதேசப் பிரகடனங்களும், பிள்ளைகள் உரிமை தொடர்பான சமயவாயங்களும் எடுத்துக்காட்டி வந்துள்ள நிலையிலும், போரின் பாதிப்புக்கு உள்ளான பிரதேசங்களிலே கல்விசார் பிரச்சினைகள் பல உள்ளன. வடமாகாணத்தில் இறுதியாக உருவாக்கப்பட்ட கிளிநொச்சி மாவட்டமானது கல்வி அபிவிருத்தியில் முன்னேற்றப் பாதையில் சென்றுகொண்டிருந்த சமயம் போரின் பாதிப்பினால் அம்முன்னேற்றம் தடைப்பட்டு பின்னடைவுக்குள்ளானது. இதனால் இம்மாவட்டம் பல சவால்களை எதிர்நோக்கியுள்ளது. தற்போது மீள்கூடியேற்றம் நடைமுறைப்படுத்தப்பட்டுக் கல்வி நடவடிக்கைகள் ஆரம்பிக்கப்பட்டுள்ள நிலையிலும், கல்வி அபிவிருத்தி சிறப்படைவதற்கான சூழல் மிகவும் பின்தங்கியதாகவே உள்ளது. இந்நிலையில், இசையானது உளவியல் ரீதியாக மனித உள்ளத்தைச் சமநிலைப்படுத்தும் ஓர் அம்சமாகக் காணப்படுவதால், கிளிநொச்சி மாவட்டத்தில் இடைநிலை வகுப்பு மாணவர்களது இசைக்கல்வியின் இன்றைய நிலையை அறிந்துகொள்வதும், இசைக் கல்வி கற்றல்-கற்பித்தல் செயற்பாடுகளில் எதிர்கொள்ளப்படும் பிரச்சனைகளைக் கண்டறிவதும் இந்த ஆய்வின் குறிக்கோள்களாக உள்ளன. கிளிநொச்சி மாவட்டமானது கரைச்சி, கண்டாவளை, பளை, பூநகரி ஆகிய நான்கு கோட்டங்களைக் கொண்டுள்ளது. இந்நாங்களிலும் உள்ள 63 பாடசாலைகளிலிருந்து எழுமாற்று முறையில் தெரிவு செய்யப்பட்ட 15 பாடசாலைகளை மாதிரியாகக்கொண்டு இந்த ஆய்வு மேற்கொள்ளப்பட்டது. இந்த ஆய்வின் மூலம், இம்மாவட்டத்தில் இசைக்கல்வி கற்றல், கற்பித்தல் நடவடிக்கைகள் சிறப்பாக நடைபெறுவதற்குத் தடையாக அமையும் காரணிகளாக பின்வருவன இனங்காணப்பட்டன: (i) இசை ஆசிரியர்களின் பற்றாக்குறை காணப்படுகின்றமை, (ii) இசை ஆசிரியர்களின் கற்றல், கற்பித்தல் திறன்களை இற்றைப்படுத்தலில் பிரச்சினைகள் உள்ளமை, (iii) இசை ஆசிரியர்கள் சேவை செய்வதற்கான ஊக்குவிப்புக்கள் போதுமானளவு காணப்படாமை, (iv) பாடத்திட்டங்கள் உரிய காலப்பகுதிக்குள் நிறைவு செய்யப்படாமை, (v) சில பாடசாலைகளில் இசைக் கல்வி கற்பதற்கான வகுப்பறை இல்லாமை, (vi) விடுதி வசதிகள், சீரான போக்குவரத்து வசதி, உணவு, குடிநீர் போன்ற அடிப்படைகளுக்குச் சீரமப்பட வேண்டிய நிலை காணப்படுகின்றமை, (vii) சில பாடசாலைகளுக்கு இசை ஆசிரியர்கள் நியமிக்கப்பட்டும், அவர்கள் தம் கடமைகளுக்குச் செல்லாமல் இருக்கின்றமை, (viii) பாதுகாப்பற்ற சூழலாக உணர்கின்ற தன்மை, (ix) மாணவர் மனம் பாதிப்படைந்து காணப்படுகின்றமை, (x) குடும்ப வறுமை காரணமாக இசைக்கல்வியில் பிரத்தியேக போதனையைப் பெறமுடியாமை, (xi) இசைக்கல்வி சம்பந்தமான விழிப்புணர்வு பெற்றோரிடத்தில் காணப்படாமை.

**போரதீவுப் பற்றுப் பிரதேசத்திலுள்ள 1C பாடசாலைகளின்
ஐந்தாம் தரப் புலமைப்பரிசில் அடைவுமட்ட வீழ்ச்சி பற்றிய
ஓர் ஆய்வு**

சு. மகேந்திரராசா

Department of Education and Child Care, Faculty of Arts and Culture,
Eastern University of Sri Lanka, Sri Lanka
rathinimaha@gmail.com

சுருக்கம்: இன்று போகுமிடமெல்லாம் புலமைப்பரிசில் பாடத்துடன் இணைந்த விடயங்கள் ஓட்டிக் கொண்டிருப்பதை எல்லோரும் அறிவர். புலமைப்பரிசில் பரீட்சை முக்கியமானதுடன் தவிர்க்கமுடியாததுமாகும். புலமைப்பரிசில் பற்றிய சிந்தனைகளும், ஆற்றல்களும் பிறப்பிலிருந்து ஆரம்பித்தாலும் பாடசாலைகளிலேயே முறையான விதத்தில் அவை கட்டுமானம் செய்யப்பட வேண்டும். இச்சந்தர்ப்பத்தில் பல பிரச்சினைகள் மாணவர்களது கற்றலில் தாக்கம் செலுத்தி அவை அடைவுமட்டத்தைப் பாதிக்கின்றன. இதனைக் கருத்திற்கொண்டு இந்த ஆய்வானது புலமைப்பரிசில் பாட அடைவுமட்டம் தொடர்பான பிரச்சினைகளைக் கண்டறிந்து தீர்வுகளை முன் வைப்பதனூடாக அடைவுமட்டத்தை மேம்படுத்தும் நோக்கத்தைக் கொண்டது. இது அளவை நிலை ஆய்வு முறையில் வடிவமைக்கப்பட்டு, போரதீவுப் பற்றுப் பிரதேசத்திலுள்ள ஐந்து 1C பாடசாலைகள் தெரிவு செய்யப்பட்டன. அப் பாடசாலைகளில் புலமைப் பரிசில் பரீட்சையின் அடைவுமட்டப்போக்கு எவ்வாறுள்ளது, அடைவு மட்டத்தில் செல்வாக்குச் செலுத்தும் காரணிகள் யாவை என்பவற்றைக் கண்டறிவதற்காக அப்பாடசாலைகளின் அதிபர்கள், ஆசிரியர்கள், மாணவர்கள், பெற்றோர் ஆகியோர் வசதி மாதிரியின் அடிப்படையில் தெரிவு செய்யப்பட்டு வினாக்கொத்து, நேர்காணல், அவதானம், ஆவணங்கள் மூலம் பல தரவுகள் பெறப்பட்டன. சேகரிக்கப்பட்ட தரவுகள் யாவும் தெரிவு செய்யப்பட்ட பாடசாலைகளில் ஐந்தாம் தரப் புலமைப்பரிசில் பரீட்சையின் அடைவு மட்டத்தின் போக்கு எவ்வாறுள்ளது, இத்தகைய நிலைக்கு என்ன காரணம், புலமைப்பரிசில் பரீட்சையில் சித்தியடைவதில் மாணவர்கள் எதிர் நோக்கும் இடர்பாடுகள் யாவை, புலமைப்பரிசில் பாடக் கற்றல், கற்பித்தலுக்குப் பொருத்தமான வளங்களின் நிலைப்பாடு என்ன என்பன போன்ற விடயங்களை உள்ளடக்கி ஆய்வு நோக்கத்தின் அடிப்படையில் அளவு ரீதியாகவும், பண்பு ரீதியாகவும் பகுப்பாய்வு செய்யப்பட்டுள்ளன. ஆய்வு முடிவுகளில் இருந்து, அதிபரின் வினைத்திறனான முகாமைத்துவமின்மை, தேவையான வளவசதிகளைச் செய்து கொடுக்காமை, கற்பிக்கும் அனுபவம் ஆசிரியர்களுக்கு இன்மை, பிள்ளையின் கல்வியில் அக்கறையற்ற பெற்றோர், புலமைப்பரிசில் பரீட்சையில் மாணவர்களின் அக்கறையின்மை போன்ற பல்வேறு காரணிகள் மாணவர்களின் புலமைப்பரிசில் பரீட்சை வீழ்ச்சிக்குக் காரணமாக அமைகின்றன எனக் கண்டறியப்பட்டது. ஐந்தாம் ஆண்டுப் புலமைப்பரிசில் அடைவு மட்டத்தை அதிகரிப்பது தொடர்பில் காணப்படும் இடர்களைக் கண்டறிந்து அடைவுமட்டத்தை மேம்படுத்துவதற்கான விதந்துரைகளை முன்மொழிவதாயும் இந்த ஆய்வு அமைகின்றது. எதிர்வரும் காலங்களில் இவ் விதந்துரைகளைப் பின்பற்றிச் செயற்படும்போது புலமைப்பரிசில் அடைவுமட்டத்தை அதிகரிக்க முடியும்.

போருக்குப் பின்னரான சூழமைவினாள் முன்பள்ளி ஆசிரியர்களின் தொழில்சார் கல்விக்கான வாய்ப்புக்களும் வரையறைகளும்: கிளிநொச்சி மாவட்ட முன்பள்ளி ஆசிரியர்களை அடிப்படையாகக் கொண்ட ஆய்வு

ரா. மங்களேஸ்வரசர்மா

இலங்கை திறந்த பல்கலைக்கழகம், யாழ்ப்பாணப் பிராந்திய நிலையம், இலங்கை
m4rajini@yahoo.com

சுருக்கம்: இலங்கையில் மூன்று தசாப்த காலமாக நடைபெற்ற போர் முடிவடைந்துள்ள நிலையில் நாட்டின் அபிவிருத்தி பற்றிய எண்ணக்கரு மேலெழுந்து வருகின்றது. நாட்டின் அபிவிருத்தியில் பங்களிக்கும் ஆற்றலுள்ள மனிதவள விருத்திக்கான கருவியாகவும் ஊடகமாகவும் கல்வியே பயன்படுகிறது. ஒவ்வொரு பிள்ளையினதும் எதிர்காலக் கற்றலிற்கும் முன்னேற்றத்திற்கும் முன்பள்ளிக் கல்வியே அடித்தளமிடுகிறது. போதிய பயிற்சி பெற்ற ஆற்றல் மிக்க தரமான ஆசிரியராலேயே வெற்றிகரமான முன்பள்ளிக்கல்வியை வழங்க முடியும். இலங்கையில் முன்பள்ளிக் கல்விச் செயற்பாடுகளோ முன்பள்ளி ஆசிரியர் கல்வியோ அரசினால் பொறுப்பேற்கப்படாத நிலையில் முன்பள்ளிக் கல்வி தொடர்பாக நாட்டில் பல்வேறு சமயின்மைகள் நிலவுகின்றன. இந்நிலையில் போரினால் வெகுவாகப் பாதிக்கப்பட்ட பிரதேசங்களில் முன்பள்ளிக்கல்விச் செயற்பாடுகள் மற்றும் முன்பள்ளி ஆசிரியர் கல்வி தொடர்பாக பல்வேறு பிரச்சினைகள் அவதானிக்கப்பட்டுள்ளன. இந்நிலையில் போரினால் பாதிக்கப்பட்ட பிரதேசங்களில் முன்பள்ளி ஆசிரியர் கல்வி தொடர்பாக கிடைக்கத்தக்க வாய்ப்புக்கள் பற்றியும் அவற்றைப் பயன்படுத்துவதில் உள்ள வரையறைகள் பற்றியும் இக்கற்கை ஆராய்கிறது. அளவையிலை ஆய்வு வடிவமைப்பினால் அளவறி மற்றும் பண்பறி ரீதியான அணுகு முறைகளை உள்ளடக்கியதாக இந்த ஆய்வு மேற்கொள்ளப்பட்டது. போரினால் பாதிக்கப்பட்ட கிளிநொச்சி மாவட்டத்தின் கிளிநொச்சி கல்வி வலயத்திற்குட்பட்ட நாண்கு கோட்டங்களைச் சேர்ந்த 194 முன்பள்ளிகளில் பணியாற்றும் 382 ஆசிரியர்களில் 30 பேர் எழுமாற்றாக தெரிவு செய்யப்பட்டு அவர்களிடமிருந்து இந்த ஆய்விற்கான தரவுகள் சேகரிக்கப்பட்டன. வினாக்கொத்து, நோக்கக்குழுக் கலந்துரையாடல் போன்ற கருவிகள் இதன்பொருட்டு பயன்படுத்தப்பட்டன. கிளிநொச்சிக் கல்வி வலயத்தின் முன்பள்ளிக் கல்வி தொடர்பான உதவிக்கல்விப் பணிப்பாளர் மற்றும் சமூகப்பிரதிநிதிகள் ஆகியோரிடமிருந்து நோக்கணல் மூலம் தரவுகள் பெறப்பட்டன. சேகரிக்கப்பட்ட தரவுகள் அட்டவணைப்படுத்தப்பட்டு சதவீத அடிப்படையில் பகுப்பாய்வு செய்யப்பட்டன. இந்த ஆய்வின் மூலம் முன்பள்ளி ஆசிரியர்களின் கல்வி மற்றும் பயிற்சி வாய்ப்புகளிற்கு போரினால் குடும்பச்சூழலில் ஏற்பட்ட பாதிப்புக்கள், பொருளாதார பற்றாக்குறைகள், போக்குவரத்து வசதியின்ங்கள், கற்கைநெறி நுழைத்தகைமை தொடர்பான போதாமைகள், கற்கைநெறித் தெரிவுப்பரிட்சைகளில் சித்திபெறாமை போன்ற தனிநபர் சார்ந்த பிரச்சினைகளும் நிரந்தர நியமனம் வழங்கப்படாமை, கற்றலுக்கான ஊக்குவிப்பின்மை, தொழில்சார் அங்கீகாரம் வழங்கப்படாமை, உள்ளூரில் கல்வி நிறுவனங்கள் இல்லாமை போன்ற நிறுவனம் சார்ந்த பிரச்சினைகளும் தடைகளாக அமைவதாக அறியமுடிகிறது. இத்தகைய காரணங்களால் போருக்குப் பின்னரான சூழமைவிலும் பெரும்பாலான முன்பள்ளி ஆசிரியர்கள் எதுவித ஆசிரியர் கல்வியையும் பெறாதிருப்பதையும் தரவுகள் சுட்டிக்காட்டின. இப் பிரச்சினைகள் தொடர்பான தரவுகளின் பகுப்பாய்வின் அடிப்படையில் முன்பள்ளி ஆசிரியர்களின் பொருளாதார நிலைமைகளை மேம்படுத்துவதற்கும் தொழில்சார் பாதுகாப்பு மற்றும் அங்கீகாரத்தை உறுதிப்படுத்துவதற்கும் முன்பள்ளி ஆசிரியர் கல்வி வழங்கும் நிறுவனங்கள் தமது கல்வி வாய்ப்புக்களை பரவலாக்குவதற்கும் நடவடிக்கைகளை மேற்கொள்வதன் மூலம் முன்பள்ளி ஆசிரியர்களின் தரமேம்பாட்டிற்கான கல்வி மற்றும் பயிற்சி வாய்ப்புக்களை முன்னேற்ற முடியும் என இந்த ஆய்வு விதந்துரைக்கின்றது.

மட்டக்களப்பு மேற்குப் பிரதேசத்தில் யுத்தத்திற்குப் பின்னரான சிறுவர்களின் கல்வி மேம்பாடு

பொ. நிலாந்தினி

வரலாற்றுத்துறை, கிழக்குப் பல்கலைக்கழகம், இலங்கை
ponnila_17@yahoo.com

சுருக்கம்: மனிதனின் ஏனைய பருவங்களை விடவும் சிறுவர் பருவம் மிகவும் முக்கியத்துவம் மிக்க பருவமாகும். பிள்ளைகள் என்பவர்கள் பெறுமதிமிக்க வளமாகும். ஐக்கிய நாடுகள் சபையின் சிறுவர் உரிமைச் சாசனத்தின்படி 18 வயதுக்குக் குறைந்த மனிதப்பிறவி ஒவ்வொன்றும் 'ஒரு பிள்ளை' எனக் கருதப்படும். மிகச்சிறந்த ஓர் உலகை நிர்மாணிப்பதற்காக மேற்கொள்ளப்படும் முயற்சியின்போது பிள்ளைகளின் கல்வி மேம்பாட்டில் கவனம் செலுத்த வேண்டியது சமூகத்தினதும் அரசாங்கத்தினதும் முக்கிய ஒரு பொறுப்பாகும். மட்டக்களப்பு பிரதேசமானது கடந்த 30 ஆண்டுகளாக யுத்தத்தின் காரணமாக வெகுவாகப் பாதிக்கப்பட்ட ஒரு பிரதேசமாக விளங்குகின்றது. இப்பிரதேசத்தின் நடுவண் அமைந்துள்ள வாவியை மையமாகக் கொண்டு இப்பிரதேசத்தை கிழக்கு, மேற்கு என இருபிரதான பிரிவுகளுக்கு உட்படுத்த முடியும். இதன் மேற்குப்பகுதி படுவான்கரை என்றும் கிழக்குப்பகுதி எழுவான்கரை என்றும் அழைக்கப்படுகின்றன. யுத்தகாலத்திலே படுவான்கரைப்பகுதி நேரடியான தாக்குதலுக்கு உள்ளாகியிருந்தது. அரசாங்க கல்வித் திணைக்களத்தின் நேரடியான கட்டுப்பாட்டிற்கு உட்படாத இப்பிரதேசம் அதிகஷ்டப் பிரதேசமாகக் கணிக்கப்பட்டது. இதனால் இப்பிரதேசத்துச் சிறார்களின் கல்விநிலை மிகமோசமான பின்னடைவினைக் கண்டது. மட்டக்களப்புப் பிராந்தியத்தின் மேற்குவலயப்பகுதி முன்று கோட்டங்களாகப் பிரிக்கப்பட்டுள்ளன. அவையாவன: மண்முனை மேற்குக் கோட்டம், மண்முனை தென்மேற்குக் கோட்டம், ஏறாவூர்ப்பற்றுக் கோட்டம் என்பனவாகும். இம்முன்று கோட்டங்களை உள்ளடக்கியதாகவே ஆய்வு மேற்கொள்ளப்பட்டது. இன்று அரசு மற்றும் அரசசார்பற்ற நிறுவனங்கள் சிறுவர்களின் கல்வி விருத்தியில் அக்கறை செலுத்தி வருகின்றன. இந்நிலையில் மட்டக்களப்பு மேற்கு வலயப்பிரதேசத்தில் யுத்தத்திற்குப் பின்னரான சிறுவர்களின் கல்வி நிலை பற்றி அறிந்து கொள்ளவும் மேம்பாட்டுக்கான முன் மொழிவுகளை முன்வைத்தலும் இந்த ஆய்வின் குறிக்கோள்களாக உள்ளன. இந்த ஆய்வு காலத்தின் தேவையாக அமைகின்றது. அந்தவகையில், நேரடிக்கள ஆய்வு, வினாக்கொத்து, மேற்கு வலயப் பணிப்பாளர்கள் மற்றும் தன்னார்வத் தொண்டர்களுடனான கலந்துரையாடல் என்பவற்றின் மூலம் பெற்றுக்கொள்ளப்பட்ட தரவுகளின் அடிப்படையில் இந்த ஆய்வு மேற்கொள்ளப்படுகின்றன என்பதையும் அவற்றினை மேலும் விரிவுபடுத்துவதற்கான தீர்வாலோசனைகளையும் இந்த ஆய்வு முன்வைக்கின்றது.

கொடும்புத்துறைப் பிரதேசப் பாடசாலை மாணவர்களின் கற்றல் நாட்டம் பற்றிய பிரச்சினைகள்

வா. ரவிராஜன்¹, மா. சின்னத்தம்பி²

¹சண்டிக் குழி மகளிர் கல்லூரி, யாழ்ப்பாணம், இலங்கை
²கல்வியற்றுறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
[†]mrs.v.ravirajan@gmail.com

சுருக்கம்: இன்று பொதுவாகவே தமிழ்ப்பிரதேசங்களில் கல்வித்தராதரங்கள் வீழ்ச்சி அடைந்து வருவதாகக் கல்விப்புலம் சார்ந்தோர் கருத்துப்பரப்புகை செய்கின்றனர். எமது சமூகம் எதிர்கொண்ட போரியல் வாழ்வும், போருக்குப் பின்னரான வாழ்வும் கல்வித்துறையில் மிக மோசமான விளைவுகளை ஏற்படுத்தி உள்ளன. இதற்கான காரண காரியங்கள், பின்புலங்கள் பற்றிய ஆய்வுகள் வெளிப்படவேண்டியதன் அவசியத்தைப் பலரும் சுட்டிக்காட்டுகின்றனர். இதன் அடிப்படையிலேயே இங்கு மேற்கொள்ளப்பட்ட இந்த ஆய்வும் மாணவர்களது கல்வித்தராதரங்களது வீழ்ச்சி, வளர்ச்சி என்ற பொதுவான நேர்க்கோட்டுத் தன்மையில் புரிந்து கொள்ளாது அதனது சிக்கல் தன்மையை பல்நோக்கு நிலை நின்று புரிந்து கொள்ள முயன்றிருக்கின்றது. இன்று அதிக தாக்கத்தைக் கல்விச் சூழலில் ஏற்படுத்தி வரும் கற்றல் நாட்டம் குறித்த பிரச்சினைகளை இனங்காணலையே இந்த ஆய்வு மைய நோக்காகக் கொண்டு அமைக்கப்பட்டுள்ளது. யாழ்ப்பாணச் சூழலில் கல்விச் சரிவு பற்றி மேற்கிளம்பிய கருத்து சார்ந்து வெளிப்பட்ட சில பார்வைகள் அரசியல், சமூக, பொருளாதாரத் தாக்கங்களுக்கு மிக எளிதாக உட்படும் கரையோரப் பிரதேசங்களில் நிலவும் கல்விச் சூழலை மையப்படுத்தின. இதன் அடிப்படையிலேயே இந்த ஆய்வும் யாழ்ப்பாணத்தின் கரையோரப்பகுதியில் ஒன்றான கொடும்புத்துறைப் பிரதேசத்தை ஆய்வுக் களமாகத் தெரிவு செய்து கொண்டது. இப் பிரதேசத்திலுள்ள முறைசார் பாடசாலைகளில் கல்வி பயிலும் இடைநிலை வகுப்பு மாணவர்களது கற்றல் நாட்டம் பற்றிய பிரச்சினைகளை அம் மாணவர்களது மனோபாவம், கற்றல்-கற்பித்தல் செயற்பாட்டில் அவர்களது ஈடுபாடு, சமூக உணர்வு உள்ளிட்ட வேறு பின்புலங்கள் சார்ந்து புரிந்து கொள்ளும் நோக்குடனேயே இந்த ஆய்வு பயணித்துள்ளது. அளவை நிலை ஆய்வைப் பிரயோகித்து ஆய்வின் பிரதான தரவு சேகரிக்கும் கருவிகளான வினாக்கொத்து, நேர்காணல், அவதானம் மூலம் குறித்த பாடசாலைகளில் கல்வி கற்கும் இடைநிலை வகுப்பு மாணவர்களையும் அவர்களுக்குக் கற்பிக்கும் ஆசிரியர்களையும் மாதிரிகளாகக்கொண்டு திரட்டிய முதல்நிலைத் தரவுகளையும் பாடசாலைப் பதிவேடுகள், கிராம சேவகர் குறிப்புக்கள், முறைசார் செயற்றிட்டக் குறிப்புக்கள், பாடசாலை வரவுக்குறிப்பேடு, மாணவர் கணிப்பீட்டு-மதிப்பீட்டுப் பதிவுகள் போன்ற துணைநிலைத் தரவுகளையும் இணைத்து புள்ளிவிபரவியல் நுட்ப முறை கொண்டு பகுப்பாய்ந்து பார்த்தபோது முனைப்புப் பெற்று நின்று பிரச்சினைகளை இனங்கண்டு அவற்றினடியாக முடிவுகளும் முன்மொழிவுகளும் முன்வைக்கப்பட்டுள்ளன. முடிவுகள் தரும் விளக்கத்தைத் நோக்கும்போது ஆய்வுப் பரப்பில் உட்படுத்தப்பட்ட மாணவர்கள் கட்டாயத்தின் பேரிலோ கடமையெனக் கருதியோ பாடசாலைக்கு ஒழுங்காகச் சமூகம் தருவதையும், பரீட்சைகளுக்கு தோற்றுவதையும் அறியலாம்.

பாடசாலைக் கற்றலில் ஆர்வமோ, ஈடுபாடோ இன்றியோ அவர்கள் செயற்படுகின்றனர் என்பதனை அவர்கள் வகுப்பறையில் கற்கும்போதும் பாடசாலைக்கு வீட்டுப்பாட வேலைகள் செய்யாதும், கற்றல் உபகரணம், புத்தகம் இன்றியும் வருதல் சுட்டிநிற்கின்றது. இவை தவிர, இவர்கள் பரீட்சை குறித்தோ அல்லது பரீட்சை அடைவுகள் குறித்தோ அதிக அக்கறை கொள்ளாமையும் இவர்களிடம் கற்றல் நாட்டத்தின் குறைபாட்டைச் சுட்டிக்காட்டுகிறது. இக்கற்றல் நாட்டத்தில் செல்வாக்குச் செலுத்தும் காரணிகளை நோக்கின்: குடும்ப வருமானம், தொழில் பெறும் வாய்ப்புகள், சுகபாடி உறவுகள், இதர சமய நிகழ்வுகள், கல்விப் பயன் பற்றி அறியப்படாமை, கல்வியை முதன்மைப்படுத்தாத பெற்றோரது மனப்பாங்கு போன்ற பல பிரச்சினைகளை இனங்காண முடிகின்றது. இங்கு இனங்காணப்பட்ட பிரச்சினைகள் நீண்ட காலமாக இச் சமூகத்தில் புரையோடிப்போயுள்ளன. இவற்றைத் தீர்ப்பதற்கு நடைமுறைச் சாத்தியப்பாடான பிரயோகத் தன்மையுள்ள முன்மொழிவுகளே பயன்தரும். சமூக நல நிறுவனங்கள், சமூக சேவையாளர்கள் போன்றோரது கரிசனையும் அர்ப்பணிப்பும், ஈடுபாடும் மனப்பாங்குகளில் மாற்றமுமே இந்நிலை குறித்த மேன்மையை அடையச் செய்யும். குறுகிய காலத் தேடலாக அமைந்த இந்த ஆய்வு இனங்காட்டிய குறிகாட்டிகள் குறித்து இனி வரும் ஆய்வுகள் கவனம் செலுத்துவது அவசியமாகின்றது. குறித்த கரையோரப் பகுதியில் இனங்காணப்பட்ட பிரச்சினைகள் எல்லாப் பகுதிக்குமானவையா என்ற பொதுமையாக்கல் சிந்தனையும் தேடலும் இங்கு அவசியமாக உணரப்படுகின்றது.

அதிகரித்து வரும் நவீன ஊடகங்களும் மாணவர்களின் கற்றல் விளைவுகளும்

ஜெ. இராசநாயகம்

கல்வியியற்றுறை, யாழ்ப்பாண பல்கலைக்கழகம், இலங்கை
luxmy2001@yahoo.com

சுருக்கம்: கல்வியின் மூலம் சமூகத்திலே நாளாந்தம் பல மாற்றங்கள் ஏற்படுகின்றன. இத்தகைய மாற்றங்களில் நவீன ஊடகங்களின் பங்களிப்பு மகத்தானது. நவீன ஊடகங்களின் வருகையால் மாணவர்களின் கற்றலில் பல விளைவுகளைச் சந்திக்க வேண்டியுள்ளது. சமூகத்தின் செய்திப் பரிமாற்றங்களுக்கும் தொடர்பாடலுக்கும் முக்கிய தளமாக விளங்கும் ஊடகங்களின் உள்ளடக்க செயலொழுங்கும் நோக்கமும் கல்விக்கு முக்கிய இடம் கொடுக்கின்றன. இவ்வகையில் அதிகரித்துவரும் நவீன ஊடகங்களும் அவற்றின் செயல் ஒழுங்கும், மாணவர்களின் கற்றலில் ஏற்படுத்தும் விளைவுகளை முன்வைத்தலே இந்த ஆய்வின் நோக்கமாகும். தகவல் பெறுகை, தகவலைத் தீர்மானித்தல், ஏற்றுக் கொள்ளுதல், தவிர்த்தல், தொடர்புபடுத்தல், பரிமாற்றுதல், பொருத்தமான வகையில் பயன்படுத்துதல் போன்ற பலவிதமான செயற்பாடுகளை உள்ளடக்கிய நவீன ஊடகங்கள் இன்றைய கல்வியில்கில் மிகப்பெரிய மாறுதல்களுக்கு எல்லாம் வகை கூறும் நிலையில் அமைந்துள்ளன. இன்றைய நவீன உலகில் இணையத்தளங்கள், இன்ரநெற், கைபேசி, ருவிறர், ஈமெயில் போன்ற ஊடகங்கள் மாணவர்களின் கற்றல் நடவடிக்கைகளுக்கும் புதிய செல்நெறிகளை அமைத்துக் கொடுத்துள்ளன. எனினும், அத்தகைய ஊடகங்களை எப்படி? எப்போது? எவ்வாறு? கையாள்வது என்ற வரையறை தெரியாத பெற்றோர்கள், மாணவ சமுதாயங்களினால் நவீன ஊடகங்கள் மேல் இன்று கல்வியியலாளர்கள் தொடக்கம் சாதாரண பாடம் மக்கள் வரை குற்றம் சுமத்துகின்றார்கள். எனினும் இலாப நோக்கம் என்னும் குறுகிய நோக்கில் செயற்படும்போது எமது கலாச்சாரத்துக்குப் பொருந்தாத சில தகவல்களையும் வழங்கி இன்றைய பதினம் வயது மாணவர்களைத் தவறாக வழி நடத்துகின்றன என்ற குற்றச்சாட்டையும் நவீன ஊடகங்கள் ஏற்கத்தான் வேண்டும். இதனை மேலெழுந்த வாரியாகக் கூறாது ஆய்வு மூலம் தகவல்கள் பெற்று உண்மையை வெளிப்படுத்துதல் சிறப்பானது என்ற வகையில் ஆய்வுக் குடித்தொகை தெரிவு செய்யப்பட்டு தகவல்கள் பெறப்பட்டு உண்மைத்தன்மை நிரூபிக்கப்பட்டுள்ளது.

யாழ்ப்பாண மாவட்ட ஆரம்பக் கல்விப் பாடசாலைகளில் 2003 ஆம் ஆண்டிலிருந்து சிறுவர் நட்புறவுப் பாடசாலைச் செயற்றிட்டத்தை அமுலாக்கலும் பிரச்சினைகளும்

பா. தனபாலன்

Jaffna National College of Education, Kopay, Sri Lanka
thanapalanabi@gmail.com

சுருக்கம்: இலங்கையின் கல்வி விருத்தியில் ஆரம்பக் கல்வி மிக முக்கியமான கட்டமாக நோக்கப்படுகின்றது. 1998 இல் ஆரம்பமாகி 2003 இல் இக்கல்விச் சீர்திருத்தம் இலங்கையில் அமுலாக்கப்படத் தொடங்கியது. இதனை உள்வாங்கி யுனிசெவ் (UNICEF) நிறுவனம் 2002ஆம் ஆண்டிலிருந்து கல்வியமைச்சுடனும், தேசியக் கல்வி நிறுவகத்தடனும், மகாணக் கல்வியமைச்சுக்களுடனும் இணைந்து சிறுவர் நட்புறவுப் பாடசாலை (child friendly school) செயற்றிட்டத்தை இலங்கையின் ஆரம்பக் கல்விப் பாடசாலைகளில் அமுலாக்கி வருகின்றது. “முழுமையான கவனமுடைய தொடர்ச்சியான மதிப்பும், வரவேற்புமுடைய, ஆதரவு கிடைக்கின்ற, இயலுமைகளுக்கும் இயலாமைகளுக்கும் பொருத்தமானவாறு உணர்வு காட்டுகின்ற, பூரணமான பாதுகாப்புடன் பாடசாலைகளில் தமது திறன்களை உச்ச அளவுக்கு வளர்த்துக் கொள்ளும் வகையிலான சூழலை உருவாக்குதல்” சிறுவர் நட்புறவுப் பாடசாலையின் வரைவிலக்கணமாக உள்ளது. இதன்படி சிறுவர் நட்புறவுப் பாடசாலைகளில் மாணவர்கள் மகிழ்ச்சியாகவும் ஆரோக்கியமாகவும் காணப்படுவர். ஆசிரியர் உற்சாகத்துடன் கற்பிப்பர். பாடசாலைக்கு பெற்றோர்களாலும் சமூகத்தாலும் ஆதரவு அளிக்கப்படும். மகிழ்ச்சிகரமான கற்றல்-கற்பித்தலினூடாக மாணவர்கள் தங்கள் திறமைகளால் சாதனை புரியும் சூழல் ஏற்படும். இதன்படி சிறுவர் நட்புறவுப் பாடசாலைகளின் வெளிப்பாடுகளாகத் தரமான கற்றல், இடைவிலகல், வரவின்மை குறைவு, பாதுகாப்பான பாடசாலைச் சூழல், சுகாதாரம், குடிநீர், மலசலகூடவசதி, அதிபர் ஆசிரியர்களுக்கு உயர்வான சம்பளம், மனப்பாங்கு மாற்றம், விளையாட்டு, நூலகம், கணினி வசதிகள், மாணவர்-ஆசிரியர்-பெற்றோர்-அதிபரிடையே உயிர்ப்பாண தொடர்புகள் வலுப்பெறும். இவ்வகையில் 2003 ஆம் ஆண்டிலிருந்து யாழ்ப்பாண மாவட்டத்திலும் சிறுவர் நட்புறவுப் பாடசாலைகள் செயற்றிட்டம் அமுலாகி வருகின்றது. இது ஆரம்பக்கல்விச் சீர்திருத்த நோக்கோடும் இயையப்பட்டுள்ளது. ஆனாலும், அமுலாக்கப்பட்ட ஆரம்பகாலத்தில் மிகக் கடுமையான யுத்தமும், பாதைத்தடையும் காணப்பட்டன. இச் செயற்றிட்டம் தொடர்பான செயலமர்வுகளில் அதிபர், ஆசிரியர், கல்விப் பணிப்பாளர்கள், (தேசிய கல்வி நிறுவகம், மகாணக் கல்வி அலுவலகம், கல்வியமைச்சு) பங்குகொள்ள முடியாத சூழ்நிலைகள் காணப்பட்டன. அத்துடன் இச்சிறுவர் நட்புறவுப் பாடசாலைகள் செயற்றிட்ட அமுலாக்கல் தொடர்பாக பல பிரச்சினைகள் காணப்படுகின்றன. இப்பிரச்சினைகளைக் கருத்திற்கொண்டு பின்வருமாறு இந்த ஆய்வின் குறிக்கோள்கள் தீர்மானிக்கப்பட்டன: (i) சிறுவர் நட்புறவுப் பாடசாலையின் செயற்றிட்டத்தை அமுலாக்குகையில், யுத்த சூழல், போக்குவரத்துத்தடை ஆகியன எவ்வாறான தாக்கங்களை ஏற்படுத்தின என்பதை மதிப்பிடல். (ii) இதனைத் தவிர இச்செயற்றிட்டத்தை அமுலாக்க தடையாகவுள்ள காரணிகளை இனங்காணல். (iii) சிறுவர் நட்புறவுப் பாடசாலைகள் செயற்றிட்டத்தை மேலும் சிறப்பாக அமுலாக்குவதற்கு வேண்டிய நடவடிக்கைகளை எடுத்தியம்பல். (iv) இத்துறை சார்ந்த ஆய்வுகளுக்கு வழிகாட்டல். யாழ்ப்பாண மாவட்டத்தில் தெரிவுசெய்யப்பட்ட ஆரம்பப்பாடசாலைகளுடனான தரவு சேகரிப்பு மூலம், சிறுவர் நட்புறவுப் பாடசாலைச் செயற்றிட்டத்தை சிறப்பாக அமுலாக்குவதற்குவதற்கு வேண்டிய நடவடிக்கைகளும் இந்த ஆய்வில் முன்வைக்கப்படுகின்றன.

என்ற வகையில், பின்வரும் கருதுகோள்கள் உருவாக்கப்பட்டன: சிறுவர் நட்புறவுப் பாடசாலைச் செயற்றிட்டத்தை நடைமுறைப்படுத்தும் யுத்த சூழல் போக்குவரத்துத்தடை தாக்கங்களை ஏற்படுத்தியுள்ளது. யாழ்ப்பாண மாவட்டத்தில் இச்செயற்றிட்டத்தை அமுலாக்க மேலும் பல பிரச்சனைகள் உள்ளன. இவ்வாறான நிலைமைகளை மாற்றி சிறுவர் நட்புறவுப் பாடசாலைச் செயற்றிட்டத்தை மேலும் சிறப்பாக அமுலாக்க முடியும். மேற்படி கருதுகோள்களைப் பரிசீலிப்பதற்கு யாழ்ப்பாண மாவட்டத்தின் ஐந்து வலயங்களிலும் படைகொண்ட எழுமாற்று மாதிரியை (Stratified sampling method) பயன்படுத்தி 196 பாடசாலைகள் ஆய்வுக் குடித்தொகையாகத் தெரிவு செய்யப்பட்டன. வினாக்கொத்து, அவதானிப்பு, நேர்காணல், குவிமையக் கலந்துரையாடல்கள், கலந்தாய்வுகள், ஆவணப் பகுப்பாய்வுகள் மூலம் தரவுகள் பெறப்பட்டன. இத்தரவுகள் சாதாரண வீத அளவுகளிலும், Minitab என்ற கணினி மென்பொருளைப் பயன்படுத்தியும் பகுப்பாய்வு செய்யப்பட்டன. தரவுகளைப் பகுப்பாய்வு செய்ததிலிருந்து பின்வரும் விடயங்கள் கண்டு பிடிக்கப்பட்டன. யுத்த சூழல் போக்குவரத்துப் பாதைகள் மூடப்பட்டதால் அதிபர், ஆசிரியர்கள், கல்விப் பணியாளர்களுக்கு போதுமான அளவு இச்செயற்றிட்டம் தொடர்பான செயலமர்வுகளில் கலந்து கொள்ளவில்லை. இதனால் பாடசாலைகளில் சிறுவர் நட்புறவுப் பாடசாலைச் செயற்றிட்டம் பூரணமாக அமுலாக்கப்படவில்லை. இச்செயற்றிட்டத்தை மேற்கொள்ள போதுமான நிதி, பௌதீக நிலைகள் காணப்படவில்லை. மனப்பாங்கு ரீதியாக இச்செயற்றிட்டம் தொடர்பான நடைமுறைகள் பெருமளவான பாடசாலைகளில் காணமுடியவில்லை. யுத்தத்தின் பின்னர் அமைதியான சூழல் ஏற்பட்டுள்ள நிலையிலும் இச்செயற்றிட்ட நடைமுறைகளை மேலும் வினைத்திறனாக்க வேண்டியுள்ளது. சமகால அறிவு மையச் சமூகத்தில் ஆய்வுகள் மிக உயர்ந்த வாய்ப்புக்களை வழங்குகின்றன. கல்வியின் அபிவிருத்தி நோக்கிய சிக்கல் நிறைந்த செயன்முறைகளை விளங்கிக் கொள்ள உதவுகின்றன. யாழ்ப்பாண மாவட்ட ஆரம்பப் பாடசாலைகளில் 2003ஆம் ஆண்டிலிருந்து சிறுவர் நட்புறவுப் பாடசாலைச் செயற்றிட்டத்தை அமுலாக்கவும் பிரச்சனைகளும் என்ற இந்த ஆய்வு, கொள்கை வகுப்போர், அனுசரணையாளர்கள், கல்விப்பணியாளர்கள், அதிபர்கள், ஆசிரியர்களுக்கிடையிலான இணைப்புக்களை வலுவுட்டும் புதிய ஆய்வுகள் மேற்கொள்ள வழிகாட்டும்.

End of Track D

Track E:
Health
&
Medical Sciences

Preliminary Study on Prevalence of Diabetes mellitus and Metabolic Syndrome among Adults Aged above 20 Years in Point Pedro and Karaveddy Medical Officer of Health Areas during Year 2011

S. Amarasinghe[†], S. Balakumar and V. Arasaratnam

Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka
[†]rathypera@yahoo.com

Abstract: The aim of this study was to assess the prevalence of diabetes mellitus (DM) and metabolic syndrome (MS) among adults aged above 20 years in Point Pedro and Karaveddy MOH areas of Jaffna district. This was a community based cross sectional descriptive study. A total of 115 subjects were included in this study using multistage random sampling. Forty eight percentages (56) of samples were males. The prevalence (95% confidence interval) of DM for adults aged ≥ 20 years was 15.7% and it was 12.5 and 18.6% among males and females respectively. Difference in prevalence of DM between males and females was calculated using Chi-square test. It was not significant ($p=0.36$). Of the total population 8.7% had impaired fasting glucose level, and it was 7.1 and 10.2% among males and females respectively. Of the diabetic subjects 33% were previously undiagnosed. Overall, 24.4% had some form of dysglycaemia, and it was 19.6% among males and 28.8% among females. There was a linear relationship between the age and percentages of DM ($R^2=0.987$, $p<0.0001$). The subjects in the age group of 70-79 and 60-69 years showed high percentages of diabetes (33.3% and 26.9% respectively). DM was more common among obese (33.3%) than overweight (13.3%) and normal individuals (15.5%). MS was present in 14 out of 115 subjects. The prevalence (95% CI) of MS of overall, males and females were 12.2%, 3.5%, 20%, respectively. Difference in prevalence of MS between males and females was calculated using Fisher's exact test. It was significant ($p=0.009$). The subjects in the age group of 40-49 and 50-59 and 60-69 years showed higher proportion of MS (21.4%, 35.7% and 28.6%, respectively). Proportion of central obesity was 36.5% in general population and was higher in females (61%) than in males (10.7%). Hypertension was high in the diabetics (61.1%) than in general population (20.9%). Of the total population 79.1% had dyslipidaemia, and it was 83.3% among the diabetics. Decreased HDL level was observed in dyslipidaemia. About 17.4% of general population had both hypertension and dyslipidaemia while it was observed in 44.4% of diabetics. These findings present an alarming situation on the two important health conditions among the people of Jaffna. These preliminary prevalence data can be utilized to conduct a further detail study to determine the prevalence of two conditions in Jaffna District.

Keywords: Diabetes mellitus, Dyslipidaemia, Fasting plasma sugar, High Density Lipoprotein, Metabolic syndrome, Obesity

A Typical Presentation of Myocardial ischaemia as Referred Pain to Jaw in a Young Adult: A Case Report

D. Ariyaratne and S.R. Hulathduwa[†]

Department of Forensic Medicine, University of Sri Jayawardenepure, Sri Lanka
[†]sanjayarh@yahoo.co.uk

Abstract: Ischaemic Heart Disease (IHD) accounts for the highest mortality rate among the non-communicable diseases across the globe. In the developed countries the incidence of IHD shows a slow decline over the past two decades. It is traditionally considered as a disease of the elderly though clinicians and pathologists experience more and more younger individuals getting affected by the condition since last few decades due to varied of reasons. IHD has a variety of presentations some of which could lead to diagnostic difficulties unless due caution is exercised. Isolated referred pain to teeth, jaw or craniofacial region is one such rare presentation for which many theories have been put forward to explain the mechanism though none is conclusive. When a patient complains of an unusual pain in the craniofacial region or the jaw, the remote possibility of its cardiac origin should always be born in the mind of the examining physician or the dental surgeon. Otherwise it could not only lead to unnecessary dental interventions but also it could delay the diagnosis and treatment of a more serious health condition of the patient sometimes leading to severe morbidity or even death. This case illustrates a situation where a young male suffering from intermittent tooth pain/jaw pain for over a period of three months, seeking dental treatment including extractions and restorations from a qualified dental surgeon, suddenly collapsed and died at workplace after complaining of excruciating tooth pain. The cause of death was established after the meticulous post mortem examination as IHD due to coronary thrombosis.

Keywords: Ischaemic heart disease, Referred pain, Tooth pain, Coronary thrombosis, Maxillofacial

Identify the Risk Factors for Anemia among 6 to 24 Months Old Children in Eastern Province

J. Arun[†], D.R. Peiris and V. Miralan

Department of Program Quality, World Vision Lanka, Sri Lanka

[†]bena_arun@yahoo.com

Abstract: The prevalence of anaemia among children aged between 6 to 24 months remains relatively high (48%) in Sri Lanka. Identification of the anaemic risk factors among children is important to develop appropriate interventions. The aim of the present study was to identify the risk factors for anemia among 6 to 24 month old children in eastern province. The present study was conducted as a cross-sectional study in Batticalo and Ampara districts. A sample of 456 subjects aged between 6 to 24 months children were selected using a cluster random sampling method. A pre tested structured interviewer administrated questionnaire was used to identify the risk factors associate with anaemia among children. Socio economic (SE), child feeding practices (CFP), mother nutrition knowledge (MNK), communicable diseases on previous month (CDPM), water, sanitation and home gardening practices (WSH), and mother and child nutrition status (MCN) were considered as 6 main indicators to identify the risk factors. The HaemoCue method was used to measure haemoglobin concentration, and anaemia was defined as haemoglobin <11g/dl. Weight and height were taken to assess the nutrition status of the children. A single 24 hour recall was also performed to assess nutrient intake of the children. The overall prevalence of anaemia among the study group was 79% and 4% was severely anaemic. SE, CFP, MNK, CDPM, WSH, MCN indicators were identified as risk factors for anaemia and they were significantly associated ($p < 0.01$) with low hemoglobin levels among the children. Dietary iron intake from the food of non anaemic children was significantly higher than anaemic children. In conclusion Factors that were significantly associated with anaemia were socio economic, child feeding practices, mother nutrition knowledge, communicable diseases, water, sanitation and home gardening , and mother and child nutritional status. CFP and SE indicators were strongly associated with anaemic children than other indicators.

Keywords: Socio Economic, Anaemia, Children, Haemoglobin, Assessment

Analysis of Prevalance of Dengue Fever in Vavuniya MOH Division

T. Balachandran¹, S.Suthan^{2†} and P. Wijekoon³

¹Postgraduate Institute of Science, University of Peradeniya, Sri Lanka

²Jaffna Regional Centre, Open University of Sri Lanka, Sri Lanka

³Department of Statistics and Computer Science, University of Peradeniya, Sri Lanka

†ssuthan1980@yahoo.com

Abstract: A descriptive observational study was conducted to identify the demographic, clinical and laboratory profile along with disease outcome of all confirmed cases of dengue fever (DF) and dengue hemorrhagic fever (DHF) admitted in Vavuniya General and Private Hospital. We enrolled 585 patients over a period of three years, beginning from 2007. In 2009, an increase in dengue cases was first noted in the Vavuniya MOH area and there were 7 deaths. During 2009, peoples from the northern part of Vavuniya were displaced to Vavuniya town area due to war. This situation was suitable for mosquito breeding. Most of the parameters between groups showed a similar pattern: mean age of 30 years, mean duration of fever 7 days (range 1-19 days). Mean total white blood cell and platelet counts started to fall from the second day of fever, with the lowest counts between the 5th and 7th days. Majority of the patients affected with DF. It was noted that the majority of the patients are affected within age group of the 20-30 years and 25% of them are children. The sex distribution in this study showed that boys were more sensitive to dengue infection than girls. There is a strong relationship in dengue incidence cases with Gender and age. When considering the variable Village it was seen that the risk factors involved in the areas under study play an important role for transmitting this disease. There is no specific therapy for dengue infections. Good supportive care may be lifesaving, but ultimately initiatives aimed at vector control and prevention of mosquito bites may provide the greatest benefits.

Keywords: DHF, DF, Vavuniya MOH

Socio-Demographic Correlates of Anemia among G.C.E (A/L) Students in Jaffna Zonal Schools

P.B. Benedict, K. Kandeepan[†], S. Balakumar and V. Arasaratnam

Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka

[†]kande_karthigesu@yahoo.com

Abstract: Anemia is a global public health problem affecting both developing and developed countries with major consequences for adolescents' health as well as social and economic development. This study assessed the prevalence of anemia and the socio-demographic correlates among G.C.E (A/L) adolescent students in Jaffna zonal schools. A cross sectional study was used and a total of 396 students [191 male (48.2%) and 205 female (51.8%)] aged 15 to 18 years from twenty schools (includes four National schools) out of twenty seven schools in Jaffna educational zone were interviewed and examined. Blood was obtained for biochemical analysis of hemoglobin level. The mean (\pm SD) hemoglobin (Hb) level for males and females were 13.97(\pm 1.26) and 12.23(\pm 1.34) g/dl respectively and males had a higher mean Hb level than females ($p < 0.001$). The mean (\pm SD) Hb level [13.12(\pm 1.57) g/dl] was significantly higher in students from the families with less than or equal to 5 household members when compared with students from families with more than 5 members [12.85(SD=1.53) g/dl, ($p < 0.05$)]. The prevalence of anemia was 32.6% in this study population and was higher among female students ($n=90$, 43.9%) than male students ($n=39$, 20.4%, $p < 0.001$). The prevalence of mild, moderate and severe anemia was 26.8, 5.6 and 0.3% respectively in this study population. The prevalence of anemia among students from urban and rural areas was 35.7% ($n=65$) and 29.9% ($n=64$) respectively. Nearly half the females from urban areas (49.5%) were anemic, while the prevalence of anemia among females from rural areas was 39.5%. The prevalence of anemia was significantly higher among students studying in schools in Jaffna District Secretariat (DS) division (43.8%) than in Kopay DS (30.3%) and Nallur DS (24.4%) divisions ($p < 0.01$). The prevalence of anemia among students from National schools was 30.5% while the prevalence of anemia among students from Provincial schools was 33.9%. Household size ($r = -0.115$) and gender ($r = -0.556$) were significantly associated with Hb level ($p < 0.05$). Factors significantly associated with anemia were gender, DS division of the school, and distance from home to school ($p < 0.05$). In our study population, female students and students from urban areas were more anemic. The findings of this study demonstrate that the anemia is a severe public health problem among G.C.E (A/L) students in Jaffna zone.

Keywords: Adolescent nutrition, Anemia, Haemoglobin, Urban and Rural sector

A Study on Assault Cases Admitted to Colombo South Teaching Hospital

S. Hulathduwa

Department of Forensic Medicine, University of Sri Jayawardanepure, Sri Lanka
sanjayarh@yahoo.co.uk

Abstract: Assaults are extremely common in the day to day life of a Judicial Medical Officer or an Accident Service Surgeon. Most of the admissions to the Accident Service Unit of any major hospital in almost anywhere in the world are due to accidents and assaults. Accidents are preventable disasters and there are major organizations whose main role is to draw strategies and plans to prevent accidents-be them domestic, industrial, occupational, traffic or otherwise. On the other hand, assaults are always man-made and the underline factors are very different from those of accidents. Assaults are a serious health and economic burden in a country. Additionally, there are socio-economic, religious, ethnic, cultural and legal issues intermingled with the broad picture of "assaults". Very few studies have been done in depth about assaults in the recent past which cover the multiple aspects of the issue. Even the conclusions drawn from the most extensive study on this subject may become obsolete and dilapidated after few years, as the patterns of wounding and the methods and trends are changing constantly across the globe. This justifies the necessity of continuous research by different authorities to this ever-changing subject.

Keywords: Assaults, Crimes, Injuries, Weapons

Teenage Pregnancy and Negative Outcomes: With Special Reference to Elapatha Medical Officer of Health (MOH) Area in Rathnapura District

N. Jayathunga

Department of Social Sciences, Sabaragamuwa University, Sri Lanka
nadeesara@yahoo.com

Abstract: This study focuses on sociological study on the teenage pregnancy and its negative consequences in Sri Lanka. There are various reasons are directly influenced to the teenage pregnancy. It is a threat to the mother, child and the society. Field setting of this study was Elapatha Medical Officer of Health area in the Rathnapura District. Purposive sampling was used for this study taking 30 teenage mothers as the sample. Interviews, Case studies and key informant interviews were used as the primary data and books, research papers, reports were used as the secondary data. The main objective of this study was identifying the teenage pregnancy and its negative consequences and identify the causes of the teenage pregnancy, recognize the teenage pregnancy as a social problem in the society were the specific objectives of this study. Consideration of background details of the respondents of this study majority of teenage mothers were in eighteen years old and some mothers were still unmarried but they were getting ready for delivering a baby. 97% of teen mothers were Sinhalese, 3% Tamil and majority of them were house wives and engaging with tea plucking. Majority of teenage mother's first sexual intercourse happened at the age seventeen years. Parental wish, rape, love affair, early marriage, poor educations were the socio; economic factors directly influence to be teen age mothers. This study identified several negative consequences. It was categorized in two ways as the social consequences and health consequences. Early motherhood, drop out rates from education, low qualification, unemployment and low paid salary, live in poor housing facilities on welfare, child grow up without father, suicidal attempt, addiction to drug and alcohol of the father were consequences and death of the mothers in a delivery, abortion, mental and physical risk, depression, low birth weight of pre mature birth, poor nutrition of the mother and child, anemia, were found as the health consequences of this study. And teenage mothers have not balance of domestic works and their marriage life because of the young age. Teenage pregnancy created social problems and these problems are directly and indirectly influence to whole society.

Keywords: Teenage Pregnancy, Consequences, Early Marriage, Social Problem

Patterns of Breastfeeding Practices among Children Aged One to Five Years in Jaffna District

K. Kandeepan[†], S. Balakumar and V. Arasaratnam

Department of Biochemistry, Faculty of Medicine, University of Jaffna

[†]kande_karthigesu@yahoo.com

Abstract: Breastfeeding is pivotal to infants and early childhood period to their normal physical and mental growth. Currently, Sri Lanka has adopted the World Health Organization (WHO) recommendation of exclusive breastfeeding for six months, followed with continuation of breastfeeding up to or beyond two years. The objective of this study was to assess the patterns of breastfeeding practices among children aged one to five years in Jaffna district. Multistage cluster sampling was used and 856 children aged one to five years were selected from Jaffna district, proportionate to the population. Among 856, 10 (1.2%) of the children were non-respondents and response rate was 98.8%. Information regarding households including socio-demographic status and breastfeeding patterns were recorded by using pretested and prerecorded interviewer administered questionnaires. Data entry and analysis was done using SPSS Version 16. A total of 846,414 (48.9%) were males. The mean (\pm SD) age of children was 34.6 (\pm 13.1) months. The median duration of exclusive breastfeeding (EBF) was five months (SD=1.6). In this study population, 64.4% (n=545) children were exclusively breastfed until the completion of 6 months, while 2.6% (n=22) were never exclusively breastfed, and 0.47% (n=4) continued exclusive breastfeeding beyond 6 months. Of the total, 0.4% of mothers were not properly educated and they have stopped EBF before 3.5 months while 9.8%, 85.4%, and 4.5% of mothers were on primary, secondary and tertiary educational level and they have stopped EBF before 4.2, 5.8, and 5.4 months respectively [Pearson's correlation coefficient (0.781) was significant at the 0.05 level]. Of this total population, 261 (30.8%) mothers had been continuing breastfeeding at the time of data collection while 585 (69.1%) of mothers had stopped breastfeeding to their children. Of this 585 children, 55.6% (n=325) of children were breastfed beyond 2 years while 12.6% (n=74) of children were breastfed beyond 3 years. Few number of mothers stopped breastfeeding to their children [7.5% (n=44)] within one year. Of a total of 261 children who were on breastfeeding, 29.9% (n=78) were breastfed beyond two years while 62.4% were on breast feeding within the period between 1-2 years. Based on this research finding, it appears that the rate of exclusive breastfeeding is still lower than national data of Sri Lanka and the duration of breastfeeding in this study population has not reached 2 years of satisfactory period.

Keywords: Exclusive Breastfeeding, Feeding Pattern, Pearson's Correlation, Multistage Cluster Sampling

Spatial Pattern of Dengue Risk for Jaffna Municipal Area, Sri Lanka

S. Kannathan^{1†}, K. Suthakar² and S.N. Surendran³

¹Department of Pathology, Faculty of Medicine, University of Jaffna, Jaffna

²Department of Geography, Faculty of Arts, University of Jaffna, Jaffna

³Department of Zoology, Faculty of Science, University of Jaffna, Jaffna, Sri Lanka
†selvamkannathan@gmail.com

Abstract: There were many clinically diagnosed dengue cases reported during the post-war period in Jaffna district, especially in Jaffna municipal area. As there is no vaccine and specific treatment for dengue, vector control is the major measure adapted to control the disease transmission. Therefore, a study was designed to identify dengue risk areas in Jaffna Municipal area, in order to help the health authorities to prioritize their resources allocation to risk areas and to prevent the spread of the diseases further. Well known risk factors for the transmission of dengue fever such land use pattern, population density, house types, people gathering places and economic status were considered as main criteria to find out the Dengue prevailing. These criteria were combined using weighted overlay technique of the Geographic Information System (GIS). ILWIS 3.7 GIS software was used for Digital image processing, spatial analysis, and multi-criteria analysis. Definiens Professional 5.0 (eCognition) to Image segmentation and Classification. Based on the Dengue risk map, Grama Niladhari division namely Reclamation East (J/68) and Reclamation West (J/69) were identified as having high risk whereas, Eachchamoddai (J/66), Gurunagar East (J/70), Gurunagar West (J/71), Jaffna Town West (J/73), Vannarpannai (J/82) and Vannarpannai North West (J/99) have the risk for local transmission of dengue respectively. The identified risk areas highly match with the number of reported cases for dengue. While this map is expected to help health authorities to undertake vector surveillance and public awareness programmes, and extended map should be created for the whole Jaffna district.

Keywords: Dengue, Risk Map, Geographic Information System, Jaffna Municipal Area

A Retrospective Study on Enteric Fever Cases Admitted to Teaching Hospital, Jaffna in Year 2009

N. Mahasivam¹, D. Jesudas¹, R. Surenthirakumaran² and K. Muruganathan^{3*}

¹Faculty of Medicine, University of Jaffna, Sri Lanka

²Department of Community Medicine, University of Jaffna, Sri Lanka

³Department of Pathology, University of Jaffna, Sri Lanka *kalamathy6@gmail.com

Abstract: Background and objectives: Typhoid is still a major health problem in Jaffna. Out of total number of cases, about 25% of them are from Jaffna district. The aim of the study was to describe the socio-demographic factors, clinical characteristics and completeness of notification of enteric fever cases admitted to Teaching hospital, Jaffna (JTH) in year 2009. Research Design and Methods: 452 Bed Head Tickets (BHT) with clinically diagnosed typhoid cases were included and data was extracted with pretested data extraction form by undergraduate medical graduates. Data were entered in SPSS 17 and single variate analysis was done for socio demographic factors, and clinical characteristics were compared with suspected cases surveillance definition of Epidemiology Unit of Sri Lanka. Completeness of notification was analysed by proportion of cases notified to local health authorities. Findings and Conclusions: The results showed children affected more and no difference in male: female ratio. Highest incidence was noted in Chavakacheri MOH division. The mean duration of hospital stay was 6.67 days. According to the surveillance case definition, the predominant presentations were fever (100%), cough (51.5%), anorexia (41.6%), headache (37.3%) and splenomegaly (35.4%). Other common clinical presentations which were not used in the surveillance case definition were vomiting (51.5%), abdominal pain (41.4%), diarrhea (34.1%) and hepatomegaly (65.3%). Relatively less number of patients presented malaise, constipation, coated tongue and skin rash. Manifestation of vomiting, diarrhoea, constipation and hepatomegaly were common in children than adults. Complicated clinical manifestations were recorded only in 3 patients however, no deaths occurred due to enteric fever in 2009. Only 65.5% of cases were notified to health authority. This study highlighted the age and geographical variations and also showed that the common clinical presentations were not included in the national clinical surveillance definition and only two third of the clinically diagnosed typhoid cases were notified. Introducing good hospital based clinical database could help to confirm these findings by analyzing cases presented to JTH in subsequent years and national level similar kind of studies will help to improve the case surveillance and notification.

Keywords: *Salmonella*, Typhoid Fever, Enteric Fever

Epidemiology of Clinically Suspected Dengue Fever and Dengue Haemorrhagic Fever (DF/DHF): A Retrospective Study in a Tertiary Care Hospital, Jaffna, Sri Lanka

K. Muruganathan^{1†}, M.Kandasamy², N. Rajeshkannan³ and F. Noordeen⁴

¹Department of Pathology, Faculty of Medicine, University of Jaffna, Sri Lanka

²Teaching Hospital, Jaffna, Sri Lanka

³Department of Community Medicine, University of Jaffna, Sri Lanka

⁴Faculty of Medicine, University of Peradeniya, Sri Lanka

†kalamathy6@gmail.com

Abstract: The aim of the present study was to understand some aspects of epidemiology and clinical features of dengue fever (DF) and dengue haemorrhagic fever (DHF) cases admitted to Teaching Hospital (TH), Jaffna and to assess the accuracies of notification of DF/DHF to the Epidemiology Unit, Ministry of Health, Sri Lanka. This is a hospital based, descriptive retrospective study on DF/DHF cases admitted to TH, Jaffna. The data was collected from BHTs (Bed Head Ticket) of all patients presented to TH, Jaffna with clinically suspected DF/DHF from September 2009 to August 2010. A questionnaire was designed to extract specific information from BHTs. Variables categorized and analyzed using a basic statistical software (SPSS version 17). Differences in the mean between variables was considered significant when the p value was <0.05 with a CI of >95%. Details about the DF/DHF notification was obtained from the infection control nurse TH, Jaffna. Based on available records a total of 1085 DF/DHF were identified during the one year period. A seasonal trend was noted with highest number of cases occurring during January to March, 2010. Around half of the DF/DHF cases were males (n=535, 49.3%) and 640 (59%) were adults. Although all patients with DF/DHF presented with fever, fever spikes were reported only by 129 cases (11.9%: 95% CI: 10.1-13.9%). On average most of the DF/DHF cases were admitted to TH, Jaffna 8 days after the onset of symptoms (mean: 7.9, median: 8, range: 1-24) and the fever lasted for 4.5 days. Five hundred and forty eight (548) (50.5%) cases (range:47.5%-53.5%, CI:95%) were presented with vomiting. The other common symptoms reported were myalgia, haemorrhages, arthralgia, headache, flushing and retro orbital pain. Haemorrhagic manifestations were noted in 266 (24.5%) patients. Of which gum bleeding (37.2%) was the most common manifestation. Low counts of WBC and platelet were noted in 294 cases, 27.1% and 85.6%, respectively. Platelet count lower than 20,000 was observed in 7.4% of cases. Out of 1086 DF/DHF suspected cases, 24(2.2%) were screened for Dengue IgM/IgG antibodies and only 458 cases (42.2%) notified to health authority for the one year study period. Unavailability of laboratory diagnostic tests for DF/DHF is the major drawback noted in this study. More than half of DF/DHF cases were not notified to the Epidemiology Unit, Ministry of Health based on the current study. This is an important message to the public health authorities to consider in the future.

Keywords: DF/DHF Clinical Features, Retrospective Descriptive Study, Jaffna Teaching Hospital

Factors Associated with Health and Well-being of Elders in Southern Sri Lanka

B. Perera[†], B. Wickramarachchi, D. Thathsarani, and N. Fernando

Faculty of Medicine, University of Ruhuna, Galle, Sri Lanka

[†]pperera@indiana.edu

Abstract: The transitions from high to low levels of both mortality and fertility rates, migration and war have induced a significant increase of the proportion of elders in Sri Lanka. Clear understanding of risk and protective factors of health and well being of elders is of utmost importance to make effective public health strategies to combat the adverse consequences of aging in the country. A community survey on a sample of 434 elders was conducted in a southern district to identify factors associated with health and well-being of the aged. The sample consisted of 242 (54.6%) men. The mean age was 70.8 years (SD=8.2). About 36 of the respondents had only primary level education or no formal education. Half of the respondents were in the poor income category. Over all, the proportion of widows among the elderly is higher than that of widowers. Diabetes (20%), hypertension (32%), arthritis (52%), Asthma (18%), visual defects (63%) and memory loss (30%) were the most prevalent physical and psychological illnesses reported by the respondents. Elders face difficulties in obtaining health care and other public services available in the country. Elders in urban areas were more vulnerable than their rural counterparts to experience economical hardships. About 64% of elderly men living in rural areas and about 55% of elderly men living in urban areas were current alcohol users. About 25% of elderly men living in urban and about 23% of elderly men living in rural areas were current smokers. The majority of elders (about 90%) were physically active. About 80% of the respondents reported having had good social support. Aging has become a serious public health issue in Sri Lanka. Promotion of healthy life style behaviors, upgrading and expanding geriatric health care services in the country, searching avenues to establish a social security system for the elderly and taking necessary actions to maintain and to enhance the existing social support system available for elders would assist the elderly in Sri Lanka to age successfully.

Keywords: Aging, Health, Sri Lanka

Association between Maternal Factors and Fetal Outcome in the Sainthamaruthu MOH Division

A.M. Razmy[†] and S.H. Shajitha

Department of Mathematical Sciences, Faculty of Applied Sciences,
South Eastern University of Sri Lanka, Sri Lanka

[†] amrazmy@gmail.com

Abstract: Reducing child mortality and improving the maternal health are the 4th and 5th millennium development goals (MDG) which are very closely associated. Fetal outcome especially birth weight is the single most important factor that indicates the survival chance and health condition of a baby. It also says the health and socioeconomic condition of a community. Reducing the low birth weight (LBW) is the vital factor to achieve the 4th MDG through improving the maternal factors. In this study, associations among the maternal factors such as maternal age, parity, initial weight of mothers, mothers' BMI, gestational duration and LBW were studied for the Sainthamaruthu medical office of health (MOH) division. Further relationship between prevalence of LBW, delivery period and sex of neonate were discussed. There were 491 singleton live births in this MOH division in year 2009 and all these were included for this study. Significantly higher average birth weight 3005.9 g compare to national average was observed with an unusual less LBW prevalence of 9.98 % ($p < 0.05$). No association was found between LBW and sex of the neonate ($p = 0.821$). Even though the association between mothers age and LBW was marginal ($p = 0.160$), 13.3% LBW was observed for the age group 15 to 24 years. The birth weight increased with parity where as the prevalence of LBW decreased. A significant association was found between initial mothers' weight and prevalence of LBW ($p = 0.019$). A very marginal association was found between body mass index (BMI) and LBW ($p = 0.307$). Prevalence of LBW for preterm delivery was 16.05% where as it was only 8.78% for normal term delivery. In overall this MOH division's contribution to the 4th and 5th MDG is commendable.

Keywords: Low Birth Weight, Maternal Age, Gestational duration, BMI, Parity

Influence of Regular Gym Exercise on Anthropometric, Biochemical and Physiological Parameters in Young Adults

T. Sanchayan¹, S. Balakumar^{1†} and D. Gunarajasingam²

¹Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka

²Department of Physiology, Faculty of Medicine, University of Jaffna, Sri Lanka
†balakumarbiochem@gmail.com

Abstract: Many young adults in Jaffna do gym exercises to shape up their body mainly to improve their sex appeal or body image. However the importance of regular exercise on improvement in health parameters is often ignored by young adults. This study was carried out to describe the effects of regular physical activity: resistance type of exercise using weights (weight lifting) on anthropometric, biochemical and physiological parameters. Regular exercisers (n=30) and a control group (n=30) ranging from 20-30 years of age were selected for this study to determine Body Mass Index (BMI), Total Body Fat percentage, serum levels of creatinine and uric acid, fasting plasma glucose level, blood hemoglobin concentration, heart rate and blood pressure. Independent t-test was performed using SPSS version 16 to analyze the means differences of various parameters. BMI was significantly higher ($p < 0.05$) in regular gym exercisers (23.55 ± 2.82) when compared to non exercisers (21.39 ± 3.47). The total body fat percentage was lower in regular gym exercisers ($20.96 \pm 3.02\%$) than the non exercisers ($22.56 \pm 4.14\%$), but the change was not statistically significant ($p > 0.05$). The serum creatinine level was significantly higher ($p = 0.01$) in regular gym exercisers ($1.62 \pm 0.54 \text{mg/dl}$) than non exercisers ($1.33 \pm 0.40 \text{mg/dl}$). The serum uric acid level was not significantly higher ($p > 0.05$) in regular gym exercisers ($8.38 \pm 2.03 \text{mg/dl}$) than non exercisers ($8.35 \pm 0.98 \text{mg/dl}$). The fasting plasma glucose level was significantly lower in regular ($p = 0.0001$) gym exercisers ($82.33 \pm 5.29 \text{mg/dl}$) than non exercisers ($89.43 \pm 6.79 \text{mg/dl}$). The blood hemoglobin level was significantly higher ($p < 0.05$) in regular gym exercisers ($15.50 \pm 1.21 \text{g/dl}$) than non exercisers ($14.32 \pm 1.12 \text{g/dl}$). The heart rate was significantly lower ($p = 0.0001$) in regular gym exercisers ($67.2 \pm 6.81 \text{beats/min}$) than non exercisers ($75.27 \pm 7.77 \text{beats/min}$). The systolic blood pressure was slightly higher in regular gym exercisers ($118.17 \pm 12.14 \text{mmHg}$) than non exercisers ($117.3 \pm 9.04 \text{mmHg}$), but this difference was not statistically significant ($p > 0.05$). The diastolic blood pressure was slightly lower in regular gym exercisers ($73.5 \pm 8.42 \text{mmHg}$) than non exercisers ($75.43 \pm 7.31 \text{mmHg}$) but the change observed in this study was not statistically significant ($p > 0.05$). The present study shows that the gym exercise improves health parameters in young adults.

Keywords: BMI, Fasting blood glucose, Gym exercise, Hemoglobin, Total body fat

Influence of Personal Factors on the Perceived Stress Level of Students of College of Nursing, Jaffna

S. Sathees^{1†}, K. Sivapalan² and S. Sivayokan³

¹Allied Health Sciences Unit, Faculty of Medicine, University of Jaffna, Sri Lanka

²Department of Physiology, Faculty of Medicine, University of Jaffna, Sri Lanka

³Teaching Hospital, Jaffna, Sri Lanka

†sathees22@live.com

Abstract: Stress is a response to a situation where the person faces difficult to cope with. Nursing students are likely to undergo considerable amounts of stress during the study period. Aim of this study is to assess the perceived stress level of final year nursing students at the school of nursing, Jaffna and to evaluate the influence of personal factors on it. A cross-sectional descriptive study was conducted among all the final year nursing students by a self administered questionnaire after obtaining their consent. This questionnaire had four sections to collect demographic data, perceived stress level, skills used in stress management and to identify coping styles following a stressful event etc. Perceived stress level is measured by the perceived stress scale (developed by American Sociological Association and the suggested normal mean value is 14.2 (SD±6.2). Chi-squared test was used to find out the significant relationship. 172 responses were obtained and 33% of them were from males and only 26% studied biology at G.C.E. (A/L). Answers to perceived stress level were marked out of 40, the mean was 19.55 (SD±6.6), gender (p=0.750), age (p=0.203) and the A/L stream (p=0.505), did not showed statistically significant differences in perceived stress level. Regarding stress management skills, time management (p=0.0), interest on nursing (p=0.00), problem solving techniques (p=0.009), setting achievable goal (p=0.019), ability to say “no” (p=0.02) and escape or avoidance (p=0.002) show significant differences but self rewarding (p=0.326) did not. With regard to coping styles after exposure to stressful conditions, relaxation (p=0.009), leisure activities (p=0.012) and relationship support (p=0.042) had influence but positive reappraisal (p=0.063) and ability to express feelings (p=0.057) did not show significant reduction. The stress level of nursing students has a big range due to individual variation of personal stress management skills. From the results it could be observed that the students who practised stress management skills appear to have less perceived stress levels. With the best stress management skills students can reduce the stress level and improve their performance. Further studies would be useful to explore the causes of the elevated stress levels of the nursing students.

Keywords: Nursing Students, Perceived Stress Level, Personal Stress Management Skills

Present Status of Potential Medicinal Plants Grown in Mattuvil, Jaffna

V. Sathiyaseelan

Unit of Siddha Medicine, University of Jaffna, Sri Lanka
dr.vivian@ymail.com

Abstract: Medicinal plants are widely utilized in both the developing and developed countries. In the developing countries herbal medicines form the backbone of the traditional therapeutic armoury. The objective of the study is to determine the presence of potential medicinal plants grown in Mattuvil that are used in traditional medicine. The Mattuvil area map was used to locate and count the medicinal plants and to group them based on morphological characters and nature of plant parts used in traditional medicine. The pH of the soil at Mattuvil was 8.4, which was found suitable for different medicinal plants. A total of 145 species of medicinal plants were recorded. This comprises perennials (75%), annual (23%) and biennials (2%). Eight percent poisonous plants were also recorded at Mattuvil. Out of 145 plants, 19 used for diabetic mellitus, 8 in vatha diseases and 10 in treating skin diseases, and 12 for respiratory disorders. Further, grouping based on morphology revealed herbs (39%), trees (32%), shrubs (14%), climbers (11%), lianas (1%), creepers (1%), cacti (1%) and holo parasites (1%). Based on the usage of plant parts the plant species were grouped as whole plants (30), leaves (64), seeds (23), flowers (19), young pods (12), fruits (19), roots (33), root barks (28), stems (4), barks (6), rhizomes (3), gums (3) and galls (3). Out of 145 plant species, 10% were spinaches. In addition, medicinal plants recommended in Pararaja Sekaram (1929), a Jaffna Siddha text, for traditional medicine, namely *Erythroxylum monogynum*, *Mallotus philippensis*, *Plecosperrum spinosum*, *Azima tetraacantha*, *Canavalia ensiformis*, *Hugonia mystax*, *Scutia indica* and *Pisonia aculeata* were also found growing at Mattuvil. These results revealed grouping of the valuable and potential medicinal plants used in indigenous medicine into different categories and this information will help to conserve and promote cultivation of medicinal plants at Mattuvil and dissemination of knowledge on the existence of medicinal plants among indigenous practioners and the residents of Mattuvil. These results will proclaim Mattuvil as a protective zone for valuable medicinal plants.

Keywords: Mattuvil, Medicinal plants, Present status, Traditional medicine

Comparison of the Automatd Full Blood Count Results with Manual Method

R. Threeswaran^{1†}, T. Sooriyakumar² and V. Arasaratnam³

¹Unit of Allied Health Sciences, University of Jaffna, Sri Lanka

²Haematology Laboratory, Teaching Hospital Jaffna, Sri Lanka

³Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka

†threeswaran@yahoo.com

Abstract: This study was designed to determine the correlation between haematological parameters measured by an Automated Haematology analyzer (MINDRAY BC: 5500) with the standard manual methods. In this study, One hundred and forty Anticoagulated (tri-potassium ethylenediamine tetra-acetic acid) blood samples from patient having different blood disorders were randomly selected from Haematology Laboratory Teaching Hospital Jaffna, which were used. All the blood samples were tested automatically by automated haematology analyzer as well as manually for WBC, RBC, Platelet, Haemoglobin, PCV, differential count, MCV, MCH and MCHC. All the data were statistically analyzed in SPSS software. The results obtained with haematology analyzer for WBC count, Haemoglobin measurement, PCV, RBC count, Platelet count, Neutrophil count, Lymphocyte counts, Eosinophil count, Basophil count, Monocyte count, MCV, MCH and MCHC were correlated with manual methods (Pearson correlation respectively 0.920, 0.895, 0.865, 0.662, 0.699, 0.724, 0.70, 0.456, 0.347, 0.087, 0.308, 0.462 and 0.117). The results obtained with automated haematology analyzer for WBC count PCV and Hb well correlated with standard manual method than other haematological parameters. Further studies are required for proper quality control and calibration to optimizing the validity of full blood count results.

Keywords: Full Blood Count, Automated Haematology Analyzer

A Preliminary Study on Anatomy of the Main Trunk of Left Coronary Artery in Sri Lankans

S. Udhayakumar^{1†} and S.G. Yasawardene²

¹Department of Anatomy, University of Jaffna, Sri Lanka

²Department of Anatomy, University of Sri Jayewardenepura, Sri Lanka

†sivananthini3@yahoo.com

Abstract: Morphological and morphometrical anatomy of coronary arteries remain to be of interest because of the high morbidity and mortality associated with coronary artery disease and due to recent advances in cardiac surgery, coronary angiography and angioplasty. The clinical impression of the diameter of coronary arteries to be smaller in Asians compared to Caucasians influence the likelihood of increase prevalence of coronary artery disease among Asians. We have investigated the morphology and morphometry of main trunk of left coronary artery (LMT). Forty adult fresh human hearts of Sri Lankans were obtained at autopsies with no history of coronary artery disease or other heart disease. The pericardium was removed and main trunk of left coronary artery was exposed under 5X magnification using a dissecting microscope. The length of the LMT was measured with a vernier caliper and the number of its terminal branches and the branching pattern was studied. Luminal diameter of the trunk was taken at its midpoint using stereomicroscope. With regard to the type of division of LMT, it was absent in one case where anterior interventricular and circumflex branches originated directly from the left aortic sinus. The LMT terminated by dividing into 2-4 branches. The bifurcation of the LMT into anterior interventricular and circumflex branches was the commonest (30/40). The existence of additional branches (diagonal arteries) were present in few instances (9/40). This could decrease the effects of occlusion of the major two branches of LMT. The average length of the LMT was $8.33\text{mm} \pm 3.7\text{SD}$ (range: 1.8-23 mm). Short LMT (≤ 5 mm) was present in 13% (5/39). The average diameter at its midpoint was $3.14\text{ mm} \pm 0.4\text{ SD}$ (range: 2.6-4.1mm). The short LMT need to be borne in mind during coronary perfusion and coronary angiography. The diameter of the LMT was similar to that reported in Indians (male $3.7 \pm 0.7\text{mm}$ and female $3.2 \pm 0.6\text{mm}$) and comparatively smaller than Caucasians ($4.86 \pm 0.8\text{mm}$). The findings of present study has important therapeutic implication, since smaller coronary arteries may give rise to technical difficulties during coronary bypass graft, interventional procedures and vulnerability to myocardial infarction. Extensive studies need to be carried out to confirm the results.

Keywords: Main trunk of left coronary artery, Morphology, Morphometry, Diameter, Sri Lankans

Prevalence and Associated Factors of Prediabetes and Diabetes Mellitus in a Population Living in Kopay DS division of Jaffna District, Sri Lanka

V. Vinitharan, S. Amarasinghe, S. Balakumar[†] and V. Arasaratnam

Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka
[†]balakumarbiochem@gmail.com

Abstract: The aim of this study was to estimate the prevalence of prediabetes and diabetes mellitus among adults aged 20-69 years residing in Kopay Divisional Secretariat (DS) division of Jaffna district and to identify the associated risk factors. A total of 395 subjects aged 20-69 years were included in this study from 14 Grama servaga divisions of Kopay DS division. Height, weight and blood pressure measurements and overnight fasting blood samples were obtained from all subjects. Clinical data, details about lifestyle, socio demographic and socio economic factors were obtained using an interviewer administered questionnaire. A fasting blood glucose level of 100 to 125 mg/dl was considered as prediabetic condition. Those who have more than 125 mg/dl fasting blood glucose levels were considered as diabetics. Of the 420 subjects invited, only 395 were responded (94%). Of the total number of subjects, 33.9% were males. The overall prevalence of prediabetes was 12.91% (n=51). The prevalence of prediabetes in males (17.9%) was greater than in females (10.34%) ($p<0.05$). The occurrence of prediabetes was found to increase linearly with aged after 40 years. High blood pressure, lowered HDL cholesterol and hypertriglyceridemia were found in 23.5, 76.5 and 35.3% of the prediabetic population respectively. The percentage of overweight and obesity was 47.1% and elevated waist circumference was 39.2% of the prediabetic subjects. The overall prevalence of diabetes was 9.3% (n=37). Diabetes was almost equally distributed among males (8.2%) and females (9.9%) ($p<0.05$). Metabolic syndrome (unified criteria) was found in 70.3% of the diabetic subjects, reflecting its ability to act as a predictor of diabetes. High blood pressure, low HDL cholesterol and hypertriglyceridemia were found in 24.3, 94.6 and 35.1% of the diabetic population respectively. The percentage of overweight and obesity was 64.8% and elevated waist circumference was 54.1% of the diabetic subjects. Of all diabetic subjects 45.9% were previously undiagnosed. Metabolic syndrome was present in 32.2% (n=127) of general population. Among them 20.5% were diabetics, while 22% were prediabetics ($p<0.05$). Prevalence of prediabetes and metabolic syndrome was considerably high in this population. Lower than desirable level of HDL cholesterol is the most risk factor in this population. Preventive measures to reduce the future risks of diabetes should be promoted.

Keywords: Diabetes mellitus, Fasting blood sugar, HDL, Hypertriglyceridemia.

Knowledge, Compliance, and Factors Influence the Compliance of Universal Precautions among Nurses

V. Viniththira^{1†} and K. Sivapalan²

¹Allied Health Sciences Unit, Faculty of Medicine, University of Jaffna, Sri Lanka

²Department of Physiology, Faculty of Medicine, University of Jaffna, Sri Lanka

[†]viniththira@gmail.com

Abstract: Universal Precaution (UP) is a set of guidelines which aims to protect health care workers from infections. Compliance to the UP is often minimal in low income countries, in spite of greater risk of infection. A cross sectional study was conducted to study the knowledge and compliance of UP and factors that influence the compliance among the nurses in the medical wards, Jaffna Teaching Hospital by a self administrated questionnaire. The first part assessed the knowledge, marked out of 100%. The degree of compliance was assessed through the second part and marked out of 100%. The third part inquired about the factors that influence the compliance. The data were analyzed by chi squared test. The mean for knowledge was 71.8% (SD±14.3), mean for males and females were 67% (SD±13.5) and 74.8% (SD±14.1) ($p=0.24$) respectively, mean of 20-30 year age group was 73.3%, 31-40 years was 74.6% and mean for older age group 41-50 and 51-60 were 65.6% and 66.8% respectively ($p=0.72$). Working experience did not show statistically significant relationship ($p=0.259$). The mean for compliance was 74.1% (SD±14.9). Age ($p=0.987$), sex ($p=0.921$), and working experience ($p=0.990$) did not show statistically significant relationship. In this study 57% of Nurses had needle recapping habit, which is considered as an important factor that predisposes nurses for hospital infection. Regarding factors influencing the compliance of UP, fear of being infected influenced positively and poor material availability (67%), excessive work load (59%), psychological effect on the patient especially in using mask (45%), and emergency situations (40%) negatively influence the compliance of UP. To protect the health care workers and as well as the patients, 100% compliance is necessary. This study has identified that knowledge and compliance of nurses in the medical wards of the Teaching Hospital, Jaffna is not up to expected levels. Some factors that may be responsible for this also are identified. There is a need to review the nursing curriculum with greater emphasis on UP. In-service training programs for nursing staff on UP is also recommended as indicated by some respondents in the open comment

Keywords: Universal Precautions, Compliance

Track F:
Humanities
&
Fine Arts

Post-war Jaffna (Jaffna Police Division) and T.S. Eliot's Waste Land: A Comparative Study

S. Anandakumarasamy

English Language Teaching Centre, University of Jaffna, Sri Lanka
asranjini@hotmail.com

Abstract: (Jaffna is considered one of the more affluent districts in comparison to the other districts in the North.) Unfortunately, the present situation of Jaffna creates a lot of criticisms. The moral and spiritual degradation of the younger generation reminds *The Waste Land* of T.S. Eliot. Thus a Comparative study is done under the following sub-divisions: Lack of faith, Lack of communication, Corruption of Life, Corruption of Sex, Laziness, Infertility of both land and people, Abuse of Culture, and Conclusion. Objectives of this study are: (i) To identify the threats encountered by the Jaffna society and (ii) To be warned and to take remedial steps to protect the land. According to the data, Jaffna did resemble in many aspects, '*The Waste Land*' written after 1st World War by T.S. Eliot. The intellectuals, activists, media and social well-wishers should take necessary steps to rescue the present society from such dangerous situation. More researches can be done in future.

Literature as a Function of Aristotelian “Catharsis”:
A Study in Relation to *Shame* by Salman Rushdie

B.D.K. Anandawansa

Department of Languages, Faculty of Social Sciences & Languages,
Sabaragamuwa University of Sri Lanka, Sri Lanka
krish.anandawansa@gmail.com

Abstract: The Greek term “Catharsis” has two principle meanings: purgation and purification. More specifically, the crux between the two meanings holds the notion of “Catharsis” as a medical purgation of excessive emotions on one hand, and the ceremonial purification of the “body” on the other. In more liberal terms, purgation of emotions deals with the physical or non-moral, while the moralistic element of purification of the soul comes in the other. Aristotle’s notion of “Catharsis” was extensively applied to poetry and tragedy, and explored the effects of how spectators’ emotions such as pity and fear are cleansed through characters on stage. The argument of this paper is that the body of Literature, as a whole, is a matrix in which both the writers and the readers or spectators, relentlessly purge their emotions and purify their souls. In other words, the act of generating a poem, writing a novel or a piece of drama is a metaphor used by the authors, wherein writers dress characters to vent their views, emotions, likes and dislikes. Alternatively, this production purifies their souls. For the reader or the spectator, Literature is more close to the original sense of the word “Catharsis” mentioned on the onset. The aim of this paper is to explore the notion of “Catharsis” providing examples from a selected work of literature, namely Salman Rushdie’s *Shame*.

An Analytical Study on 'Funny Boy' written by Shyam Selvadurai Regarding the Reasons for the Ethnic Conflict in Sri Lanka

D.N. Aloysius

Faculty of Social Sciences and Humanities, Rajarata University of Sri Lanka, Sri Lanka
aloysiusrjt@gmail.com

Abstract: Ethnic crisis is a very significant issue to be discussed regarding the theme of the conference. It is a well-known fact that 30 year prolonged war in Sri Lanka was entirely based on the ethnic issue, which resulted in great calamity accompanied by huge bloodshed. Shyam Selvadurai's novel, 'Funny Boy' comprehensively highlights this social problem. He has indirectly emphasized some important facts for emerging such a tragic and violent situation in the country. The present study makes both Sinhala and Tamil communities aware of the possibility of implementing the author's observations. The research problem in the study is to find out whether Selvadurai has observed the reasons for the ethnic conflict in Sri Lanka in a realistic way and can his observations be implemented to avoid such issues. The objective of the study is to ascertain whether Selvadurai is correct in his observations. Methodology applied in the study was entirely based on the primary data. Interviews, discussions and observations were the specific tools used for the present study. Both selected Sinhala and Tamil people were interviewed regarding the issue. Unbiased people were selected for this purpose so as to obtain authentic data. According to the analysis of the novel, it was found that Selvadurai has indirectly suggested that intermarriage system is an appropriate solution for the ethnic conflict in Sri Lanka. It was also found that communal minded Sinhala people were violent and aggressive in mobs. Through interviews and observations, it was revealed that they were so violent and harassed the innocent Tamil people. Ex LTTE activists, who later leave their movement and come to the southern part of Sri Lanka in order to become good citizens also are not accepted by some Sinhala people. It is now obvious that Selvadurai has made genuine efforts to bring peace to Sri Lanka through his novel. Unfortunately, his efforts seem to be a failure and ultimately, it was found through the present study that if the people of Sri Lanka are prepared to implement the attitudes of the author, grudges between Sinhala and Tamil communities will automatically vanish.

Keywords: Ethnic crisis, Prolonged war, Bloodshed, Genuine efforts, Peace

Impact of Rhythmic Hand Computation in Carnatic Classical Vocal Music Education

S. Darshanan

Department of Music, University of Jaffna, Sri Lanka
music75@gmail.com

Abstract: Rhythmic hand computation is a widely used visible time maintaining technique in carnatic music. However, a common requirement amongst many existing students for carnatic vocal music is that they are struggling to sing the rhythmically difficult songs while rendering rhythmic hand count. This makes it educational practically difficult to cope with beginners in carnatic vocal music, such as 1st and 2nd years bachelors degree students. This paper proposes a rhythmic mind computation (RMC) technique for time maintaining that initially builds hierarchical song learning from a small effort of the entire students, while the remaining time is saved sequentially and the song adapted constructively. The experimental results indicate that the quality of the singing obtained by this method does not degrade while eliminating the hand computational needs. This new RMC is general, and could be applied to any singing task in carnatic vocal music learning in which the song structured with any rhythmic pattern.

Keywords: Carnatic Music, Rhythmic Mind Computation

The Approaches of Conflict Resolution depicted in Sanskrit Hitopadeśa

J. Dhammaloka

Department of Classical Languages, University of Peradeniya, Sri Lanka
gahapitijajambu@gmail.com

Abstract: The conflicts are general features of the active societies. Human beings have used many resolution methods to conciliate them. Therefore, they can be divided into two main groups as Traditional approach and Modern approach. The Sanskrit Hitopadeśa which was used to teach 'nītiśāstra' has also given attention to maintain peace in the society and to conciliate the conflicts. Therefore, the objective of this research is to examine the conflict resolution methods of the Hitopadeśa. To achieve this, studying literary resources (ancient and modern) is used as the methodology. The central idea of it is that if there is a conflict somewhere because of certain cause certainly there is a resolution for it. Therefore, the solution must be given to that first cause. Hence, to resolve the conflicts the Hitopadeśa recommends many methods and techniques. It describes the diplomatic and human relations in the general society, using the jungle as a background, animals as the characters and stories as the medium of the teachings. The traditional approach is the main approach recommended by Hitopadeśa very often but modern approach also can be seen in several times. Hitopadeśa has used many stories to prove it. But, indeed, the same method can't be applied for all conflicts. Therefore, Hitopadeśa recommends some other approaches also. Negotiation, facts-finding, conciliation, mediation, facilitation, arbitration are some of them which included the modern approach. The technique of mediation is the other method, it recommends frequently. The qualifications of the mediators, specially, of the diplomatists are also described deeply. Hitopadeśa describes many harmonizations called 'sandhi' in the ending of it and it appreciates the 'upahāra sandhi.' In conclusion, it is clear that the Hitopadeśa has considered about the conflict resolution in many ways.

Keywords: Hitopadeśa, Harmonizations

Theorizing Violence as an Essential By-product of the Dialectic of Enlightenment: Reading *Inglourious Basterds* as an Evidence of the Paradox of Modernity

M. Hapugoda

Department of Languages, Faculty of Social Sciences and Languages,
Sabaragamuwa University of Sri Lanka, Sri Lanka
hapu@sab.ac.lk

Abstract: One of the most important ideological observations made in the latter half of the previous century was the unsolved problem of the paradoxical dialectic existence between the promises made through mega socio-political theories about a better humanity and the violent means to achieve those ends. On one hand, the over-determined textbook dialogue of prosperity through symbolic order and, on the other, the co-existence of underground evil of power through social violence equated the 'harmonious totality' of the modern project. If the world is a carefully calculated phenomenon of the Enlightenment man and the reason is the fundamental driving force, it is paradoxical that evil becomes a by-product in the modern post-enlightenment humanity. The Frankfurt School rightly pointed out the necessary co-existence of symbolic law and authority and the obscene supplement of reasonless violence as a fundamental paradox of the post-enlightenment modern project. The bourgeois humanity of the enlightenment project, therefore, carries the characteristic that educated, cultured, mannered and charming men are fully capable of metamorphosing into monstrous beasts within a second. The twentieth century political circumstances witness that the 'dialectic totality' of both good and evil is the 'true history' of the modern world and its spiritual crisis is obvious through the dual existence of its own products. To illustrate the dialectic existence of the 'modern project', the movie *Inglourious Basterds* (2009) by Quentin Tarantino can be considered as a unique example where the violence portrayed in the movie displays how the 'decent' political space has been taken over by the 'diabolic evil' of obscene underground or of unconscious real. Through the characters, conversations and events depicted in the movie, this paper investigates how the people who immerse in 'cultivated academic environments' are capable of justifying violence over fellow human beings, despite whatever said about their conscience. In relation to this, the discursive practices of the Sri Lankan government in and after the forth Eelam war will be considered as a real life example whenever necessary. In addition, the dirty function of the fantasy as unconscious real, aestheticized violence and de-historization (or alternative history) through a plastic reality will also be discussed as brand new ideological developments.

Keywords: Dialectic of Enlightenment, theorizing violence, aestheticized violence

'Sri Lankan English', 'Speak English Our Way' and 'the Other'

R. Ibrahim

English Language Teaching Unit, University of Peradeniya, Sri Lanka
rukshan_ibrahim@yahoo.com

Abstract: The variety of English spoken in Sri Lanka is defined as 'Sri Lankan English' by scholars who have attributed this variety with distinguished features that are both linguistic and ideological. There is also a consensus in these 'academic' and 'non academic' circles that the English language is a symbol of power and hegemony in the Sri Lankan society. Accordingly, the programme that was launched in 2009 called 'Speak English Our Way' was meant to dethrone the dominant position of English and replace it with a more 'native' variety. Yet, in the definition of Sri Lankan and its nativization process, there is an absence in the representation of the 'other' or the marginalized groups. It is because the Sri Lankan variety of English or Sri Lankan English has been defined as Standard Sri Lankan English or the normative variety which represents the class affinities of the urban English speaking elite. Also, this variety is marked by the heavy influence of Sinhala and not Tamil. Thus, this variety is both ethno-centric and class biased. Also, when it is used in prescriptive forms like in the case of language learning, it clearly favours the dominant ideology, suppressing the voice of 'the other'.

Teaching and Learning Tamil as a Second Language in Sri Lanka:
Special Reference to Auxiliary Verb Construction in
Tamil and Sinhala Languages

R. Kailainathan

Department of Linguistics and English, University of Jaffna, Sri Lanka
plavan87@gmail.com

Abstract: The aim of this paper is to present a brief comparative and contrastive analysis of the syntactic structure of the auxiliary verbs in Tamil and Sinhala languages on a structural basis. It describes and pin-points the areas of difficulty that the speakers of these two languages have in learning each others' languages. There are number of regional and social dialects existing in both Tamil and Sinhala. However, the Tamil data represent the author's own dialect, the Jaffna Tamil which is a socio- regional sub-dialect of Sri Lankan Tamil. The Sinhala data represent the Colombo dialect of Sinhala. This study involves the methodology of comparative and contrastive analysis of syntactic structure of auxiliary verbs in Tamil and Sinhala, in order to establish the facts that there are similarities and dissimilarities in the two languages. To our knowledge so far, no one has attempted to embark on this selected topic. It is believed that this study of this kind would facilitate the teachers' task of preparing teaching materials and to identify students' difficulties in learning a second language. Further, it will reduce the students' burden of learning a second language. This research study can be a source for implementing trilingualism at the university level. Furthermore, this study will encourage other scholars to undertake more research work in this field, so as to contribute to human knowledge and communal harmony.

Keywords: Auxiliary Verbs, Communal Harmony, Trilingualism

Perspectives of Characterizations of the Last King of Sri Lanka: Portray in Tamil Dramatic Texts of Jaffna

N. Karunaharan

Department of Fine Arts, University of Jaffna, Sri Lanka
nkarunahara@gmail.com

Abstract: The true events during the histories have been documented as memories in the Sri Lankan Tamil Dramatic Texts. The evidence of the production subjected on histories available from 1833 onwards. True historical events like, life of Kings, story of a country or region, a particular incident etc., are seems to be the main subject of these texts. The histories written and documented in all types of theater forms like Koothu, Vilasam, Isainadakam, prose dramas, dialogue play etc. and also retell the stories as consistently perform on stage in each of these forms of theatre practicing in the Tamil tradition. So far more than sixty historical plays published in Tamil, and unpublished scripts also available in Tamil. Within that, there are four Tamil dramas published on the last King of Kandy with different perspectives. One is prose drama and other two are koothu form and dialogue play. Two unpublished texts are also available. And these dramas provide not only a documentation of the past events, but also arguments through re-creation that history becomes accessible not so much as static 'fact' as it does as a process of remembering. This study concentrates on the characterization and how the historical events have been modified to suit the genres of the drama and based on dramatic content and the text analysis. Finally the research will compare the characterization of the main figures with the Sinhala plays that were performed in Colombo written by Don Philippu Sinhgo (1870) and John de Silva (1906). How the nationalist sentiments changed from Colombo to Jaffna will then be viewed. The research also for the first time compares two genres: Koothu from the Tamil tradition and the Nadagam of Phillippu Sinho and the Nadagam inspired theater of John de Silva. This research shows how a historical event can be interpreted in many ways in different genres of dramatic texts. It manifests an interest and awareness building of the cultural aspects by documenting cultural heritage through dramatic texts.

Keywords: Characterization, Histories, Theatre elements, Visualization

The Reflection of Sri Lankan Sensibility in Lakdasa Wikkramasinha's Poetry

L. Paramanathan

Department of Linguistics and English, University of Jaffna, Sri Lanka
plavan87@gmail.com

Abstract: Lakdasa Wikkramasinha, the young Sri Lankan poet who died by drowning in 1978, has been considered as the most 'original' poet appeared on the Sri Lankan scene. His poetry is very much related to Sri Lankan lifestyle, culture and society. There is a local inspiration that governs most of his poems. Furthermore, his language is peppered with local forms and idioms which according to most critics, certainly reveals the sense of 'Sri Lankanness'. There are also elements of post-colonial hybridity and biculturalism in his poetry. This paper looks into the possible ways by which we can attribute the notion of 'originality' to Lakdasa Wikkramasinha's poetry. The paper examines in a detailed way, how Wikkramasinha tries to capture the Sri Lankan experience in his poetry and the emergence of Sri Lankan identity through the usage of his language, which is considered as distinctively 'Sri Lankan'.

Keywords: Biculturalism, Originality, Post Colonial Hybridity, Sri Lankanness

Improving the Vocalization Latency (VL) of the Undergraduates of
Faculty of Science, University of Jaffna: A Neuro-Cognitive Analysis
on Raudamatizing Morpho Syntactic Elements in English

V. Paranthaman

English Language Teaching Centre, University of Jaffna, Sri Lanka

Abstract: This research paper is primarily based on poor readers' neuro cognitive activation of their vocalization through externally provided scaffolding strategy. Combining the two neuro-cognitive aspects vocalization-latency and raudamatization, the research probes into an essential investigation which reflects the necessity of separating the poor L2 readers from the learner population and providing them an externally prepared intervention programme to activate their vocalization latency. Vocalization Latency and raudamatization are the primary micro level reading strategies employed by the readers. Fluent readers are well developed in these skills. But this is not the case with the low-proficiency L2 readers. These readers are under developed in these micro-skills. As a result, most of these poor readers are word-bound and become frustrated in academic reading. Having such readers as the primary informants the research procedure introduces an intervention for the experimental group. The study investigates the feasibility and usability of the intervention among the low profiling L2 readers. Amalgamating Carver's rauding model and the reading while listening methods, the prepared intervention is experimented with the informants in the experimental group. The duration of the intervention is one month and altogether it includes six rauding lessons. These six rauding lessons are prepared by the researcher to activate the vocalization Latency of the low-proficiency L2 readers whose raudamatization skills are primarily weak. The time count taken during the vocalization Latency test is the major data in this research. Reduction in the time used during the post VLT is treated as symptom of improving the vocalization Latency of the informants.

Keywords: Neuro-cognitive activation, Scaffolding, Vocalization Latency, Raudamatization, Low proficiency L2 readers, Academic reading, Intervention

Thomas Kuhn's Structure of Scientific Revolution and Social Sciences

M. Rajaratnam

Department of Philosophy and Psychology, University of Peradeniya, Sri Lanka
mallikapera@yahoo.com

Abstract: Thomas Samuel Kuhn (1922-1996) made a remarkable revolutionary impact on the methodology of science and social sciences through his writing on the structure of scientific revolution [1962]. In this magnum opus he made a paradigm shift and a cognitive revolution in the normal sciences and the social sciences. The so-called professional research on sciences and social sciences undergone a stereotype stagnation and Thomas Kuhn gets his idea of revolutionary science through history of science to overcome this problem. This study also analyzes Thomas Kuhn's analogy between scientific revolution and the political revolution in order to explore the common basis new philosophical methodology of sciences and social sciences and critically evaluate Thomas Kuhn's notion of scientific revolution and the identification of anomaly or crisis in natural sciences and social sciences. In this study the original writings of Thomas Kuhn were critically analyzed with the special reference to the structure of scientific revolution. Qualitative critical hermeneutic method is being used to explore creative critical method of Thomas Kuhn in sciences and social sciences. According to Thomas Kuhn a scientific community cannot practice its profession without some sets of received beliefs, and the nature of rigorous preparation exert a deep hold on the student's mind and normal science often suppresses the fundamental novelties and for him the normal science functions like puzzle solving. Thomas Kuhn argues that the research in the field of science education is an attempt to force nature into the conceptual boxes supplied by the professional education. According to Thomas Kuhn revolution will make a change in the world view, when the paradigm change, the world view itself changes in an extensive manner. Revolution will make a progressive impact not only in natural sciences but also in the social and political sciences and history. Such revolutionary science and successive stages in these developmental processes should be marked by an active articulation in the new fields of sciences and social sciences.

Keywords: Natural Sciences, Paradigm Shift, Scientific Revolution, Social Sciences

Bilingualism, Raja Rao and *Kanthapura*

K.L. Ramanan

English Language Teaching Centre, University of Jaffna, Sri Lanka
lakshmananramanan@gmail.com

Abstract: This paper has the objective of studying the novel *Kanthapura* in the light of bilingualism of the society in which Raja Rao, the author, lived and (re)presented it. Though the author was an individual, he was a representative of a society that is bilingual in nature. The society portrayed in the novel belongs to a village in Karnataka, India during the time of independence struggle. The language employed in the novel, is considered as a re-presentation of the society by an individual. Hamers and Blanc (1998) opine that the knowledge emerges from individuals' experience and shared social experience. Therefore, all the possible utterances by an author are within the acceptable norms of the society. The novel *Kanthapura* was proposed to be analyzed as a text of the society. Descriptive analytical methodology was employed to analyze the bilingualism of the novel and based on it the bilinguality of the author was brought to the light. The text is analysed in this study as a product of the society where the individual representer of the text, i.e., Rao, was a part of it. Though Rao wrote in English, he was aware that he was a bilingual. His awareness of bilingualism made him select many linguistic features from several languages in India to present the society in the text. It is concluded that Rao's awareness of bilingualism contributed much to the production of the text. It also helped him limit the application of particular language for certain domains. He employed his bilingual skills and resources to portray a society that is basically multilingual. Literal translation, code mixing, loan words and hybridization were utilized by the author to present the unique characteristics of the society in the text. The writer's use of the social norms, beliefs and values add unique flavour to the text by rendering them through a local variety of English that has become the official language of India. As there is a similar linguistic trend in Sri Lanka, Rao could be considered the model for Sri Lankan bilingual writing.

Keywords: Bilingualism, Hybridization

The Effects of First Language and Second Language Glosses on Incidental Second Language Vocabulary Acquisition among Low proficiency Learners in a Computer Assisted Language Learning Environment

A. Rasakumaran

English Language Teaching Centre, University of Jaffna, Sri Lanka
arasa@jfn.ac.lk

Abstract: Vocabulary has been one of the most important variables that affect second language learning (Egbert, 2005) and lexical errors are the most common among second language (L2) learners Meara (1984). This is true of the undergraduates of the University of Jaffna who learn English as a Second Language (ESL) as evidence from their written corpora reveal. The limited knowledge of vocabulary of the undergraduates has impacted on their reading comprehension and in turn on writing in both conventional and Computer Assisted Language Learning (CALL) environment. Studies of many scholars (Nagy, Herman and Anderson, 1985; Nation and Coady, 1988; Stoller and Grabe, 1993) have revealed that there is a symbiotic relation between vocabulary knowledge and reading. The extent of students' vocabulary knowledge relates strongly to their reading comprehension and overall academic success (Baumann, et.al, 2003). Therefore it is important to improve the vocabulary knowledge of the undergraduates in order to facilitate the learning of ESL. Further, only the first few thousand most common words are learnt by a L2 learner through direct instruction and the rest of the words are learnt incidentally. However, vocabulary acquisition is incremental. Therefore this study investigated whether L2 incidental vocabulary acquisition can be enhanced using L1 glosses and L2 glosses among low proficiency L2 learners and compared the effectiveness of L1 glosses and L2 glosses in enhancing incidental vocabulary learning in a CALL environment. The study revealed that both L1 and L2 glosses enhanced incidental vocabulary acquisition. However, L1 glosses were more effective compared to L2 glosses for low proficiency L2 learners.

Hybrid ESL Learning Model for Tertiary ESL Learners

S. Ravindran

English Language Teaching Centre, University of Jaffna, Sri Lanka
ravindran_shan@yahoo.com

Abstract: Time to time various teaching theories and approaches have been introduced to improve English as a second language (ESL) learning and teaching. Researchers introduced numerous teaching methods from grammar translation to communicative competence. Each new method lasted a few years or decades due to various teaching learning difficulties, failures and not suiting the needs of the learners and benefitting them. With the advent of Science and technology it became a vogue to conduct computer assisted language teaching and learning. Yet there are impediments in learning and teaching ESL at all levels. The traditional teaching methods are still followed in the tertiary education including the universities in Sri Lanka. The syllabi are designed according to class room teaching. By introducing a hybrid ESL learning model it is intended to achieve better performance in ESL learning and teaching to be on par with ESL learning and teaching in the other developed countries. One hundred and twenty five first year students from the Faculty of Arts University of Jaffna were selected on a random basis. A qualitative method was used to collect data. This study intends to research on introducing a hybrid ESL learning model to the first year students of the Faculty of Arts. Questionnaires were circulated to the students to gather data. Two modes of teaching were done with the students. One in the traditional manner and the other through computer based teaching and learning. Interviews were conducted with the staff and class room observation is utilized. The findings revealed the fact that the learners and staff benefit very much through a hybrid ESL teaching mode. The research may motivate administrators and teachers to introduce hybrid ESL learning at tertiary level.

Keywords: Hybrid, ESL learning, Tertiary level, ESL learners

Catching a Glimpse of the Trembling Flame of Hope through “I Shall Not Hate”: A Gaza Doctor’s Journey on the Road to Peace and Human Dignity

A. Riophilla

English Language Teaching Centre, University of Jaffna, Sri Lanka
riophilla.alfred12@yahoo.com

Abstract: *I Shall Not Hate* is the ultimate thesis on hope, narrating the story of a father who clings tenaciously to the hope of a better tomorrow for a flock of people. It is a memoir by Izzeldin Abuelaish, a Gazan doctor who lost his three young and lovely daughters to Israeli shells in January 2009. Because this is the ultimate thesis on hope this offers much more than a dozen motivational tomes for the war-victims in all the countries. This is the story of a father who lived most of his life in refugee camps, negotiating his plight with surprising determination only to be shaken and shocked further. Still he clings tenaciously to the hope of a better tomorrow for a flock of people who have suffered oppression for decades. The author of this paper finds this book as a human cry for peace and therefore a relevant one for the people in Sri Lanka especially for those who are from Jaffna and Vanni who still witness the post-war currents in their places. The most of the Tamils in northern Sri Lanka have undergone the similar experiences of the Gazan doctor and they have undergone all kinds of sufferings and hardships such as multiple displacements, deaths, injuries, deprivations of basic needs. Their psychosocial and mental consequences are obviously exposure to massive, existential trauma. (This paper as a qualitative and descriptive analytical method explores along with some theoretical studies) the way in which this book could be a remedy for the Tamils who still possess scarred minds. This paper makes an attempt to shed light on the socio political discourses by paying attention to the narrative, *The Broken Palmyrah* and the novel, *The Whirlwind*.

The Use and Non-use of Second Language Teaching Through 'The First Step'

M. Rubavathanan¹ and G.H. Abeyweera

Uva Wellassa University of Sri Lanka, Sri Lanka

[†]markruban@yahoo.co.uk

Abstract: Certain policies have been adopted by deferent electronic media institution with a view to enhance national integration. One of the policies adopted by the said is the 'Language Policy'. The national integration is done by various means by media institutions. 'The First Step' is one such means where Trilingual policy has been implemented in an advertisement telecast and broadcast in MTV and MBC PLC. Channels before the programme 'The News First'. This study attempts to provide a detailed syntactic and semantic analysis of the use and non-use of the advertisement 'The First Step'.

Keywords: Language Policy, Trilingual Policy

Pesalai Passion Play in Mannar

K. Samarakoon

Department of Western Music, University of Visual and Performing Arts,
Sri Lanka
kamalinie@gmail.com

Abstract: The passion play in Pesalai is unique to Sri Lanka as it is probably the only passion play in the world that is entirely acted using life sized puppets. The play is based on the script 'Viyakula Pirisangam' which is the Tamil version of Father Jacolme Gonsalves Sinhala script of 'dukkapraphtha natya saha deshana navaye pasan potha'. The Pesalai passion play has a history of performance of over 200 years. The year 1983 was when all nine acts were performed before the ethnic unrest in the country. Since the Pesalai church and the Fatima Madya Maha Vidyalaya provided shelter to hundreds of refugees till almost 2008 they had no provision to stage the passion play again till 2000. At this point the cast had to build a replica of the original stage its original been erected in 1907 at the Pesalai church, at the playground of the Fatima Madya Maha Vidyalaya to perform a few of the acts. Since then the passion play has been performed in 2003 and then in its original 'stage' at the church in 2008, 2010 and 2012. The passion play of the pre-war era was performed on stage by the actors while the readings and chants were narrated off stage. Since 2000, under the direction of Kalabhushana S.A. Miranda there are hymns and pasams been sung to accompaniment on keyboard music. Also a notable change is that there is now dialogue between the characters and not a narration. The costumes too have undergone changes in the post war performances. The aim of this study is to trace the roots of the music of the Pesalai passion play and its influences on the other passion plays within Sri Lanka as this was the root and first passion play acted in Sri Lanka from over 400 years ago. Another point of interest that would be investigated is the changes made for the performance in troubled years of the past years. Video and Audio recordings will be made with a main focus to determine the roots of the music of the play. This is important to my study as the music of the Pesalai passion play is authentic and remains without a considerable change to date. Moreover, structured and unstructured interviews will be used to gather in-depth information from a variety of persons knowledgeable and involved in the Pesalai passion play. This research will explore two main questions with regard to the evolution of passion play music in Sri Lanka. The questions posed are (i) the relation to the cultures and music traditions that have influenced the music of Pesalai passion play and (ii) what are the music traditions that are imbibed in the Pesalai Passion Play music? The hypothesis of this study is that the Pesalai passion play has not undergone a metamorphosis of change at many levels: Concentrating on the music, this study states that the music is authentic and directly influenced by the Karnatic idiom. One of its main influences is also being Konkani Music from Goa.

Impact of L1 on ESL (English as a Second Language) writings of the Undergraduates of University of Jaffna

K. Sanmuganathan

English Language Teaching Centre, University of Jaffna, Sri Lanka
saneltc@yahoo.com

Abstract: The purpose of this study was to examine whether first language (L1) had an impact on the ESL (English as a Second Language) writings of the undergraduates of University of Jaffna. Most of the scholars in the fields of language learning and teaching give evidence for the L1-L2 comparison by the learners when they confronted with difficult grammatical forms and it is natural for the learners. Since this comparison is implicit, it may result in the formation of wrong rules due to an incomplete L2 knowledge. In this study, an investigation was made to identify the impact of L1 on ESL writings of the undergraduates of the University of Jaffna. The study involved qualitative methods of data collection. The data collected from the subjects' responses were analyzed, and the findings were derived. The findings show that there are number of problems which are found to have impact on the learners' ESL writings. Evidence provided by the written samples suggests that L1 played a role in the process of beginning ESL learners' writing in English. Understanding linguistic differences between students' L1 and English may help the learners to reduce the impact of L1.

Keywords: First language (L1), Second Language (L2), ESL writing, L1-L2 comparison, Difficult grammatical forms

Exploring some Feasible Solutions for Listening Comprehension Impediments Observed among the First Year Faculty of Arts Undergraduates - University of Jaffna

M. Saravanapava Iyer

English Language Training Centre, University of Jaffna, Sri Lanka
bavaneltc@yahoo.com

Abstract: The primary objective of this investigation was to recognize the peculiar listening comprehension (LC) issues encountered by the Tamil medium first year undergraduates in the Faculty of Arts during transactional listening and suggest feasible and effective recommendations for the stakeholders based on classroom investigation. In order to accomplish this objective, 27 Tamil medium ESL (English as a Second Language) first year listeners were randomly selected as sample population in the Faculty of Arts and a classroom investigation employing an intervention programme for one complete semester was conducted; the intervention programme was based on the information which has been elicited via questionnaire and informal discussion before the commencement of the programme. The intervention programme incorporated some specially selected LC texts/activities, participant observation and informal discussions. Having employed qualitative methodology with the questionnaire, participant observation and retrospective report/verbalization, this study, at the end, found out that the ESL listeners' comprehension level progressed dramatically when training was provided with specially selected texts with appropriate background knowledge and activities to match our listeners' requirements to encounter their LC impediments which were traced at the beginning of the study.

Keywords: Context, Background knowledge, Impediment, Listening comprehension, Transactional listening

The Impact of Self Assessment on the Second Language Writing of Undergraduates

K. Sivaji

English Language Teaching Centre, University of Jaffna, Sri Lanka
karunasivaji@yahoo.co.uk

Abstract: This study presents the findings of a classroom research carried out to investigate the effect of Self Assessment on the Second Language Writing of Undergraduates. Second language (L2) writing depends on the variety of background experience, needs, interests and purposes for writing and these aspects play a vital role in second language writing situations than in first language. Thus second language writers in the research context, the University of Jaffna, face challenges in developing writing skills. The ability to produce accurate writing needs to be developed among these undergraduates. As many of the writings are difficult to understand due to grammatical inaccuracies and incorrect organization, this study was designed to investigate a suitable technique to improve these students' L2 writing. Hence this study attempted to find out the effect Self Assessment had on students' writing. In this study, self assessment is defined as a type of autonomous feedback the learner achieves on learning progress. Twenty four third year undergraduates in the Faculty of Arts, University of Jaffna who were specializing in social sciences were selected among a total population of ninety seven students. The group was treated with free writing activities, self assessment sessions and remedial steps. Students' attitude on self assessment was also investigated through a questionnaire. The results revealed that Self Assessment had a positive impact on students' writings and students revealed a positive attitude to Self assessment. Irrespective of gender, both male and female students were able to improve their writing ability. The study has important implications for ESL teachers who teach writing at the University of Jaffna in particular and at other universities across the island.

Keywords: Autonomous Feedback, Grammatical inaccuracies, Organisation of writing, Second Language (L2) writing, Self Assessment

Relocating Literature: Rereading the Waste Land from a Sri Lankan Post-war Perspective

C.C.A. Sivapalan and D. Canista Arthie[†]

English Language Teaching Centre, University of Jaffna, Sri Lanka
[†]canista925arthie@gmail.com

Abstract: T.S. Eliot's *The Waste Land* is a poem that deals with the post-war conditions of Europe after the First World War. Even though the poem does not overtly appeal to the First World War, and a very few references are made on the First World War (the pub scene), an underlying reading of the poem proves that *The Waste Land* does have the First World War in its background. What Eliot sees as the waste of modern civilization-spiritual dryness, fruitless sex, illicit sexual affairs, sexual laxity, hopelessness, and psychological and cultural deterioration cannot be restrained only to the westerners of the twentieth century. It has resonance with all the post-war communities and especially to Northern Sri Lankans who had experienced a ferocious war for three decades. What this paper proposes is to relocate *The Waste Land* in post-war Sri Lanka. In clear terms this paper perceives the post war conditions of Sri Lanka from Eliot's point of view, according to his poem - *The Waste Land*. The comparative analysis of *The Waste Land* and the post-war conditions of Sri Lanka: adopting the qualitative / descriptive methodology, employed unstructured interviews with the counselors and clients, informal data collection such as; collecting news from some reputed news papers and gathering information from some informal discussions, proves that the psychological deterioration that comes along with the war remains irreparable in the war torn areas in Sri Lanka for a long time. Winston Churchill's claim "injuries were wrought to the structure of human society which a century will not efface", (Hughes, 1961, pp-39) also confirms this idea. Further this paper attempts to create awareness to all about our present plight-the spiritual cultural and psychological deterioration, in which we all are facing a moral threat as well.

Keywords: *The Waste Land*

The Travesty of Jaffna in Jean Arasanayagam's Poems

C.C.A. Sivapalan¹ and S.Tharuni^{2†}

¹Department of Linguistics and English, Faculty of Arts, University of Jaffna

²English Language Teaching Centre, University of Jaffna, Sri Lanka

†tharunis6@gmail.com

Abstract. Jaffna is one of the native places of the Tamil ethnic community in Sri Lanka. Jaffna has its own Tamil culture, tradition and literature. Compared to the Tamil writings, the writings emerged about Jaffna in English are very limited. Jean Arasanayagam is the only prominent writer from the main stream narrative of Sri Lanka, who has offered prominence to Jaffna and the ethnic strife of Sri Lanka in her literary works. While reading her literary works of Jean Arasanayagam the reader can perceive an image of Jaffna. The researcher of this paper would like to focus on the manner in which traditions, rituals and customs of the Hindu society of Jaffna are viewed through the eyes of a foreigner, a Burgher, Jean Arasanayagam, whose familiarity with Jaffna is under criticism. The author of a particular literary work is expected to be the resident of the area which is dealt within the work, in order to present authentic data with first-hand experience. Arasanayagam's knowledge about Jaffna is not from her own experience but from the mouth of her husband who was born and brought up in Jaffna. D.C.R.A. Goonetilleke compares the works of Arasanayagam with that of Aiyathurai Santhan, a writer from Jaffna and states "Whereas Arasanayagam is not resident in Jaffna, A.Santhan is, and this is partly why he is better able to render present-day life in the North." With the light of the statement by Goonetilleke, this paper attempts to explore whether the portrayal of Jaffna in the poems of Arasanayagam has the qualities or values that Jaffna should have or the portrayal is a travesty. Even though there is a wide range of references of Jaffna in the novel, short stories and poems of Arasanayagam the concern of this paper is restricted to the poems, especially to the collection, "The Landscape of Retrievals".

Keywords: Authentic Data, Perceive, Portrayal, Travesty

Post-war Children in the Perspective of William Blake's Poems

C.C.A. Sivapalan¹ and S. Parameswaran^{2†}

¹Department of Linguistics and English, Faculty of Arts, University of Jaffna

²English Language Teaching Centre, University of Jaffna, Sri Lanka

[†]shyintha@yahoo.com

Abstract: The poet and artist William Blake is described as a man of genius who devoted his entire life and imagination to express his bold original ideas. His poems in "Songs of Innocence" and "Songs of Experience" explore the real nature of the poor people during the Industrial Revolution in England. Even though his poems deal with a range of topical issues of poverty, child labour, political and social revolution, industrial revolution, and the church, they specifically focus on child abuse. Through these poems Blake perceives about the abuse of children in the eighteenth century England. While reading Blake's poems, from Songs of Innocence and Songs of Experience the inner sufferings of affected children of post war Jaffna District seems to surface. During the conflict in Sri Lanka many children were orphaned, disabled, and abused. The statistical report of the District Child Development Committee of the Jaffna District Secretariat can be interpreted into Blake's poems. This will lead to the conclusion that child abuse is as vibrant in the post war Jaffna as it was in Blake's contemporary society of the industrial revolution era.

Keywords: Poverty, Child abuse, Statistical report, Inner sufferings

Kinship Terms in Jaffna Tamil Dialect: A Sociolinguistic Study

S. Sivarani

Department of Linguistics and English, University of Jaffna, Sri Lanka
srisatkunarajhs@gmail.com

Abstract: The main objective of this paper is to classify the kinship terms used in modern Jaffna Tamil social structures and life styles which were collected through field work. This classification is basically undertaken by differentiating and identifying the semantic contents of the collected kinship terms. Further more detail descriptive analysis is done on the usage of the kinship terms in different social contexts, based on the information collected from field work reports. Sociolinguists analyse the relationships between language and society by studying the structure of the kin relation kinship terms. A common methodology is used in sociolinguistics analysis is a descriptive analysis based on field work. This study also involves the descriptive type of methodology. Appropriately, wherever possible and necessary, historical explanation of the form use and semantics of kinship terms are given in this paper. Descriptions of historical explanations are generally based on Tamil literatures and dictionaries. Out of 132 kinship terms collected through field work, we found out only 38 are identified to be common to lexicon, kriya and Jaffna spoken variety. Detail analysis was done to understand the functions of the kinship terms in Jaffna society. We investigated how kinship terms are used in the various social environments, viz. terms of address and references, non kinsfolk, fictive kinship usage, personal names and divine relationships. The work and analysis undertaken in this paper significantly contributes to identify the social pattern of the Jaffna society, via the kin relationship between the society and the language. In addition to this, the work provides useful information to understand more on the descriptive, historical and comparative views of the Jaffna Society.

Keywords: Kinship, Jaffna Tamil Dialogue, Sociolinguistics, Semantics

An Analytical Study on the Language Policy Practices and Social
Integration of Sri Lanka: Case Study with
Divisional Secretariat Office in Balangoda Division

W.M.N.S. Weerasekara[†] and E. Niroshani

Department of Social Sciences, Sabaragamuwa University of Sri Lanka, Sri Lanka

[†]Nelum.sanjeewani@yahoo.com

Abstract: All human beings are born free and have equal rights without any discrimination. Language is one of the most important elements to representing the national identity. Tamils are the sufficient second major racial group in Sri Lanka. Sri Lanka is the country which has comparatively a larger public sector in Asia and public sector in Sri Lanka spreads to a wider range of sectors of the economy. After ending the civil war in Sri Lanka, although government tries to build up the national integration and finish the all discriminations between racial groups introducing regulations and programs to the administrative institutions through the ministry for national languages and social integrity, lot of Tamils are discriminated and isolated by language policy practices in Sri Lanka. Thus, examining the manipulation of the language policy in public administrative institutions & its impact to the national integration of Sri Lanka is very important. Research was selected 100 respondents covering public servants and Tamil publics using random sampling method. Questionnaires, interviews and key informant were used for quantitative and qualitative data as primary data in divisional Secretariat office in Balangoda division and secondary data was also used. Key findings of my research are (i) Tamils can't be received the public service and all documents in Tamil in administrative institutions. (ii) Government's Tamil teaching program, is unsuccessful. (iii) Public servants' Tamil language proficiency is very low. (iv) No sufficient awareness on language policy of publics. (v) Violation of language policy rights was affected to the ethnic conflict. (vi) Tamils have to receive third person's support to fill their documents and give money for them. Overly, although Sri Lankan government has implicated many language policy circulars and programs to ensure the language rights and national integrity, there is no successful manipulation of language policy in administrative institutions and it has affected to the violation the national integration of Sri Lanka.

Keywords: Human Rights, Language policy, Administrative institutions, Tamils, Social integration

சேரனின் 'காடாற்று' பா.அகிலனின் 'சரமகவிகள்' ஆகியவற்றை முன்வைத்த ஓர் ஆய்வு

க. அஜந்தகமார்

tanjanthakumar@gmail.com

சுருக்கம்: ஈழத்து நவீன தமிழ்க்கவிதையின் புதிய அனுபவங்களுக்கும் படிமங்களுக்கும் போர்க்காலம் பெரும் பங்களிப்பை வழங்கியிருந்தது. போர் முடிவுக்கு வந்துள்ளது என்ற சூழலில் போருக்குப் பின்னான கவிதைகளின் பாடுபொருள் போக்கை அறிவது என்பது முக்கியமானது. 1980களில் போர் முனைப்புப் பெறத் தொடங்கிய காலத்தில் தனது கவிதைகளால் இலங்கையிலும் தமிழ்நாட்டிலும் பெரிதும் கவனத்தை ஈர்த்த சேரனும் 1990களில் பதுங்குகுழி நாட்களின் அனுபவங்களைப் பேசத் தொடங்கிய பா.அகிலனும் போரின் பின்னாக எழுதிய கவிதைகளை ஆய்வு செய்வதே இக்கட்டுரையின் நோக்கமாம். சேரனின் 'காடாற்று' (டிசம்பர் 2011), பா.அகிலனின் சரமகவிகள் (நவம்பர் 2011) ஆகிய கவிதைத்தொகுப்புக்களே இவ்வாய்வின் அடிப்படை மூலங்களாகும். புறநானூற்றுக்காலம் எங்களுக்குப் போரின் அறைகூவலை, போர் வாழ்வில் கலந்த உவகையை, அதன் அழிவை, போரின் பின்னான சமூகக் கட்டமைப்புச் சிதைவை, அறநெறிக்காலம் ஒன்றுக்கான அவாவுகையை வேண்டிநின்றதை நாம் படித்துணர்ந்திருந்தோம். வாழ்வின் வேர்களை, வேதனையை இலக்கியங்கள் வழியேதான் தரிசிக்கமுடியும். கவிதையே இதை ஆழமாக வெளிப்படுத்தக்கூடிய வடிவம் ஆகும். இந்த வகையில் இவ்வாய்வு என்பது போரின் பின்னான தமிழரின் மனதை விசாரித்தறியும் செயற்பாடே. போர் நடைபெற்ற வேளையில் அதை அந்தச் சூழலின் சூட்டோடு அனுபவித்த தன்மையையும், வெளியிலிருந்து அதனாற்பட்ட பாடுகளையும், ஓர் இனம் போரின் பிறகான தன்வாழ்வை எவ்வாறு தகவமைக்கிறது, தகவமைக்கவேண்டும் என்ற ஆர்வத்தையும் நாம் கண்டறிவது முக்கியமானது. இலக்கியம் சமூக ஆவணம் என்ற வகையில் போரின் பின்னான கவிதையை ஆராய்வது என்பது சமூக, உளவியல், பண்பாட்டு வழியான தமிழரின் கூட்டுமனத்தில் பயணிப்பதன் முயல்வே ஆகும். போருக்குள் வாழ்ந்தும் போரை நேரில் அனுபவமாய் உள்நாட்டில் இருந்தும் வெளிநாட்டில் இருந்தும் உணர்ந்தும் வந்த கவிதைகளின் சுருதிகள் வெவ்வேறானவை. இலங்கையின் போருக்கு முந்திய வாழ்வு பற்றிய நினைவுகொள்ளல், போரின் நேரடி அனுபவங்கள், போரின் பின்னான துயர்வாழ்வின் கவிதல் இக்கவிதைகளில் தொடர்வதைக் காணலாம். எனவே இதனை ஓர் ஆவணமாகக் கொள்ளவேண்டும். போர் கருக்கட்டத் தொடங்கியபோது பாடத்தொடங்கிய சேரன் போர் முடிந்தபிறகு எவ்வாறு இந்தக் 'காடாற்றை' கவிதையில் செய்து இருக்கிறார் என்று பார்ப்பதும் 'பதுங்குகுழி' நாட்களில் இருந்து தன் கவிதைகளைத் தொடங்கிய அகிலன், போர் முடிவில் காயம், வலி, இழப்பு, தேகவியோகம் என்பன குறித்து 'சரமகவிகளை' எவ்வாறு பாடியிருக்கிறார் என்பதை அறிந்து கொள்வதும் நோக்கமாகிறது. 'காடாற்றை' கனடாவில் இருந்து செய்தும் 'சரமகவிகளை' யாழ்ப்பாணத்தில் இருந்து பாடியும் இருக்கும் இக்கவிக்கிரியைகள் போரின் பின்னான கவிதைப் போக்கில் எவ்வகையான முக்கியத்துவத்தைப் பெறுகின்றன என்பதையும் இவ்வாய்வு தனது நோக்கமாக வரித்துள்ளது.

இந்த ஆய்வு விவரண ஆய்வு முறையியலின் அடிப்படையில் மேற்கொள்ளப்பட்டாலும் இருவரின் கவித்தொகைகளையும் உள்ளடக்கப்பகுப்பாய்வுக்கு உட்படுத்துகின்றது. சில இடங்களில் ஒப்பாய்வும் மேற்கொள்ளப்படுகிறது. போர் தொடங்கிய, போர் நடந்த காலப்பகுதியில் இவர்களின் கவிதைகள் இயங்கிய விதம் நோக்கப்படுகிறது. போரின் முடிவுக்கு முன்பும் பின்பும் கவிதை இயங்குதளத்தில் அவை சந்தித்திருக்கும் மாற்றங்கள் பரிசீலிக்கப்படுகின்றன .இருவரின் கவிதைகளும் பேசும் பாடுபொருள் நுணுகி நோக்கப்படுகிறது. தலைப்பு முதல் உள்ளடக்கம் வரை இருவரின் கவிநூல்களும் ஒப்பிடப்படுகிறது. போரின் பின்னான கவிதைகளில் இக்கவிதைகளின் முக்கியத்துவம் மதிப்பிடப்படுகிறது போர்க்காலக் கவிதைகளில் இருந்ததைப்போன்ற ஆனால் மாபெரும் மனிதவியற்ற சோகத்துடன் கூடிய உணர்வை உலுப்பக்கூடிய கவிதைகளாக இவை விளங்குகின்றன. போர் முடிவு பற்றிய அதன் அவலம் பற்றிய கண்ணோட்டம் இரு கவித்தொகைகளிலும் ஒத்துப்போகிறது. கொள்கைகளுக்கு அப்பால் சோகம்,ஆற்றாமை, தவிர்க்க முடியாத இடைவெளி, கையறு நிலை இக்கவிதைகளின் பொதுத்தன்மையாய் தோன்றுகிறது. இரத்தம் சிதறியொட்டாத ஒரு கவிதையைக் காண்பது என்பது அரிது என்பதை போரின் பின்னான இரு கவிதைநூல்களும் நிரூபிக்கின்றன. புறநானூற்றுக் கவிதைகளின் உவகைக்கலுழ்ச்சிக்குள் இருந்திருக்கக்கூடிய அதே அவலத்தடங்களை போரின் பின்னான இக்கவிதைகளும் கிட்டத்தட்ட அம்மொழியின் வீரியத்துடன் சுமக்கின்றன. கவிதை வெளிப்பாட்டின் உத்தியிலும் புதிய மாற்றங்களை இத்தொகுதிகள் காட்டுகின்றன.

**சமூக அடையாளமாக இசை நாட்டார் பாடல்களுள் ஒன்றாகிய
தாலாட்டுப்பாடல்களை அடிப்படையாகக்கொண்ட
ஒரு பண்பாட்டு இசையியலாய்வு**

க. அரவிந்தன்

இசைத்துறை, கலைப்பீடம், யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை

asaravinthon@hotmail.com

சுருக்கம்: ஒவ்வொரு சமூகமும் தன்னை இனங்காட்டிக் கொள்வதற்கு பல மூலங்களை உள்ளடக்கி இருந்தாலும் அச்சமூகங்களில் இருந்து வெளிப்படும் இசை மரபானது இந்த இனங்காட்டலை இலகுவானதாகச் செயற்படுத்திக் கொள்கின்றது. அது மட்டுமல்லாமல் தான் வாழும் சமூகத்தின் உயிராகவும் இந்த இசைமரபுகள் விளங்குகின்றன. இசையானது எல்லா சமூகத்திலும் பிரிக்கமுடியாத ஒரு மூலக்கூறாகவும், தான் வாழும் சமூகத்தின் பிரதி விம்பமாகவும் தொழிற்படக்கூடியது. அந்தவகையில் 'தாலாட்டு' என்னும் நாட்டார்பாடல் இசைக்கூறு உலகின் எல்லா சமூகக் குழுக்களிடத்திலும் வழக்கிலிருந்து வருவதை பல்வேறுபட்ட ஆய்வு முடிவுகள் தெற்றெனக்காட்டி நிற்கின்றன. ஒவ்வொரு மானுடத்தின் மலர்விலும் இந்தப் பாடல்வகை பிரிக்கமுடியாததொன்றாகப் பின்னிப்பிணைந்திருக்கின்றது. உலகிலே கால் பதிக்கும் குழந்தைக்கு அது வாழ்ப்போகும் சமூகத்தின் ஓர் அறிமுகத்தினை இந்தப்பாடல்கள் முன்வைக்கப்படுகின்றன. இவை அமையும். அந்தக் குழந்தைக்குரிய சமூகம் அதன் மனதிலே படிப்படியாக அடையாளப்படுத்தப்படுகின்றது. உலகின் பல்வேறுபட்ட சமூகங்களிலே இந்தப் பாடல்வகையானது பல மாறுபாடுகளுடன் பயன்படுத்தப்பட்டாலும் அதன் நோக்கம் ஒன்றாகவே அமைந்திருக்கக் காணமுடிகின்றது. இவ்வாய்வானது சமூக அடையாளத்தினை வெளிப்படுத்துவதில் தாலாட்டுப்பாடல்கள் எவ்வாறு தொழிற்படுகின்றன என்பதனை விரிவாக நோக்குவதாக அமையும். அதே சமயம் தாலாட்டுப்பாடல்களின் இசையியல் அமைதி பற்றியும் விரிவாக ஆராயும். பல்வேறுபட்ட சமூகங்களை இந்த ஆய்வானது தளமாக எடுத்துக் கொண்டாலும் யாழ்ப்பாணத்தில் வாழும் சமூகத்தினைச் சிறப்பாகவும் விரிவாகவும் இந்த ஆய்வு நோக்கும். இது தவிர குறிப்பாக யாழ்ப்பாணச் சமூகத்தினைப் பொறுத்தவரையிலே எத்தனையோ சவால்களுக்கு மத்தியிலும் தனக்குரிய தனித்துவங்களோடு தன்னைத் தக்கவைத்துக் கொள்வதற்கு பாடுபட்டு முயற்சித்துவரும் இந்த வேளையிலே, இவ்வாறான மீள்வலியுறுத்தல்கள் மிகவும் அவசியமானவையாகவும் பொருத்த மானவையாகவும் விளங்குகின்றன.

ஈழத்துத் தமிழ் அரங்கு: போரில் பெற்ற உள்ளார்ந்த ஆற்றலும் போருக்குப் பிந்தைய சவாலும்

ஜெ. ஞானதாஸ்

கிழக்குப் பல்கலைக்கழகம், இலங்கை
jeyaranjinee@yahoo.co.uk

சுருக்கம்: 'போரின் காரணமாகவும், போருக்கு அப்பாலும் ஈழத்துச் சூழலில் குறிப்பிடத்தக்க கணிசமான அரங்கச் செயற்பாடுகள் வெற்றிகண்டு வந்திருக்கின்றன'. இக் (போர்க்) காலத்தில் "தமிழ் அரங்குகள் மிகவும் அதிர்வியக்கம் (Vibrant) கொண்டனவாகவும், பல்வகைமை (Diversity) கொண்டனவாகவும் வெளிப்பாடடைந்துள்ளன" எனப் போர்க்கால அரங்கு தொடர்பான ஆய்வினை மேற்கொண்ட அரங்கவியலாளர் ஜேம்ஸ் தொம்சன் குறிப்பிடுகின்றார் (www.inplaceofwar.net, James Thompson, Theatre action group: raising the dust in a theatre at war, Manchester University, UK). இதன் அடிப்படையிலேயே போருக்குள் ஈழத்துத் தமிழ் அரங்கு பெற்ற 'உள்ளார்ந்த ஆற்றல்' அல்லது 'வீரியம்' (Potentiality) என்பதனை அடையாளம் காணக்கூடியதாக உள்ளது. அதேவேளையில் "உள்நாட்டு யுத்தத்தினால் இலங்கையின் வடக்கு - கிழக்குப் பகுதிகளில் நிலவிய பதற்றம், அழிவு காரணமாகத் தமிழ் அரங்கு இல்லாமற் போய்விட்டது" (Obeyesekere Ranjinee (1999), Srilankan Theatre in a time of terror political satire in a permitted space, Srilanka, P:15) என்கின்ற சிங்கள அரங்க ஆய்வாளரான ராஜினி ஒபேயசேகரவின் கூற்றானது, போர்க்காலப் பகுதியில் மேற்கொள்ளப்பட்ட அரங்கச் செயற்பாடுகள் அரங்குகளாகப் பார்க்கப்படாத அல்லது உள்வாங்கிக் கொள்ளப்படாத போக்கினைப் பிரதிபலிப்பதாகவும் உள்ளது. போருக்குப் பிந்தைய இன்றைய நிலைமையில் போர்க்கால அரங்கச் செயற்பாடுகளை அவ்வாறே முன்னெடுப்பதற்கான எந்தவிதச் சாதகமான சூழலும் அற்றதாக உள்ளது என்பது வெளிப்படையாத தரத்தம். மூன்று தசாப்தகாலப் போர்ச் சூழலுக்கும், அதனடிப்படையிலான தேவைகளுக்கும் ஏற்பச் செயற்பட்டு வந்த ஈழத்துத் தமிழ் அரங்கானது உண்மையில் இன்று தனக்குப் பழக்கப்படாத ஒரு புதிய புறச் சூழலை எதிர்கொள்கின்றது. இந்தப் புதிய சூழலில் எப்படித் தன்னைத் தக்க வைக்கவும், வளர்த்தெடுக்கவும் போகின்றது என்பதே 'இன்றுள்ள ஈழத்துத் தமிழ் அரங்கிற்கான சவாலாகும்'. அவ்வகையில், (i) போருக்குள் அரங்கு பெற்ற அல்லது அடைந்த வீரியத்தினை அடையாளம் கண்டு அதனைப் பண்பு ரீதியான பகுப்பாய்விற்கு உட்படுத்துதல், (ii) போர்க்கால அரங்கச் செயற்பாடுகள் அரசியல், சமூக, பண்பாட்டு மற்றும் விழிப்புணர்வுகளுக்கான செயற்பாடுகளுக்கு அப்பால் 'ஈழத்துத் தமிழ் அரங்கு' என்னும் படிமத்தை அக்காலத்தில் மீள அழுத்தத் தவறியமைக்கான காரணங்களைப் பகுப்பாய்விற்கு உட்படுத்துதல், (iii) போருக்குப் பின்வரான இன்றைய சூழலில் 'ஈழத்துத் தமிழ் அரங்கு' என்னும் படிமம் அல்லது கோட்பாட்டை நிலைபெறச் செய்வதற்கும், வளர்த்தெடுப்பதற்குமான வழிமுறைகளைக் கண்டறிதல் ஆகிய நோக்கங்களின் அடிப்படையில் இவ் ஆய்வானது மேற்கொள்ளப்படுகின்றது. போர்ச்சூழலில் பல்வேறுபட்ட அரங்கச் செயலாளிகளினால் பல்வகைப்பட்ட அரங்கச் செயற்பாடுகள் முன்னெடுக்கப்பட்டு வந்துள்ளபோதிலும் குறித்தவொரு அரங்கக் குழுவினரின் தொடர் அளிக்கைமுறைமைகளை மையப்படுத்திய பகுப்பாய்வினைச் செய்வது ஆய்வின் செம்மைப்பாட்டுக்கு உறுதுணையாக இருக்கும் என்னும் வகையில் 1990 களில் யாழ்ப்பாணத்தில் ஆரம்பித்து இலங்கையின் பல பாகங்களிலும் கிளைவிட்ட 'அரங்கச் செயற்பாட்டுக் குழுவின்' (TAG) அரங்க முன்னெடுப்புக்களைத் தனிநபர் கற்கைக்கு (Case study) உட்படுத்திய ஜேம்ஸ் தொம்சனின் ஆய்வறிக்கை ஆய்விற்கான முதன்மைத்தரவாகப் பயன்படுத்தப்படுகின்றது.

ஆய்வாளரின் நேரடிப் பங்குபற்றல் அவதானங்களுக்கூடாகவும், இக் குழுச் செயற்பாட்டாளர்களுடனான அனுபவப் பகிர்வுகளுக்கூடாகவும், சர்வதேச, கதேச ஆய்வறிக்கைகள், தகவற்கோப்புகள் என்பவற்றுக்கூடாகவும் பெற்றுக்கொள்ளப்பட்ட தகவல்களைப் பண்பூர்த்தியான பகுப்பாய்விற்கு உட்படுத்தி ஆய்வு மேற்கொள்ளப்பட்டுள்ளது. போர்க்கால அரங்கச் செயற்பாடுகளிற்கு ஊடாக ஈழத்துத் தமிழ் அரங்கானது பிரதானமாக இரண்டு வகைப்பட்ட உள்ளாற்றல்களை அடைந்துள்ளது. ஒன்று, எத்தகைய நெருக்கடியான சூழ்நிலைக்குள்ளும் நின்று செயற்படக்கூடிய அசாத்தியமான சாதாரியமும், மதிநுட்பமும். இரண்டாவது, பல்வகைப்பட்ட பார்ப்போருக்குமேற்ப ஆற்றப்படும் 'பல்வகைமை' (Diversity) அரங்கச் செயற்பாட்டுக்கான ஆற்றல். அதே வேளையில், போர்க்காலத்து ஈழத்துத் தமிழ் அரங்கச் செயற்பாடுகள் பெரும்பாலும் போரும், ஒடுக்குமுறைகளும், சமூகப் பிறழ்வுகளும் அச்சுறுத்தல்களாக இருந்தவேளையில் வெளிப்படுத்தப்பட்ட சூழ்விளைவு (reaction) ஆற்றல்களாகவே இருந்துள்ளன. அரங்கச் செயற்பாட்டாளர்கள் அரங்கவியலாளர்களாகச் செயற்பட்டதனையும்விடச் சமூகமாற்றச் செயற்பாட்டாளர்களாகவே பெரிதும் தொழிற்பட்டுள்ளனர். அதேபோன்று பார்ப்போரும் அரங்கப் பார்ப்போராக அல்லாது பாதிக்கப்பட்டோர் (Victims) அல்லது பயனாளிகள் (Beneficiaries) என்கின்ற நிலையில் இருந்தே பெரும்பாலும் அரங்கைப் பார்க்கவும், அதில் பங்கெடுக்கவும் செய்துள்ளனர். மேற்குறிப்பிட்ட காரணங்களினால் முதலாவதாக, அரங்கவியலாளர்கள் சமூகச் செயற்பாடு என்னும் செயற்பாட்டுக்கு அப்பால் தம் 'அரங்கச் செயற்பாட்டை ஒரு பேண்தகைமைமிக்க அரங்கச் செயற்பாடாக மாற்றியமைப்பதற்கான திறனை (Skill) வளர்ப்பதில் அக்கறை காட்டாது விட்டுள்ளனர்.' இரண்டாவது, அரங்க அனுபவம் என்பது குறித்த கருத்துநிலையின் அடிப்படையில் ஒன்றிக் கலப்பதும், உணர்ச்சிப் பிரவாகம் கொள்வதும் அல்லது வாழ்வியலுக்குத் தேவையான போதனைகளைக் கேட்டறிவதும் என்னும் வகையில் பார்ப்போர் மத்தியில் பதியப்படலாயிற்று. போருக்குப் பின்னரான இன்றைய சூழலில் ஈழத்துத் தமிழ் அரங்கானது நாட்டின் அரசியல் நிலைமை சார்ந்ததும், மக்களின் வாழ்வியலில் ஏற்பட்டுள்ள தீமர் மாற்றங்கள் சார்ந்ததுமான புதிய வடிவிலான நெருக்கடி நிலைமைகளுக்கு முகம் கொடுக்க வேண்டியுள்ளது. இத்தகைய சூழலில் ஈழத்துத் தமிழ் அரங்கானது பாதிக்கப்பட்ட மக்கள், பயனாளிகளுக்கான அரங்கு என்பதற்கு அப்பால் பார்ப்போருக்கான அரங்கச் செயற்பாடுகளை முன்னெடுக்க வேண்டியுள்ளது. அரசியல் மற்றும் சமூக, பண்பாட்டு மாற்றத்துக்கான அரங்கு என்பதற்கு அப்பால் 'ஈழத்துத் தமிழ் அரங்கு' என்னும் அடையாளத்தை மீள நிலைநாட்டுவதற்கான அரங்கச் செயற்பாடுகளைச் செய்ய வேண்டியுள்ளது. அப்படி ஒரு அரங்கைக் கட்டியெழுப்புவதே ஈழத்துத் தமிழ் அரங்கவியலாளரின் அரசியல் மற்றும் சமூகச் செயற்பாடாகவும் இருக்க முடியும். இதற்காகப் போர்க்கால அரங்கில் பெற்ற எத்தகைய நெருக்கடி நிலைமைகளுக்குள்ளும் நின்று செயலாற்றுவதற்கான உத்திகள், மற்றும் பல்வகைப்பட்ட மக்களுக்குமான அரங்கைச் செய்யக்கூடிய அரங்கப் பல்வகைமை ஆகிய உள்ளார்ந்த ஆற்றலை மீள்கட்டுமானம் செய்வதும் அதேவேளை அரசியல் மற்றும் சமூகச் செயற்பாட்டாளர்கள் என்பதற்கு அப்பால் அரங்கவியலாளருக்குரிய திறன்களை அரங்கச் செயற்பாட்டாளர்கள் வளர்த்துக் கொண்டு 'ஈழத்துத் தமிழ் அரங்கு' என்னும் அடையாளத்தை முன்னிலைப்படுத்தி அரங்கச் செயற்பாடுகளை முன்னெடுப்பதே போருக்குப் பின்னரான சவால்களை எதிர் கொள்வதற்கும், வென்றெடுப்பதற்குமான வழியாக உள்ளது.

அபிஞான சாகுந்தலத்தில் காளிதாஸர் கையாண்ட முக்கியமான சில இலக்கியஅணிகள் - ஒரு குறிப்புரை

சி. ஜெகநாதன்

சமஸ்கிருதத்துறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
s.jeganathan1959@gmail.com

சுருக்கம்: சமஸ்கிருத காவியவியற் கோட்பாடுகளில் ஆரம்பக் கோட்பாடுகளில் ஒன்றாக விளங்குவது அலங்காரக்கோட்பாடு. இலக்கியம் படைப்பவனுக்கு பொருள் வெளியீட்டு உத்தியையும், இலக்கியம் சுவைப்பவனுக்கு பொருள் கொள்ளும் உத்தியையும் உணர்த்துவதால் அணியிலக்கணம் தனியிடம் பெறுகின்றது. 'உபமா காளிதாஸஸ்ய' என்பது கவியுலக வழக்கு. அவரது த்ருஸ்ய காவியங்களும் (நாடகங்களும்) சர்வ்ய காவியங்களும் சொல்லணி, பொருளணி என்பவற்றால் அலங்கரிக்கப்பட்டவை. காளிதாஸர் பரதருக்கும் (கி.மு 2ம் நூற்றாண்டு - கி.பி 2ம் நூற்றாண்டு) காவியதாச ஆசிரியர் தண்டிக்கும் (கி.பி 6ம் நூற்றாண்டு)இடைப்பட்டவர். பரதரால் நாட்டிய சாஸ்திரத்தில் ஐந்து வகை உவமைகளும், நான்கு வகை அலங்காரங்களும் எடுத்துக்கூறப்பட்டுள்ளன. பரதருக்குப் பிற்பட்டகாலத்தில் பல்கிப்பெருகிய அலங்காரங்களுக்கு காளிதாஸரின் இலக்கியச் சிந்தனைகள் ஊற்றாக விளங்கின. பிற்கால அலங்கார சாஸ்திர ஆசிரியர்களால் விதந்துரைக்கப்பட்ட பல்வேறு வகையணிகள் அபிஞான சாகுந்தலத்தின் ஊடாக வெளிப்படுத்தப்படுகின்றமை இவ்வாய்வுக்கட்டுரையிலே எடுத்துக் காட்டப்படுகின்றது. அபிஞான சாகுந்தலத்தில் ஏழு அத்தியாயங்களிலும் செய்யுட்களிலும் உரைநடையிலும் காணப்படும் அணிகள் பகுக்கப்பட்டு அவை அலங்காரக் கோட்பாட்டாளர்களின் வரைவிலக்கணத்துடன் தரப்படும். அணிகளுக்கும் பிற கோட்பாடுகளான ரசம், த்வனி போன்றவற்றிற்கும் இடையே உள்ள தொடர்பும் கவி உணர்த்த விரும்பும் விடயங்களும் எடுத்துக்காட்டப்படுகின்றன. ஒவ்வொரு அத்தியாயங்களிலும் உள்ள அணிகள் முறையே எவ்வகையைச் சேர்ந்தவை என பகுக்கப்படுகின்றன (பகுப்பாய்வு). அவற்றுக்கான விளக்கங்கள் தரப்படுகின்றன (விவரணவியல் ஆய்வு). பிற்கால காவியவியலாளர்கள் சிலர் காளிதாஸரது அபிஞான சாகுந்தலத்திலிருந்து தமது அணிக்கோட்பாட்டை விளக்க எடுத்தாண்ட செய்யுட்கள் தரப்படுகின்றன. காளிதாஸரது கற்பனையின் உயிர்மூச்சாக அணிகள் விளங்குகின்றன. உவமை ரூபகம், அர்த்தாந்தரம் என பல பொருளணிகளும், சொல்லணிகளும் அவரது நாடகத்தில் பொருளுக்கேற்றபடி கையாளப்பட்டுள்ளன. பிற்காலத்துக் கவிகளால் கையாளப்பட்ட சித்திரம், யமகம் போன்ற செயற்கையணிகள் அவரது காவியத்தில் இல்லை. அணிகளுடன் தொடர்புடையனவாய் ரசம், த்வனி, குணம் போன்ற அம்சங்களும் அவரது நாடகத்தையலங்கரிக்கின்றன. பிற்கால காவிய கோட்பாட்டாளர்களின் சிந்தனைகளுக்கு அபிஞான சாகுந்தலமும் அவரது மற்றைய காவியங்கள் போன்று சிறந்த சிந்தனை ஊற்றாக விளங்கியது.

நவீன தமிழிலக்கியத்தில் பெண்ணின் இருப்பும் சவால்களும்: அம்பையின் சிறுகதைகளை அடிப்படையாகக் கொண்ட ஓர் ஆய்வு

சி. கவிதா

மொழியியல்துறை, களனிப் பல்கலைக்கழகம், இலங்கை
kavithasivapalan@gmail.com

சுருக்கம்: நவீன தமிழிலக்கிய வரலாற்றில் படைப்பிலக்கியங்கள் மூலம் சமூகத்தில் பெண்களின் விடுதலைக்காகவும் அவர்களின் வலுவான ஆளுமை விருத்திக்காகவும் பெண்ணியக் குரலை உயர்த்திக் காட்டிய தமிழ் நாட்டுப் பெண் எழுத்தாளரான அம்பையின் சிறுகதைகள் மூலம் தற்போதைய சமுதாயத்தில் பெண்ணின் இருப்பும் சவால்களும் பற்றி இவ் ஆய்வுக்கட்டுரையில் ஆராயப்பட்டுள்ளது. அம்பை குறிப்பாக, விடுதலைக்குப் பின்னர் ஏற்பட்ட சமூக மாறுதல்களில் பெண்களின் நிலைப்பாடுகளும் அவர்கள் எதிர்நோக்கும் சவால்களும் பற்றி படைப்பாக்கங்களினூடாக தானும் ஒரு பெண் என்ற உணர்வொன்றிப்புடன் யதார்த்தபூர்வமாக எடுத்துக்காட்டியுள்ளார். ஆணாதிக்கக் கருத்துநிலை முனைப்புப் பெற்ற சமூகத்தில் பெண்ணின் இருப்பு, வகிப்பங்கு, சவால்கள், சமூக இயங்குதளத்தில் அவளுக்கூரிய இடம் பற்றிய புரிதலை ஏற்படுத்தியதோடு, அவள் வாழ்வதற்கான கோரிக்கையினை தீர்மானித்ததோடு தன் படைப்புக்களினூடாக முன்வைத்துள்ளார். பேசுபொருளால் ஏனைய எழுத்தாளர்களை விடப் பெரிதும் வேறுபட்டு நிற்கும் அம்பை தான் சொல்ல விழைவதைப் பேசிய முறையால் தனக்கெனத் தனித்துவமானதொரு பணியினைத் தமிழிலக்கிய வரலாற்றில் பதிவைப்படுத்தினார். சில விடயங்களைச் சொல்லத் தயங்கும் பெண் எழுத்தாளர்களிடமிருந்து வேறுபட்டு நிற்கும் அம்பையின் படைப்பாக்க ஆளுமையானது உணர்ந்தும் உணரப்படாமலும் இருந்து வரும் சூழ்நிலையில் அவரது படைப்புகள் மூலம் எடுத்துக்கூறுவிழையும் கருத்துகளை ஆராய்வதும், பெண்ணியக் கோட்பாடுகளைச் சிறுகதைகள் மூலம் வெளிப்படுத்தும் அவரது எடுத்துரைப்பு முறையின் மூலம் எவ்வளவு தூரம் நடைமுறைசார் பிரயோக அறிவு (Practical knowledge) கிடைக்கப்பெறுகின்றது என்பதும் ஆய்வின் புலமைத் தேடல்களாகும். அம்பையின் சிறுகதைகளினூடாகப் பிரதிபலிக்கப்படுகின்ற பெண் பற்றிய பார்வையினை பெண்ணிலைவாதத் திறனாய்வுக் கோட்பாட்டினூடாக வெளிக்கொணர்தல் ஆய்வின் நோக்காகவும், அம்பையின் சிறுகதைகளினூடாகப் புலப்படுகின்ற படைப்பாளுமைகளை எடுத்துக்காட்டி, அதன் தத்துவ, அழகியல், பெண்ணிய கோட்பாட்டின் அடிப்படைகளை விளக்கிக்கொள்வதன் மூலம் பிரயோக அறிவிற்கும், சமூகப்புரிதலுக்கும் இட்டுச்செல்லுதல், சமூகத்தில் பெண் எவ்வாறு படைக்கப்பட்டுள்ளாள்? அம்பையின் படைப்பில் பெண் யதார்த்தபூர்வமாகப் படைக்கப்பட்டுள்ளாளா? அம்பை தானும் பெண் என்ற நிலையில் நின்று உணர்வொன்றிப்புடன் யதார்த்தபூர்வமாகப் பெண்ணை நோக்கியுள்ளாரா? ஆகியவற்றை ஆராய்ந்து தமிழ் சமூக பண்பாட்டு நல்லிணக்கத்திற்கும் அபிவிருத்திக்குமான ஒரு படைப்பாக இவரின் சிறுகதைகள் விளங்குகின்றன என்பதைப் புரியவைத்தல் இலக்குகளாகவும் அமைகின்றன.

தமிழிலக்கிய வரலாற்றில் பெண் பற்றிய சித்திரிப்பானது பெரும்பாலும் மரபுசார்ந்த கருத்தோட்டங்களுக்கு வடிவம் கொடுத்தே படைக்கப்பட்டுள்ளது. அம்பை இத் தன்மையிலிருந்து விலகி பெண்களது பிரச்சினையை ஒரு பெண்ணாக நிற்குகொண்டு யதார்த்தபூர்வமாக முழுச்சாத்தியப்பாட்டுடனும் கோரிக்கைகள் அடங்கியுள்ளதாகவும் படைத்திருக்கின்றார். எனினும், இத்தகைய அம்சங்களை நடைமுறையில் நோக்கமுடியாமல், தரிசிக்கமுடியாமல் போனமை பிரச்சினைக்குரிய ஒன்றாகும் என்பதும் அம்பை ஒரு பெண்ணிலைவாதியாக நின்று பெண்ணியக் கோட்பாட்டை முன்னிறுத்தி தனது படைப்பினைப் படைக்கும் போது அவரது படைப்பில் கலைத்துவப் பண்பானது இழக்கப்படுகின்றது என்பதும் காலவோட்ட அலையில் சிக்குப்படாமல் எல்லாக் காலத்திலும் அவரது படைப்புகள் அவருக்கேயுரிய தனித்துவமான பாணியில் ஒரேமாதிரி இருக்கின்றனவா என்பதும் ஆராயப்படவேண்டிய பிரச்சினைகளாகும். இதற்காக தமிழ்ச் சிறுகதை வரலாற்றில் இவரது கதைகள் தனித்துவமான வாழ்வியல், அழகியல், அனுபவப் பகிர்வுகளாக உள்ளன, இவருடைய கதைகளை விளங்கிக்கொள்வதன் மூலம் உடனிகழ்காலத்தில் பெண்ணின் இருப்பையும் சவால்களையும் பெண்ணிலைவாதத் திறனாய்வுக் கோட்பாட்டினடியாகப் புரிந்துகொள்ள முடிகின்றது ஆகிய கருதுகோள்கள் முன்வைக்கப்படுகின்றன. அம்பையின் சிறுகதைகளில் இடம்பெறும் பெண் பற்றிய சித்திரிப்பினூடாக அவளின் இருப்பினையும் சவால்களையும் பெண்ணிலைவாதத் திறனாய்வுக் கோட்பாட்டினூடாக ஆராய்வதே இவ் ஆய்வின் பரப்பாகும். முதலிலைத் தரவுகளாக சிறுகுகள் முறியும், வீட்டின் ஒரு மூலையில் சமையலறை ஆகிய சிறுகதைத் தொகுதிகளும் துணைநிலைத் தரவுகளாக ஆய்வு தொடர்பான நூல்கள், ஆய்வுக்கட்டுரைகள், ஆய்வேடுகள், முன்னுரைக் குறிப்புகள் மற்றும் இணையத்தளத் தரவுகள் என்பன தரவுகளாகத் திரட்டப்பட்டு மறுவாசிப்பிற்குட்படுத்தப்பட்டு சூழமைவுபடுத்திப் பார்க்கப்படுகின்றன. ஆய்வில் பெண்ணிலைவாதத்திறனாய்வுக் கோட்பாட்டினை முதன்மைப்படுத்துவதுடன் விபரண மற்றும் அழகியல் ஆய்வு முறையியலையும் அடிப்படையாகக் கொண்டு ஆராயப்படுகின்றது.

இலங்கையில் இன நல்லணக்கத்தினை ஏற்படுத்துவதில் ஒப்பிலக்கியத்தின் வகிபங்கு

ஈ. குமரன்

தமிழ்த்துறை, கலைப்பீடம், யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
cumaran2004@yahoo.com

சுருக்கம்: இருவேறு மொழி இலக்கியங்களுக்கிடையிலான உறவுகளை ஒப்பிட்டாராயும் ஓர் அறிவியல் பூர்வமான ஆய்வியல் முறையே ஒப்பிலக்கியம் என வழங்கப்படுகின்றது. அது தனக்கெனத் தனித்துவமான வரன்முறைகளையும் கோட்பாடுகளையும் கொண்டதொரு ஆய்வியல் புலமாக இன்று வளர்ந்துள்ளது. தமிழிணைப் பொறுத்தமட்டில் இலக்கியங்களை ஒப்பிட்டு நோக்கிக் கருத்துரைக்கும் பண்பு பல ஆண்டுகளுக்கு முன்பிருந்தே காணப்பட்ட போதும் இருபதாம் நூற்றாண்டின் பின்னரே பகுதியிலிருந்தே ஆய்வு முறையியலுக்குட்பட்ட ஒப்பியலாய்வாக அது வளரத்தொடங்கியது. ஒப்பியலாய்வு தமிழில் குறிப்பிடத்தக்களவு வளர்ச்சியினைக் கண்டுள்ள நிலையில் அதன் சமூகப் பங்களிப்புப் பற்றிச் சிந்திப்பது மிகவும் அவசியமானதாகிறது. தூரதிஷ்டவசமாகப் பல ஆண்டுகாலமாகத் தமிழில் நிகழ்ந்த கணிசமான ஆய்வுகள் இரசனையனுபவ நோக்கில் அமைந்து விட்டன. எனினும் கடந்த சில தசாப்தங்களாக ஒப்பியலாய்வினைப் புதிய சமூகத் தேவைகளை எதிர்கொள்ளக் கூடியவகையில் வளர்த்தெடுப்பது பற்றியும் அதற்கான வழிவகைகள் குறித்தும் ஆராயப்பட்டு வருகின்றன. மேலும் பிரதேசங்கள், நாடுகள், சமூகங்கள் என்பவற்றின் பிரத்தியேகமான தேவைகளை அறிந்து அதற்கேற்ற வகையில் ஒப்பிலக்கியக் கோட்பாடுகளையும் அணுகுமுறைகளையும் மாற்றியமைப்பது தொடர்பாகவும் ஆய்வுகள் நிகழ்ந்து வருகின்றன. இந்நிலையில் போருக்குப் பின்னதாக இன நல்லணக்கம் என்னும் பாதையில் பயணித்துக் கொண்டிருக்கும் இலங்கையின் சமகாலத் தேவைகளை எதிர்கொள்ளக் கூடிய ஒப்பிலக்கிய ஆய்வு அணுகுமுறைகள் குறித்து ஆராய்வது மிக அவசியமாகின்றது. இலங்கை பல ஆண்டுகாலமாக இன நெருக்கடியினைச் சந்தித்து வருவதை யாவரும் அறிவர். காலனித்துவவாதிகள் ஏற்படுத்திய பிரித்தானும் தந்திரம் காலப்போக்கில் இன முரண்பாடுகளாக வடிவெடுத்து இனப்பிரச்சினைகளாகி பின்னர் ஆயுதப் போராட்டமாக மாறியது. சுமார் மூன்று தசாப்தங்களுக்கு மேலாக ஆயுதப் போராட்டத்தால் இலங்கை சீரழிவினைச் சந்தித்தது. போர் என்பது இன்று முடிவுக்கு வந்துவிட்டது. அதனால் இனங்களிடையே ஒற்றுமையும் புரிந்துணர்வும் ஏற்பட்டு விட்டது எனக் கருத முடியாது. பல ஆண்டுகாலமாக மக்கள் மத்தியில் வளர்க்கப்பட்டு வந்த இனமுரண்பாடுகள் இன்றும் காணப்படுகின்றன. இவ்வின முரண்பாடுகளை நீக்கி இனங்களிடையே நல்லணக்கத்தினை ஏற்படுத்த ஒப்பிலக்கிய ஆய்வினூடாகப் பங்களிப்பினை வழங்க முடியுமா என்பது குறித்து ஆராய்வதே இந்த ஆய்வின் நோக்கமாகும். இந்த ஆய்வு விவரண ஆய்வு முறையியலின் அடிப்படையில் மேற்கொள்ளப்படுகின்றது. இதுவரைகாலமும் தமிழில் நிகழ்ந்து வந்து ஒப்பிலக்கிய ஆய்வுகள் மற்றும் ஆய்வு முறைகள் இங்கு விமர்சனத்துக்கு உட்படுத்தப்படுவதுடன் காலனித்துவ ஆட்சியிலிருந்து விடுதலை பெற்ற நாடுகளிலும், பல்லின, பன்மொழி பேசும் மக்களைக் கொண்ட நாடுகளிலும் பின்பற்றப்பட்டு வரும் ஒப்பியலாய்வு அணுகுமுறைகளுடனும் அவை ஒப்பிட்டாராயப்படுகின்றன. பின்காலனித்துவக் கண்ணோட்டத்தில் ஒப்பிலாய்வு குறித்து ஒப்பியலாய்வாளர்கள் அண்மைக்காலமாக முன்வைத்து வரும் கருத்துக்களும் பரிசீலிக்கப்படுகின்றன. அதன் பின்னணியில் இலங்கையின் நிகழ்காலச் சமூகத் தேவைகளை எதிர் கொள்ளக்கூடிய ஒப்பியலாய்வு முறைகளை எங்ஙனம் வளர்த்தெடுப்பது என்பது குறித்துப் பிரேரிக்கப்படுகின்றது.

ஒப்பிலக்கிய ஆய்வுகள் இருவேறு மொழி இலக்கியங்களை இணைத்து நிகழ்த்தப்படுவதால் இன, மொழி ரீதியாகப் பிளவுபட்டிருக்கும் இலங்கைச் சமூகத்தில் இன நல்லிணக்கத்தினை ஏற்படுத்தக் கனதியான பங்களிப்பினை நல்க முடியும் என எதிர்பார்க்கப்படுகின்றது. காலனித்துவ ஆதிக்கத்தின் கீழிருந்து விடுதலை பெற்றவையும் பல்லின, பன்மொழி பேசும் மக்களைக் கொண்டிருப்பவையுமான நாடுகள் சிலவற்றில் அண்மைக் காலமாக நிகழ்ந்து வரும் ஒப்பிலக்கிய ஆய்வுகளும், அவர்கள் கையாளும் ஒப்பியலாய்வு அணுகுமுறைகளும் இலங்கையிலும் அவை சாதகமான பயன்களை விளைவிக்கும் என்னும் நம்பிக்கையை ஏற்படுத்துகின்றன. எனினும், இலங்கை நாட்டின் தற்போதைய தேவைகள், எதிர்பார்ப்புக்கள் என்பவற்றிற்கு ஈடுகொடுக்கக் கூடிய வகையில் ஒப்பிலக்கிய அணுகுமுறைகள் மாற்றியமைப்பட்டால் மட்டுமே எதிர்பார்க்கும் நன்மைகளை அடைய முடியும். ஆகையினால் 'இலங்கை ஒப்பிலக்கியம்' என்னும் எண்ணக்கருவினை வளர்த்தெடுப்பதனுடாக ஒப்பிலக்கிய ஆய்வுகளைச் சமூகப் பயனுள்ளதாகி இன நல்லிணக்கம் என்னும் நோக்கை இலகுவடுத்திக் கொள்ளலாம்.

இலங்கையில் கையாளப்பட்டு வரும் நுண்கலைகளில் நாட்டிய சாஸ்த்திர மரபின் பங்களிப்பு

அ. கிருபராஜா

நடனத்துறை, கலைப்பீடம், யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
arulchelvi.k@gmail.com

சுருக்கம்: உருவமாகவும் அருவமாகவும் நின்று அண்ட சராசரங்கள் எல்லாவற்றையும் இயக்கும் பரம்பொருளின் ஆடலைப் புலப்படுத்தி நிற்கும் கலைவடிவம் நடனமாகும். இந்நடனவடிவத்தினை கையாள்வதற்குரிய இலக்கண விதிமுறைகளை வகுத்துத் தந்த ஆதி குரு பரதமுனிவர் ஆவார். இப் பரதமுனிவரால் எழுதப்பட்டதே நாட்டிய சாஸ்த்திரமாகும். இது சமஸ்கிருதத்தில் எழுதப்பட்ட நூல் வடிவம். இந்நூல் நாடக இலக்கணம் பற்றிக் கூற எழுந்த போதும் நாடகத்துடன் தொடர்புடைய இசை நடனம் பற்றிய கருத்துக்களை மிகத் துல்லியமாக எடுத்து காட்டுகிறது. இத்தகைய நாட்டிய சாஸ்த்திரத்தின் அமைப்புக்களைப் பின்பற்றி ஆடப்பெற்ற நடனங்கள், நடிக் கப்பட்ட நாடகங்கள், வரையப்பட்ட ஓவியங்கள், செதுக்கப்பட்ட சிற்பங்கள், போன்ற கலைவடிவங்களில் இந்நாட்டிய சாஸ்த்திரத்தின் இலக்கணம் எவ்வாறு கையாளப்பட்டுள்ளது என்பதை இந்த ஆய்வு வெளிப்படுத்தும். அரச சபையிலோ அல்லது ஆலயங்களிலோ நடன நிகழ்ச்சி இடம் பெறுவதற்கான ஓர் இடம் அல்லது அரங்கு வகுக்கப்பட்டுள்ளது அது “ரங்க மண்டலம்” எனவும் அது நாட்டிய சாஸ்திர இலக்கண விதிமுறைக்கமைய அமைக்கப்பட்டுள்ளதாகவும் கூறப்படுகிறது. பேராசிரியர் சரச்சந்திரா சுதேச இசை மரபு கண்டிய மன்னர் காலத்தில் ஏற்பட்டது எனக்கூறுகிறார். இக்காலகட்டத்திலேதான் கண்டிய நடனம் உருவாகிற்று. இதற்கும் பரத நாட்டியத்திற்கும் கதக்களிக்கும் இடையே சில ஒற்றுமை அம்சங்கள் உள்ளன. இவை யாவும் பரத சாஸ்திரத்தினைப் பின்பற்றுதலும் இதற்கான காரணிகளில் ஒன்றாகும். நடனம்பற்றி சிற்பங்கள் தரும் சான்றுகளினை விரிவாக உறுதிப்படுத்தும் வகையிலே சமகாலச் சிங்கள இலக்கிய நூல்கள் அமைந்துள்ளன. கி.பி. 13ம் நூற்றாண்டிலே தம்பதெனியாவில் இருந்து ஆட்சி புரிந்த இரண்டாம் பராக்கிரமபாகு இயற்றிய “கவுசிலிமின” எனும் காவியம் குறிப்பிடப்பாலது. நடன நட்பங்கள், நடனக்கலைஞரின், பகட்டான ஆடை அணிகலங்கள், பார்ப்பவரை மயக்கும் கவர்ச்சிகரமான தோற்றம், பேரமுக முதலியன பற்றி இந்நூல் கூறுகிறது. பரதரின் நாட்டிய சாஸ்திரத்தைப் பின்பற்றி கிராம, ராகம், லயம், ஸ்தானம், மூர்ச்சனை, கரணம் போற்றவை பற்றியும் இது கூறுகிறது. அக்கால பரத நாட்டியத்திலே நூற்றெட்டு கரணங்களும் ஓர் முக்கியமான இடத்தினைப் பெற்றிருந்தன என்பதனையும் இது எடுத்துக்காட்டுகின்றது. இத்தகைய தாற்பரியங்களை இலங்கைக் கலைஞர்கள் எவ்வாறு பயன்படுத்தி உள்ளார்கள், இந்நாட்டிய சாஸ்த்திரம் இலங்கைக் கலைஞர்களிடத்தில் எத்தகைய பங்களிப்பினை ஆற்றியுள்ளது என்பதனை எடுத்துக்காட்டுவதே இவாய்வுக்கட்டுரையின் சுருக்கமாக அமைகிறது.

**வேளாண் குடிச் சமூகக்கட்டமைப்பினுள் வைஷ்ணவ நம்பிக்கைச்
செல்வாக்கு: வந்தாறுமுலை ஸ்ரீ மகாவிஷ்ணு ஆலயத்தை
மையப்படுத்திய ஒரு மானுடவியல் ஆய்வு**

சி. கிருபாகரன்¹ ச. சசிதரன்²

¹Sri Lanka Red Cross Society, Batticaloa, Sri Lanka

²Department of Social Sciences, Eastern University of Sri Lanka, Sri Lanka

சுருக்கம்: மதத்திற்கும் சமூகக்கட்டமைப்புக்குமான உள்ளார்ந்தமான பிணைப்புக்களை உள்ளடக்கிய பார்வை மக்ஸ்வேபர் (Max Weber) காலத்தில் இருந்து முன்னெடுக்கப்படுகின்றது. இவ்வகையில் மட்டக்களப்பு வந்தாறுமுலை கிராமத்தினுள் ஒரு சமூக அடையாளமாகவும், சமூகக்கட்டமைப்பாடு, சமூக பிணைப்புகள் ஆகியவற்றின் அடையாளமாகவும் காணப்படுகின்ற விஷ்ணு வழிபாட்டு மரபுகளை விவசாய கட்டமைப்புடன் கொண்டிருக்கத்தக்கதாக தத்துவார்த்த தொடர்புகளை சமூகவியல் மற்றும் மானுடவியல் ரீதியிலும் தேடிப்பார்ப்பதே இந்த ஆய்வின் நோக்கமாகும். அவையாவன: (i) பொருளாதார நடவடிக்கைகளும் சமயவாழ்க்கைக்குமான தத்துவார்த்தமான பிணைப்புக்களை ஆய்வுமாதிரியாகக்கொண்டு குறிப்பிட்ட கிராமிய சமூகத்தின் சமயவாழ்வியலுக்கு பின்னியாகவுள்ள சமூகவியல்பங்களை கண்டறிதல். (ii) பொருளாதார செயற்பாடுகள் எவ்விதம் சமயப்பண்பாட்டு தளங்களில் செல்வாக்கு செலுத்துகின்றது என்பது பற்றிய தெளிவினை ஏற்படுத்துதல். மனிதப்பண்பியல் தொடர்பான சமூக ஆய்வு என்பதனால் தாக்க ஆய்வு முறை பிரதானமாக பின்பற்றப்பட்டது. தெரிவு செய்யப்பட்ட குடித்தொகுதியிலிருந்து வாய்மொழிமுலமான திறந்த நோக்கானல் அடிப்படையிலும் ஆய்வுக்கான தரவுகள் திரட்டப்பட்டன. திறந்த நோக்கானலுக்கு அடிப்படையாக ஆய்வாளர்களால் பிரத்தியேகமான ஆய்வு முறைகாணப்பட்டது. குறிப்பாக மக்களின் வாழ்வியல் தளங்களுக்குச்சென்று ஆய்வின் மையவியல்பங்கள் பங்குபற்றலுடாக அவதானிக்கப்பட்டன. பிரதானமான ஆய்வு முறைகளாக திறந்த நோக்கானல் முறையும் பங்குபற்றிய அவதானமும் பிரயோகிக்கப்பட்டது. ஒட்டுமொத்தமாக முற்றிலும் விவசாயத்தை ஜீவனோபாயமானதாக கொண்ட குடித்தொகுதியிலிருந்து சுமார் 100 பேர் ஆய்வுக்குப்படுத்தப்பட்டனர். இவர்களில் கமக்கார ஆண்கள், அவர்களின் மனைவிமார், முதியோர், இளைஞர்கள், சிறார்கள் ஆகியோர் ஆய்வுக்குப்படுத்தப்பட்டனர் மட்டக்களப்பு பிராந்தியத்துக்குரிய சமூகப்படையாக்கல் வடிவங்களுள் ஒன்றான குடிமுறையின் வியாபகமும் சமயநிலையும் பேணப்படும் வகையிலும் ஆய்வு உருமாற்றி வடிவமைக்கப்பட்டது. இவ்வாய்வின் முடிவுகளாவன: (i) சமயம் அல்லது ஆன்மீகம் என்பவற்றுக்கு அப்பால் ஜீவனோபாயம் சார்ந்த அனுசூலங்களும் விளைவுகளும் பொருளாதார ஸ்த்திரப்பாட்டினை நோக்கிய மானுட உந்துதலுமே இக்கிராமத்தில் விஷ்ணுவழிபாடு மேலோங்கச் செய்துள்ளன. (ii) கிழக்கிலங்கையில் வலுவான பெருந்தெய்வமும் பெண்தெய்வமுமான கண்ணகி அம்மனுக்கு முக்கியத்துவம் கொடுக்கும் நிலையில் விஷ்ணுவழிபாடு மேலோங்கியுள்ளமையும் ஒரு சுவாரசியமான சமூகவியல் ஆய்வுக்கு வழிவகுக்கின்றது. (iii) வைதீக நிலைப்பட்ட அல்லது பிராமண மயமாக்கப்பட்ட அச்சொட்டான வைஷ்ணவ பாரம்பரியத்திலிருந்து சற்று விலகியதாக ஒருவகையான கிராமிய நிலைப்பட்ட வைஷ்ணவ வழிபாட்டு முறைமைக்கு இக்கிராம சமூகக்கட்டமைப்பு வழிவகுத்துள்ளது. (iv) வேளாண்குடி சமூகத்துக்குரிய பொருள்திரட்டுதல் மீதான பற்றுதியையும் அதற்கான உதவேகத்தையும் கிராமிய மயமாக்கப்பட்ட வைஷ்ணவ நம்பிக்கையாக நின்று தொழிற்படுகின்றது. (v) முதலாளித்துவத்தின் எழிச்சிக்கு புரட்டஸ்தாந்து சமயத்தின் இறுக்கமான அறநெரிகள்துணை புரிந்துள்ளதாக Max Weber சுட்டிக்காட்டியுள்ளார். அந்தளவுக்கு இல்லாவிட்டாலும் ஓரளவுக்கு மேற்கொள்ளப்பட்ட ஆய்வுகளிலிருந்து குறிப்பிட்ட வேளாண்குடி சமூகத்தினுடைய கட்டமைப்பிலும், பொருளாதார கட்டமைப்பிலும், வாழ்வியல் சூழ்நிலைகளும் இதனை சூழ்ந்துள்ள கிராமிய சமூகத்தின் அபிலாசைகளுக்கும் பின்னியில் கிராமிய நிலைப்படுத்தப்பட்ட வைஷ்ணவ நம்பிக்கை மரபுகள் ஓர் உந்துவிசையாக தொழிற்படுகின்றது எனக்கூறலாம்.

இந்திய தத்துவ நோக்கில் கெடுதி பற்றிய பிரச்சினை - ஓர் ஆய்வு

க. மதிசீலன்

ஒப்பீட்டுச்சமயமும் சமூக நல்லுறவும் கற்கைகள் துறை, கலை கலாசார பீடம்,
கிழக்குப் பல்கலைக்கழகம், இலங்கை
mathi2100@gmail.com

கருக்கம்: கெடுதி பற்றிய பிரச்சினையானது சமய மெய்யியலில் குறிப்பாக ஒழுக்க மெய்யியலில் பல்வேறு வகையான வாதப்பிரதிவாதங்களுக்கு இலக்காகும் ஒன்றாகவும் இது உள்ளது. மேலைத்தேய மெய்யியலில் முக்கிய பிரச்சினையாகத் தோன்றிய இக்கெடுதி குறித்த பிரச்சினை இன்று மெய்யியல் உலகில் பதிலிறுக்க முடியாத வினாக்களைத் தாங்கி விஸ்தரித்தமைக்கு கிறிஸ்தவ சமயமும் முக்கிய பங்கினை வழங்கியுள்ளது என அண்மைக்கால ஆய்வுகள் கூறுகின்றன. கீழைத்தேய மெய்யியலிலும் இப்பிரச்சினை குறிப்பிடத்தக்க தாக்கத்தினை உண்டுபண்ணியிருந்தாலும் ஒப்பீட்டு ரீதியில் மேலைத்தேயத்தைவிட ஆரவாரம் அதிகம் இடம்பெறாத ஒரு பிரச்சினையாக இது உள்ளது எனவும், ஆய்வாளர்கள் கருதுகின்றனர். இவ்வாறு உலகில் அனேகமான சமயங்கள் இப்பிரச்சினையைத் தம்மகத்தே கொண்டுள்ளதன் காரணமாக இதற்குத் தகுந்தவிடை தேடவேண்டிய நிலை பின்வந்த சிந்தனையாளர்களுக்கு ஏற்பட்டுள்ளது. அந்தவகையில் இறையயலாளர்களும், சமய மெய்யியலாளர்களும் நேரடியாகவோ அல்லது மறைமுகமாகவோ கெடுதி குறித்து ஆராய்ந்து இவற்றின் சரியான புரிந்து கொள்ளலை முன்னிறுத்த முனைகின்றனர். இந்த முயற்சியே கெடுதியை ஒரு மெய்யியற் பிரச்சினையாக உருவாக்கிக் கொண்டது. இந்திய மெய்யியல் பாரம்பரியங்களில் இப்பிரச்சினை குறித்தாராயும் ஆய்வாளர்கள் ஒப்பீட்டளவில் குறைவாகவே உள்ளனர். ஆயினும் அண்மைக் காலங்களில் இத்தகைய ஆய்வு முயற்சிகளில் ஈடுபடும் மெய்யியல் ஆய்வாளர்களின் தொகை அதிகரித்து வருகின்றமை குறிப்பிடத்தக்கதொன்றாகும். இந்தவகையில் இவ்வாய்வானது ஒழுக்க மெய்யியலில் அதிகமான வாதப்பிரதிவாதங்களுக்கு இலக்காகும் கெடுதி பற்றிய பிரச்சினை தொடர்பான கருத்துக்களைப் பகுப்பாய்வு செய்வதோடல்லாமல், இந்திய தத்துவங்களைப் பொறுத்த வரையில் கெடுதி என்பது எத்தகைய அர்த்தங்களையும் பெயர் வடிவங்களையும் பெறுகின்றது என்பதனை ஆய்வு செய்வதாக அமைகின்றது. கீழைத்தேய சமய மெய்யியலில் குறிப்பாக இந்திய ஒழுக்க மெய்யியலில் கெடுதி பற்றிய பிரச்சினையானது ஒப்பீட்டளவில் மேலைத்தேய ஒழுக்க மெய்யியலை விட ஆரவாரம் அதிகமின்றி இருப்பது ஏன்? என்பதுவும், இந்திய தத்துவங்களில் கெடுதி எனப் பொருள் கொள்ளப்படக்கூடியவை எவை? என்பதுமே இவ்வாய்வின் பிரச்சினையாகும். இந்திய சமய மெய்யியலில் கெடுதி பற்றிய பிரச்சினை பூதாகரமாக உருவெடுக்காமைக்கான காரணங்களைக் கண்டறிதலும், இந்திய தத்துவ சிந்தனைகளில் கெடுதியானது எத்தகைய வடிவங்களைப் பெறுகின்றது என்பதை ஆராய்ந்து வெளிக்கொணர்தலுமே இவ்வாய்வின் நோக்கமாக உள்ளது. இந்திய மெய்யியல் கெடுதியையும் அதற்கான காரணங்களையும் அமைதியாக ஏற்றுக் கொண்டமையும், அதனைக் கடவுளுடன் ஒப்பீட்டு, முரண்பட்டுக் கொள்ளாமையுமே கெடுதி பற்றிய பிரச்சினை இங்கு அமைதியற்றமைக்குக் காரணமாகும் என்பது இவ்வாய்வின் மூலம் எதிர்பார்க்கப்படும் முடிவாகும்.

இவ்வாய்வாய்வில் இந்திய மெய்யியலில் கெடுதி பற்றிய பிரச்சினை ஆரவாரமின்றி இருப்பதற்கான காரணங்களைக் கண்டறிவதற்காக மேலைத்தேய மெய்யியல் முன்மாதிரிகளைப் பெறும் பொருட்டு சிறியளவிலான ஒப்பீட்டுப் பகுப்பாய்வு முறை பின்பற்றப்படுகின்றது. மற்றும், இந்திய மெய்யியற் போக்குகளைக் கண்டறியும் பொருட்டு இவ்வாய்வு வரலாற்றுப் பகுப்பாய்வு முறையினையும் கைக்கொள்கின்றது. இவ்வாய்விற்காக இந்திய தத்துவங்களை விளக்கிக்கொள்ள உதவும் மூலநூல்கள், அவை சார்ந்த உரை நூல்கள், விளக்க நூல்கள், கெடுதி பற்றிய பிரச்சினை தொடர்பாக விவாதிக்கின்ற ஆய்வு நூல்கள், சஞ்சிகைகள், இணையத்தளத் தகவல்கள் என்பன சேர்த்துக் கொள்ளப்பட இருக்கின்றன. இவ்வாய்வானது முதலில் மேலைத்தேய ஒழுக்க மெய்யியலில் கெடுதி பற்றிய பிரச்சினையானது அதிகம் விவாதத்திற்குட்படும் ஒன்று எனச் சுட்டிக்காட்டும் பொருட்டு கிறிஸ்தவ சமய மெய்யியலில் கெடுதி பற்றிய பிரச்சினையின் அறிமுகம் வழங்கப்படுகின்றது. அடுத்து இந்திய தத்துவங்கள் என்னும் போது வைதிக, அவைதிக தத்துவங்கள் என இரண்டாக வகுத்து, வைதிக தத்துவங்களில் உபநிடதம், வேதாந்தம், சைவ சித்தாந்தம், தர்சனங்கள் என்பனவும் அவைதிக தத்துவங்கள் என்ற வகையில் சமணம், பௌத்தம், உலகாயும் என்பனவுமே கெடுதி பற்றிய பிரச்சினையின் நோக்கில் ஆய்வு செய்யப்படுகின்றன.

புலம்பெயர் தேசங்களில் தமிழ்ப் பண்பாட்டைத் தக்க வைத்துக் கொள்ளுதல்: 'முகங்கள்' சிறுகதைத் தொகுப்பினை அடிப்படையாகக் கொண்ட ஒரு நோக்கு நிலை

வ. நந்தகோபாலன்

தமிழ்த்துறை, கலைப்பீடம், யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
vathanarekananthagobal@yahoo.com

சுருக்கம்: உலகில் எங்கெங்கு தேசவிடுதலைப் போராட்டங்களும் யுத்தங்களும் ஒடுக்குமுறைகளும் நடைபெறுகின்றனவோ அங்கிருந்தெல்லாம் மக்கள் எதோவொரு வகையில் புலம் பெயர்ந்து கொண்டு தான் இருக்கிறார்கள். இவ்வாறானதொரு தவிர்க்க முடியாத காரணத்தினாலேயே ஈழத்தமிழர் சமூகமும் தாம் பாரம்பரியமாக வாழ்ந்த பிரதேசங்களை விட்டுப் புலம்பெயர்ந்தது. ஈழத்தமிழர்களின் இப்புலம்பெயர்வு தமிழிலக்கியத்தில் புலம்பெயர் இலக்கியம் என்ற புதிய பகுப்பை உருவாக்கியது. புலம்பெயர் படைப்பாளிகளது நாவல்கள், சிறுகதைகள், கவிதைகள் என்பன தத்தம் அளவில் முழுமை பெற்றனவாகக் காணப்படுகின்றன. இவற்றுள்ளே புலம்பெயர்ந்த புதுச்சூழலில் புலம்பெயர்ந்தவர்களின் முகங்களை தோலுரித்துக்காட்டும் ஒரு முயற்சியாக ஐம்பது சிறுகதைகளை உள்ளடக்கிய முகங்கள் சிறுகதைத் தொகுப்பு விளங்குகின்றது. தமிழிலக்கிய வரலாற்றுப்போக்கிலே தவிர்க்கப்பட முடியாத ஒன்றாகவும், தனித்துவமான ஒன்றாகவும் புலம்பெயர் இலக்கியம் திகழ்ந்து வருகிறது. ஈழத்துத் தமிழிலக்கியம் இதுவரை எதிர்கொள்ளாத, அழிந்திராத புதிய அனுபவங்களை கலையழகியவூடன் முன்வைக்கின்ற ஒன்றாக புலம்பெயர் இலக்கியம் விளங்குகின்றது. புலம்பெயர் படைப்புக்களுள் கவிதைத் தொகுப்புக்களே அதிகமானவையாகும். எனினும் கவிதைகளுக்கு அடுத்ததாக அதிகம் வெளிவந்தவை சிறுகதைகளேயாகும். சிறுகதைகளினூடாக ஈழத்துத் தமிழ் மரபின் தொடர்ச்சியையும் புதிய பாய்ச்சலையும் அவதானிக்கக் கூடியதாக உள்ளது. 1983-2004 வரையான காலப்பகுதியில் ஏறத்தாழ 80ற்கும் அதிகமான சிறுகதைத் தொகுப்புக்கள் வெளி வந்துள்ளமை குறிப்பிடத்தக்கது. தமிழ்ப் பண்பாட்டுக் கூறுகளும் மேலைத்தேயப் பண்பாட்டுக் கூறுகளும் ஒன்றோடொன்று மோதும் நிலையில் நிகழும் உணர்வுத் தாக்கங்களை, பண்பாட்டுப் பிறழ்வுகளை எடுத்துக் காட்டுவனவாக முகங்கள் தொகுப்பிலுள்ள சிறுகதைகள் அமைந்துள்ளன. எனவே இவை பற்றிய ஆய்வினை மேற் கொள்ள வேண்டியது அவசியமானதாக உள்ளது. ஈழத்துத் தமிழிலக்கியத்தின் தொடர்ச்சியாகவும் அதன் இன்னோர் கட்ட வளர்ச்சியாகவும் புலம்பெயர் தமிழிலக்கியம் திகழ்கின்றது. இலங்கை சுதந்திரமடைந்ததன் பின்னர் 1956 இலிருந்து தொடங்கிய புலம்பெயர்வானது இற்றை வரைக்கும் தொடர்ந்து கொண்டே இருக்கின்றது ஒரு தேசிய இனத்தின் இருப்புக்கும் தேசியத்தை நிலை நிறுத்துவதற்கும் சுய மொழி இலக்கியத்தினுடைய பங்களிப்பு கணிசமானது. அந்த வகையிலே புலம்பெயர்ந்தோர் தமது எண்ணங்களைப் பகிர்ந்து கொள்ளவும் பதிவு செய்யவும் முனைந்தனர். புலம்பெயர் இலக்கியம் தமிழிலக்கியத்திற்குப் புதிய பரிமாணங்களைத் தந்திருக்கிறது. நாங்கள் இதுவரை அறியாத தளங்களுக்குச் சென்றிருக்கிறது. இவ் இலக்கிய அனுபவங்கள் இதுகால வரையும் காணப்படாதவை. தமிழிலக்கியம் முழுவதற்கும் இது புதியதாகக் காணப்படுகிறது. ஈழத்துத் தமிழிலக்கியம் இதுவரை எதிர்கொள்ளாத பல புதிய பிரச்சினைகளையும், வாழ்வனுபவங்களையும், பண்பாட்டு மாற்றங்களையும் இவ்விலக்கியத்தினூடாகப் பேசுகின்றனர்.

இந்நிலையில் பல எழுத்தாளர்களது சிறுகதைகளைக் கொண்ட இத் தொகுதியினூடாக வெளிப்படுகின்ற தமிழ்ப் பண்பாட்டுக் கலாசாரத்தில் ஏற்பட்ட முரண் நிகழ்வுகளையும், பல பண்பாட்டு மாற்றங்கள் ஏற்பட்ட போதிலும் தமிழர் தம் மொழி, பண்பாட்டினைத் தக்க வைத்துக் கொள்வதற்காக மேற்கொள்ள வேண்டிய முயற்சிகளின் தேவை குறித்தும் எடுத்துக் காட்டும் அதே வேளை படைப்பாளர்களது ஆளுமைகளை அவர் தம் படைப்புக்களினூடாக இனம் காண்பதும் இவ் ஆய்வின் நோக்கமாகும். இந்த ஆய்வானது விபரண ஆய்வு முறையினை அடிப்படையாகக் கொண்டு மேற் கொள்ளப்படுகிறது. முகங்கள் தொகுப்பில் உள்ள சிறுகதைகளினூடாக புலப்படும் பண்பாட்டுப் பிறழ்வுகளையும், அதனைத் தக்க வைத்துக் கொள்வதற்கு பண்பாடு என்ற சொல்லாக்கத்தினையும் தமிழ்ப் பண்பாடு என்ற சொல்லாக்கத்தினையும் விளக்குவதோடு தமிழர்களுக்கே உரிய பண்பாடுகளையும் அவை ஏனைய பண்பாட்டிலிருந்து எவ்வாறு வேறுபடுகின்றன என்பதையும் எடுத்துக்காட்டித் தமிழ்ப் பண்பாட்டின் தனித்துவத்தையும் சுட்டுவதோடு தமக்கென ஒரு பண்பாட்டுப் பாரம்பரியம் கொண்டவர்கள் புலம்பெயர் சூழல் தந்த சுதந்திரத்தினால் பல்வேறு பண்பாட்டுச் சிக்கல்கள், பிறழ்வுகளுக்கு முகம் கொடுக்க வேண்டியவர்களாகக் காணப்பட்டதையும் தனிமனித ஒழுக்கப் பிறழ்வுகள், குடும்பம் என்ற அமைப்பு சிதைவடைதல், திருமண உறவு நிலையில் ஏற்படும் சிக்கல்கள், பெண்களது அநாகரிகமான போக்கு நிலை என்பன மாற்றப்பட வேண்டியன குறித்தும் முகங்கள் சிறுகதைத் தொகுப்பினூடாக ஆராயப்படுகின்றன. இருபதாம் நூற்றாண்டின் இறுதிப் பகுதியில் தோற்றம் பெற்ற புலம்பெயர் இலக்கியமானது தனது பரப்பினை அகலித்துச் செல்கின்ற வேளையில் இவை பற்றிய ஆய்வுகளானவை, புலம் பெயர் சூழல் அளித்த வாழ்வியல் அனுபவங்களையும் அதனால் அடைந்த துன்பங்கள், துயரங்கள், ஏமாற்றங்கள் என்பனவற்றினைப் படைப்புக்களினூடாக வெளிப்படுத்தப்படும் போது எதிர்கால சந்ததியினரிடையே விழிப்புணர்வினை ஏற்படுத்த முடியும். முகங்களினூடாகப் புலப்படும் பண்பாட்டுச் சிக்கல்களானவை தமிழ்ப் பண்பாடு பற்றிய மீள் வாசிப்பினையும் தமிழ்ப் பண்பாட்டில் ஏற்பட்ட மாற்றங்களையும் அறிந்து கொள்ள உதவுவதோடு, தமிழ்ப் பண்பாட்டினை தக்க வைத்துக் கொள்ள வேண்டிய தேவையினையும் வலியுறுத்தி நிற்கின்றது.

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கோயில்களின் ஆகமமயமாதல் குறித்த உசாவல்**

வ.மகேஸ்வரன்

தமிழ்த்துறை, பேராதனைப் பல்கலைக்கழகம், இலங்கை
vallimahes@yahoo.com

சருக்கம்: சமூக மேல்நிலையாக்கம் என்பது பல்வேறு காரணிகளால் ஏற்படுவதாகும். எனினும் சமய சந்தர்ப்பங்கள் அவற்றுள் ஒரு காரணியை மட்டும் முதன்மைப்படுத்துவதாக அமைந்தும் விடுகின்றன. புராதன இனக்குழு அமைப்புகள் தம்மை மேல்நிலைப்படுத்துவதற்குப் பல்வேறு காரணிகளைத் துணைகொண்டதைப் பண்பாட்டு மாநிடவியலூடாக அறியலாம். சமகாலத்திலும் சமயின்மையான சமூக அடுக்கமைவு காணப்படுகின்றது. சாதியம், கல்வி, பொருளாதாரம் என்பன இந்தச் சமயின்மையைத் தீர்மானிக்கின்றன. இந்தக்கட்டமைவுள் இருந்து வடபுலத்துச் சமூக அமைப்பொன்று மேல்நிலையாக்கம் பெற்றதான ஆய்வாக இக்கட்டுரை முன்மொழிவு அமைகிறது. இவ்வாய்வின் நோக்கங்களாக (i) சமூக மேல்நிலையாக்கம் என்ற எண்ணக்கருவின் அடிப்படையில் ஒரு சமூகத்தின் வளர்ச்சியை, விருத்தியை இனங்காண்பதும் (ii) சமூக மேல்நிலையாக்கத்திற்கு சமயம், வழிபாட்டு நிறுவனம் என்பன எவ்வகையில் அடையாளங்களாக உள்ளன என்பதை வெளிக்கொணருவதுமாகும். யாழ்ப்பாணத்துச் சாதிய அடுக்கமைவில் பல குழுமங்கள் புறந்தள்ளி வைக்கப்பட்டபோது அக்குழுமங்கள் இது தான் நமக்கு விதிக்கப்பட்ட விதி என்ற அடங்கிப்போதல் முறையில் நீண்டகாலம் உரைநிலையில் அடங்கிக் கிடந்து சமூக அசைவியக்கத்தின் பிரதான துணைப் பங்காளிகளாக விளங்கினர். எனினும் நவீனத்துவம், இடதுசாரிச் சிந்தனைத் தளங்களின் விரிவாக்கம் ஏற்பட்டபோது அவர்கள் தமக்கான உரிமைகளைப் பெற முயன்றனர். அது உரிமைப் பேராட்டமாக மாறியது. மேல்நிலையாக்கம் குறித்த செயற்பாடாக அது அமையவில்லை. விடுதலை இயக்கங்களின் சாதிமறுப்பு நடவடிக்கைகள் நீண்டகாலம் நிலவிவந்த அமைப்பு ரீதியான விடயங்களை இல்லாதொழிக்க முயன்றதாகவும் வலிந்து திணித்ததாகவும் அமைந்தன. எனினும் மறுதலையாகவும் அமைதியாகவும் அவ்வாறான மக்கள் தமக்கான பொருளாதாரவளம், அதனுடான கல்வி ஆகியவற்றின் துணைகொண்டு தங்கி வாழும் நிலையில் நின்று விடுபட முனைந்து தமது நிலையை உயர்த்தினர் இவ்வாறான மேலெழுச்சி/மேலாக்கம் என்பதை ஏனைய சமூகங்களுக்கு வெளிப்படுத்தவும், ஏனைய சமூக நடவடிக்கைகளுக்குச் சமமாகத் தமது நடவடிக்கைகளை இனங்காட்டவும் உரிய களமாகத் தமது சிறுதெய்வக் கோயில்களைப் பயன்படுத்தினர். வேள்வி, உயிர்ப்பலி என்ற சடங்குகளுடன் சிறுதெய்வப் பாரம்பரியத்துடன் நிலவி வந்த கோயில்கள் மறுசீராக்கம் பெற்றன. ஆகம முறையிலமைந்த கோயில்களுக்குச் சமானமான வளர்ச்சியை அவை காட்ட முனைந்தன. கோயில் கட்டமைவு மாத்திரமன்று அது சார்ந்த மக்களது சமூகப் பழக்கவழக்கங்களிலும் வாழ்வு முறைகளிலும் இம்மாற்றம் இடம்பெறலாயிற்று. ஆச்சமூகங்கள் தமக்கான அங்கீகாரத்தை கோயிலை முன்னிறுத்தி பெற்றுக்கொள்ள முயன்ற குழுவை நாம் இதனூடாக அறியலாம். இது விடய ஆய்வு என்ற அடிப்படையில் அமைந்துள்ளதால் கோண்டாவில் கிராமத்தில் “பேச்சியம்மன்” என்ற சிறு தெய்வக்கோயில் அருள்மிகு மனோன்மணி தேவஸ்தானமாக மாறிய வரலாற்றை முன்னிறுத்தி ஆராயப்படுகின்றது. சமூகமேல்நிலையாக்கம் என்பது வலிந்து புகுத்த முடியாத ஒரு செயற்பாடு. அதனைக் காலமும், காரணிகளும் நிர்ணயிக்கும். அவை ஒன்றுக்கொன்று பொருந்தி வருகின்ற போது மாற்றம் என்பது அமைதியாக நடந்தேறிவிடும்.

சம்ஸ்கிருதமொழி வளத்திற்கு உரையாசிரியரின் பங்கு மல்லிநாதர் ஓர் ஆய்வு

ச. பத்மநாபன்

சம்ஸ்கிருதத்துறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
padmanaban73@gmail.com

சுருக்கம்: சம்ஸ்கிருதமொழி இந்தியாவின் தொன்மையான மொழி. நாலாயிரம் வருஷ வரலாறு இம்மொழிக்கு உண்டு. இந்தோ - ஐரோப்பிய இலக்கியத்தில் எஞ்சியிருக்கும் இலக்கியப் பரப்பில் மிக விரிவானது சம்ஸ்கிருதமொழியே ஆகும். இருக்கு வேத இலக்கியம் தரும் வேதப் பிரார்த்தனைகள் இம்மொழியின் முதல் இலக்கியம். தொன்மையுடன் தொடர்ச்சியாக வளர்ச்சியும் பெற்ற அம்மொழியை பல்வேறு கவிஞர்கள் பல்வேறு இலக்கிய வகைகளுடாக ஜனரஞ்சகப்படுத்தியுள்ளனர். இவ்வகை இலக்கியங்களை அறிந்து கொள்ளும் இலக்கியக்கொள்கை நுட்பங்களை காவியவியலாளர்கள் பலர் வளம்படுத்தியுள்ளனர். காவியவியலாளர்கள் எனும் தன்மையினாலும் ஒரு காவிய விமர்சகர் எனும் நிலையாலும் உயர்ந்த புலமைத்துவத்துடன் இலக்கியச் செல்நெறியையும் தனது புலமைத்துவத்தையும் வெளிப்படுத்தி சம்ஸ்கிருதமொழியை வளம்படுத்தியோர் வரிசைகளில் உரையாசிரியர்களின் பங்கு மகத்தானது. இத்தகைய பங்களிப்புக்களை நல்கியவர்களுள் ஒருவர் மல்லிநாதர் ஆவார். சம்ஸ்கிருத காவியவியலின் சிறப்புக்களையும், திறனாய்வுத் தன்மைகளையும் இலக்கிய இலக்கண யாப்பியற் புலமைகளையும் வெளிக்கொணர்ந்த சிறப்பு மல்லிநாதர் உரையின் தனித்துவமாகும். இவ்வகையில் மகாகாவியங்களான ரகுவம்சம், குமாரசம்பவம், கிராதாஜ்ஜனீயம், சிகபாலவதம், பட்டிகாவியம் என்பனவற்றிற்கும், காளிதாசரது கண்ட காவியமாகிய மேகதூதத்திற்கும் உரை எழுதியுள்ளார். வேறு உரைகளையும் ஆக்க இலக்கியங்களையும் இயற்றியுள்ளார். இத்தகைய சிறப்புடைய மல்லிநாதரின் இலக்கியப்பணி சம்ஸ்கிருத இலக்கியத்தை உயர்வுபடுத்தவும் இனங்காணவும் முன்னுதாரணமாகக் கொள்ளப்படுகின்றது. அதேவேளை மல்லிநாதர் வாழ்க்கை வரலாறு, சம்ஸ்கிருதமொழி வளர்ச்சிக்கு ஆற்றிய பங்குகளும் பணிகளும் சம்ஸ்கிருத இலக்கிய வரலாற்றில் இடம்பெறவில்லை என்பதோடு சம்ஸ்கிருத உரையாசிரியர் வரலாற்றை எழுதவேண்டிய தேவையையும் ஆய்வுப்புலத்தையும் ஏற்படுகின்றது.

யாழ்ப்பாணத்தில் இந்து சமய அனுஷ்டானங்கள் பற்றிய சமகாலச் செல்நெறிகள்

சி. ரமணராஜா

இந்து நாகரிகத்துறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை

சுருக்கம்: யாழ்ப்பாணத்து மக்கள் தமக்கேயுரியதான பாரம்பரியமிக்க உயர்ப்பண்பாட்டு விழுமியங்களைக் கடைப்பிடித்து வருகின்ற, நாகரிகம் மிக்க சமூகத் கூட்டத்தினராக இருந்து வருகின்றனர். ஆனால் நாட்டிலே காணப்பட்ட அசாதாரண குழலமைவுகளும் அதனால் தோன்றிய இடப்பெயர்வுகள், அதன் விளைவுகள், மதமாற்றம், நவீன சாதனங்களின் ஆக்கிரமிப்பு, உலக மயமாக்கல், நாகரிக மாற்றம், நம்பிக்கை குறைவு போன்ற பின்புலங்களால் பண்பாட்டு விழுமியங்களைக் கடைப் பிடிப்பதில் இடர்பாடுகள் எழுந்துள்ளன. குறிப்பாக சமய அனுஷ்டானங்களை கடைப்பிடிப்பதில் பாரிய இடைவெளி தோன்றியுள்ளது. தனிமனிதன் சார்ந்த நிலையில் கடைப் பிடித்தொழுகும் அனுஷ்டானங்களின் முக்கியத்துவத்தினையும் அவற்றைக் கடைப் பிடிப்பதில் சமகாலத்தில் ஏற்பட்டுள்ள சவால்களை இனங்கண்டு வெளிக்கொண்டு வருவதும், அவற்றின் தாற்பரியத்தினை உணர்த்துவதனுடாக மக்களின் தனித்துவமான மேம்பட்ட வாழ்வுக்கு முன்மொழிவுகளை எடுத்துரைப்பதும் இவ்வாய்வின் நோக்கங்களாகும். நாட்டிலேற்பட்ட அசாதாரண சூழ்நிலைகளும் அவற்றினால் ஏற்பட்ட மாற்றங்களும் சமய, சமுதாய நிலைகளிலும், அவை சார்ந்த அனுஷ்டானங்களைக் கடைப்பிடிக்கும் நிலைகளிலும் சவால்களை தோற்றுவித்துள்ளன. சமய அனுஷ்டானங்களின் பெறுமானங்களை அறிந்திராமை, இந்து ஆலயங்களின் நிர்வாகச் சீர்கேடுகள், சமய நிகழ்வுகளில் அவை சார்ந்த ஒழுங்கு முறைகள் பேணப்படாமை, சிறு தெய்வ வழிபாட்டு முறைகள், மனித வழிபாட்டு முறைகள் போன்றவற்றின் எழுச்சி, மாறி வரும் உலக மயமாக்கலும் நவநாகரிக மாற்றமும், அசாதாரண குழலமைவுகளால் மனித நடத்தையில் ஏற்பட்ட மாற்றங்கள், நவீன இலத்திரனியல் சாதனங்களின் ஆக்கிரமிப்பு போன்றவற்றின் தாக்கங்களால் சமய அனுஷ்டானங்கள் கேள்விக்குறியாகி வரும் தன்மை இனங்காணப்பட்டுள்ளது. தனிமனிதன் பிறந்ததில் இருந்து இறக்கும் வரை கடைப்பிடித்துச் செல்லும் சமய அனுஷ்டானம் சார்ந்த நெறிமுறைகளே இவ்வாய்வின் எல்லையாகும். இவ்வாய்வினது ஆய்வுப் பிரதேசமாக யாழ்ப்பாணத்தைக் கொண்டுள்ளது. விபரண ஆய்வு, ஒப்பீட்டாய்வு, பகுப்பாய்வு, எடுத்துக்காட்டு ஆய்வு, மற்றும் கள ஆய்வு முறைமைகளின் துணைகொண்டு இவ்வாய்வு மேற்கொள்ளப்படுகின்றது. யாழ்ப்பாண சமூகத்தவர்களால் பாரம்பரியமாக கடைப்பிடித்து வந்த சமய அனுஷ்டானங்கள், சமகாலத்தில் அவர்களிடமிருந்து அவை அருகிச் செல்லும் தன்மை, அவற்றை அனுஷ்டிப்பதில் அவர்கள் எதிர்நோக்கி வரும் பிரச்சினைகள் போன்றன இவ்வாய்வின் மூலம் வெளிக்கொண்டு வரப்படுகின்றன.

அந்த வகையில் இவ்வனுஷ்டானங்களைக் கடைப்பிடித்துச் செல்லவும், அடுத்து வரும் சந்தயினருக்கு அவற்றைக் கடத்தவும் முன் வைக்கப்படுகின்ற தீர்வுகளாக பலவுள்ளன. மக்களிடம் சமகாலத்தில் செல்வாக்குச் செலுத்தி வருகின்ற இலத்திரனியல் சாதனங்களுடாக சமய நிகழ்வுகளுக்கு முதன்மை கொடுத்தல். முற்றும் அனுஷ்டானம் சார்ந்த கருத்துக்களை மிக எளிமையாகவும், சுருக்கமாகவும் நூல் வடிவில் வெளியிடுதல், சமய அனுஷ்டானங்களிலுள்ள அறிவியல் சிந்தனைகளை வெளிப்படுத்துதல், சொற்பொழிவுகள் உரைகள் மூலம் அவற்றுக்கு முக்கியத்துவமளித்தல், பாடசாலைகள், கல்லூரிகளிலுள்ள இந்து மன்றங்களினூடாக இவை சார்ந்த போதனைகளுக்கு முக்கியத்துவம் கொடுத்தல் மற்றும் இந்து சமய நிறுவனங்களுடாக அவற்றின் பெறுமதியினை உணர்த்துதல், CD, DVDக்கள் மூலம் அவற்றை வெளியிடுதல். பாடசாலைகள் கல்லூரிகளில் உள்ள இந்து மன்றங்களினூடாக இவற்றின் முக்கியத்துவத்தை எடுத்துரைத்தல். சமய பாடங்களில் சமய அனுஷ்டான போதனைகளுக்கு முக்கியத்துவம் அளித்தல். சமய பாடம் யாவரினாலும் கற்பிக்கலாம் என்ற தவறான எண்ணம், கற்றறிந்தோர் மனங்களில் இருப்பது மாற்றப்பட வேண்டும். தகுதி வாய்ந்த ஆசிரியர்கள் சமய பாடங்களை கற்பிப்பதற்கு நியமிக்கப்படாமையினால் மாணவர்களுக்கு எழும் அனுஷ்டானம் சார்ந்த சந்தேகங்களையும், போதிய விளக்கங்களையும், அதில் உள்ள அறிவியல்சார் வெளிப்பாடுகளையும் வழங்க முடியாமல் உள்ளது. எனவே தகுதி வாய்ந்த ஆசிரிய நியமனங்கள் மூலம் பாடசாலைகளில் சமயக் கல்வியின் முக்கியத்துவம் உணர்த்தப்படல் வேண்டும். மாணவர் சமூகத்திற்கான இந்து சமய அனுஷ்டானம் பற்றிய அறிவையும் விழிப்புணர்வையும் பாடசாலை மட்டத்தில் ஏற்படுத்துதல். இத்தகைய விழிப்புணர்வினைப் பாடசாலைப் பாடவேளைகளில் தியான யோக வகுப்புக்களாக நாடாத்துதல் கூட்டுப்பிரார்த்தனை, மற்றும் சமயம் சார்ந்த சுற்றுலா மூலமாக ஏற்படுத்தலாம் என்றவாறாக தீர்வுகளை முன்வைத்துச் செயற் படுத்துவதனுடாக சமய அனுஷ்டானங்களைத் தக்க வைத்துக் கொள்ள முடியுமென்பது இவ்வாய்வின் மூலம் பெறப்படுகின்றது.

இலக்கண, மொழியியல் நோக்கில் தன்வினை, பிறவினை

மா. ருபவதன்

ஊவா வெல்லஸ்ஸப் பல்கலைக்கழகம்
markruban@yahoo.co.uk

சுருக்கம்: தமிழில் உள்ள வினைச்சொற்களின் வகைப்பாடுகளில் தன்வினை, பிறவினை என்ற இருமைநிலை வகைப்பாடு முக்கியமானதாகும். ஆனால், அதற்குத் தமிழ் இலக்கணத்தில்- வினையியல் எனும் தனிப்பகுதி இருந்துங் கூட - அதிக முக்கியத்துவம் கொடுத்து தெளிவுற விளக்கியிருப்பதாகத் தெரியவில்லை. பன்னெடுங்காலமாக இவ்வினை வகைப்பாடு பல்வேறு விளக்கங்களைப் பெற்று வந்திருக்கிறது. மேலும், தன்வினை மற்றும் பிறவினையுடன் சேர்த்துக் காரணவினை என்ற ஒன்றையும் தமிழ்மொழிசார் மொழியியலாளர் விளக்கியுள்ளனர். இவ்வாய்வு தன்வினை, பிறவினை என்பது வினையியலில் முக்கியமான ஒரு வகைப்பாடு என்பதைக் காரணங்களுடன் நிறுவ முற்படுகிறது. அந்தவகையில், தொல்காப்பியர் காலந் தொடக்கம் தற்கால மொழியியலாளர் வரை தன்வினை, பிறவினை பற்றிக் குறிப்பிடப்பட்டுள்ள கருத்துக்களைத் தொகுத்தெடுத்து மரபிலக்கணக் கோட்பாடுகள் மற்றும் மொழியியல் கோட்பாடுகளைக் கொண்டு பகுப்பாய்வு செய்து அவை குறித்துச் சிறந்த விளக்கம் கொடுக்க இவ்வாய்வு முனைகின்றது.

அத்தைவத வேதாந்தமும், தேரவாத பௌத்தமும் குறிப்பிடும் இறுதி இலக்கு - ஓர் ஒப்பீட்டாய்வு

இ. சகாயசீலன்

ஒப்பீட்டுச்சமயமும் சமூக நல்லுறவும் கற்கைகள் துறை, கலை கலாசார பீடம்,
கீழ்க்குப் பல்கலைக்கழகம், இலங்கை

rsahayaseelan@yahoo.com

சுருக்கம்: மெய்யியல் தொடர்பான ஆராய்ச்சியில் மனிதவாழ்வின் இறுதி இலக்குத்தொடர்பான ஆராய்வும் மிக முக்கியமானதாகும். அந்த வகையில் எல்லா இந்திய முறைமைகளும் அறிவொளி அல்லது விடுதலை எனும் ஒரே விதமான தேற்றப்படடையே சுட்டிநிற்கின்றன. அந்த விடுதலையானது வெவ்வேறு முறைகளில், வெவ்வேறு பெயர்களால் அழைக்கப்படுகின்றது. அது நிர்வாணம், மோட்சம், வீடுபேறு, சுதந்திரம் என்றெல்லாம் அழைக்கப்படுகின்றன. இவை வெவ்வேறு வழிகளில் விளக்கப்படுகின்றன. இவ்வாறு வெவ்வேறு வழிகளில் விளக்கப்பட்டிருப்பினும், விடுதலை எனும் விடயத்தில் பெரும்பாலும் ஒருமைப்பாடுகள் காணப்படுகின்றன. மிக முக்கியமான விடயம் என்னவெனில், விடுதலை என்பதைப் புலமை சார்ந்த வகையில் கிரகித்துக்கொள்ளமுடியாது என்பதாகும். எண்ணக்கரு ரீதியாக இறுதி இலக்கிற்குக் கொள்ளவோ, அடையவோ முடியாது. விடுதலையடையும் அனுபவமானது ஏனைய அம்சங்களைப்போல் பிரசிலிக்க முடியாதவையாகக் காணப்படும் அதேவேளை, இறுதியில் விடுதலையானது இறுதி நோக்கத்தினைச் சுட்டிக்காட்டுவதாக உள்ளது. பிரதான சமயங்களாக இந்துசமயம், கிறிஸ்தவம், இஸ்லாம் போன்றன காணப்படுகின்றன. இவை மனித வாழ்வின் இறுதி இலக்குப் பற்றியும் குறிப்பிடத்தவறவில்லை. இச்சமயங்கள் ஒவ்வொன்றிலும் பல்வேறு தத்துவப்பிரிவுகள் காணப்படுகின்றன. அந்த வகையில் இந்துசமயத்தில் அத்தைவத வேதாந்தமும், பௌத்தத்தில் தேரவாத பௌத்தமும் குறிப்பிடும் மனிதவாழ்வின் இறுதி இலக்குப்பற்றி இங்கு ஆராயப்படுகின்றது. இந்து சமயத்தில் காணப்படும் பல்வேறு தத்துவப்பிரிவுகளைக் காட்டிலும், அத்தைவத வேதாந்தம் தொடர்பான பார்வை அறிஞர்கள் மத்தியில் சுடுதலான கவனத்தைப் பெற்றுள்ளதாலும், பௌத்தத்தில் ஏனைய பிரிவுகளைக் காட்டிலும் தேரவாத பௌத்தம் பௌத்தம் கொள்கைகளையும், கோட்பாடுகளையும் இறுக்கமாகக் கடைப்பிடிப்பதாலும் அத்தைவத வேதாந்தமும், தேரவாத பௌத்தமும் ஆய்வுக்காகத் தேர்ந்தெடுக்கப்பட்டுள்ளன. இந்தியச் சிந்தனை மரபிற் தேர்ந்தெடுத்த இறையிருப்பை அங்கீகரித்துப் பேசுகின்ற அத்தைவத வேதாந்தம் குறிப்பிடும் இறுதி இலக்குப் பற்றிய கருத்துக்களையும், இறையிருப்பை மறுப்பதனுடாகத் தத்துவக்கருத்துக்களை முன்வைக்கும் தேரவாத பௌத்தம் குறிப்பிடும் இறுதி இலக்குத் தொடர்பான கருத்துக்களையும் ஒப்பீட்டாராய்ந்து அவற்றுக்கிடையிலே காணப்படும் ஒன்றுபட்ட தன்மைகளையும், வேறுபாடான தன்மைகளையும் கண்டறிவது ஆய்வுக்குரிய பிரச்சினைப்பாகும். இந்திய சமுதாயத்தின் சில அடிப்படைத் தத்துவங்களையும், சிந்தனைகளையும் இவ்விரு தத்துவப் பிரிவுகளும் ஏற்றுக்கொள்கின்றன. இவை சில அம்சங்களில் வேறுபடுகின்றன. இவற்றை மனதிற் கொண்டு அத்தைவத வேதாந்தமும் தேரவாத பௌத்தமும் குறிப்பிடும் மனித வாழ்வின் இறுதி இலக்குப் பற்றிச் சொல்லப்படும் கருத்துக்களைத் தத்துவார்த்த அடிப்படையில் ஒப்பீட்டு ஆராய்வதே இவ்வாய்வின் நோக்கமாகும். அத்தைவத வேதாந்தம், தேரவாத பௌத்தம் போன்றவற்றில் கூறப்படும் இறுதி இலக்குத்தொடர்பாக எழுத்துவடிவில் வெளிவந்த நூல்களில் உள்ள தகவல்களை ஒப்பீட்டு, வரலாற்றுப் பகுப்பாய்வு, விவரணப்பகுப்பாய்வு போன்ற முறைகளில் இவ்வாய்வு மேற்கொள்ளப்படும். இவ்விரு தத்துவப்பிரிவுகளும் வினைப்பயன், கர்மக்கோட்பாடு, மறுபிறப்பு என்பன பற்றிய கோட்பாடுகளை ஒப்புக்கொள்கின்றன. பிறவி என்பது வினைப்பயனுக்கேற்ப மீண்டும் மீண்டும் இடையறாது நிகழ்வது. அது துன்பம் கலந்தது. பிறிவியிலிருந்து விடுபடுவதே மனித வாழ்வின் இறுதி இலக்காகும். அது துன்பம் நீங்கிய நிலை, புரணமான ஆனந்த நிலை. அத்தைவத வேதாந்தமும், தேரவாத பௌத்தமும் குறிப்பிடும் மனித வாழ்வின் இறுதி இலக்கினை இனம் கண்டு அவற்றுக்கிடையே காணப்படுகின்ற ஒற்றுமைத் தன்மை இவ்வாய்வின் மூலம் வெளிக்கொணரப்படும் என எதிர்பார்க்கப்படுகின்றது.

மனிதரல்லாத விலங்குகளுக்கும் உரிமைகள் உண்டா? ஓர் ஒழுக்க மெய்யியல் பகுப்பாய்வு

ந. சிவகரன், இ. நேகன்

மெய்யியல் துறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
sivakaran18@yahoo.com

சுருக்கம்: இந்த ஆய்வுக்கட்டுரையானது மனிதர்களைப்போலவே மனிதரல்லாத விலங்குகளுக்கும் உரிமைகள் உள்ளதா இல்லையா என்பது குறித்த ஓர் ஒழுக்க மெய்யியல் ஆய்வாக அமையவுள்ளது. சமகால ஒழுக்க மெய்யியலில் மனிதரல்லாத விலங்குகளது உரிமைகள் மற்றும் அதன் நலன்கள் தொடர்பான கருத்துக்கள், செயற்பாடுகள் முதன்மை பெற்று காணப்படுகின்றன. இத்தகைய சிந்தனைகளும் செயற்பாடுகளும் அண்மைக் காலங்களில் மேலைத்தேய நாடுகளில் அதிகமாக வலியுறுத்தப்பட்டு வருகின்ற போதிலும் இலங்கை, இந்தியா போன்ற தென்னாசிய நாடுகளில் மனிதரல்லாத விலங்குகளுக்குள்ள உரிமைகள் குறித்த விழிப்புணர்வோ அல்லது அவற்றினை பாதுகாக்கும் நடைமுறைகளோ திட்டங்களோ மிக அரிதானதாகவே காணப்படுகின்றன. மனிதர்கள் இன்று பல்வேறு தேவைகளுக்காக பிற விலங்குகளைக் கொல்கின்றனர் அல்லது துன்புறுத்துகின்றனர். அதாவது உணவிற்சாக, ஆய்வு கூடச் சோதனைகளுக்காக, கேளிக்கை நிகழ்வுகளுக்காக மூட நம்பிக்கைகளின் அடிப்படையில் வேள்விக்காக பயன்படுத்துதல் உள்ளிட்ட பல்வேறு நிலைகளில் துன்புறுத்தியும் கொன்றும் வருவதன் மூலம் மனிதரல்லாத விலங்குகளிற்கு பெரும் அச்சுறுத்தலை ஏற்படுத்துகின்றனர். அதமட்டுமன்றி இன்று தொழிற்சாலைகளில் வியாபாரத்திற்காக விலங்குகளினை உணவுக்காக உற்பத்தி செய்வது வழமையாக உள்ளது. இவ்வியாபாரத்தில் மனிதரல்லாத விலங்குகள் பல்வேறு சித்திரவதைக்கு உட்படுத்தப்படுகின்றன. ஆனால் உற்பத்தியாளர்களோ, அரசாங்கமோ அல்லது அவற்றினை உண்பவர்களோ மிருகங்களின் உணர்வைப் பற்றி அதிகம் கவலைப்படுவது இல்லை. காரணம் உற்பத்தியாளர்கள் மிருகங்களை உயிர் அற்ற பொருட்கள் போலவே கருதி உணவுப் பொதியாக்கி விற்பனை முகவர்களுக்கு அனுப்புகின்றார்கள். அரசாங்கங்கள் இச்செயற்பாட்டின் பொருளாதார முக்கியத்துவம் மற்றும் உணவு தேவை கருதி மிருகவதை பற்றி அக்கறை காட்டுவதில்லை. உணவு உற்பத்தியில் இருந்து விலகி வாழும் மக்களுக்கு உணவு எப்படி தங்களை வந்தடைகின்றது என்பதில் அக்கறையும் இருப்பதில்லை. இவ்வாறான செயல்கள் ஒழுக்க மெய்யியலில் அங்கீகரிக்கக் கூடியனவா என்பது வாதத்திற்குரிய ஓர் விடயமாகும். இவற்றை தெளிவு படுத்துவதாகவே இவ் ஆய்வு அமைகின்றது. இக்கட்டுரையானது பகுப்பாய்வு முறையியல், ஒப்பீட்டு முறையியல், வரலாற்று முறையியல் என்பனவற்றின் துணைகொண்டு வடிவமைக்கப்படுவதுடன் இக் கட்டுரைக்கு வேண்டிய தரவுகளானவை முதல் நிலைத்தரவு, இரண்டாம் நிலைத்தரவுகளினூடாக பெறப்படவிருக்கிறது. முதல்நிலைத் தரவுகளானவை கட்டுரையாளனால் நேரடியாக அவதானிக்கப்பட்ட விடயங்களுடனும் விலங்குகளது நலன் குறித்தப்பேசும் சமூக ஆர்வலர்களுடனான கலந்துரையாடல் மூலமாகவும் பெறப்பட்டவுள்ளது. இரண்டாம் நிலைத்தரவுகளானவை விலங்குகளது உரிமைகள் தொடர்பான ஒழுக்க மெய்யியலாளர்களின் நூல்களினூடாகவும் இந்த ஆய்வுடன் தொடர்புடைய சில சமூக நிறுவனங்களின் தரவுகள் மற்றும் உள்ளூர் பத்திரிகைக் கட்டுரைகள் மூலமும் பெறப்பட்டுள்ளன.

நடைமுறைப்பயன்பாட்டில் தமிழ்ப்பழமொழிகளின் உருமாற்றங்கள்

சி. சிவகுமார்

யா/அச்செழு சைவப்பிரகாச வித்தியாசாலை, நீர்வேலி, இலங்கை

சுருக்கம்: ஏட்டுக்கல்வி இல்லாத காலத்தில் இருந்தே தமிழில் பழமொழிகள் தோன்றி, அவை இடத்திற்கு இடம் காலத்திற்குக் காலம், சூழ்நிலைகளுக்கேற்ப சொல், பொருள் நிலைகளில் உருமாறிப் பயின்று வந்திருக்கின்றன. இவ்வாறு மூலவடிவம் சிதைவு அடைந்தமைக்கு செவிவழியாகக் கடத்தப்பட்டமை, தொகுப்பின் போதான தவறுகள், சூழல் மாறுபாடுகளே காரணம் ஆகும். எனவே பழமொழிகளின் உண்மை வடிவத்தினை ஆராய்ந்து வெளிக் கொணர்வதே இவ்வாய்வின் நோக்கமாகும். பண்டைய மக்களிடையே விருட்சமாக வளர்ந்திருந்த பழமொழிகள் காலங் காலமாகக் கடத்தப்படும் போது பல்வேறு உருமாற்றங்களைப் பெற்றுத் திரிபடைந்து உள்ளன. அதனைப் பல உப பிரிவுகளின் கீழ் நோக்கமுடியும். சிறப்பாக பொருட் சிதைவுப் பழமொழிகள், சொற்சிதைவுப் பழமொழிகள், நாட்டார் கதைவழிப் பழமொழிகள், கர்ண பரம்பரைக் கதைப் பழமொழிகள், இலக்கவிளக்கப் பழமொழிகள், மருத்துவ மற்றும் சோதிட உருமாற்றப் பழமொழிகள், விடுகதை வழிப் பழமொழிகள், பண்பு அல்லது குணம் காட்டும் பழமொழிகள் என்ற அடிப்படைகளில் பழமொழி உருமாற்றங்கள் பற்றி விரிவாக ஆராயப்படுகின்றது. வாய்மொழி ரீதியாகக் கடத்தப்பட்ட பழமொழிகள் சிதைவுக்கு உள்ளாகி இருக்கலாம். அல்லது விளக்கம் அற்றிருக்கலாம். அவற்றின் உண்மை வடிவத்தினைக் கண்டு உணர்வதே இவ்வாய்வின் குறிக்கோளாகும். தமிழ்ப் பழமொழிகளின் உண்மை வடிவங்களை ஆராய்ந்து அறிந்து எதிர்காலச் சந்ததியினரிடம் ஆவணப்படுத்தி வழங்குதல் கற்றறிந்தோரின் தலையாய பணியாகும். இந்த ஆய்வு, (i) தமிழ்ப் பழமொழிகள் சொல், பொருள் நிலைகளில் உருமாறியிருத்தல். (ii) காலம், இடம், சூழ்நிலைகளுக்கேற்ப பழமொழிகள் பல்வேறு விளக்கங்களுக்கு உட்பட்டிருத்தல். (iii) பழமொழிகளுக்கு ஏற்ற புதுமொழிகள் தோன்றியிருத்தல் என்பவற்றை இனங்கண்டுள்ளது. அறிவியல் உலகின் மாற்றங்களினால் தமிழ்ப் பழமொழிகளும், பண்பாடும் சிதைவு அடைந்துள்ளன.

யோ. கர்ணன் சிறுகதைகள் காட்டும் வாழ்வியல்

சி. செல்வரஞ்சிதம்

தமிழ்த்துறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
mssivasubramaniam@gmail.com

சுருக்கம்: யோ. கண்ணனின் இயற்பெயர் யோகநாதன் முரளி என்பதாகும். இவர் கவிதை, சிறுகதை, குறும்படம் என்ற படைப்பு இலக்கியங்களைப் படைத்து வருபவர் இவர் இரு சிறுகதைத் தொகுதிகளை வெளியிட்டுள்ளார். சிறுகதையின் முதற்றொகுதி 2010 அளவில் வெளிவந்தது. செகுவேரா இருந்த வீடு என்ற பெயரில் வெளிவந்த சிறுகதைத் தொகுதி போராட்டம் முடிவடைந்த பின்னர் 2012 மாசிமாதம் வெளியிடப்பட்டது. ஈழத்தமிழ் மக்களின் (30 வருடகாலம்) வாழ்வியல் இச்சிறுகதைகளின் ஊடாக புலப்படுத்தப்படுகின்றது. சிறுகதையின் ஊடாக வரலாறு சொல்லப்படுகின்றது. தமிழர்களின் மீட்சிக்குத் தேவையான பாடகற்பிதங்கள் இச்சிறுகதைகளின் ஊடாக புலப்படுத்தப்படுகின்றது. இந்நூல் இந்திய அறிஞர்களின் பாராட்டினைப் பெற்றது. தமிழர் ஒவ்வொருவரும் இந்நூலினைக் கற்பது கட்டாய தேவையாகும். முப்பது வருட கால போராட்ட வரலாறு சிறுகதைகளினூடாகப் பேசப்படுகின்றது. ஜனநாயக அடிப்படையில் பல விடயங்கள் அணுகப்படுகின்றது. சிறுகதை வடிவத்தின் ஊடாக விஞ்ஞான பூர்வமாக வாழ்வியல் பேசப்படுகின்றது. தமிழ்மக்களின் மேம்பாட்டிற்கு இந்நூல் ஒரு படிக்கல்லாக அமைகின்றது. இந்நூலின் முக்கியத்துவம் கருதி இவ்வாய்வு மேற்கொள்ளப்படுகின்றது. இவ்வாய்வு விமர்சன ஆய்வு, ஒப்பீட்டு ஆய்வு என்ற ஆய்வு முறையியலை அடிப்படையாகக் கொண்டது. சிறுகதை என்பதற்குப் பலர் பலவாறு விளக்கம் கொடுப்பர். “ஏதோ ஒரு காட்சியினை வழங்கி எவ்வளவோ உய்த்துணர வைக்கும் அரிய கலைநுட்பம் சான்ற கலைவடிவம். “ஒரு புள்ளிக்குள்ளேயே விசுவரூபம் தெரிய வேண்டும்” என்பர். இன்னும் குறிப்பிட்ட ஒரு சம்பவத்தில் மனித மனம் படும்பாட்டை அல்லது ஒரு பாத்திரம் இயங்குகின்ற முறைமையைக் குறிப்பதுவே சிறுகதை என யோசிரியர் கா.சிவந்தம்பி கூறுவது இங்கு குறிப்பிடத்தக்கது. தமிழ்க்கதை, கதைகதையாம் காரணமாம், அரிசி, சீட்டாட்டம், வேதாளத்திற்கு சொன்னகதை, சோசலிசம், திரும்பிவந்தவன், திரும்பி வந்தவன் பாலையடிச்சித்தர் பாவமன்னிப்பு, செகுவேரா இருந்த வீடு, ஐயனின் எஸ்.எல்.ஆர் இரண்டாவது தலைவர் என அவரது சிறுகதைகள் அமைகின்றன. பதின்மூன்று சிறுகதைகளை உள்ளடக்கியது. பண்முகப் பரிமாணங்கொண்ட சிறுகதைகள். ஆசிரியர் இக்கதைகளின் ஊடாக நேரடியாக வாசகர்களோடு பேசுகின்றார். இறந்த கால வாழ்வைக் காட்டுவதன் வாயிலாக எதிர்கால வாழ்வைத் திட்டமிடலாம். இலக்கியவாதிகள் இறந்த காலத்தின் ஊடாக நிகழ்கால எதிர்காலத்தைக் காட்டுவார்கள். யோ.கர்ணன் யுத்தத்தின் சாட்சியாக நிற்பவன் யுத்த சாட்சியத்தின் குரலாக நின்று ஜனநாயக வழியைக் காட்டுகிறார். போர் என்ற ஒன்று இனிமேல் இந்நாட்டில் இருக்கக் கூடாது. ஜனநாயக வழி என்பது நாட்டின் அபிவிருத்திக்கு வழிகோலும் என்பதை இச்சிறுகதைகள் புலப்படுத்துகின்றன. 30 ஆண்டுகளாக யுத்தம் நடைபெற்றது. அதனால் தனிமனிதன், சமுதாயம், நாடு பாதிப்புக்குள்ளாகியது. அவலத்தினாலும் சோகத்தினாலும் நாடு தடம்புரண்டது. அது பண்பாட்டை பாதித்து எனக் காட்டி அதில் இருந்து மீட்சி பெற வேண்டியதான அவசியத்தை இக்கதைகள் காட்டுகின்றன. தனித்துவங்கள், அடையாளங்கள், எச்சங்கள் அழிக்கப்பட்டன. பண்பாட்டினை மீண்டும் கட்டியெழுப்ப வேண்டிய தேவையை இக்கதைகள் வெளிப்படுத்துகின்றன. உத்திகளாக படிமம் கையாளப்படுகின்றது. அரவி, சீடாட்டம் என்ற கதைகள் படிம உத்தியைப் பயன்பற்றுக்கின்றன. தொன்மக்கதையை ஆசிரியர் பின்பற்றுவதைக் காணலாம்.

வேதாளம் சொன்ன கதை கதைத் தொன்மத்தைப் பயன்படுத்துவதைக் காணலாம் இக்கதைகள் யுத்தத்தின் காட்சியாக அமைகின்றன. அவர் பக்க சார்பற்று மனக்காட்சியின் (உள்சத்தியத்தின் தொனியில்) தொனியில் பேசுகின்றார். அவரது கதைகளில் பல வினாக்கள் சம்பந்தப்பட்டவர்களிடம் தொடுப்பவராக விளங்குகின்றார். யோகர்களின் பொய்கள் அற்ற ஈழத்து மக்களின் வாழ்வியல் ஆவணமாக பதியப்பட்டுள்ளது. இன்று ஈழப்போராட்டம் முடிவுக்கு வந்து மூன்றாண்டுகள் நிறைவு பெறப்போகும் இத்தருணத்தில் எல்லோருக்கும் வந்து சேர வேண்டிய மனநிலை வலராற்றிலிருந்து பாடம் கற்பதற்கான ஆவணமாக இத்தொகுப்பு அமைந்துள்ளது. மனச்சாட்சியுள்ள ஒவ்வொரு தமிழனும் இன்று வாசிக்க வேண்டிய மிகமுக்கியமான நூல். இது, யுத்த அனுபவத்தைத் தந்து வாழ்க்கையை உரை வைக்கிறது. போரை சமூகத்தில் இருந்து நீக்க வேண்டும்; அபிவிருத்தி நோக்கிச் செல்ல வேண்டும் என்பதே யோ.கர்ன்னனின் சிறுகதைகள் காட்டும் வாழ்வியலாகும். நிகழ்கால எதிர்காலத்தில் அமைதியான ஜனநாயக அடிப்படையிலான ஒரு வாழ்வியலை உருவாக்க தேவையான அடிப்படைச் சிந்தனைகளை முன் வைக்கின்றது. உரிமைகள் மறக்கப்படும் பொழுது அவலம் உண்டாகும் என இறந்த காலத்தைக் காட்டி நிகழ்கால, எதிர்கால வளர்ச்சி எப்படி அமைய வேண்டும் என சிறுகதைகள் காட்டுகின்றன. தனிமனிதன் சகல உரிமைகளோடு அமைதியாக சந்தோசமாக இருக்கும் பொழுது சமுதாயம் வளர்ச்சி பெறும். சமுதாயம் வளர்ச்சி பெற்றால் நாடு அபிவிருத்தியடையும் என்பதை இக்கதைகள் காட்டுகின்றன. இறந்த காலத்தில் ஏற்பட்ட அவல வாழ்வியல் நிகழ்கால எதிர்காலத்தில் இல்லாது புத்தெளிச்சி பெற வேண்டும் என்பதையே இக்கதைகள் கோட்டுக் காட்டுகின்றன.

யாழ்ப்பாணத்து இந்து ஆலயங்கள் எதிர்நோக்கும் சமகாலப் பிரச்சினைகளும், அவற்றுக்கான தீர்வுகளும்

க. சிறிமுரளிதரன்

இந்து நாகரிகத்துறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
ssrimuralitharan@yahoo.com

சுருக்கம்: இந்து சமயம் யாழ்ப்பாணப் பிரதேசத்தில் 86% மக்களினால் பின்பற்றப்பட்டு வருகின்றது. இந்து ஆலயங்கள் இந்துப்பண்பாட்டின் நிலைக்களனாக விளங்குகின்றன. பெரும்பாலான மக்கட்குழுக்களின் நிறுவனங்களான சனசமூக நிலையம், கிராம முன்னேற்றச்சங்கம், இளைஞர் விளையாட்டுக் கழகம், பொது மண்டபம், திருமண மண்டபம் போன்றவை ஆலயங்களுக்கு அருகிலேயே காணப்படுகின்றன. அந்த வகையில் இந்து சமய வாழ்வியலின் முக்கிய கூறாகிய ஆலயங்கள் கடந்த மூன்று தசாப்த காலங்களில் பல்வேறு காரணங்களினால் பெரும் நெருக்கடிகளை எதிர் கொண்டு வருகின்றது. இந்து ஆலயங்கள் எதிர்நோக்கும் சமகாலப் பிரச்சினைகளை இன்றைய சூழ்நிலையில் வெளிக் கொணர்வதும், இப்பிரச்சினைகளுக்கான காரணங்களைத் தெளிவாக இனம் கண்டு யாழ்ப்பாணத்து இந்து ஆலயங்களின் வளமான மேம்பாட்டிற்கான முன்மொழிவுகளை எடுத்துரைப்பதும், இவ்வாய்வின் நோக்கங்களாக அமைகின்றது. கடந்தகால அசாதாரண சூழ்நிலையினால் இந்து ஆலயங்கள் பெரும்பிரச்சினைகளை உள்வாங்க நேரிட்டது. அந்தவகையில் யாழ்ப்பாண பிரதேசத்தில் சமகாலத்தில் இந்து ஆலயங்கள் எதிர்கொள்ளும் பிரதான பிரச்சினைகளான நிர்வாகச் சீரகேடு, திருப்பணி வேலைகளின் ஒழுங்கீனம், கிரியைகள், விழாக்கள், விரதங்கள் என்பவற்றை முறைமையாகப் பேணாதிருத்தல், ஆலயங்களை வழிபட வருவோர் அதற்குரிய ஒழுங்கு, ஒழுக்கத்தை கடைப்பிடியாதிருத்தல், சாஸ்திரிய முறைப்படி ஆலயங்களில் கலைகள் பின்பற்றப்படாமை, ஆலயச்சூழல் பிற சமய நிகழ்வுகளால் பாதிப்படைதல், முடநம்பிக்கைகளுக்கு முக்கியத்துவம் கொடுத்தல், திருட்டுச் சம்பவங்கள் அதிகரித்தல் மற்றும் நகர நிர்மான வேலைத் திட்டங்களினால் பாரம்பரிய, புனித இடங்கள் அழிக்கப்படுதல் என்பன இனம் காணப்பட்டுள்ளன. இவ்வாய்வானது யாழ்ப்பாண மாவட்டத்தை மட்டும் ஆய்வு எல்லையாகக் கொண்டு ஆய்வு செய்யப்படுகின்றது. இவ்வாய்வானது விபரணமுறை, பகுப்பாய்வு முறை ஆகிய ஆய்வு முறைமைகளில் மேற்கொள்ளப்படும். மேலும் இவ்வாய்வுக்கான விடயங்கள் கள ஆய்வு மூலம் வெளிக்கொணரப்படும். யாழ்ப்பாணத்து இந்து ஆலயங்கள் சமகாலத்தில் பல பிரச்சினைகளை எதிர்நோக்கியுள்ளது என்பது இவ்வாய்வின் மூலம் பெறப்படுகின்றது. அந்தவகையில் இந்து ஆலயங்களின் சமகாலப் பிரச்சினைகளுக்கு இவ்வாய்வின் மூலம் முன்வைக்கப்படும் தீர்வுகளாக, மறுசீரமைக்கப்பட்ட ஆலய நிர்வாக, திருப்பணிச்சபைகளை உருவாக்குதல், இந்து ஆலய செயற்பாடுகளில் முதியவர்களுடன் பெண்கள், இளைஞர்களையும் இணைத்துக்கொள்ளுதல். மற்றும் இந்து மக்கள் மத்தியில் சமய விழிப்புணர்வை ஏற்படுத்தக்கூடிய செயற்பாடுகளை மேற்கொள்ளுதல் போன்ற முன்மொழிவுகளை முன்வைத்து, அவற்றினை நடைமுறைப்படுத்துவதன் ஊடாக, நீடித்து நிலைத்து நிற்கக்கூடிய வகையில் இந்து ஆலய செயற்பாடுகள் அமைந்து, மீண்டும் இந்து ஆலயங்களை செயல்திறன் கொண்ட ஒரு சமூக மைய நிறுவனமாக மாற்றியமைக்கமுடியும் என்பது இவ்வாய்வின் மூலம் பெறப்படுகின்றது.

தற்போதைய சூழலில் தமிழ் மொழியின் இருப்பும் எதிர்காலமும்: ஒரு மொழியியல் நோக்கு

சி.விஜிதா

Sri Lanka Foundation Institute, Sri Lanka
vijithasfi@gmail.com

சுருக்கம்: இலங்கையில் கடந்த மூன்று தசாப்தங்களாக நிலவி வந்த உள்நாட்டு யுத்தத்தைத் தொடர்ந்து, தற்போதைய மரபு மாற்றங்களினாலும் மொழிக் கலப்பினாலும் தமிழ் மொழியின் இருப்பையும் எதிர்கால நிலையையும் மொழியியல் ரீதியில் நோக்குவதாக இவ் ஆய்வுக்கட்டுரை அமைகின்றது. யுத்தம் முடிவற்றதைத் தொடர்ந்து இரண்டாம் மொழி நிலையில் தமிழ் கற்றல் - கற்பித்தல் நடவடிக்கைகள் தனியார் வகுப்புகள் தொடக்கம் பல்கலைக்கழகங்கள் வரை அதிகரித்து வருவதனைக் காணக்கூடியதாகவுள்ளது. மொழி கற்றல் - கற்பித்தல் ஊடாகப் பரஸ்பர புரிந்துணர்வையும், சமூக ஒருமைப்பாட்டையும், சமூகத்தொடர்பாடலையும், நேரிடைச் சிந்தனையையும் கட்டியெழுப்ப முடியும் என்ற நம்பிக்கையில் அரசு மொழிக் கல்வியையை அமுலாக்கியுள்ளது. குறிப்பாக சிங்கள மொழியைத் தாழ்மொழியாகக் கொண்ட சிங்கள மக்கள் தற்போது தமிழ் மொழியை இரண்டாவது மொழியாகக் கற்பதில் அதிக ஆர்வம் காட்டுகின்றனர். தற்போதைய சூழலில் தமிழ் ஒரு பல்வின மொழியாக மாறியுள்ளது என்பதும் தமிழ் மொழிக்கூரிய தனித்துவம், அடையாளம், செம்மொழிவாதம் ஆகியன பற்றி நோக்காமல் 'தொடர்பாடலை மையப்படுத்திய மொழிப் பிரயோகம்' என்ற நிலையில் தமிழ் மொழி விளங்குகின்றது என்பதையும் அவதானிக்க முடிகின்றது. ஊடகங்களில் தமிழ் மொழியுடன் கலந்து ஆங்கில மொழிப் பிரயோகத்தினால் 'தமிழிஷ்' (Tamilish) என்ற புதிய வழக்கும் அவ்வாறே சிங்கள மொழி கலந்து பேசும் 'சிங்களத் தமிழ்' என்ற புதிய வழக்கும் நிலவுவதனால் தமிழானது மொழிக்கலப்பிற்கு அதிகளவில் உட்படுத்தப்படுகின்றது. சிங்கள, தமிழ் மக்கள் நேரடியாகத் தொடர்புகொள்ளும் போது அவர்களுடைய பேச்சு மொழிகளில் ஏற்படும் மாற்றங்களினால் தமிழ் மொழியில் தற்போது அதிகளவில் சிங்கள மொழிச் சொற்கள் கலந்துள்ளன மட்டுமன்றி, இலக்கணம் மற்றும் மொழியில் ரீதியாகவும் பல மாற்றங்கள் ஏற்பட்டுள்ளதனை பேச்சு வழக்கிலும் ஊடகங்களிலும் அவதானிக்க முடிகின்றது. பல்வின சமூகத்தில் தமிழின் மதிப்பும் செல்வாக்கும் பற்றி எடுத்துக்காட்டி, தமிழின் இருப்பையும் எதிர்காலத்தையும் குறித்து மொழியியல் ரீதியாக ஆராய்தல், இரண்டாம் மொழி நிலையில் தமிழ் கற்றல் - கற்பித்தலில் செல்வாக்குச் செலுத்தும் காரணிகள், அவற்றின் இயங்குதளம் பற்றியும் தமிழ் மொழி எதிர்நோக்கும் சவால்களும் பிரச்சினைகளும் பற்றி விபரித்தல், தமிழ் மொழியின் தனித்துவம், பண்பாட்டு அடையாளங்களும் அம்சங்களும் கற்றல் - கற்பித்தல் மூலம் கட்டப்படும் விதம், தமிழ் மொழி பற்றிய கருத்தியல்களும் மரபு மாற்றங்களும், தற்காலத்தில் இவற்றின் பொருத்தப்பாடுகளும் வலுவடைமைகளும் பற்றி விளக்குதல் என்பன நோக்கங்களாகும். தற்கால சூழலில் 'தமிழ் ஒரு பல்வின மொழி' என்ற கருத்தியல் சிந்தனைப்புலத்தில் பிறமொழிக் கலப்பிற்குட்பட்டு மொழியின் தனித்துவத்தை இழக்கின்றதா? என்பதும் எதிர்காலத்தில் மொழி வழக்கு என்ற நிலையில் பிரதேச, சமூகக் கிளை மொழிகள் வழக்கிலிருந்து விடுபட்டு பொதுத்தராதர மொழிவழக்கு நடைமுறையிருத்தல் பற்றியும் மக்களின் வாழ்க்கை முறைக்கும் தேவைக்கும் ஏற்றவாறு பொருள்களைக் குறிக்கும் சொற்கள் குன்றியும் தீர்ந்தும் விரிந்தும் வழங்குகின்ற போது தமிழ் மொழியில் நெருவழக்குப் பெற்ற சொற்கள் வழக்கிழந்து போகும் நிலையில் உள்ளனவா? என்பதும் இலக்கிய மரபு, எழுத்து வழக்கு என்பவற்றிலிருந்து தமிழ் மொழி பேச்சு வழக்கை அதிகளவில் ஓட்டியதாக விளங்குதல் என்பதும் ஆய்வின் பிரச்சினைகளாகும். கள ஆய்வு மற்றும் பேட்டி மூலம் திரட்டிப் பெறப்பட்ட தரவுகள் முதன்மையாகத் தரவுகளாகவும் மொழியியல், தமிழ் மொழி தொடர்பான பிரதிகளை மீள்வாசிப்பிற்கு உட்படுத்தி, அவற்றை அவற்றின் வெளிப்பாட்டு முறையில் சூழமைவுபடுத்திப் பார்த்துப் பெறப்படும் தகவல்கள் இரண்டாம் நிலைத் தரவுகளாகவும் பயன்படுத்தப்படுகின்றன. இத்தகைய தரவுகளை விபரண, மொழியியல் மற்றும் சமூகவியல் அணுகுமுறை மூலம் ஆராயப்படுகின்றன.

சமூகவலைத்தளச் சூழலில் தமிழ் இளைஞர்களின் இலக்கியப் படைப்பு முயற்சிகள்

வி.விமலாதித்தன், அ.சம்பந்தன்

v.vimalathithan@gmail.com

சுருக்கம்: நவீனத் தமிழிலக்கியச் சூழலில் இயங்கிவரும் இளையதலைமுறையின் பங்களிப்பானது, தொழினுட்ப வளர்ச்சிக்கு மத்தியில், பண்பாட்டு அடையாளங்களின் இருப்பிற்கு மிகவும் முக்கியமானதாக மாறியுள்ளது. ஒருவரை ஒருவர் எளிதாக அணுகக்கூடிய தன்மையைக் கொண்டிருக்கின்ற இச்சூழலானது படைப்புக்கள் மீதான எதிர்வினைகளை உடனுக்குடன் படைப்பாளிகளிடம் கொண்டு செல்லக்கூடியவாறு உள்ளது. புவியியற் சூழலைச் சார்ந்த உணர்வுகள், அரசியற் கொள்கைகள், சமூகக் கொள்கைகள் ஆகியவற்றுக்கான பிரசாரச் சாதனமாகவும் படைப்புகள் சமூகவலைத்தளச்சூழலில் வெளிப்படுகின்றன. இலக்கியப்பரிசோதனை முயற்சிகளுக்கான சிறந்த ஆய்வுகூடங்களாக சமூகவலைத்தளங்கள் திகழ்கின்றன. சமூகவலைத்தள வெளியில், பதியப்படும் படைப்புகள் காணாமற் போய்விடும் துயரம் பல படைப்பாளிகளின் ஆக்கங்களுக்கு நேர்ந்திருக்கின்றன. இவ்வாய்வு சமூக வலைத்தளங்களினூடான படைப்பு முயற்சிகளை ஆராய்கின்றது சமூகவலைத்தளங்களின் குறிப்புகள் மற்றும் நிலைச்செய்திகள் ஆராயப்படும். பின்னர் சமூகவலைத்தளங்களினூடாக நேர்காணலில் ஈடுபடும் இளைஞர்களினுடன் நேர்காணல் நடாத்தி தேவையான விபரங்கள் பெறப்படும். இன்றைய காலத்தின் போக்கில் சமூகவலைத்தள வெளிக்குள்ளான தமிழ் இளைஞர்களின் இலக்கியப் படைப்பு மற்றும் பகிர்வுகளின் போக்கு குறித்த கற்கையை ஆய்வுரீதியாக இக்கட்டுரை முன்வைக்கும்.

End of Track F

Track G:
Information Sciences
&
Technology

Image Processing Technique to Detect Discolouration and Deformations in Ancient Pictures

D.M.R. Kulasekara¹ and S.M.B. Harshanath^{2†}

¹University of Colombo, Sri Lanka

²Sri Lanka Institute of Information Technology, Sri Lanka

[†]harshanath.s@slit.lk

Abstract: This paper presents a method to extract the discolouration and deformations areas of ancient pictures using image processing techniques. A recent report on discolouration of world heritage Sigiri frescoes unveiled that there is no proper method in Sri Lanka to identify the discolouration and distortions that may occur on archeologically valuable pictures. There are many feature detection and feature matching methods but these methods do only one to one feature matching whereas archaeologists need the whole image for comparison. Image objects vary according to the image scale, rotation, affine distortion, viewpoint, addition of noises and change in illumination. Without convenient picture suitability it is not possible to do a good image comparison. So the areas of both images and the sizes of the objects should be of the same scale and equal geometrical elevation. Images can get equal geometrical elevation using homographic transformations. Then image subtraction methods can be applied. The approach in this project is to identify the differences between the discoloured and deformed areas by comparing the image of the object with the image referred to although there are huge or small gaps between the original and the new image without considering the camera and the light conditions.

Supervised Learning for Land-Use Mapping of Tea Plantation

M.D.S.R.A. Mahavidanage^{1†} and D. Karunaratna²

¹Research Center, University of Colombo School of Computing (UCSC), Sri Lanka

²Department of Communication and Media Technologies,
University of Colombo School of Computing (UCSC), Sri Lanka

[†]srm@ucsc.lk

Abstract: Remote sensing offers efficient and reliable means to recognize the pattern of the real world and to provide source data for geographic information system. Supervised learning is traditionally used to classify remotely sensed imagery data in order to develop land-use mapping. The classifiers generate inconsequent classes since the complexity of the real ground features and the parametric variability of the decision rules. This study is for a new approach of remotely sensed image segmentation for land-use mapping of tea plantation. This paper discusses the used supervised classification approaches in the study, methodology, experiments, results and the future work of hypothesis testing for the conceptual methodology. To understand the existing tools several experiments are done through unsupervised and supervised image classifiers of ERDAS Imagine and RSI ENVI for a one sample image. Quick Bird-2008 Satellite imagery of Ganga Ihala Korale division in Kandy district, Sri Lanka is used in a subset of 5.73ha area. Although each approach generates different outputs the expected output values are not performed since inconsequent and compound classes. In contrast Maximum Likelihood classifier shows the highest accuracy for confusion matrix, Mahalanobis Distance classifier reached the best accuracy of the manual interpretation and ground truth process. The ongoing research is focused to modify and implement a threshold scheme for the supervised learning algorithm with Mahalanobis Distance classifier. The hypothesis is to test the capability of the classifier to apply spatial information as a threshold scheme. The algorithm is going to be evaluated using Octave. If the null hypothesis is rejected, the pixels will be classified by computing discriminant function for only the signatures corresponding to the spatial boundaries of land-use types. That means GIS data can be used to increase the complexity and reliability of hyperplane.

Barcode Enabled Inventory Management Systems for Pharmaceutical Company

M.M. Shiraj^{1†} and A.L.M.A Shameem²

¹Department of Management, South Eastern University of Sri Lanka, Sri Lanka

²Management Information System Unit, South Eastern University of Sri Lanka, Sri Lanka

†mmshiraj@gmail.com

Abstract: This research explicates the advance of Inventory Management System (IMS) and as a part of the research a system has been developed to automate the manual inventory management of a pharmaceutical company. Most of the inventory systems which are being used by pharmaceutical companies are either paper based manual systems or file based systems which make use of spread sheets or similar electronic documents to keep track of their inventory. It was found that these manual/file based systems are causing many problems such as finding correct unit of stock and they are unable to be used for order management and automatic inventory identification. To develop the system, necessary data were collected directly by interviewing the stake holders and the system was designed to fulfill their needs. In addition a case study was done at Staatum Pharmaceuticals (Pvt) Ltd. In order to provide a holistic solution bar code technology was incorporated. Data Flow Diagram (DFD) is used for process modeling where it shows the complete movement of data between entities: Staff, Management and Information executives, and also between the processes and data stores within the system. A context diagram was prepared to define system's boundaries by highlighting its sources and destinations and an ER diagrams was prepared for designing the database. Barcode enabled IMS was developed using Microsoft Visual Studio 2008 as a development tool and the core language of the system is ASP.net with Visual Basic. The database used for the system is Microsoft Access 2007 and ADO.NET and XML are used for the data access technology and it can be hosted on any Internet Information Server (IIS) that supports .NET framework 3.5 or any ASP.NET development server. Visual Basic.Net (VB.Net) is chosen for Graphics User Interface (GUI). Bottom-up testing strategy is used in this system to avoid unnecessary duplication of effort. Individual objects were tested in isolation using unit testing and gradually integrated for the higher-level integration testing and system testing. For the user testing, two Inventory department employees and managing director of Staatum Pharmaceuticals (Pvt) Ltd, were involved to confirm that the developed system meets the user requirements. User testing was done in a simulated "real" user environment. The developed system is found to be save time in stock management and able to automate all other related functions with the help of the Barcode technology. The system is able to run on any web browser. Pharmaceutical companies can use the system and increase their productivity by saving more time and resources. This system is able to provide a better solution not only for pharmaceutical companies but also other similar retail business organizations.

ICT Enabled Solution through Kiosk for Rural Farmers in Sri Lanka

S. Sivatharshini[†], K.K.H. Cooray, A.D.S. Pavitrani, Y. Ekanayaka, and M.W.A.C.R. Wijesinghe

University of Colombo School of Computing, Sri Lanka

[†]ksivams@gmail.com

Abstract: This paper investigates the effective use of ICT models to facilitate the transferring of knowledge to farmers in order to solve their problems in the Agricultural sector in Sri Lankan context. Farmers in rural areas are faced with the difficulties in consulting agricultural specialists, to solve their problems including pests and disease identification as agricultural specialists are less in numbers. There has been some initiatives to address this problem through ICT based models, however, as due to poor IT literacy and less access to IT infrastructure farmers have not been able to reap the benefits of these systems. This paper proposes an ICT based model to deliver information through kiosks established in a public place where all farmers can be able to access. The pilot prototype is developed using icon-based interactive interfaces and simple set of functionalities, mainly targeting computer illiterate farmers. The content will be delivered in farmer's local language. Our proposed solution is mainly focused on pest and disease identification and suggests remedies to treat them by providing appropriate web based solution using rule based expert system. JESS expert system shell is used to build the system and inference the knowledge using backward chaining. The inference engine selects the appropriate rules from knowledge base and use facts to retrieve the queries from database to display localized text to user. The expert system diagnoses diseases on the basis of responses of user made against queries related to particular disease symptoms which are triggered from rules in the knowledge base. The evaluation reveals that 80% of farmers are satisfied with this solution and findings appear to be promising.

Automated Maternity and Infant Wellbeing System

R.I. Wettasinghe, P.B. Perera, G.R.I. Aponsu, A.V.S.K. Jayathilake, M.P.A.W. Gamage[†] and K.P.D.H. De Silva

Sri Lanka Institute of Information Technology (SLIIT), Sri Lanka
[†]anjalie.g@slit.lk

Abstract: Maternity and child health is one of the most important areas in the health care system in Sri Lanka. However it is noted that there are no functional automated systems in Sri Lanka for the above purpose and this research aims to provide a better solution to share knowledge among the mothers and the midwives to improve the wellbeing of the infants and the mothers. Automated Maternity and Infant Wellbeing System (AMIWS) is a web based knowledge sharing system that would link doctors, mothers and midwives to support effective information sharing and capture substantially varying experiences among them during the prenatal and postnatal stages of motherhood. The system specifically monitors an individual mother and infant as they progress through all the key stages of pregnancy and childhood while providing customized facilities to reflect their own progress in maternity and child nurturing. Further the system provides intelligence based suggestions on key areas involved in pregnancy and childhood. System is designed and developed using ASP.NET 3.5 using C#.NET 3.5 as the backend programming language, Microsoft Visual Studio.NET 2010 as the programming environment, SQL Server 2008 as the platform to design and implement a fully-functional database. System further provides a Knowledge sharing functionality to provide certain factors where it's necessary for the mother to acquire expertise knowledge from doctors and mid wives. This also includes a component where the users can predict certain information such as the growth of a child, possible diseases, meal plans etc. This was done using neural network with the help of Sigmoid function and Resilient Propagation for training. AMIWS is expected to be implemented in Sri Lanka to provide better service for the mothers and infants in the rural area through the midwives by providing better information on time.

End of Track G

Track H:
Pure Sciences

Risk Factors to Human Tick Infestations in Sri Lanka

S. Ariyaratne^{1,2}, P.R.M.P. Dilrukshi³, P.H. Amarasinghe⁴ and
R.S. Rajakaruna^{2†}

¹Postgraduate Institute of Science, University of Peradeniya, Sri Lanka

²Department of Zoology, University of Peradeniya, Sri Lanka

³National Science Foundation, Sri Lanka

⁴International Water Management Institute, Andhra Pradesh, India

[†]rupikar@pdn.ac.lk

Abstract: Ticks are ectoparasites of major public health concern. Humans and animals are affected directly by tick bites and indirectly by disease transmission. A study was carried out to determine socio-ecological risk factors of human tick infestations in five selected districts, namely, Anuradhapura, Kandy, Kurunegala, Nuwara Eliya and Ratnapura. A total of 40 villages (8 per district) and 400 households (10 per village) were sampled randomly. Data was collected by interviewing household members using a questionnaire. The prevalence of tick infestation was highest in Kandy (65.4%) followed by Anuradhapura (58.3%) and lowest in Nuwara Eliya (23.7%). Tick infestations were significantly high in those who were engaged in outdoor activities ($\chi^2=146.180$, $p<0.001$). Among those 41.6% had been interacted with the forest in gathering firewood. Among the different professions, housewives (35.4%) and farmers (33.8%) experienced a high percentage of tick bites. Except in Ratnapura district, tick attacks were also significantly dependant on the presence of wildlife around the homeland ($\chi^2=42.313$, $p<0.001$). Tick infestation did not depend on the gender ($\chi^2=0.355$, $p=0.551$) or on the presence of pets and livestock at home ($\chi^2=0.548$, $p=0.459$) but in Kandy district, both factors posed a risk. Outdoor activities and the presence of wild animals around the house were identified as the major risk factors of human tick infestation.

Keywords: Tick Infestation, Risk Factors, Sri Lanka

Sequential Fractionation of Micronutrient Metal Ions in Organic Compost Fertilizer

S.D.M. Chinthaka[†] and J.A.V. Mahesha

Department of Chemistry, University of Sri Jayewardenepura, Sri Lanka

[†]sdmchin@sjp.ac.lk

Abstract: Sequential fractionation of metal cations in various compost types was carried out to determine the availability of these cations for plant intake. The selected compost types were domestic, market available, municipal waste, industrial sludge, weed mulch, vermicompost, fruit waste compost and cow dung. The metal cations in each compost types were fractionized in to exchangeable, water soluble, organically bound, carbonate precipitate and residual fractions by extracting with 0.5M KNO₃ for 16 hours, then with de-ionized water for 16 hours, then 0.5M NaOH for 16 hours, then 0.05M Na₂EDTA for 16 hours and finally with 4M HNO₃ for 16 hours respectively. Water soluble, exchangeable and organically bound fractions are considered as mobile fractions and cations in these fractions are available for plant intake, carbonate precipitate and residual fractions are considered as residual fractions and are not available for plant intake because they are tightly bound to respective matrices. The selected micronutrient metals are zinc (Zn), manganese (Mn), iron (Fe) and copper (Cu). All the metal ions in each fraction are analyzed by flame atomic absorption spectrometry. This study found that vermicompost contains the highest level of mobile Cu, fruit waste compost contains the highest level of mobile Zn and domestic compost contains the highest level of mobile Mn. All these three types of compost contain fairly high levels of mobile Fe. Based on this study vermicompost, fruit waste compost and domestic compost can be considered as composts with fairly high levels of available (mobile) micronutrients levels. Among analyzed compost fertilizer sources, vermicompost contains the highest total (residual + mobile) copper and manganese levels. Industrial sludge compost contains the highest total zinc level and municipal waste compost contains the highest total iron level. Because of the non homogeneous nature of the compost sources, statistical variation of micronutrient levels in each fractions that are sequenced from various compost sources are fairly high.

Keywords: Compost Fertilizers, Sequential Fractionation, Mobile Micronutrients, Residual Micronutrient

Petrographical Evidence for Ultra High Temperature (UHT) Metamorphism of Pelitic and Mafic Rocks from the Central Highland Complex, Sri Lanka

P.L. Dharmapriya and S.P.K. Malaviarachchi[†]

Department of Geology, Faculty of Science, University of Peradeniya, Sri Lanka

[†]smalavilk@yahoo.com

Abstract: Ultra High Temperature (UHT) metamorphism, with temperature >900°C, has been proposed and documented in very restricted localities in the Highland Complex (HC) – Sri Lanka. We have started fresh sampling of Al and Mg rich pelitic rocks (esp. sillimanite (sil), staurolite, sapphirine (Spr), spinel (Spl) and corundum bearing) and essentially garnet (Grt) and clinopyroxene (Cpx) bearing mafic rocks from localities in the HC, in order to reconcile the spatial and temporal evolutionary path of the UHT metamorphism. In this study we put forward our field and petrographic observations at three sampling locations at Kotmale Ampitiya and Talatuoya in the central Sri Lanka. Spr and Spl are found as closely associated rare inclusions in the core and mantle areas of porphyroblastic Grt. This thin layered pelitic rock close to Kotmale reservoir contains Grt, orthopyroxene (Opx), Biotite (Bt) and Sil. There is no co-existence of Spr and Spl was observed. Instead, there is clear evidence showing some Spr and Spl independently co-existing with a mineral which is too tiny to be optically identified. This unidentifiable mineral may be quartz (Qtz) and/or Plagioclase (Plag). Fine to medium Sil needles could be found as inclusions within the mantle area of Grt. Dry mafic rocks, at Ampitiya occur as blocks within marble while as lenses within quartzo-feldspathic granulite at Talatuoya. Rocks at both localities contain Grt, Cpx, Opx, Plag, Qtz and iron ore together with plenty of textural features indicating multistage P-T evolution. Co-existing Cpx-Plag and isolated Qtz inclusions within Grt imply that Grt formation may have taken place via reaction $Cpx + Plag1 = Grt + Plag2 + Qtz$. Plag moat around Cpx occur as inclusions within the rim area of Grt may indicate early decompression event. Cpx and Plag inclusions towards the margin of same Grt indicate that further growth of Grt followed early decompression event. Existence of Grt+Cpx+Qtz as the peak metamorphic assemblage indicates UHT conditions, which can be inferred based on abundant occurrence of Opx and Plag symplectite and moat in rocks at Ampitiya and moats in rocks at Talatuoya. Therefore, these Sap bearing pelitic granulites and Grt-Cpx-Qtz bearing mafic granulites bear rare but important evidence to support UHT metamorphism in the HC of Sri Lanka.

Keywords: Highland Complex, Sri Lanka, Sapphirine, UHT metamorphism

Genetic Diversity of Green Turtle Population Nesting at Kosgoda Turtle Rookery, Sri Lanka

E.M.L. Ekanayake^{1,2,3}, T. Kapurusinghe¹, P. Samaraweera⁴,
M.M. Saman¹, A.M.D.S. Rathnakumara¹, K.B. Ranawana³ and
R.S. Rajakaruna^{3†}

¹Turtle Conservation Project, Panadura, Sri Lanka

²Post Graduate Institute of Science, University of Peradeniya, Sri Lanka

³Department of Zoology, University of Peradeniya, Sri Lanka

⁴Department of Molecular Biology and Biotechnology, University of Peradeniya, Sri Lanka

†rupikar@pdn.ac.lk

Abstract: Genetic diversity is widely accepted as a foundation for future organismal diversity and corresponding conservation efforts are directed at preserving the existing genetic variation within endangered species. Green turtle is listed as endangered in the IUCN Red List of Threatened Animals. We assessed the genetic diversity of the green turtle population nesting at Kosgoda turtle rookery using six microsatellites. Skin tissue samples were collected from 68 nesting females from May 2005 to April 2006. All six microsatellite loci were highly polymorphic and a total of 149 alleles were observed. The mean number of alleles per locus was 24.7 and the mean observed and expected heterozygosities across all loci were 0.75 and 0.93, respectively. Micro-Checker analysis suggested that the Kosgoda green turtle population was possibly in Hardy-Weinberg equilibrium. Although the Kosgoda green turtle population is small, its high genetic diversity among and within individuals suggests that the population may not be currently undergoing a bottleneck.

Keywords: Microsatellites, Genetic Diversity, Sea Turtles

Development of QuickEZ Kit and a Non-stop, Single-tube, Semi-nested PCR Technique for Diagnosing WSSV in *Penaeus Monodon* (Shrimps)

T.S.R. Fernando^{1†}, P. Pavithra², G. Baranage³, P.B.A.I.K. Bulumulla¹ and N.D. Fernandopulle³

¹Department of Animal Science, Uva Wellassa University, Sri Lanka

²Genetech Research Institute, Sri Lanka

³Genetech Molecular Diagnostics, Sri Lanka

[†]sudini.ranshaya@gmail.com

Abstract: White spot syndrome is a viral infection of *Penaeid* shrimp. The disease is highly lethal, contagious and killing shrimps quickly. Since this disease is caused by a virus, there is no anti-viral treatment for the disease. Sri Lanka is a country involving in large scale intensive shrimp farming. Most of shrimp products are export oriented. WSSV cause severe damage to shrimps and prawns while leading to economic lost. DNA extraction kits are available in the country to find out the positive samples for white spot disease. But these kits are expensive. Therefore this study aimed to optimize a molecular detection kit totally made locally for detecting WSSV in shrimps for a lower cost. A viral DNA extraction kit and single-tube, non-stop, semi-nested polymerase chain reaction (PCR) technique was developed for simultaneous detection and severity grading of white spot syndrome virus (WSSV) infections in the black tiger shrimp. The test uses 1 sense primer and 3 antisense primers that produce up to 3 PCR products (1100, 526 and 250 base pairs) depending upon the severity of infection. Specifically, heavy infections ($\geq 2 \times 10^4$ viral particles) of WSSV produce all 3 fragments, while moderate infections (around 2×10^3 viral particles) produce 2 (526 and 250 bp) and light infections (20 to 200 viral particles) produce 1 (250bp). The non-stop, single-tube, semi-nested PCR technique is simple and convenient and can detect as little as 5fg WSSV DNA (20 viral particles) in crude extracts of post larval samples or extracts of gills, tail and pleopods from larger shrimp.

Keywords: Semi-nested PCR, WSSV

Seasonal Distribution and Bionomics of Sandflies (Diptera: Psychodidae: Phlebotominae), Vectors for Leishmaniasis, in Jaffna, Sri Lanka

K. Gajapathy[†], P.J. Jude and S.N. Surendran

Department of Zoology, University of Jaffna, Sri Lanka

[†]gayani56@gmail.com

Abstract: Leishmaniasis is a major public health concern in Sri Lanka. More than 2000 cases of cutaneous leishmaniasis (CL) have been reported from the island since 2000. The most fatal visceral leishmaniasis (VL) is also emerging as a threat in the country. *Leishmania donovani* zymodeme MON 37 is the identified parasite responsible for CL. *Phlebotomus argentipes* sensu lato, a species complex, is suspected to be the vector for CL. A monthly survey was conducted in Delft Island, Pungudutheevu and Chunnakam to assess the seasonal distribution of the sibling species of the Argentipes species complex. A questionnaire based study was performed in Delft Island, where the threat of sandflies is high, to assess the public awareness related to sand fly bite and the disease. All three members of the Argentipes complex were identified. The seasonal distribution varied, as in Delft Island the presence of sandflies was observed throughout the year with peak abundance during the dry season (April-September) while in Pungudutheevu and Chunnakam there were two peaks observed, after monsoon (February-May) and with onset of monsoon (October-November). *Phlebotomus* (*Euphlebotomus*) *glaucus*, which is generally considered as a wet zone species, was found abundant during dry season. More than 80% of them have close contacts with potential animal reservoirs like cows, goats, cats and dogs. None of the respondents were aware of leishmaniasis, although 91% of them are aware of the sandfly bites. Only 8.7% of them have reported that sandflies breed on soil. Twenty two percent of the respondents experience sandfly bites all around the year. Neem smoking and mosquito net seem to be the most popular method of insect bite prevention followed by the use of mosquito coils. The respondents spend around 50-300 Sri Lankan rupees per month for preventing from insect bite. The results indicate the need of a public awareness programme related to sandfly bites and the possible transmission of leishmaniasis and its consequences in the region.

Keywords: Leishmaniasis, Sandfly, Disease Prevention, Jaffna

Statistical Modelling for Injuries among the Soccer Players in Jaffna

S. Gobinaath[†] and S. Arivalzahan

Department of Mathematics and Statistics, University of Jaffna

[†]sigol985@gmail.com

Abstract: Many studies have reported the frequency and types of injuries in soccer players. However, a few have assessed the relationship of playing position, climate, psychological effects and infra structure facilities with injury. The purpose of the study was to develop a statistical model for injuries among the soccer players in Jaffna. The observations on the soccer injury-related variables, age, Body Mass Index (BMI), playing position, years of experience, training method, equipment and ground facilities, climate and psychological effect were collected from a simple random sample of 125 soccer players from Jaffna. These nine variables were grouped into 3 factors using the factor analysis techniques. The first factor (TIF) consists of training method and infra structure facilities; the second factor (AE) consists of age and years of experience and the third factor (BMP) consists of BMI and playing position. It is interesting to note that the three variables in the first factor are common for a soccer team and the variables in other two factors are associated with individual players. Significant associations exist between injuries and standardized BMI groups as well as playing positions. The odds of getting injury was significantly increased from back to forward direction in the soccer field. Logistic regression analysis was used to fit a model for soccer injury for a team by considering the factor TIF and another logistic regression model was fitted for soccer injury for an individual player considering other two factors AE and BMP. Further, a sample maximum likelihood discriminant function (SMLDF) was developed to classify a soccer player as injured or not. Using the SMLDF and based on an individual soccer player's observations on the above nine variables, we will be able to advise him about the risk of getting injury in future.

Keywords: Discriminant Analysis, Factor Analysis, Logistic Regression, Odds Ratio, Principal Component Analysis

Ichthyofaunal Composition of Batticaloa Lagoon, Sri Lanka

J.M. Harris[†] and P. Vinobaba

Department of Zoology, Faculty of Science, Eastern University, Sri Lanka
[†]harris@eul.ac.lk

Abstract: The present study was undertaken to generate an inventory of the fin fish and shell fish of Batticaloa lagoon and to assess the impact of water chemistry on the assemblages of fishes. A total of 5689 fish specimens were collected, belonging to 62 species, representatives of 30 genera and 36 families. The species compositions of lagoons vary according to the physical characteristics and salinity regime of the lagoon. Marine, marine-estuarine and freshwater species were classified in each season (Dry and Wet season) according to their capability to cope with salinity fluctuations. *Etroplus suratensis* was the most abundant species (23.12%), followed by *Oreochromis niloticus* (17.21%), *Nematalosa nasus* (14.55%) and *Arius bilineatus* (12.72%); Forty-three percent (43%) of the collected species correspond to a euhaline marine component, followed by autochthonous species for truly brackish water (22.5%), estuarine residents (17%), stenohaline marine (10.5%), Seasonal migrant (4%), freshwater component (2.5%), and very few are reef fishes (0.5%). Twenty species were transient visitors and thirteen species were marine juvenile migrants comprising of 8% of total numerical abundance. Seasonal changes of salinity also have a great impact on the fish abundance and distribution of the lagoon. The information and observation in this study will be useful in formulating management policies for the future use of Batticaloa lagoon especially multi-usage of fisheries with other sectors.

Keywords: Autochthonous, Euhaline, Lagoon, Reef fishes, Stenohaline

Response of *Glycine max* to Inoculation with Rhizobial Strains
Isolated from Crop Wild Relatives of *Vigna* Spp.,
Crotalaria Spp. and *Mimosa* Spp.

C.S. Hettiarachchi[†], P.S. Kumar, C.L. Abayasekara,
S.A. Kulasooriya, E.M.H.G.S. Ekanayake and R.K.G.K. Kumara

Department of Botany, Faculty of Science, University of Peradeniya, Sri Lanka
[†]shantha00@gmail.com

Abstract: Inoculation of grain legumes with rhizobia has been recorded to have a great potential in maximizing biological N₂ fixation in these crops. *Glycine max* (soybean) is one of the most important grain legumes in the rain fed farming systems in dry and intermediate zones of Sri Lanka. Rhizobia of wild non-edible legumes have higher tolerance to prevailing adverse conditions. The main objective of the current study was to test the ability of certain rhizobial isolates from wild legumes which could overcome competition by indigenous strains and effectively nodulate *G. max* in order to use them as rhizobial inoculants. Rhizobial strains from wild legumes (C10, M5, VD1, and VW2) which were previously selected as effective were used in all experiments. Physiological and biochemical characterization of rhizobia was done by assessing their growth in media with different pHs (5, 7 and 9), salt concentrations (0.5%, 1%, and 2%) and sugars (Lactose, Sucrose and Maltose). A field test was conducted with the above four strains, using a Randomized Complete Block Design (RCBD) with three replicate blocks per treatment. Seeds were mixed with coir based inoculants prior to sowing. Three plants from each plot were harvested after 8 weeks and a nodule count was taken. These plants were oven dried and weighed. Yield and yield component data were recorded in the remaining plants. C10, M5 and VW2 grew at basic pHs. All the strains showed moderate tolerance to salinity except M5 which showed a high tolerance to 0.5% and 1% NaCl. VW2 showed a higher ability to use all carbohydrates while M5 showed moderate ability. Inoculation with all four strains showed increases in nodulation compared to the uninoculated N⁺ and N⁻ controls. Dry matter production with C10, VD1 and VW2 were significantly higher which was similar to the N fertilizer application. The highest Average Number of Pods was observed with VD1. Strain C10 gave the highest value for number of seeds per pod which is significantly higher than the other treatments. With respect to 100 seed weight strains C10 and VD1 gave significantly higher values than the uninoculated controls. All the inoculated treatments gave higher values for seed yield than the uninoculated treatments whereas strains C10 and VD1 gave significantly higher values. Strains C10, VD1 and VW2 appear to be capable of overcoming competition by indigenous rhizobia and suitable to be used as inoculants for *G. max*.

Keywords: Rhizobial inoculants, *Glycine max*, *Crotalaria* spp., *Mimosa* spp.

Factors Associated with Type-2 Diabetes Mellitus in Jaffna Peninsula

S. Iynkaran[†] and N. Satkunanathan

Department of Mathematics and Statistics, University of Jaffna, Sri Lanka
[†]iynkaran85@hotmail.com

Abstract: Advancement of life entailed some negatives that threatened the very lives of the people, prone to some dangerous diseases and among them diabetes is becoming more serious and alarming in the world and Sri Lanka too has heavily caught up with this phenomenon. The main objective of this study was to identify the factors associated with type-2 diabetes mellitus in Jaffna peninsula according to the risk factors such as age, Body Mass Index (BMI), family history of diabetes, alcoholic dependency, work intensity, sleeping troubles in night and sleeping troubles in morning. The second objective was to investigate the relationship between the variables such as gender, education, economic status, smoking and hypertension and severity of diabetes. The sample included 101 patients who had type-2 diabetes mellitus. Samples were randomly chosen from the clinics in the Teaching Hospital, Jaffna. Factor analysis was conducted to identify the factors associated with type-2 diabetes mellitus and odds ratios, corresponding 95% confidence intervals and p-value were estimated to investigate the relationship between variables and severity of diabetes. The factor analysis results demonstrated that cluster of at least four variables such as age, alcohol dependency, sleeping troubles in night and sleeping troubles in morning which have identified as factor one explained 30.2% of the total variance among type-2 diabetes patients. Furthermore, in this study, the second factor, that is works intensity, explained 15.6% of the total variance and the third factor, that is BMI and family history, explained 14.8% of the total variance among type-2 diabetes patients. Furthermore, it was possible to form a new standard scale, based on linear combinations of diabetes indices and parameters, to measure the severity of diabetes. Based on the odds ratio results, it was concluded that primary educated patients, low and middle economic status patients compared to high economic status patients and smokers were significantly associated with severity of diabetes.

Keywords: Principal Component Analysis, Factor Analysis, Odds Ratio, Confidence interval

Study the Feeding Efficacy of the Predatory Larvae of Genus *Lutzia* (Diptera: Culicidae) during its Larval Life

P. Jeyanthini[†] and M. Vinobaba

Department of Zoology, Faculty of Science, Eastern University, Sri Lanka
[†]pjeyanthini@hotmail.com

Abstract: Mosquitoes are nuisance and play a major role as vectors of many pathogens. Larvae are mostly filter feeders but the larvae of genus *Lutzia* is known as predators of mosquito larvae for a long time. The maximum prey consumption is the basic elements in the evaluation of a predator as a possible biological control agent. To obtain some understanding of the predatory potential of *Lutzia* this quantitative study was undertaken around the Eastern University premises from February 2009 to March 2010. Field collected egg rafts of *Lutzia* were reared in the laboratory conditions (Room temperature 29°C and Relative humidity 75%) and the freshly emerged larvae were separated individually by using plastic dropper into the larval rearing cups filled with filtered tap water which covered by mosquito net to prevent other ovipositions and other predatory interactions. In this experiment, fifteen replicates of larval rearing cups were arranged to four repeated trials. Thirty 1st instar larvae of *Culex* were provided as a prey and the consumed prey was counted every twenty four hours intervals and the consumed prey larvae were replaced each time until all the predatory larvae pupated. The prey larvae were maintained approximately same size as the predator. There is a statistical significance ($p=0.0001$) between hours of interval and consumption. In this experiment one predator larvae of *Lutzia* consumed average of 76.25% of same size of the prey *Culex* larvae in its larval life.

Keywords: Consumption, Feeding efficacy, Instar, *Lutzia*, Predatory larva

Bioactivity of some Macro Algae Present in the Coastal Areas of Northern Sri Lanka

E.C. Jeyaseelan[†], S. Kothai, R. Kavitha and A.C. Thavaranjit

Department of Botany, Faculty of Science, University of Jaffna

[†]christyjeyaseelan@gmail.com

Abstract: Northern coastal area of Sri Lanka is a unique marine habitat with huge variety of algae. The present study was aimed to explore bioactive potential of some macro algae present in this region. The brown algae, *Sargassum polycystum*, *Sargassum tenerrimum* and *Turbinaria ornata*, the red algae, *Gracilaria crassa* and the green algae, *Codium fragile* were collected from different coastal sites, Point Pedro, Casuarina beach in Karainagar and Nachchikuda. The fine algal powders were sequentially extracted with acetone and ethanol and the resulting extracts were dried at 40°C. Qualitative phytochemical analysis was carried out to find out chemical compounds present in the above test extracts. The extracts were tested *in vitro* for their antibacterial activity against *Escherichia coli* (ATCC 25922) and *Staphylococcus aureus* (NCTC 6571) by agar well diffusion method. Streptomycin and the solvents used for the extraction were used as standard and control respectively. The one way analysis of variance (ANOVA) followed by Tukey test was used for statistical analysis. Phytochemical analysis of extracts revealed the presence of at least two of the phytochemicals among the tested alkaloids, saponins, flavonoids, tannins and cardiac glycosides. However, none of the extracts showed positive results to glycosides, terpenoids, phlobatannins and anthraquinones. The antibacterial study demonstrated that except acetone extract of *S. tenerrimum*, all other tested extracts were able to inhibit the growth of both *S. aureus* and *E. coli*. The ethanol extracts exhibited significantly ($P < 0.05$) higher inhibition on *S. aureus* compared to acetone extracts, where maximum zone of inhibition was produced by *T. ornata*. On the other hand, acetone extracts showed better activity on *E. coli* compared to effect expressed on *S. aureus*. However, the highest inhibitory effect on *E. coli* was produced by the ethanol extract of *C. fragile*. The results produced by the test extracts were comparatively lower than that produced by standard, Streptomycin, and also the control did not show any effect on the growth of test bacteria. The present study concluded that macro algae collected from different coastal line of Northern Sri Lanka are potential sources of bioactive compounds and can be used as source for antibacterial agent. However, further works should be performed for the isolation and characterization of the active compounds.

Keywords: Antibacterial activity, Macro algae, Phytochemicals

Identification of Two Groups with the Rapid Decay Property

K. Kannan

Department of Mathematics and Statistics, University of Jaffna, Sri Lanka
p_kkannan@yahoo.com

Abstract: Rapid decay property (property (RD)) for groups, generalizes Haagerup's inequality for free groups and so for example of free groups have property RD. Property RD provides estimates for the operator norm of those functions (in the left-regular representation) in terms of the Sobolev norm. Even more, property RD is the noncommutative analogue of the fact that smooth functions are continuous. This property RD for groups has deep implications for the analytical, topological and geometric aspects of groups. It has been proved that groups of polynomial growth and classical hyperbolic groups have property RD, and the only amenable discrete groups that have property RD are groups of polynomial growth. He also showed that many groups, for instance $SL_3(\mathbb{Z})$, do not have the Rapid Decay property. Examples of RD groups include group acting on CAT(0)-cube complexes, hyperbolic groups of Gromov, Coxeter groups, and torus knot groups. The symmetry group of a tiling pattern of the plane is called a *crystallographic group*. The discrete *Heisenberg group* is the multiplicative group H_3 of all matrices of the form

$$\begin{pmatrix} 1 & a & c \\ 0 & 1 & b \\ 0 & 0 & 1 \end{pmatrix}$$

where $a, b, c \in \mathbb{Z}$.

The sufficient conditions on property RD for extensions to have property RD with respect to the word length. The following important result, which is used for the main result of this paper: Let G and Γ be two discrete groups of finite type, and $\{e\} \rightarrow G \xrightarrow{i} E \xrightarrow{\pi} \Gamma \rightarrow \{e\}$ a split extension of G by Γ . If G (respectively Γ) is finite, then E has property RD with respect to the word length if and only if Γ (respectively G) has property RD with respect to the word length. These papers provide a simple method to establish the Crystallographic groups and the Discrete Heisenberg group having property RD.

Keywords: Property RD, The Crystallographic groups, The Discrete Heisenberg Group

Antifungal Bioassay and Preliminary Phytochemical Analysis of Extracts of *Curcuma longa*

V. Kayalvili[†], J.P. Jeyadevan¹, A.C. Thavaranjit² and T. Manoranjan¹

¹Department of Chemistry, University of Jaffna, Sri Lanka

²Department of Botany, University of Jaffna, Sri Lanka

[†]kayalvilikv@gmail.com

Abstract: The therapeutic value of *Curcuma longa* commonly known as turmeric has been recognized in different systems of traditional medicine for the treatment of diseases and human ailments. It belongs to the family zingiberaceae and contains several phyto constituents. Several studies using modern techniques have authenticated its use as anti inflammatory, antimicrobial, antifertility, anticancer, antidiabetic and antioxidant. Most importantly, the plant has shown to possess anti HIV activity which could be of great value to combat AIDS particularly in third world countries. The aim of this study was to find the antifungal activity of the extract of *Curcuma longa* root obtained by sequential extraction using solvents of varying polarity. The plant material (root) was dried at room temperature, powdered in an electric grinder and extracted with dichloromethane followed by ethyl acetate and ethanol. Antifungal bioassay was done using agar well diffusion method against *Aspergillus sp*, *Trichoderma sp*, *Alternaria sp*, *Collectrichum sp* and *Fusarium sp*. Mancozeb was used at 0.02g/10ml concentration as positive control and each solvent was as negative control. Each solvent was used to dissolve the crude extract. The plates were incubated at 37°C and diameter of inhibition zones were measured at 24, 48, 72 and 96 hours of incubation. All samples were tested twice and mean values were recorded. Crude extract was used as 10 mg/200ml. The root extracts of *Curcuma longa* indicated the presence of tannins, terpenoids, flavanoids and saponins and does not indicate the presence of alkaloids, phlobatannins, steroids and cardiac glycosides. Ethanol crude extract of roots of *Curcuma longa* showed highest inhibition zone against *Trichoderma sp* (28.5mm). This was close to the inhibition zone of mancozeb (27mm). A 22.5mm inhibition zone was observed for the ethanol crude extract of root of *Curcuma longa* against *Alternaria sp*. Further studies should be directed towards the isolation of these bio active compounds and investigation of their potential in the treatment of fungal infections.

Keywords: *Curcuma longa*, Antifungal Bioassay, Inhibition zone, Phytochemical analysis

Improving the Performance of Titanium Dioxide / Polymer Solar Cell by Introducing Monolayers at the Interface

S. Loheeswaran, P.A. Amalraj, K. Balashangar and P. Ravirajan[†]

Department of Physics, University of Jaffna, Sri Lanka

[†]p_ravirajan@jfn.ac.lk

Abstract: Solar cell comprising conjugated polymer with porous metal oxides that could serve as electron transporter is the theme of several recent researches because of the desirable properties possessed by the metal oxide such as its stability, better electron transport properties, ease of fabrication, low cost and environmental friendly as well as possibilities for controlling surface morphology. Although the hybrid metal oxide / polymer solar cells provide several merits, its photovoltaic power conversion efficiency is still poor compared to polymer / fullerene solar cells due to interfacial charge recombination. Suppressing recombination relative to charge transport is therefore a key issue in improving the device performance. This study focuses on strategies to control charge recombination kinetics by introducing a series of self-assembled monolayers (SAMs) of para-substituted benzoic acids with varying dipoles at the metal oxide-polymer interface in hybrid conjugated polymer / titanium dioxide (TiO₂) photovoltaic devices. The effects of all monolayers on current densities are in accordance with expected effect of the self-assembly monolayers. However, the effect of monolayers on open circuit voltage is quite unexpected from the interfacial energetics as all the monolayers improve the open circuit voltage suggest that the monolayer has an additional function. Overall device performance is enhanced by over 100% using a SAM with permanent dipole pointing towards the TiO₂ surface, compared to a control device with no interface modification. This study concludes that the SAM layer has two functions: (i) to shift the position of the conduction band of the porous TiO₂ relative to the polymer HOMO level so as to influence interfacial charge separation and (ii) to act as a barrier, insulating back electron transfer from the TiO₂ to the polymer. Both effects can benefit the performance of hybrid polymer metal oxide solar cells.

Keywords: Self-assembled-monolayer, Solar cells, Titanium dioxide

Influence of Past Experience on Sport Participation of University System in Sri Lanka: With Special Reference to University of Kelaniya, Sri Lanka

A.A.I. Madhushani[†], K. Jayantha and E.G. Ubayachandra

Department of Sports Science and Physical Education, University of Kelaniya, Sri Lanka

[†]lakshikamadhushani@yahoo.com

Abstract: This paper discusses the influence of past experience on sport participation of University system in Sri Lanka, (With special reference to the University of Kelaniya). In making a review of sport participation of undergraduates it was noted that there is a regular decline over past period. Hence, the focal problem was why such an unpleasant situation has taken place. The study attempted to achieve three objectives of which the key objective was 'to identify the influence of past experience for university students' sport participation' and specific objectives were to recognize the degree of sport participation in University of Kelaniya, and to provide better suggestions enabling to set them motivated in this regard. To do this study in well manner the researcher constructed research model based on what hypothesis namely, past experience positively influence on sport participation of undergraduates. According the research question was formulated that past experience positively correlated with sport participation. Consistent with this hypothesis a research question was also raised. There are so many researches done regarding University students' sport participation in the global context. However, there is a lack of researches done so far in respect of past experience and sport participation. So then it was noted that there is a research gap to be filled up and that vacuum has been filled up by this study. In this particular case, for the inconvenience of the analysis a sample consist of 100 sport participants were selected having employed the Stratified Random Sampling method. The reason behind selection of that sampling technique was facilitated to set the sampling population dispersed stratified. As this study is empirical in nature as far as possible an attempt was made to collect primary data. Meanwhile, secondary data were also associated with a view to collect more data and to make a deeper clarification. For presenting the data specially graphs, tables and percentage values were associated. In case of analyzing the data correlation and simple regression were applied using statistical software (SPSS 19.0). Both quantitative and qualitative analyses were made under this study. The result shows that past experience of sport positively correlated with sport participation of undergraduates. At the end of this study, six findings were made. Based on this findings ultimately, recommendations were produced in order to increase and stimulate the sport participation of undergraduates. Additionally, suggestions for further researcher have also been made at the end of the study.

Keywords: Sport Participation, Past Experience, Undergraduates

Antibacterial Activity and Phytochemicals of Sequential Solvent Extracts of *Solanum Trilobatum*

S. Malathy^{1†}, J.P. Jeyadevan² and K. Pathmanathan³

¹Department of Bio-Science, Vavuniya Campus of the University of Jaffna, Sri Lanka

²Department of Chemistry, University of Jaffna, Sri Lanka

³Department of Botany, University of Jaffna, Sri Lanka

†malathy.selvachandran@gmail.com

Abstract: *Solanum trilobatum* which is known as Toothuvilai in Tamil has been widely used to treat respiratory disorders, especially bronchial asthma. Therefore this study was designed to test the antibacterial activity and phytochemical property of sequential solvent extracts of leaves of *Solanum trilobatum*. Leaf powder was successively extracted with solvent of dichloromethane (DCM), then by ethylacetate (EA) and finally by ethanol (EtOH). 10 mg/100 μ L, 30 mg/100 μ L and 50 mg/100 μ L doses of the crude extracts were used for this study. The crude extracts were dissolved in the solvent mixture of 30% of acetone and 70% of the mother solvent. The crude extracts were tested for antibacterial activity by *in vitro* agar well diffusion method and screening test was done against five bacterial pathogens. Two of them were Gram positive bacteria *Bacillus subtilis*, *Staphylococcus aureus* and three of them were Gram negative bacteria *Escherichia coli*, *Pseudomonas aeruginosa* and *Klebsiella*. Streptomycin and solvents used to dissolve extracts were used as standard and control respectively. Among the extracts, EA and EtOH were more effective for the *in vitro* control of bacteria. These two extracts had inhibition on all test bacteria at all test concentrations. *S.aureus*, *B.subtilis*, *P.aeruginosa* and *Klebsiella* were highly inhibited by EA extract at 50 mg/100 μ L but *E.coli* was highly inhibited by EtOH extract at the same concentration. However, at 10 mg/100 μ L EA extract revealed higher inhibition on all test bacteria compared to EtOH extract, ranged from 11.8 \pm 0.3 mm to 18.8 \pm 0.8 mm. Statistical analysis revealed that there were significant ($p < 0.05$) difference in the inhibitory effect of the extracts with tested bacteria. Among the test bacteria the *Klebsiella* was found to be the most sensitive to EA extract. Time course analysis revealed that there was no considerable change in the inhibitory effect of the test samples until 72h incubation. Standard antibiotic streptomycin failed to inhibit the growth of *P.aeruginosa* and *E.coli* at the test concentration and the diameter of inhibition zone produced by the streptomycin on *S.aureus* was found to be less than that of the EA extract on same bacteria.

Keywords: *Solanum trilobatum*, Sequential extraction, Antibacterial activity, Phytochemicals

Sea Cucumber Pen Culture in the Northern Province of Sri Lanka

U. Mallikarachchi[†], M.A.J.C. Mallawa Arachchi and K. Arulanandan

National Aquatic Resources Research and Development Agency, Sri Lanka
[†]upalinara@yahoo.com

Abstract: Worldwide increased demand for *beche-de-mer* encouraged overexploitation of wild stocks of tropical sea cucumbers and it has created motivation to sea cucumber aquaculture. Capture based sea cucumber aquaculture is completely a new experience to Sri Lanka. This research aimed to develop pen culture techniques for sea cucumbers and to familiarize fishing communities on sea cucumber aquaculture in Sri Lanka. Three pens were constructed in Gurunagar and Navanthurai lagoon area and one was constructed in the sea area at Mandaithivu in Jaffna district. Pens were constructed by using PVC net, blue shade net and with coconut planks. The size of each pen was 25m×25m. *Holothuria scabra* juveniles were collected and the net pens were stocked at a density of two individual m⁻². The water temperature and salinity were measured in weekly intervals. The average water temperature remained in 30^oC in all three sites. The bottom water salinity in Navanthurai site varied from 38^oC to 39^oC and other two sites shown similar salinity variation between 34^oC to 35^oC. The organic carbon content in Gurunagar, Navanthurai and in Mandathivu were 1.07%, 1.5% and 2.18% respectively. In the first four months the growth rates of *Holothuria scabra* at Gurunagar, Navanthurai and Mandaitheevu were 0.66gd⁻¹, 0.96gd⁻¹ and 1.23gd⁻¹. The highest growth rate shown by juveniles stocked in Mandathivu and lowest growth rate shown in Gurunagar site. In this period the survival rates were 100% at Mandthivu and Navanthurai sites and 68% at Gurunagar site.

Keywords: Sea cucumber, Pen Culture, Juveniles

Study of *Saccharomyces cerevisiae* IQ motifs of Iqg1p and its interaction with Mlc1p

S. Mathuranthini, N. Ravimannan and P. Sevel[†]

Department of Botany, Faculty of Science, University of Jaffna, Sri Lanka

[†]sevel@jfn.ac.lk

Abstract: IQGAP related proteins are found in a number of organisms including human and yeast. Iqg1p is a cytoskeletal scaffolding protein found in *Saccharomyces cerevisiae*. It has critical role in cell division and disruption of the protein which results in growth defects. The IQ motif of Iqg1p has been reported to bind to EF hand proteins such as Mlc1p *in vivo* to co-ordinate various cellular events. It has not yet been known which of the IQ motif binds to the Mlc1p *in vivo* / *in vitro*. This computational approach identifies for the first time that the seventh and ninth IQ motifs have high probability for binding with Mlc1p followed by the eighth IQ motif. However the first IQ motif has less probability for binding with Mlc1p. Further, it is noted that this work is supported by the *in vivo* work of Terrak *et al.* (2003). The observation raises a possibility that EF hand target sequences are larger than previously reported consensus sequences.

Keywords: IQ motifs, EF hand protein, Cytoskeletal scaffolding protein

Modelling a Probability Distribution for Extreme Rainfall Events in Colombo, Sri Lanka

T. Mayooran and A. Laheetharan[†]

Department of Mathematics and Statistics, University of Jaffna, Jaffna, Sri Lanka

[†]alahee@jfn.ac.lk

Abstract: Modelling of extreme rainfall events is the fundamental part of flood hazard estimation. Establishing a probability distribution to represent the precipitation depth at various durations has long been a topic of interest in hydrology, meteorology and others. The objective of this paper is to fit a probability model to describe the frequency variation of annual extreme rainfall events in Colombo region in order to predict the probability of occurrence and return periods. Annual extreme rainfall events for a period of 110 years (1900-2009) have been used for the analysis. Early study into the distribution of daily rainfall has identified the Two Parameter Gamma, Log Normal, Two Parameter Log Normal, Three Parameter Inverse Gaussian, Generalized Extreme Value, Gumbel Max, Log Pearson Type III and Pearson Type V distributions as the most likely candidate distributions. As such, these eight probability distribution models were considered in this study. Model parameters were estimated using by the maximum likelihood method. The comparative assessment of the explanatory ability of each model was based on the graph of cumulative distribution function combined with the empirical distribution function, Kolmogorov-Smirnov test and Q-Q Plot. On the basis of these comparisons, it is concluded that the Log Pearson Type III distribution is the most appropriate distribution for describing the annual maximum daily rainfall events in Colombo. The fitted model has been efficiently used to estimate the probability of occurrence and return periods for various return levels. The model reveals that for the 200mm or more of annual maximum daily rainfall return period is seven years and 4 months with 95% confidence interval (6.27, 8.91). In similar manner, the paper concentrated on developing models for extreme rainfall events during the four seasons of a year. Relevant estimates of probability of occurrence return periods and its corresponding confidence intervals for extreme rainfalls are reported against return levels.

Keywords: Maximum Rainfall, Frequency Analysis, Log Pearson Type III Distribution, Probability of Occurrence, Return Periods

Alteration of Pitaya Pulp into a Value Added Product to Reduce the Post Harvest Losses

A.H.M. Mufas and O.D.A.N. Perera

Department of Food Science and Technology, Faculty of Livestock Fisheries and Nutrition, Wayamba University of Sri Lanka, Sri Lanka
mohamedmufas@gmail.com

Abstract: Pitaya (*Hylocereus undatus*) is well known in the Asian region. It is delicious and having higher nutritional value. Study was conducted to develop ice-cream incorporated with pitaya pulp and further studies were undergone to determine the most acceptable formula for value added ice-cream and evaluate the shelf life. The samples were prepared into three different portion of pitaya pulp. Mashed pitaya pulp, the proportion of 12%, 15%, 18% (w/w) was added to the pasteurized ice-cream mix separately. Finally ice-cream was stored under freezing condition. This ice-cream was evaluated with 20 semi trained panelists with seven points' hedonic scales to find out the standard formula. Sensory, chemical and microbial analyses were conducted for 12 weeks to evaluate the shelf life. Chemical, physical components of the ice-cream were determined according to the methods recommended by AOAC (1995). Formula with 12% pulp was selected according to the panelist preference. Fat content of ice cream was $45.37 \pm 0.99\%$ (dry basis), protein was $7.73 \pm 0.34\%$. There was a slight increase in titratable acidity in the ice cream with time whilst pH, TSS decreased. There were no significant changes of pH during the storage. Microbial number also was reduced with time. The results revealed the possibility of manufacturing of value added ice cream with pitaya pulp showing satisfactory consumer acceptability.

Key words: Anti Oxidant, Pitaya, Value Addition

Singularity Analysis of Curvature Flow of Curves on a Riemannian Surface

M. Muraleetharan

Advanced Analytics Division, SAS Institute Inc, Cary, USA
m.muraleetharan@sas.com

Abstract: In this paper, we consider evolution of embedded curves by curvature flow in a compact Riemannian surface. Let γ be a closed embedded curve evolving under the curvature flow in a compact surface M . If a singularity develops in finite time, then the curve shrinks to a point. Therefore, when t is close enough to the blow-up time, we may assume that the curve is contained in a small neighborhood of the collapsing point on the surface. Using a local conformal diffeomorphism $\phi: U(\subseteq M) \rightarrow U' \subseteq \mathbb{R}^2$ between compact neighborhoods, we get a corresponding flow in the plane which satisfies the following equation: $\frac{\partial \gamma'}{\partial t} = \left(\frac{k'}{J^2} - \frac{\nabla_N J}{J^2}\right)N'$

where $\gamma'(p, t) = \phi(\gamma(p, t))$, k' is the curvature of γ' in U' , N' is the unit normal vector, and the conformal factor J is smooth, bounded and bounded away from 0. We define the extrinsic and intrinsic distance functions $d, l: \Gamma \times \Gamma \times [0, T] \rightarrow \mathbb{R}$ by

$$d(p, q, t) := |\gamma(p, t) - \gamma(q, t)|_{\mathbb{R}^2} \text{ and } l(p, q, t) := \int_p^q ds_t = s_t(q) - s_t(p)$$

where Γ is either S^1 or an interval. We also define the smooth function $\psi: S^1 \times S^1 \times [0, T] \rightarrow \mathbb{R}$ by

$$\psi(p, q, t) := \frac{L(t)}{\pi} \sin\left(\frac{l(p, q, t)\pi}{L(t)}\right).$$

We use the distance comparison $\frac{d}{l}$ and $\frac{d}{\psi}$ to prove the following theorem.

Main Theorem: *Let γ be a closed embedded curve evolving by curvature flow on a smooth compact Riemannian surface. If a singularity develops in finite time, then the curve converges to a round point in the C^∞ sense.*

This extends Huisken's distance comparison technique for curvature flow of embedded curves in the plane. Hamilton used isoperimetric estimates techniques to prove that when a closed embedded curve in the plane evolves by curvature flow the curve converges to a round point and Zhu used Hamilton's isoperimetric estimates techniques to study asymptotic behavior of anisotropic curves flows.

Ecology of Dry forests of Sri Lanka: Implications for the Conservation Management of Northernmost Dry Forests

G.A.D. Perera

Department of Botany, University of Peradeniya, Sri Lanka
anomap@pdn.ac.lk

Abstract: This study assesses some floristic and physiognomic features and threats prevailing in dry forests at three localities: Bandaraketiya in Victoria-Randenigala-Rantambe sanctuary (in Badulla District), Bundala National Park (in Hambanthota District) and Manewakanda (in Anuradhapura District) and compare these with the situation in a dry forest in the Kilinochchi District to prescribe conservation and management guidelines for northernmost dry forests of the country. The density of individuals, the number of strata in the vegetation profile, species composition and the endemic and threatened plant species present in four forests were not comparable. These may be artefacts of their physical location and subsequent variations in the climate and the nature of disturbances (the type, frequency and magnitude). However, some climax forest species appear to be more site-specific but most of the early seral species show a wide distribution throughout the whole dry zone of the country. Severe and frequent disturbances in dry forests result in the formation of *plagioclimaxes* locally known as “scrub jungles” through deflected succession. Selective logging and subsequent severe grazing and browsing prevent the re-establishment of native climax tree species but pave the path for invasive species to occupy in forests. Therefore, floristically rich northernmost dry forests of Sri Lanka should be protected from selective logging and other anthropogenic activities such as clearance and cattle ranching. Policies should be formulated to conserve these unique dry forests and to prevent conversion, fragmentation and illegal human activities in them. Measures should be taken to introduce ecotourism industry to the area while conserving the forests and their biodiversity. Promoting to grow native dry forest timber tree species in home gardens of local villagers together with some fodder and fuel wood tree species would be beneficial in protecting the northern dry forests on the long run.

Keywords: Conservation, Disturbances, Dry Forest, Floristic and Physiognomic features, Sri Lanka

Radio Frequency Identification (RFID) Based Real Time Attendance Recorder

P.A.K. Rangana and C.M. Edirisinghe[†]

Department of Physics, University of Colombo, Sri Lanka

[†]mahesh@phys.cmb.ac.lk

Abstract: Attendance is an important aspect in every education institution and workplace. Attendance recording and monitoring is an area of administration that can require significant amounts of time and effort in a university environment. Most universities are still using the paper based attendance system. This project proposed a portable RFID (Radio Frequency Identification) based attendance system to replace the current method of attendance taking. The developed RFID based attendance system provide a convenient method in attendance taking by providing store students ID and name in EEPROM, display the students entry stored on LCD display, uniquely identify the student's data, track and display attendance data and download data to a computer for further analysis. The RFID reader of the developed system can communicate with access control panels using a standard Wiegand interface. The main parts of the developed RFID system are RFID tags and a reader operating at 125 KHz. The AT24C1024B EEPROM used for storing the data with a 16×2 LCD display and RS-232 interface used for downloading data to a computer while the system is controlled by the PIC16F877A microcontroller. The RFID Reader used in the design supports about 10 cm scanning around it. By replacing the RFID reader with long range reader, the process of scanning and identifying can be done automatically without requiring students to put his/her ID near the RFID reader. The system can be improved by replacing the EEPROM with flash memory to provide more memory space. The system is portable because the size is small and it provide two way power where adaptor power supply can be replaced by battery to power up the circuit. The portability of the system allows it to be placed on every type of classroom. A simple but effective system has been designed for the convenience of students using the spliced technology and a prototype to prove the feasibility and demonstrate the features that has been developed. The idea is beneficial to both the student and the university system depending upon its effective implementation as it shows in the seeds to develop various real projects.

Keywords: RFID Reader, RFID Tags, Attendance Recorder, Wiegand Interface

Preservation of Fungi by using Mineral Oil and Silica gel in Laboratories for Teaching Purposes

N. Ravimannan[†], P. Sevvel and P. Mangayatkaraasi

Department of Botany, University of Jaffna, Sri Lanka

[†]nravi@jfn.ac.lk

Abstract: The preservation and maintenance of stock cultures are required for microbiological pathological biotechnological and research studies. The laboratories in Universities maintain a series of stock cultures for teaching purposes. The maintenance of fungal cultures by sub culturing has been a common practice which involves much time and labour. In this study, two preservation techniques namely storage under mineral oil and silica gel storage were carried out to determine the suitability of the techniques for various fungi. Fungal species *Aspergillus*, *Penicillium*, *Saprolegnia*, *Sclerotium*, *Cercospora*, *Colletotrichum*, *Rhizopus*, *Helminthosporium*, *Trichoderma*, *Curvularia*, *Pythium*, and *Phytophthora* were collected from various sources and cultured on suitable media. The viability of the different fungal cultures was tested by transferring them onto suitable media every year. *Aspergillus*, *Penicillium*, *Rhizopus*, *Sclerotium*, *Helminthosporium*, *Trichoderma* and *Curvularia* species survived seven years storage in the silica gel method. This method was not found to be suitable for *Pythium* and *Phytophthora*. *Aspergillus* and *Penicillium* remained viable for six years when stored under mineral oil whereas *Saprolegnia*, *Cercospora*, *Sclerotium* and *Colletotrichum* needed sub culturing every two years. Even though sophisticated technology such as liquid nitrogen storage is available for preservation nowadays, it is very expensive. Thus the above two methods of preservation of fungi would be beneficial for laboratories in Universities and schools with limited resources.

Keywords: Fungi, Mineral oil, Preservation, Silica gel

Microbial Analysis of Bottled Drinking Water available in Jaffna Peninsula

S. Sasikaran^{1†}, S. Kirubahary², S. Balakumar² and V. Arasaratnam²

¹Department of Agricultural Chemistry, University of Jaffna, Sri Lanka

²Department of Biochemistry, University of Jaffna, Sri Lanka

[†]sasit_agri@yahoo.com

Abstract: More than 20 brands of bottled drinking water are supplied in Jaffna peninsula. People rely on the quality of the bottled drinking water, expecting them to be free of microbial contamination which will not cause any health hazards. The greatest risk from microbes in bottled drinking water is contamination with human and animal excreta, although other sources and routes of exposure may also be significant. In this study, attempts were made to evaluate the quality of bottled drinking water by analyzing its microbial contamination. Bottled drinking water of 22 brands were selected which includes one brand produced in Jaffna and others were brought from out of Jaffna. When the different bottled drinking water brands were analyzed for microorganisms, aerobic bacterial count varied from 0 to 800 colony forming units per mL (cfu/mL). Approximately 63.6% of the bottled drinking water brands contained high amount of aerobic bacterial count than the minimum acceptable level (100 cfu/mL) recommended by the Sri Lanka Standards institution while none of them had anaerobic bacterial contamination. Among the 22 brands, 13.6% of bottled drinking water brands showed fungal contamination and 9.1% were contaminated with coliform bacteria. Out of the 22 brands of bottled drinking water, two (9.1%) contained faecal contamination. This was confirmed by analyzing for *Escherichia coli* and *Klebsiella*. The Brand C (Strain C1) had the *Escherichia coli* and brand D (Strains D1 and D2) had the *Klebsiella*. Therefore all the bottled drinking water brands supplied in Jaffna peninsula are not free from microbes. The RDHS (Regional Director of Health Service) should consider the monitoring of the drinking water brands supplied in Jaffna.

Keywords: Bottled drinking water, Aerobic bacteria, Anaerobic bacteria, Faecal coliform

Expansion of the Gillnet Fishery for Blue Swimmer Crab (*Portunus pelagicus*) in the Coastal Waters off Jaffna: The Post-war Context, Where will we End up?

S. Sivanthan and M.D.S.T. De Croos[†]

Department of Aquaculture and Fisheries, Wayamba University of Sri Lanka, Sri Lanka

[†]dileepa_dc@yahoo.com

Abstract: After the war, the export oriented, live blue swimmer crab fishery in northern Sri Lanka has emerged as an increasingly important fisheries sector because of its economic value. Based on passive gill nets set from small boats in shallow waters, local fishing communities have adapted fishing methods to harvest this valuable resource. However, the open access to the waters off Jaffna has triggered a dramatic expansion of fishing activities and the use of some destructive fishing methods. The fishery catch and effort statistics from 2007 to 2011 were obtained from Department of Fisheries and grouped into two categories: before and after (the war ended in 2009-July). These statistics show that in the postwar period, there has been an increase in fishing effort and the proportion of blue swimmer crabs in the total fishery production has increased considerably. However, a large proportion of the catch is often rejected by exporters due to high mortality of damaged crabs. Consequently, monofilament gillnets have been banned and although illegal monofilament nets are still common in the live-crab fishery, Wool type gillnets are now increasingly being used as an alternative. This study examines the differences in the crab catches between the monofilament and Wool type gillnets. Catch statistics and population parameters were compared for each type of fishing gear from samples collected between January to April 2012 off the Karampan coast in Jaffna. The data that was compiled included: Catch per Unit Effort (CPUE) (under four weight categories and bycatch); length-frequency distributions; proportion of damaged crab in catches; the proportion of undersize (<50g) individuals; and the length at 50% maturity (L_{50}). Higher catch rates of larger (>250g) *Portunus pelagicus* were reported in Monofilament gillnets than Wool type gillnets. But considerable proportions of captured crabs were damaged due to both types of gillnet operations and the level of damaged crabs from both gillnets were similar ($P>0.05$). Gear selectivity of *Portunus pelagicus* is shown by the significantly higher proportions of small crabs (<50g) in the Monofilament gillnets. Both types of gillnet caught a high proportion of immature individuals (< L_{50}). There are concerns about the state of the resource following the increase in fishing effort with gill nets and the expansion of the blue swimmer crab fishery. The wastage of damaged crabs in monofilament nets and the high proportion of small immature crabs in the catch could be avoided by use of Wool type nets and larger mesh sizes. Alternative types of gear type for catching crabs could be considered for fisheries management in the future. The introduction of crab traps with escape gaps for undersized juveniles may help to conserve the resource while decreasing the proportion of damaged and undersized juveniles in the catch.

Keywords: *Portunus pelagicus*, Monofilament Gillnet and Wool type Gillnets, CPUE, Level of damages, Length at 50% Maturity (L_{50})

Anatomical and Phytochemical Screening of Leaves of *Vernonia cinerea* (L.) Less

S. Sivapalan^{1†}, A.C. Thavaranjit² and J.P. Jeyadevan³

¹Unit of Siddha Medicine, University of Jaffna, Sri Lanka

²Department of Botany, University of Jaffna, Sri Lanka

³Department of Chemistry, University of Jaffna, Sri Lanka

†saisiva7@yahoo.co.in

Abstract: *Vernonia cinerea* (L.) Less. belongs to the family Asteraceae and has medicinal properties. It is commonly known as 'little ironweed', 'ash-coloured Fleabane' in English, 'Neichette', 'Mukuthipundu' in Tamil and 'Monarakudumbia', 'Monerakudimbeya' in Sinhala. This is an erect annual herb growing up to 75 cm in height and is widely distributed in Sri Lanka, India, Bangladesh, and Malay Island. The leaves of the plant are ethno medicinally prescribed by physicians as a treatment for various disease conditions such as, intermittent fever, dysentery, tonsillitis, asthma, bronchitis, cold and indigestion. The aim of the study was to determine the anatomical properties and phytochemical constituents of the leaves of *Vernonia cinerea* (L.) Less. In the present study, anatomical investigations and quantitative microscopy were carried out on the leaves of *Vernonia cinerea* (L.) Less. Three types of trichomes were observed, namely regular T shaped, uniseriate and bilobed trichomes. All the trichomes, except uniseriate type, are glandular and more abundant on the abaxial surface than the adaxial surface of the leaf. Stomata are anomocytic and actinocytic type. The phytochemical screening revealed the presence of Flavanoids, Glycosides, Saponins, Triterpenoids, and Steroids and macronutrient analysis revealed the presence of Reducing sugar. The findings may provide useful information with regard to its identification and standardization in future.

Keywords: *Vernonia cinerea*, Phytochemical, Neichatti, Sahadevi

Isolation and Identification of Xylanase Producing Bacterial Strain and Kinetic Properties of Xylanase Produced

M. Subajini[†], S. Balakumar and V. Arasaratnam

Department of Biochemistry, Faculty of Medicine, University of Jaffna, Sri Lanka
[†]subajini@gmail.com

Abstract: This study focuses on the isolation and identification of xylanase producing bacteria, and characterization of xylanase which is produced by the selected isolate. Bacterial strains were isolated from corncob decaying soil and the highest xylanase producing isolate (CSI) was selected. Strain CSI produced highest xylanase activity [$328.0(\pm 0.7)\text{U mL}^{-1}$] in 32 h while growth showed lag phase up to 8 h and log phase up to 16h at pH 8.5 and 45°C. The isolate was identified as *Bacillus pumilus* based on biochemical characterization and 16S rDNA amplification. Crude xylanase showed zero order kinetics for 4min and gave highest activity [$301.5(\pm 0.26)\text{U mL}^{-1}$] at 55°C and pH 8.4. Michaelis constant of the crude enzyme to soluble Birchwood xylan was 7.1g L^{-1} and V_{max} value was $1666\ \mu\text{mol mL}^{-1}$ at 55°C and pH 8.4. In the absence of additives, at 30min the xylanase retained 5 (± 0.92)% of its initial activity at 60°C and pH 8.4 while at 55°C and pH 8.4, it retained 38 (± 1.0)% of its initial activity. *B. pumilus* xylanase produced xylotriose as the final hydrolysed product of Birchwood xylan. Based on the results, the isolate selected and identified as *B. pumilus*, produced xylanase which may be useful in industrial applications to remove hemicelluloses.

Keywords: Identification, Isolates, Kinetic Properties, Stability, Xylanase

Reconstructing Monthly Temperature Time Series in Jaffna: A Neural Network Approach

A. Thevakaran^{1†} and D.U.J. Sonnadara²

¹Department of Physics, University of Jaffna, Sri Lanka

²Department of Physics, University of Colombo, Sri Lanka

[†]atheva79@yahoo.com

Abstract: The meteorological station in Jaffna $80^{\circ}23'02'' E, 9^{\circ}23'41'' N$ which is the main meteorology station to maintain weather records for the northern peninsula experienced difficulties in collecting data during the period from 1984 to 2000 due to hostilities in the region. Although the weather observations were resumed in 2001, no estimates of missing observations have been reported. This paper presents a neural network approach of reconstructing a serially complete data set of monthly temperature records at the Jaffna meteorology station based on the data available at 4 neighbouring stations. The standard departures of monthly temperature values calculated from stations in Mannar, Anuradhapura, Puttalam and Trincomalee were used as the input to the neural network model to estimate the standard departure of monthly temperature at Jaffna which was converted back to monthly temperature values by using the long-term mean monthly temperature and standard deviation in Jaffna. The neural network was trained using the data from 1931 to 1960 (30 years) and the output of the model was tested using data from 1961 to 1980 (20 years). The accuracy of reconstruction obtained through the neural network model based on the standard deviation between the difference in actual and estimated values was $\pm 0.31^{\circ}C$. The neural network was applied to reconstruct the missing data in Jaffna during the period 1981 to 2000 where large gaps in weather observations are reported.

Keywords: Neural Networks, Temperature Reconstruction

Coherent States for an Abstract Hamiltonian with a General Spectrum

K. Thirulogasanthar

Department of Computer Science and Software Engineering,
Concordia University, Montreal, Canada
santhar@gmail.com

Abstract: Following the method proposed by Gazeau and Klauder to construct temporally stable coherent states, CS for short, in recent years, several classes of CS were constructed for quantum Hamiltonians. The spectrum $E(n)$ of several solvable quantum Hamiltonians is a polynomial of the label n . In this letter, we discuss CS with a general spectrum $E(n) = a_k n^k + a_{k-1} n^{k-1} + \dots + a_1 n + a_0$, of degree k , which is considered as the spectrum of an abstract Hamiltonian. As special cases of our construction we obtain CS for the quantum Hamiltonians, namely; Harmonic oscillator, Isotonic oscillator, Pseudoharmonic oscillator, Infinite well potential, Pöschl-Teller potential and Eckart potential. We shall also exploit the coherent states on a left quaternionic separable Hilbert space with the spectrum $E(n)$. Let us introduce the general features of Gazeau-Klauder CS. Let H be a Hamiltonian with a bounded below discrete spectrum $\{e_n\}_{n=0}^{\infty}$ and it has been adjusted so that $H \geq 0$. Further assume that the eigenvalues e_n are non-degenerate and arranged in increasing order, $e_0 < e_1 < \dots$. For such a Hamiltonian, the so-called *Gazeau-Klauder coherent states* (GKCS for short) are defined as

$$(0.1) \quad |J, \alpha\rangle = \mathcal{N}(J)^{-1} \sum_{n=0}^{\infty} \frac{J^{n/2}}{\sqrt{\mathcal{K}(n)}} e^{-ie_n \alpha} \eta_n$$

where $J \geq 0$, $-\infty \leq \alpha \leq \infty$, $\{\eta_n\}_{n=0}^{\infty}$ is the set of eigenfunctions of the Hamiltonian and $\mathcal{K}(n) = e_1 e_2 \dots e_n = e_n!$. In order to be GKCS the states (0.1) need to satisfy the following:

- a) For each J, α the state is normalised, i.e., $\langle J, \alpha | J, \alpha \rangle = 1$;
- b) The set of states $\{|J, \alpha\rangle : J \in [0, \infty), \alpha \in (-\infty, \infty)\}$ satisfies a resolution of the identity

$$\int_0^{\infty} \int_{-\infty}^{\infty} |J, \alpha\rangle \langle J, \alpha| d\mu(J, \alpha) = I$$

where $d\mu(J, \alpha)$ is an appropriate measure;

- c) The states are temporally stable, i.e., $e^{-i\omega H t} |J, \alpha\rangle = |J, \alpha + \omega t\rangle$;
- d) The states satisfy the action identity, i.e., $\langle J, \alpha | H | J, \alpha \rangle = J$.

The condition (d) requires $e_0 = 0$. In the case where only the conditions (a)-(c) are satisfied the resulting CS may be phrased as "temporally stable CS".

Keywords: Coherent states, Hamiltonian

Occurrence of *Scomberoides lysan* (Forsskal, 1775) (Pisces: Carangidae) in Relation to Ovarian Development

W.S. Thulasitha¹ and K. Sivashanthini^{2†}

¹Department of Fisheries, University of Jaffna, Sri Lanka

²Department of Zoology, University of Jaffna, Sri Lanka

†sivashanthini@gmail.com

Abstract: The present study was carried out to understand the occurrence of maturity stages of double spotted queen fish *Scomberoides lysan* in the waters around Jaffna Peninsula. These are economically important food fishes particularly used for dry fish production in Sri Lanka and also used in sport fishing. The knowledge on the reproductive biology by identifying the life stages in relation to the area of occurrence could be the most important parameter in the management of that species. A total number of 1072 weekly random samples were collected from the commercial catches at Point Pedro, Delft, Paasaiyoor, Kurunagar, Ponnalai and Karainagar during January 2010 to December 2011. Microscopic staging system used in the histological analysis of *S. lysan* ovary expressed seven ovarian stages such as chromatin nucleolus stage (I), perinucleolus stage (II), cortical alveolar stage (III), yolk globule stage (IV), previtellogenic stage (V), migratory nucleus stage (VI), and post ovulatory follicular stage (VII); and the developmental stage categorized as immature (I & II), maturing (III), mature (IV & V), spawning (VI & VII) and spent/resting stage (I & VII), macroscopically. Among all sampling sites Paasaiyoor (100%), Ponnalai (100%), and Kurunagar (90%) were dominated by immature stages. Maturing stages of females found in Kurunagar, Karainagar, Point Pedro and Delft. Mature stages of females only found in Point Pedro and Delft. Spawning stages of females found only in Point Pedro and Delft. Resting stage of few females was recorded in Point Pedro area. *S. lysan*, male and female less than 40cm in total length were available only in the Jaffna lagoon. Fish with greater lengths (>50 cm in Total length) were available only in Point Pedro and Delft region. These results express that the lagoon area are distributed only by immature and maturing stages meanwhile matured and spawning stages occurs in the open sea including Delft, Karainagar and Point Pedro. The knowledge gained from the present study would be a fundamental addition to ensure the sustainable fishery.

Keywords: Histological Analysis, Occurrence of Maturity Stages, Ovarian Developmental Stages, *Scomberoides lysan*, Total Length

Implementation Schemes for Two-stage Gauss Method

R. Vigneswaran[†] and M. Khokulan

Department of Mathematics and Statistics, University of Jaffna, Sri Lanka

[†]vicky@jfn.ac.lk

Abstract: Various iteration schemes have been proposed to solve the non-linear equations arising in the implementation of implicit Runge-Kutta methods. In more general scheme, when applied to an s -stage Runge-Kutta method, each step of the iteration requires s function evaluations and s sets of linear equations to be solved. Convergence rates were obtained when applied to the scalar differential equation $x' = qx$. The convergence rate of this scheme is further investigated by forcing the spectral radius $\rho[M(z)]$ of the iteration matrix $M(z)$ to be zero at $z = 0$, to be zero at $z = \infty$ and to be zero at $z = 0$ and $z = \infty$, where $z = hq$ and h is the fixed step-size. The respective optimal parameters of the improved schemes are obtained for two stage Gauss method. Numerical experiments are carried out to evaluate and compare the efficiency of the new schemes and the original scheme.

Keywords: Implementation, Implicit Runge-Kutta methods, Rate of convergence, Stiff systems

Phenols, Antioxidants and Resistant Starch Contents in Local Banana Varieties

S. Vinthuja¹, K.Karthiha¹ and S. Balakumar^{2†}

¹Department of Agricultural Chemistry, University of Jaffna, Sri Lanka

²Department of Biochemistry, University of Jaffna, Sri Lanka

†balakumarbiochem@gmail.com

Abstract: The aim of this study was to compare the antioxidant properties, phenol content, resistant starch, total starch and reducing sugar contents of six local banana (*Musa* species) varieties such as *kathali*, *kappal*, *itharai* (wild type), *aanai vaazhai*, *maruththuva vaazhai*, and *sevvaazhai*. The banana varieties were obtained from Thirunelvely market, situated in Jaffna, during the month of January. Antioxidant activity, ferric reducing power assay, total phenol content, resistant starch, non-resistant starch and reducing sugar content were determined and the contents were calculated per 100g dry weight. Highest antioxidant activity (ascorbic acid equivalent: 782.33±0.12mg) and ferric reducing power (24.796±0.95mg) were found in *kathali* and lowest antioxidant activity and ferric reducing power were detected in *itharai* (543±0.19mg and 12.97±0.6mg). Highest phenol content was detected in *aanai* (20.92±0.30mg) and lowest phenol content was detected in *itharai* (8.09±0.20mg). Highest resistant starch (RS) content was detected in *itharai* (11.69±0.82g) while lowest RS content was detected in both *kathali* (2.08±0.75g) and *sevvaazhai* (2.03±0.23g). Highest percentage of resistant starch (20.48% out of total starch content) was found in *itharai* variety; hence it is a better choice for prediabetic and diabetic patients. Also it is good for colonic health, mainly to prevent colon cancer. The present study shows that banana contains many bioactive compounds, which could significantly contribute to human health.

Keywords: Antioxidants, Ferric reducing power, Phenols, Resistant starch

Preliminary Assessment of the Status of Commercially Prepared Salted and Sun Dried Fish *Scomberoides Commersonianus* (Lacepede, 1802)

S. Vivekshan Reval¹, K. Sivashanthini^{1†} and A.C. Thavaranjit²

¹Department of Zoology, University of Jaffna, Sri Lanka

²Department of Botany, University of Jaffna, Sri Lanka

†sivashanthini@gmail.com

Abstract: The present research work was carried out to evaluate the status of commercially prepared salted and sun dried fish, *Scomberoides commersonianus* from the most popular dried fish preparation site Velanai in Jaffna district from January 2011 to June 2011. Salting and sun drying is a simple, ancient and traditional method to preserve fish in Sri Lanka. By the traditional method fish are dried on the ground or coconut leaves at the sandy shore where direct contact to insects and dirt is possible. The quality of salted and sun dried fish can be affected by microorganisms. Giving importance to consumer's health, the hygienic condition of dried fish was tested by two different methods, organoleptic and microbiological analysis. Organoleptic assessment was done by a panel consisting of 10 people using score method. Microbial qualities of dried fish were determined by using total bacteria count, total coliform count and methylene blue reduction test. Sodium chloride content of the samples was also determined. The mean scores obtained for organoleptic assessment which emphasizes colour, flavor, texture and odour, showed that all the characteristics of the products were fairly liked. The results indicated that the mean total bacterial count in that preparation site was $(32.43 \pm 0.1013) \times 10^8$ cells.g⁻¹, the average number of total coliforms was 19 ± 11 cells.g⁻¹ and the average time taken to methylene blue reduction test was 7 hrs 41 min. Mean sodium chloride content was found to be $29.2 \pm 0.2\%$. From the present study it can be concluded that the commercially prepared dry fish samples in Velanai, Jaffna are not suitable for human consumption based on the organoleptic and microbial quality. Therefore it is essential to improve the traditional dry fish preparation techniques especially by utilizing clean utensils and water, drying the fish in ventilated wooden racks or in the solar drying systems with even hot air flow and paying more attention to the hygienic condition of people who are involved in the preparation of dried fish.

Keywords: Salting, Sun drying, Organoleptic, Microbiological analysis, *Scomberoides commersonianus*

Factors Affecting People's Attitudes towards Cricket: with Special Reference to Kandy Sectarian Division

W.M.R.K. Weerakoon[†], K. Jayantha, E.G. Ubayachandra

Department of Sport Science and Physical Education, Faculty of Social Sciences,
University of Kelaniya, Sri Lanka

[†]kala@kln.ac.lk

Abstract: As the most popular and widely spaded sport in Sri Lanka, it was selected the particular topic titled 'factors affecting people's attitude towards cricket: with special reference Kandy sectarian division'. At the point of hosting the Sri Lanka team in the final match of widely spread some disappointment among the cricket spectators and others interested general public. The researcher was stimulated by this unpleasant climate and unsolved problem created such on what happened to people's attitude towards cricket. For studying on this problem, Present paper was conducted. There were two objectives expected to fulfill by the study namely. (i) to understand the people's attitude toward cricket after the World Cup 2011 and (ii) to identify the people's attitude toward cricket in order to demographic factors such on age, gender, and level of education. Hence this study was based on three predictions namely, (i) gender make different attitude on cricket (H1), (ii) there is a negative correlation between attitude toward cricket and age (H2), and (iii) there is a negative correlation between attitude toward cricket and level of education (H3). At the point of testing this hypotheses, the study was limited to a sample population for the convenience of the study, Kandy sectarian division, where in located the Pallekale international cricket ground and one game of world cup 2011 was held selected on the study area, purposely, five other sub divisions selected, those were located around the ground, and sample size of each division was selected proportionate to the sub division population. Then respondents were chosen by simple random sampling technique with association of divisional registration unit and random number table. The data were collected from the respondents by exploring a questionnaire that was carefully conducted according to the likert scale method. A total of 250 questionnaires were distributed among the sample on the basis of quota given to the each sub division, by using the data collected though the survey. The three hypotheses were tested using a statistical software. The results show that very weak negative correlation both age and level of education with attitude towards cricket. Gender and attitude towards cricket also shows a very weak negative skiwness. Based on the findings of the study number of recommendations was made to the sports authorities and researchers in the field of sport sciences to improve attitude about Cricket in the country in future. Resulting from implementation, of given recommendations, the respective benefits will be yielded by Sri Lankan sports, at aggregate level.

Behaviour of Rainfall Patterns in the Trincomalee District: A Time Series Modelling Approach

B. Yogarajah^{1†}, C. Elankumaran² and R. Vigneswaran³

¹Department of Physical Science, Vavuniya Campus, University of Jaffna, Sri Lanka

²Department of Economics, University of Jaffna, Sri Lanka

³Department of Mathematics and Statistics, University of Jaffna, Sri Lanka

[†]yoganbala@vau.jfn.ac.lk

Abstract: With the advent of rapid developmental activities in the Eastern province of Sri Lanka in the post-war scenario, the government's mandates focus on reviving plans for the agricultural sector to meet the growing demands of the nation. Understanding the behavior of the climatic parameters of a geographical area is a prerequisite for any effort towards developing the agriculture sector. Climatic variability, especially the unpredictability of rainfall regimes is a major constraint for agricultural planners when it comes to deciding the time of planting in the Trincomalee district. The aim of this paper is to explain and analyze the temporal behavior of long-term monthly retrospective rainfall data of the district using ARIMA technique. This paper focuses on a time-series modeling approach to understand the behavior of rainfall patterns for the period from January 1952 to December 2009. The ARIMA model analysis proved to be a very valuable technique in forecasting climatic trends for Agro-environmental planning (Sabita Madhvi Singh, 2012). Rainfall time series data are analyzed using ARIMA statistical techniques to study the annual and seasonal trend of climates, fluctuation and variability. Various seasonal ARIMA models were tried in this respect. Key findings indicate that the rainfall patterns in the study area modeled as $ARIMA(1,0,0)(1,1,1)_{12}$, as such the rainfall predominantly depending on nonlinear trend and seasonal pattern of order 12 with the autoregressive of order one combined with lag12 process. This indicates that comprehensive forecasting model for rainfall in Trincomalee district is arrived. Further research is needed to focus on the influences of non-endemic and regional-to-global climatic phenomena.

Keywords: ARIMA, Rainfall, Time-series, Uni-variate Autoregressive Model

End of Track H

Track I:
Social Sciences

Impact Assessment on House Reconstruction of Two Funding Systems

P. Alvappillai, M. Prabhakaran and T. Mikunthan

Department of Agricultural Engineering, University of Jaffna, Sri Lanka
ponalvaippillai@yahoo.com

Abstract: Two systems of multimillion financially supported reconstruction projects were practiced in Vadamaradchi North to improve the condition of affected people those who have been facing continuous grievances for a long period nearly three decades of improper ground situation the years indicating 1980-1981, 1986-1987, 1992-1993, 1996-1997, 2004-2005 and 2008-2009. The two systems were evaluated after five years of completion of house reconstruction with settlement that is the "Core House Concept" (CHC) known as House Owners Reconstruction System (HORS) supporting direct financial system and Finished House Reconstruction System (FHRS) supporting indirect financial and material transaction including land allotment, a cluster housing project. The above two systems were evaluated after construction of houses, the HORS done by NEHRP under world bank and FHRS done by NGO known as HUDEC CARITAS. Evaluation was carried out on the basis of 12 levels of house reconstruction performance chart (HRPC), three economical aspects, two social aspects and two financial aspects in the coastal area of Vadamaradchi, Alvai North -West the most affected coastal village was selected for the impact assessment. Visited house by house for this study and selected 121 houses built under World Bank (NEHRP-HORS) and 45 houses built under the FHRS, LNGO/CARITAS. An initial study was conducted for the last five months that revealed the FHRS indicated several benefits without any financial or material flow impediments but HORS indicated large number of unidentified financial transaction, material usages, confusion in selection of beneficiaries, contradiction among vulnerable people in finding location, improper time consuming activities, abundant houses, looted houses, less quality building materials, unidentified beneficiaries, false statement in handling money in field, cheating money transaction, deduction in money handling and facilitated losses in funding installment. It is obviously identified FHRS is more effective system and the other world bank HORS is utterly failed particularly in this area, even though affected people got their houses and satisfied, an acceptable result.

Keywords: Beneficiaries, Reconstruction, NEHRP, CARITAS

Promoting Good Governance in Sri Lanka:
A Case for Right to Information
(Prospects and Challenges)

C. Akurugoda

Department of Private and Comparative Law, University of Colombo, Sri Lanka
chathurikaakurugoda@yahoo.com

Abstract: Right to Information is an essential requirement of good governance in a country. Since Sri Lanka is in a post war context, it is claimed that government decisions should focus on capacity development in the country. Sri Lanka faces enormous challenges in the areas of good governance, transparency, abuse of discretion and corruption. It is argued that it has become a necessity to enact a piece of legislation which is transparent oriented and further which enable people to be informed. In this context Sri Lanka should enact and implement a legislation to give effect to people's Right to Information. This type of enactment will promote openness, transparency and accountability and shall act as a watch dog against abuse of power, corruption, and bureaucratic apathy. Further it will enhance the participatory democracy by enabling people to make an informed choice. Furthermore, sustainable development requires the sound decisions which have taken in the light of good governance. To serve this purpose transparency is the cardinal principle. Therefore ensuring that transparency through enacting Right to Information Act is paramount.

Keywords: Good Governance, Participatory Democracy, Right to Information, Sustainable Development

Truth seeking and Reconciliation Importance of Truth for Post-war Peace Building in Sri Lanka

D.V.M.S. Asiri

Department of Economics, University of Ruhuna, Sri Lanka
dvmadhavi@gmail.com

Abstract: This study examines the importance of seeking truth, for the post-war reconciliation process in Sri Lanka. Both questionnaires and interviews were used to collect quantitative and qualitative data, as the study used mixed methods. During the first step of analysis, data was edited and coded. Then, quantitative data were analysed by using spread sheets as percentage analysis. Qualitative data was analysed by using context analysis. The study used probability sampling and non-probability sampling methods to have a sample of the large population, as it is hard to have a sample frame for a dispersed population. As a result, samplings were focused on characteristics of the population such as ethnicity, gender and place of resident to have smaller elements. The study focused on Tamil ethnicity in Northern Province, Muslim ethnicity in Eastern Province and Sinhala ethnicity in Southern province. However, according to the responses, 92.8% of all ethnic communities believed that reconciliation is possible with the present condition in Sri Lanka. The Sri Lankan ethnic conflict began between Sinhala and Tamil ethnic groups and ethnic based polarization continued throughout ethnic groups. In order to understand how to address the problem of polarization and how to reconcile the society, it is necessary to get to know about the past truth and understand each other. 79% of Sri Lankan ethnic communities are willing to express their past truth with the hope of justice and heal themselves. The study found that people are ready to speak about past and understand each other. However, they fear it will be a danger to their lives. Also, the study revealed that people are willing to understand each other and build a shared future together. So, on the basis of this study for reconciliation in Sri Lanka, an experimental model for truth is proposed. The study also recommends a victim protecting system with legal conventions so that people can speak about their past truth without any hesitation.

Keywords: Post war peace building, Reconciliation, Sri Lanka, Truth seeking

Responses of Senior Citizens to Disasters: A Study with Special
Reference to the Tsunami and Ethnic Conflict
(A Case Study of Disaster Affected Areas in Eastern Sri Lanka)

S.M. Ayooob

Department of Social Sciences, South Eastern University of Sri Lanka, Sri Lanka
ayoobsm@seu.ac.lk

Abstract: The main purpose of the study is to understand how senior citizens cope and withstand impacts of disaster and how they adapt to new ways of life resulting from disasters. In this study various methods were used for data collection from primary as well as secondary sources. Secondary data was collected from Divisional Secretariat, NGOs records, official records, previously conducted studies, books, publications, journal articles, reports, census data, internet and other relevant documents. Primary data were collected through a questionnaire survey, key informant interviews, Focus Group Discussions (FGDs) and case studies. The study found that prior to the disaster the senior citizens were leading a life of guide, adviser, mediator and decision maker in the family and community. In the social sphere they took part in social activities and also played a leadership role in religious activities. As far as economic activities were concerned senior citizens played a less active role. They mostly led a dependent and sedentary life. But, the disaster (Tsunami and ethnic conflict) had compelled more senior citizens to depend on themselves or forced to depend on them. They engaged themselves in economically productive life by involving in self employment etc to face the disaster and its losses.

Keywords: Disaster, Senior Citizens, Leadership

Complexities of Land Related Issues in the North

I. Basith[†], M. Munas and G. Lokuge

Centre for Poverty Analysis (CEPA), Colombo, Sri Lanka

[†]basith@cepa.lk

Abstract: This study was conducted by the Centre for Poverty Analysis (CEPA) and looked at land related vulnerabilities in the Northern Province: Mannar, Kilinochchi and Mullaithivu. Land is a highly contested issue in post-war Sri Lanka, and for communities made vulnerable by the war, inability to access land resources adds another layer of vulnerability. There are many factors that influence the character of relationships that surround land and land transactions in the North: the multiple displacements, the complexity of the legal/policy framework, the institutions and state structures weakened by conflict; the entrenched cultural roots. Within this context, CEPA's study aimed to find out how clear and transparent, community oriented property rights/claims processes could be developed to include vulnerable groups such as women-headed households, orphans and the elderly. The study was informed by an initial scoping visit to the field, and the findings were based on secondary sources and primary data comprising a review of relevant literature, applicable policy and laws and, field research conducted in selected Divisional Secretariat divisions of the three selected districts, Mannar, Kilinochchi and Mullaithivu in the Northern Province of Sri Lanka. The work was carried out from May to December 2011.

Labour Force in the Tea plantation Sector: A Special Reference to Privatized Large Scale Tea Estates in Sri Lanka

A.S. Chandrabose

Department of Social Studies, The Open University of Sri Lanka, Sri Lanka
asboseou@yahoo.com

Abstract: Technically tea plantation is a labour intensive sector and it requires 2.5 labours per hectare. However, the privatized tea plantation could not retain land labour ratio. The land for extension of tea remains unchanged, however, the number of registered workers have been declined by 42% from 405,304 in 1990 to 242,266 in 2010. The focus of this study is to find out the reasons for the drop and to analyse the strategy adopted by both the workers and the estate management in order to rectify the situation. The study found diversity of employment among the tea workers. As literacy provides extra avenues for alternative jobs, mobility from tea estate works to non-estate works increases. The privatized tea estate is engaging in recruitment of temporary workers mainly from the non-traditional tea sector rather than resident workers.

The Impact of Tamil Language to Sinhala Inscriptions in Ancient Sri Lanka

K. Chandawimala

Department of History, University of Peradeniya, Sri Lanka
chandawimalakalundewe@yahoo.com

Abstract: From the beginning of written history, there was an obvious combination of languages which represented various cultures. The uniqueness of cultural value of languages depends on the historical background and it was hard to find an unpolluted origin of language without incorporating with others languages. In Sri Lanka, most of the languages are of Indian origin and incorporate with other roots of Indian languages. When considering the historical aspects of this combination, inscription languages in ancient Sri Lankan society are more important. Inscription means an ancient way of communication of the state or some institutes and with the general public. Therefore, the language of inscription represents various cultural impacts on contemporary societies. Many Sri Lankan inscriptions were written by current scholarly language or general languages. These trends are based on emerging influence of cultural patterns. In Sri Lankan situation, Sinhala language was common in ancient inscription writing. But with the cultural combinations, Tamil language effect to the Sinhala inscriptions. Some Tamil words like *Pernattu*, *Ulwadu*, *Welaykkara*, *Weriwalakkam*, *Meyakkappar*, *Adakkalam*, *Samakkattu*, *Angampadi* were used as Tamil origin word in Sinhala inscriptions. Especially inscriptions like *Girithale*, *Allewewa*, *Athurupolayagama*, *Welyakkara*, reflected language combination of Sinhala or Tamil. Terms and grammar patterns were combined with these Indian origin languages. In few inscriptions which were written after the 8th Century A.D. reflected these influences. In this study, the main objective is to find these influences and discuss about the historical background of these trends

Towards Post-war Social Science: Contesting Discourses and Possible Reconstruction for Multicultural Societies

S. Chandran

Vinayaka Missions University, Salem, India
s.chandran@rediffmail.com

Abstract: This paper tries to outline a framework for post-war social science amidst the contesting discourses. It also provides how the reorientation will assist in enhancing capacity and rebuild the society and polity in the multicultural context with particular reference to Sri Lanka. The ideological basis of social science is always traversed with multiple discourses and controversies when it emphasises self identity and self determination in plural set up. The theoretical framework has come right from classical foundations to post-modern manifestations. The inherent tension between value-free and value-laden approaches could not be transcended as both have their own strengths and weaknesses. Situating in the paradigm of developing society, Sri Lanka provides the scope for political integration rather social or cultural integration in the post-war rebuilding process. In this connection, the discipline of social science has its own moral responsibility in reorienting the multiple discourses. Taking history and political science as the case, five aspects can be discussed in the context of contesting discourses and possible reorientation and reconstruction. These include: history, self-identity, social conflict, political integration and development. These aspects can be in turn analysed in two broad paradigms as conflict model and consensus model. The moral foundations of social science seem to make dialogue between the wounded self and triumphant self. The whole challenge is related to construction of subjectivity in the light of 'given rationality' with future promises. At large, the social science must foster liberal democracy, federalism and multiculturalism. In other words, the beginning of capacity development is to foster these values in which the academicians have their say through social science disciplines.

**“Madduma Bandara” and the Last King of Sri Lanka
“Sri Wickrama Rajasimha”:** Changing Perspectives of
Representation of the “Child Hero” and “Despotic King” in
Genres of Theatre in Colonial Times

A. de Zoysa

Department of Modern Languages, University of Kelaniya, Sri Lanka
Asoka_de_zoysa@hotmail.com

Abstract: On the orders of Sri Wickrama Rajasinha, the last king of Kandy Madduma Bandara, the nine year old Son of Ahalepola, the first Adigar or Prime Minister to the King of Kandy, was beheaded on 17th March 1814 along with his siblings. Ten months later, the Kandyan Kingdom came under the British rule. It is reported that the boy most bravely encountered his executor, making him a role model for Sinhala children and the youngest national hero. Narrations of the cruel punishment and the loss of sovereignty of the island became one of the most popular topics on the Sri Lankan stage. In 1870 Don Philippu Sinhgo published his “Ahalepola Nadagama” which was performed in the same year in Colombo. Based in independent historical sources, John de Silva performed his drama “Sri Wickrama Rajasinha” in 1906 at the tower Hall. Inspired by the most popular play of John de Silva Charles Dias reworked the plot for a further play a few years later. The objective of this research is to show how the historical characters were re-fashioned to meet the needs of the play write and the audience living under colonial rule. The research will first view the characterization of the main figures: Sri Wickrama Rajasingha, the “Vadiga” King of South Indian origin, Ahalepola Kumarihami as the virtuous Kandyan women, embodying the chaste qualities of the Sinhala Women, Madduma Bandara, the child hero, Pilimalalawa Adigar, who betrays the King, and the other Radala Men in the Kandyan court. The adjectives used to describe the characters change over the three decades. The research will then work out the motivation for the author to portray the characters in the particular way. For this the closing passages of each play is worth comparing asking the question, who is to be blamed for the loss of sovereignty of the island.

Recent Land Issues and Policies in the Northern Province: Reconciling or Reviving Past Demons?

B. Fonseka[†] and M. Raheem

Centre for Policy Alternatives (CPA), Sri Lanka

[†]bhavani@cpalanka.org

Abstract: Land has been a central issue in the post-independence history of Sri Lanka and as a result of discriminatory policies and practices is considered a root cause of the conflict. Land is intrinsically linked to a diverse range of other issues ranging from individual rights and basic needs to post-war reconstruction and development processes to collective identity and political autonomy. Policies and legislation on land and related issues have historically played a divisive role, particularly land distribution, resulting in colonisation schemes, massive development, changing ethnic demographics and with it resulting electoral change and impacting the larger political context. Challenges to administration, competing politico-military actors, loss of documentation coupled with a context of war and large-scale movement has created a complex situation on the ground in terms of confusion over and competing land claims. Although the end of the war provides an opportunity to address the root causes of conflict and introduce reform, there is limited evidence to demonstrate a paradigm shift or a genuine willingness by policy makers to address grievances. Instead, post-war in Sri Lanka has witnessed a continuation of trends such as centralisation, politicisation, militarisation and secrecy surrounding new policies, especially in relation to issues such as land. This study builds on research done by the authors on land issues in Sri Lanka, including the North but will look draw upon other work including historical, anthropological and political texts to examine the repercussions of this problem on reconciliation. In this study, the authors examine specific cases in the North including competing claims, military occupation and restrictions and state/political involvement in supporting 'land grabs.' It will also assess the socio-political impact on current government policies, mechanisms to address disputes and specific assistance programs, and how they exacerbate or ameliorate relations between communities. The inability of authorities to introduce a policy framework and provide solutions to address grievances can undermine reconciliation both at the national but also at the community level. The authors argue that recent debates and developments surrounding land issues in the North feeds into fears of the minority community of continued marginalisation, discrimination and dispossession.

Good Governance and Local Government in Post-war Sri Lanka: A Case Study of Navithanveli Predhesiya Sabah

M.A.M. Fowsar

Department of Social Sciences, South Eastern University of Sri Lanka, Sri Lanka
fowsar2009@gmail.com

Abstract: Good Governance is widely considered to be a necessary and important concept if a country or province or region or division is to develop politically, socially and economically during the post-war context. While good governance might be taken as a given right in most western parts of the world because of its basic principles it has not proved to have the same impact on other parts of the world. In the present context, the strength of local government depends therefore on its basis in good governance and from that basis it gains its legitimacy. Only if local government has a strong basis in good governance can it have a legitimate claim to a major and distinctive role in any central government. On this backdrop, this study focuses on the crisis of good governance in Navithanveli Predhesiya Sabah of Eastern Province of Sri Lanka. The prime objective of this study is to give a brief account of the political and development role of council since it established. Meanwhile, it scrutinizes the decision-making process along with the achievement which has been gained through good governance in the study area. The fundamental question of the research is what conditions enable a better government to generate the capabilities that transform it into successful democratic governance, and how to generate them? Such questions are the central points of this research. All such inquiries are analyzed in this study from theoretical perspectives and factual findings. Several approaches are employed to analyse and interpret social phenomena. This study is based on interpretative approach. The data for the study have been collected from both primary and secondary sources of information. The study reveals that the council has become marginalized and insignificant in the public eye.

Keywords: Good Governance, Local Government, Post-war

Civil Society and Community Based Organizations in the Trincomalee District in Relation to Women with Disabilities

L.R. Gonsalkorala^{1†}, N.G. Kusumawathie² and C.K. Premathilaka²

¹Department of Secondary & Tertiary Education, The Open University of Sri Lanka

²AKASA Organization, Talawa, Anuradapura, Sri Lanka

[†]lrgon@ou.ac.lk

Abstract: About 650 million people in the world live with disabilities and frequently encounter physical and social obstacles. They often lack opportunities of the mainstream population and are usually among the most marginalized in society. Persistence of cultural, legal and institutional barriers make women with disabilities the victims of two fold discriminations: as women and as persons with disabilities. They are ignored and discriminated by non-governmental organizations and even by womens' movements. However, they are in need of support and recognition from the governments as well as from other various organizations existing in the society. Various organizations the world over strive to assist persons with disabilities to overcome the obstacles they face. The Abaditha Kanthā Sangamaya based at Anuradapura, Sri Lanka is one of them. The aim of the study was to collect information about the civil society and community based organizations in relation to women with disabilities in the Trincomalee district. The objectives were to investigate the awareness of those organizations about women with disabilities, identify the assistance that could be given to them by the organizations and to find out whether training is needed for the organizations to provide such assistance. The design of the study was the descriptive survey design and a sample of 50 civil society and community based organizations were selected. A questionnaire was used to collect data. The majority of the organizations were not aware about the legislations/conventions related to disabled persons. Almost all organizations were willing to provide assistance to women with disabilities in various ways. Prominent among them were providing loans, equipment, health services and counselling, developing vocational skills, raising awareness and empowerment. Only a very small number of organizations had received some sort of training related to disabled persons but all organizations expressed willingness to participate in training and also to share the knowledge with others. It is recommended that awareness raising programmes on the rights of women with disabilities should be conducted for such organizations. And their training needs in providing assistance to women with disabilities should be fulfilled.

The International Legal Framework on Post-war Transition:
Some Introductory Notes in Pursuit of Developing a
Normative Framework on Post-war Transition for
Tamils in the Island of Sri Lanka

K. Guruparan

Department of Law, University of Jaffna, Sri Lanka
rkguruparan@gmail.com

Abstract: With the end of the war in 2009 the situation in the North and East of Sri Lanka could be described as being in a 'post-war transitional state of affairs'. The manner in which this transitional state of affairs is handled will have an existential bearing on the future of the Tamil people in the island of Sri Lanka. The need for a scientific rational and a results-oriented approach to managing this transition needs no emphasis. This paper undertakes an ambitious agenda of trying to identify and collate international legal principles and norms that provide for directives and guidance on post war transition and recovery. Through this exercise this paper seeks to develop a 'Draft Normative Framework on Post-war Transition for Tamils in the Island of Sri Lanka'. The paper will focus on (i) identifying the relevant international benchmarks, norms and involvement in resolving the national question (ii) identifying the international standards on bilateral and multilateral donor involvement in the developmental process and in addressing the issues of the 'daily' and (iii) identifying the options for transitional justice. Given that each of these subject areas are on their own broad areas for debate and analysis, this paper, without engaging in a descriptive analysis of the issues involved, will seek to lay out the most relevant international legal principles that can help build the normative framework - the aim and outcome of the paper. In this regard the paper examines the relevance of Interim Administrative/Governmental Arrangements with particular reference to the experience of International Territorial Administration.

The Isolated Warrior: The Impact of Everyday Forms of Individual Public Servants' Resistance on New Public Management Reforms in Sri Lanka

T.N. Hettiarachchi

Rural Development Training and Research Institute, Colombo, Sri Lanka
hathila@hotmail.com

Abstract: This study analyses the impact of the everyday forms of resistance performed by individual public servants following the implementation of New Public Management (NPM) reforms in Sri Lanka. Many elements of the NPM reforms, such as productivity improvement and performance targets affect individual public servants in a highly personalized nature. For this reason they are unable to garner the widespread support required to prompt collective action as form of resistance. This study argues that this highly personalized nature of reforms pushes individual public servants to adopt everyday forms of resistance, which eventually make a cumulative impact on the reforms. The conceptual framework developed by James C. Scott to analyze the everyday forms of peasant resistance is used in this study to infer a model of the public servants' everyday forms of resistance. Analyzing stories of individual public servants who were accused of being resisters, this paper reveals the nature and limitations of the everyday forms of resistance that public servants have adopted as well as their impact on the NPM reforms.

Identifying the Influential Factors for the Effectiveness of Disabled Persons: A Case Study from Alaiyadivembu D.S., Akkaraipattu

L. P. Himali[†] and T. Prarthhana

Department of Economics and Statistics, Faculty of Social Sciences and Languages,
Sabaragamuwa University of Sri Lanka, Sri Lanka

[†]hima099@yahoo.com

Abstract: Disabled person is someone who has a physical or mental impairment that has a substantial and long-term adverse effect on his or her ability to carry out normal day-to-day activities. There are six hundred million of disabled people estimated to live in worldwide. The needs of disabled people could become a more important component in operations when they are included in the initial analysis for country programming. For that, the needs of people with disabilities have to be identified earlier in the operational cycle, project activities with a disability dimension. So, identifying the factors for the effectiveness of disabled persons was the main objective of this study. In order to achieve this objective the data were collected through both methods; primary and secondary. Primary data is collected by the interview method through questionnaire using the multi stage cluster sampling method and 150 samples were selected from the 22 G.N. divisions of the certain D.S. division in Alaiyadivembu Divisional Secretariat and secondary data were collected from the related documents of the Alaiyadivembu Divisional Secretariat. Disabled persons whose age above 14 are only selected for this study as that is the minimum age of a person who is able to attain a job. Data is analyzed through the Chi-square method while employment status of the person taken as the dependent variable. The study found that 46% of the disabled persons are employed while 54% of them are unemployed according to the sample. Also, almost all the disabled persons (approximately 91%) are living at home except 9% of them who lives in the orphanages. One of the major finding is that the effectiveness of the disabled person is depends upon their gender, age, educational level, residential sectors, vocational trainings that they have and various aids provided to them except the living place, race and religion.

Keywords: Disabled person, Effectiveness, Mental Impairment, Adverse Effect

Challenges of Implementation of New Public Management in Public Sectors: A Study of Kalmunai Divisional Secretariat of Ampara District

M.A. Jabbar[†] and M.A.M. Fowsar

Department of Social Sciences, South Eastern University of Sri Lanka, Sri Lanka
[†]jabbarma2009@gmail.com

Abstract: In the last quarter century there has been a significant shift within the field of Public Administration. One aspect of this trend has been the emergence of a concept which has come to be known as the New Public Management (NPM). At the most basic level, this concept promotes the public sector use of private sector management techniques. Due to number of pressures, NPM has spread across the world influencing a wide range of states. However, there are reservations over the general applicability of NPM, especially in the developing world. In this context, this paper outlines the rise of NPM in the context of Sri Lanka. Further addresses the issues in introducing NPM techniques in Divisional Secretariats of Sri Lanka, as a case of Kalmunai Divisional Secretariat which has established in the coastal area of Ampara District. This study is a critical one based on interpretative analysis which has used quantitative and qualitative data. The stated purpose of this study is examined by studying both primary and secondary materials. The primary data has been collected through questionnaire survey, key informants interviews and focus group discussion. The secondary data has been collected from books, official documents, reports and journals. The major findings of the study is that the above institution has been challenged in implementing the NPM techniques owing to various reasons including lack of knowledge, lack of staff capacity of the institution, etc.

Keywords: New Public Management, Public Sectors and Public Administration

The Effectiveness of Community Mediating Role at Rural Level Disputes: A Study of Addalaichenai Mediation Board Coastal Area in Ampara District in Sri Lanka

M.A. Jabbar^{1†} and A.V. Manivasagar²

¹Department of Social Sciences, South Eastern University of Sri Lanka, Sri Lanka

²Department of Political Science, University of Jaffna, Sri Lanka

[†]jabbarma2009@gmail.com

Abstract: The disputes are unavoidable in human life and it is considered to produce destructive consequences. Hence, there are number of mechanisms used to settle the rural level disputes. Among those mechanisms the community mediation is to be a successful tool for dispute management among rural level disputing parties. The community mediation is a process of devolving the judicial power from the state to the people for meaningful response to the rural level disputes. In this context, the study attempts to analysis the practices of the Addalaichenai Mediation Board and to identify the challenges which are blocking the smooth functioning of community mediation board in Addalaichenai. Further, the study attempts to evaluate the effectiveness of the community mediatory role of Addalaichenai Mediation Board. This study is based on interpretative method owing to their practical merits with using quantitative and qualitative survey. Above stated objectives have been achieved by studying both primary and secondary data. The study reveals that the community mediation has been considered as a successful mechanism for dispute management at rural level. This system has been adopted to settle and manage the rural level disputes in Addalaichenai. However, the effectiveness of community mediatory role at this area has been questioned due to number of problems.

Keywords: Community Mediation, Dispute Settlement and Management, Mediation Board

Generalized Model for Implementation of Cash for Work Program during Post-war Recovery Based on the Experience Gained from Emergency Northern Recovery Project

S.S. Janen

Emergency Northern Recovery Project, Vavuniya, Sri Lanka
ssjanen@gmail.com

Abstract: Livelihoods of the resettled IDPs were critically poor, immediately after the resettlement process of post war recovery in Sri Lanka. Cash for work (CFW) was implemented by emergency Northern recovery project to facilitate them with mental and financial stability. It facilitates the community for their short term employment; in the mean time it creates a community ownership in the village, by renovating the community assets with the participation of community itself. This facilitated the community strengthening with livelihood development. This was identified as an ideal method for emergency situations such as, post conflict, post war, and post disaster. This study area confines in Northern Province. Continuous review was carried out since the beginning of the CFW programme up to the final stage of CFW programme. Focus group discussion (FGD) was carried out to find out the strength and weakness of implementation of CFW programme and recommendation for improvements. Impact assessment survey was done to visualize the livelihood development of CFW beneficiaries during and after the CFW programme. Modification in implementation of CFW programme was undertaken throughout regular monitoring and evaluation process. Finally, generalized model for implementation of CFW programme for post emergency situation in Sri Lanka was developed. The common recommendation for CFW were: carrying out baseline data collection, developing overall objective, setting target for CFW programme, determining the wage rate for CFW programme, recruitment and motivation of staff, decide whether to collaborate with local NGOs, select community based existing committee or new CFW committee, strengthening the community groups, baseline profile of beneficiaries, selection of subproject, design and implementation of the selected project, choosing a reliable method for payment, set up monitoring and evaluation system and develop a phasing out strategy to meet the sustainability of the CFW programme. By implementing the proposed structure in the CFW programme will help to uplift the community's socio economic status with sustainable manner in the future CFW programme.

Nation Building is Dilemma in Srilanka after War

C. Jayasena, S. Chandrasekera, W.M.S.A. Samarakoon, H.U.S. Pradeep and
V. Thambiraja

Abstract: Nationalist movement in Sri Lanka was organized for liberating the local religious, languages and culture from British influences. Initially, Sinhala, Tamil and Muslims leaders worked together for re-waking the local cultures. The ethnic harmony was collapsed in post independent period, due to the decisions of local elite who were in power. The legislative acts as citizenship defining, Sinhala only and education standardization created uneven opportunities for ethnic- minority groups as Tamil, and Muslims mainly. The research problem is that, why society emphasizes more on emotional historical values based on ethnicity; even states want to construct one nation, one country. The research questions are why do government policies not have strength on changing the attitude of pressure groups in society and follow the integration polices? And why people from different ethnic communities do interviews, focused not drive their attention on cooperation? The data is found from primary and secondary sources as interviews, focused group discussion and newspapers, ongoing research, published articles and books respectively. Priority is given for qualitative data. The qualitative data is given ideas clearly and few relevant statistics data are available. Phenomenology used as method for analysis the data. The key findings are Sri Lankan political system is based on majoritarian democracy. The parliamentary democracy again makes the “clientalistic politics” and it cause to increase the divisions among the ethnic groups. The massive infrastructure development projects are not be able to handle the root causes for war properly. In other words, the representative in decision making bodies concern least on integrating the ethnic communities in grass roots. The programs for sustainable peace in post war do not respond the real demands of the people. The liberal economic agenda and peace building fails due to these polices do not fix with the environment. In spite of infrastructure development, communities in armed conflicts and experienced it need nation building as a form for unified them.

Keywords: Nation Building, Post-war, Liberal Peace Agenda, Clientalistic Politcs

Negative Consequences and International Migration of Women in Sri Lanka

N.S. Jayathunga

Department of Social Sciences, Sabaragamuwa University, Sri Lanka
nadeesara@yahoo.com

Abstract: Sri Lanka promoted migration after 1977 with the introduction of the open economic policies for the country and it affected to make widen the international relationship among nations. With the changing pattern of international relationships the rural social structure was also highly affected. The main objective of this study is to discuss the negative consequences which arise through the international migration of women in Sri Lankan context and how it was influenced to the family and children. Identifying the main reasons for the migration, the views of the husband on the migrated wife, the nature of the problem faced by the husband, the responses of the children on the migration of the mothers, views of the achievements of the expected goal through migration are the other specific objectives of this study. The purposive sampling was used by the study because the international migration is not a common for all households of the society. Sample was taken from Wariyapola DS division in Kurunagala district, which records high international migration rates in rural sectors. 50 households were selected including 38 cases from the women returned back after the migration and 12 cases from the family members who have migrated women at the moment. The questionnaire, interview, case studies and observation were used for the data collection. To get rid of economic problems, to build a new house, to buy a land, to save money, to solve the problems of the children and to achieve the economic status of the others, to get rid of economical problems including indebtedness, inability to find foods, insufficient income of the husband, the expenditure of the children's education, lack of the household commodities and safety purpose are the major cause of the migration identified through this study. Alcohol addiction, sexual problems and mental depression are the leading problems faced by husbands. The main problems faced by the children due to mother's migration are isolation, neglecting education, sexual harassment and loitering. Some possible policy implications were suggested as final contribution of this micro level study to address this social problem in Sri Lanka in a sociological aspect.

Keywords: Migration, women, Family, Causes, Role conflict

Habitat Security of Urban Households in the Batticaloa District of Sri Lanka

S. Jeyarajah

Department of Economics, Eastern University of Sri Lanka, Sri Lanka
jayarajahl4@yahoo.com

Abstract: The aim of the study is to explore the habitat security status of urban households in the Batticaloa district. Primary and secondary data were used in this study. Primary data were collected through the questionnaires. A sample survey was conducted in 10 villages to collect information. Secondary data were collected from various sources. Present study reports that more than 43% of families who are living in temporary house, have owned well. Common wells are used by 4% of families. At the same time 35% of families do not have access to proper water but they are getting water from the small ponds. Moreover, more than 58% of families, who are living in temporary house, do not have toilet facility. Around 42% of families have toilet facilities. It indicates that most of the families immediately need toilets facilities. The present study recommends the following to ensure the habitat security of the urban households in the Batticaloa district; integrated habitat development project should be planned and implemented in district level, strengthening and empowerment of urban community, implementing loan schemes with low interest for owner driven housing construction, upgrading infrastructure and services, providing improved basic services to the urban communities and providing livelihood supports. This issue also needs further researches which can help policy makers in order to provide better housing and eliminating poverty in the region as well as in the country.

Keywords: Habitat security, Poverty, Shelter, Urban housing

The Nexus between Money Supply and Inflation in Sri Lanka

M. Kesavarajah[†] and K. Amirthalingam

Department of Economics University of Colombo, Sri Lanka

[†]rmkesav@yahoo.com

Abstract: The purpose of this study is to examine the nexus between money supply and inflation in Sri Lanka over the period 1978 to 2010. The annual time series secondary data on inflation, money supply, budget deficit and exchange rate were drawn from various annual reports of Central Bank of Sri Lanka. Moreover, Johanson and Juseliues multivariate cointegration test and Granger causality tests are employed to estimate the long run equilibrium relationship among the variables. The Augmented Dickey Fuller (ADF) unit root test was used to examine the properties of the time series variables and to determine the order of integration for each series in this study. The choice of the lag length of the time series variables are based on the minimum Akaike Information Criterion (AIC). According to the Johansen Maximum likelihood test, the computed trace statistic, maximum Eigen statistic and their corresponding critical statistic indicates that the null hypothesis of "no cointegration" can be rejected at five percent level of significance. This result supports the presence of long run relationship among the variables. Moreover, the Granger causality test indicates while there was a significant causality from money supply to inflation and exchange rate to inflation while the causality from budget deficit to inflation was insignificant. Further, analysis indicates that inflation is mainly attributed to the monetary expansion in Sri Lanka during the post liberalization period. Therefore, this study concludes that money supply variable can be used as an effective policy instrument to maintain the price stability in Sri Lanka.

Keywords: Causality, Exchange Rate Inflation and Money Supply

**Income, Consumption Pattern and Economic Status of
Paddy Farming Household**
(With special reference to Sammanthurai Divisional Secretariat Area)

S.M.A. Lebbe

Department of Social Sciences, South Eastern University of Sri Lanka, Sri Lanka
smahamed08@gmail.com

Abstract: Nearly 70 percent of total population living in rural areas depends completely or partially on agriculture sector. Sri Lanka has made great strides in the sphere of agricultural development in general and paddy cultivation in particular. The main objective of the study is to examine income, consumption pattern and economic status of paddy farming households in the study area. Primary data related to the year 2009-2010 were collected from 280 paddy farmers from four types of paddy cultivation groups. Food ratios for all farming households are more than 50 percent of their total expenditure. Further, the average loan per household and per capita indebtedness, followed by the interest payments for the loans of the paddy farmers, is extremely higher. On the other hand, it is noteworthy to point out that the expenditure, income and debt are higher to all categories of paddy farmers. Hence, policy makers should pay attention to increase their income especially from paddy cultivation and also to raise purchasing power of paddy farming community in Sri Lanka.

Keywords: Consumption, Economic status, Food ratio

Devolution of Power and its Intensity: Issues and Challenges in the Case of Sri Lanka

D. Liyanahetti

Department of Social Studies, Open University of Sri Lanka
ddliy@ou.ac.lk

Abstract: Fiscal devolution is a major aspect of devolving power. Distribution of public expenditure, spending discretion and modalities for equalization of fiscal capacities were being debated and still being so. Fiscal decentralization has been adopted by both developing as well as developed countries under various circumstances all of which aims to accelerate economic growth effectuating a more balanced development especially at regional/provincial level. However, one of the most controversial debates has been on the fact of evaluating or measuring as to how far devolution has occurred. Unlike in Sri Lanka many other countries which have devolved power have invented few tools on this measuring aspect. Sri Lanka implemented fiscal decentralization through the 13th amendment to the Constitution during 1987/88 and with the establishment of the Provincial Council System. There is a strong argument that such devolution sought to facilitate ethnic cooperation by equally distributing resources from the center to the periphery. Nevertheless, seldom there have been comprehensive studies as to whether fiscal decentralization has resulted in the expected outcomes or rather a waste of physical resources in computable terms. The present study aims to mathematically measure to what extent fiscal decentralization has been implemented in Sri Lanka and identify the issues faced by the present sub-national government system. The results reveal that the degree of decentralization has been poor in many respects. In other words the de facto system of fiscal decentralization in Sri Lanka is still a resemblance of centralization than decentralization. As Sri Lanka is emanating from the debris of a 30 year conflict situation time has now arrived to evaluate the success or failure of the power devolution that was implemented more than two decades ago. Identifying such weakness and challenges would be essential to ensure a more balanced and even growth in the country as intended constitutionally.

Keywords: Fiscal decentralization, Regional growth, Measuring decentralization, Post-war economy

Women's Role as Constructive Agents in the Economic Reconstruction in Post-conflict Period

R.A.H. Menaka

Department of Private and Comparative Law, University of Colombo, Sri Lanka
aehelan@gmail.com

Abstract: When we talk about post conflict reconstructions women must be involved, because they have important and necessary roles to play in all the phases of post conflict reconstruction. Arm conflict affected the women and men differently. Following the death, disappearance or detention or permanent or temporary disability of the male family member or loss of documents made to deprived of their sole means of income and are struggling to meet their daily basic house hold needs. Armed conflict creates large number of households headed by women. A large number of conflict affected women has no independent means of income as they have relied economically on male family members. As a result women are generally responsible for running the house-holds. Moreover mental pain and suffering because individual was deprived of all economic resources. Now women are economic actors, and important in post-conflict period. But legal and social norms restrict their role in Economic right and fail to encourage their capacity development. Accordingly law makers and the state have great responsibility to reconstruct women's lives and their future. Because during the war period women have lost lives, property and also documentary evidence of entitlements and relationships as a result of war. Internal conflicts and wars have led to displacement and destruction of property and livelihoods, which place women in an ever more vulnerable position. To understand the role that women should play in post conflict situation is largely situated in the roles they played before and during the conflict. In present situation laws of the country did not recognize their rights special in economic sector. Due to this women are helpless. In post conflict period only legal structure and the laws can provide reliefs to women. Accordingly this article will discuss about how the law can encourage women in their capacity development in post conflict period.

Validity of Deed of Declaration as an Authentication of Ownership:
A Study with Particular Reference to Post-war Resettlement and
Award of Compensation for Victims of Land in the
Northern Province of Sri Lanka

K. Manoharan

Department of Law, University of Jaffna, Sri Lanka

Abstract: Since people have lost almost all their legal documents during the displacement and calamities of war, proof of ownership to their own land too has become a difficult task. The people who are allowed to resettle in their places of origin need to establish the ownership to the land belonging to them in order to receive housing and various assistance from state and non state agencies. The researcher wants to analyze the possibility of execution of a deed of declaration and get it recognized by the funding or assisting agency. The researcher also intends to analyze the legal and practical barriers in the process of validating and recognizing deeds of declaration as proof for ownership and award of compensation for victims of land in Northern province of Sri Lanka in the post war context. This study will be based on interviews with different stake holders such as Divisional secretaries, Notary publics and the victims of lands etc. It is alleged by the relevant officers that the genuineness of deed of declaration is always doubtful since it is a mere declaration of one's ownership over a land. The researcher intends to say where and when the deed of declaration could be a genuine document and acceptance of them by the respective officials when they could be treated as genuine. The research finding will hopefully help the people and the respective officers to recognize the validity of the deed of declaration to a good extent to redress the victims.

The Potential of Using Local Customs prevailing in the War-torn Areas in Resolving Emergent Community Disputes in the Post-war Scenario

D. Pathirana

Department of Commercial Law, University of Colombo, Sri Lanka
dilinipathirana@gmail.com

Abstract: Every particular group of community in human society has a unique system of social custom which is wrought and operated for the initial purpose of maintaining moral governance over that particular community within the social parameters demarcated by the inherent social norms and values of that community. However, certain locally operated social customs have been empowered with the legal authority particularly by the judiciary through recognizing its legal validity as one of the sources of law by which determined the rights and duties of the members of a particular community. This legal experience is not outlandish to Sri Lankan legal system and consequently, certain local customs which satisfy the required criteria under the Sri Lankan jurisdiction have been acknowledged as customs that engender legally enforceable rights and duties among the members of a particular community. Therefore, there is a strong potential of utilizing certain local customs prevailing in war affected areas as a legitimate tool for resolving community disputes emergent in the post war context notably, including land and property matters and perhaps even family matters as well. Using such local customs as one of the sources of law by which community disputes are determined, is of vital social-legal significance since they able to provide legal solutions which accustomed with the typical life style of the members of the war affected communities. Furthermore, employing local customs in this scenario would not prevent those communities from lining with emerging concurrent social advancement since a progressive judicial approach sensible to the evolving social developments can be evidenced in Sri Lankan legal system on this topic, while signifying the contemporary thoughts of right based approach therein. Being so, the paper is concluding with emphasising the legal potential and social significance of using local customs prevailing in the war-torn areas in resolving community disputes emergent in the post war scenario at least for a certain extent since they have been given slight legal and social consideration in the attempts of outfitting specific legal regulations to determine community disputes

Keywords: Legal Validity of Local Customs, Local customs, Resolving Community Disputes, Social Significance of Local Customs

A Legislative Reform to Protect the Rights of Domestic Workers in Sri Lanka: A Critical Analysis with Relevant ILO Conventions

M.P.S.K. Pathirana

Department of Private and Comparative Law, University of Colombo, Sri Lanka
kaushipathirana@gmail.com

Abstract: Although Sri Lanka has ratified all eight core labour conventions declared by the International Labour Organization (ILO), the government has not taken specific measures yet to provide a national law concerning Domestic Workers, in order to protect and enhance the rights of domestic workers. According to the current situation of Sri Lanka, this sector has been recognized as being informal and not well-organized. In considering the Sri Lankan context, there are some differences between domestic workers and non-domestic workers in obtaining benefits and conditions from their workplaces. Domestic workers of Sri Lanka are expressly and impliedly excluded from its labour legislations. However, the ILO Convention on Decent Work for Domestic Workers 2011 demonstrates that the domestic workers should obtain all the benefits and conditions as the other sectors of employment attain. Therefore this research paper purported to make recommendations for a new separate legislation for the benefit of domestic workers including all the welfare measures, social security issues and effective problem solving mechanisms. Also it expects to propose certain amendments to the existing labour laws by including domestic workers into the scope of current legislations.

Keywords: Domestic Workers, Social Protection, Child Domestic Workers

A Study of Gender based Discrimination on Property Rights in Sri Lanka: Evaluation of Applicability of Relevant Customary Laws and Government Policies in the Post-war Context

A.C. Perera

Department of Private and Comparative Law, Faculty of Law,
University of Colombo, Sri Lanka
anusha@law.cmb.ac.lk

Abstract: Sri Lanka being a country with a mixed legal system, different groups of people in the country get governed by different set of personal laws; Kandyan, Muslim and Thesawalamai law. These laws contain discriminative provisions especially for women mainly in the areas of divorce, succession, and property rights. This study will only focus on land and property rights. These discriminatory laws and provisions were recently highlighted in the observations of the CEDAW committee report. These differences became more apparent when arranging resettlement process for the displaced families and reallocating land after the civil war and the Tsunami disaster. Most of these households are headed by women as men in the families had got either killed in the battle or disappeared. Most of these women have been prevented from acquiring ownership of these lands and accessing to other services as a result of the application of the head of the household concept in state administrative practices and also in some other instances because of the applicability of the said personal laws. Although this has become a major practical issue when reallocating lands and in the process of resettlement, it has not been addressed or discussed in the recent report of Lessons Learnt and Reconciliation Committee. This study will look at the possibility of a uniformity law and awarding joint ownership when allocating state lands and also abolishing the concept of Head of Household from state administrative practices.

Wetland Mapping using High Resolution Satellite Images in the Jaffna Peninsula

V. Piratheepa[†] and K. Suthakar

Department of Geography, University of Jaffna, Sri Lanka

[†]vtheepa@gmail.com

Abstract: Wetlands are among the world's most productive environment and important for ecological process as well as for their rich biodiversity. Unique and rare plant and animal species can be found in different wetlands in all over the world. Sri Lanka is a tropical country and it has rich biodiversity. According to the Asian wetland directory, 41 wetland sites were identified in Sri Lanka as international importance (Scott, 1989). Jaffna Peninsula has seven identified wetland sites and also has been identified as an important Birds area (Central environmental Authority, 2005). Number of wetland conservation projects was implemented to identify and maintain wetland area in Sri Lanka. However, North and Eastern provinces did cover such kind of activities due to the long lasting ethnic war. There is lack of updated and base line information regarding the wetland sites in the North and East of Sri Lanka. In fact, information on wetland location, size, type and its characteristics are either out dated or no detail information which are significant to facilitate the conservation and management of wetland. This study was carried out to prepare a detail wetlands map for updating and generating base line information regarding the wetland in the Jaffna Peninsula using satellite images and Geographic Information Techniques (GIS). This information is vital for proper planning and implementation of any conservation and wise use management programme of wetland. Remote sensing and GIS are widely used techniques to identify map and characterize the wetland types and its resources from the global to local scales. In this study, wetland mapping and characterization have been carried out from satellite images and the field survey. High resolution satellite images acquired by Quickbird satellite in 2010 have been used. Satellite images have been downloaded from Google Earth Pro. Images in the Google Earth Pro are available for Downloading at higher resolutions. The images which were in true colour were recorded using radiations in the bands of Red, Green, Blue and Infrared. The resolution of Pan (Black & white) image is 0.6 meters and MS image (color) 2.4 meters. Based on the classification of National Wetland Directory of Sri Lanka, wetlands of the Jaffna Peninsula were identified and mapped. The images were visually interpreted and carried out digitizing by onscreen method since as its higher resolution. Digitized layer was imported into GIS environment to develop database for each of identified wetland types and produce final wetlands map of Jaffna Peninsula. This study has been successful in identifying spatial pattern of wetlands and provides useful information for wetland conservation and management in the study area.

Keywords: Wetland, Satellite images, GIS, Conservation

Income Diversification in the Plantation Households: A Strategy to Rise above Socio-economic Deprivation

A. Pushparani and N. Morais

Department of Social Studies, Open University of Sri Lanka, Sri Lanka
nsmor@ou.ac.lk

Abstract: This paper looks at the income diversification patterns of the plantation sector households. A study in selected plantation areas shows that plantation households diversify more into non-plantation, non-agricultural sector. However, it was also revealed that the workers continue to remain as unskilled workers even outside the plantation or return to the plantations to be listed as workers. While those earning more from non-plantation sector demonstrate increased confidence in their ability to face varying household economic situations, others lack employment related skills to effectively engage in the non-plantation and non-agricultural sector. The paper recommends that interventions to transform plantation labor into skilled and semi-skilled workforce will augment the process of diversifying their income and increase resilience to varying household economic conditions.

Keywords: Plantation, Income Diversification, Labor, Employment Skills

Highlights of Archaeological Studies in Jaffna Peninsula since 2010

P. Pushparatnam

Department of History, University of Jaffna, Sri Lanka
pushpal9552000@yahoo.com

Abstract: Among the Historical significant regions in Sri Lanka, Jaffna Peninsula is very unique. The Jaffna Peninsula is referred to as "Nagadipa(m)", in Pali and Nakanadu in Tamil literary works from sixth century B.C. to 13th century A.D. However the early History of Jaffna was not distinct and clear when compared with other Historical regions in Sri Lanka as evidenced by the literary works of Historical value. As such Archaeological evidences play an important part in tracing the ancient and medieval History of Jaffna Peninsula. In 1970, Archaeologists from the University of Pennsylvania conducted scientific Archaeological excavation at Kantarodai in Jaffna Peninsula, for the first time. As a result, evidences are discovered including human migration from South India to Kantarodai in Jaffna Peninsula took place during the Megalithic or Iron Age culture period, about 2500 years ago. Further, similar evidences have been discovered at various places in Jaffna like Anaikkoddai, Karainakar, Mannithalai, and Caddi. In 2010 and 2011, the Department of Archaeology and University of Jaffna together conducted excavations and explorations at Jaffna Fort and Kantarodai and have discovered various different artifacts and evidences belonging to different periods. The evidences discovered in Jaffna reveal some important aspects about the early people, their culture and their ties with people of other regions of Sri Lanka and with the people of foreign centuries. The objective of this research is to study the artifacts and evidences in detail and to document them and to make people know these Archaeological findings.

**Role of Social Empowerment in Sustainable Development:
A Sociological Study based on Selected Villages in
Karaveddy Divisional Secretariat Division, Jaffna**

R. Rajeskannan

Department of Sociology, University of Jaffna, Sri Lanka

Abstract: This research is trying to sociologically elaborate the contributions and the contradictions between the process of social empowerment and the sustainable rural development. And also it will provide the guidelines to promote the processes of rural social empowerment to achieve the target of sustainability. This research should understand the dimensions of empowerment which are implementing in these research areas, practical contributions of community empowerment in sustainable development in grass root level. The important orientations and strategies to promote social empowerment process to attain the sustainability and the opportunity to enhance the attitude base, self administration base and economic base for sustainable development. It should stress the importance of attitudinal criteria of the people such as sense of solidarity, democratic values, spirit of co-operation, collective spirit, creative spirit and spirit of self-reliance as alternatives for effective empowerment for sustainable development. It should recommend the new orientations for the effective empowerment strategies for sustainable rural development.

Keywords: Empowerment, Sustainable Development, Marginalization, Self Administration

A Study on Emotional Maturity and Gender Differences in Government Employees

A. Rajkumar

Department of Philosophy, University of Jaffna, Sri Lanka
svabirami@yahoo.com

Abstract: The emotional maturity becomes important in the behavior of people. It is one of the main determining aspects for the success of people. The present study investigates the emotional maturity and gender differences in government employees. A random sample consisted of 100 government employees was drawn from the Municipal Council, Jaffna. Standardized scale namely emotional maturity scale was administered to assess the emotional skills like emotional stability, emotional regression, social maladjustment, personality disintegration and lack of independence. The collected data were tabulated, processed and analysed by employing statistical techniques like standard deviation and t-test. The results of the study indicated that the female employees were found significantly better than the male employees in the area of emotional maturity skills and there is a significant gender difference in emotional maturity. It was also noticed that employees in the government sector are emotionally unstable.

Exclusion of the Plantation Tamil Community from the Local Government Service Delivery in Sri Lanka: A Case Study of Ambagamuwa Pradheshiya Sabha in the Nuwara-Eliya District

R. Ramesh^{1†}, R. Sathis², and Y.P.De Silva³

¹Department of Political Science, University of Peradeniya, Sri Lanka

²Ministry of Planning and Finance, Sri Lanka

³Department of Political Science, University of Peradeniya, Sri Lanka

†ramnaresh45@yahoo.com

Abstract: The Pradheshiya Sabha (PS) has the mandate to play a more active role in rural development with the local participation in planning and implementing development programs. The PS covers both rural and estate areas in its locality. The total population of 18.3 million of the country consists of 72.2% rural, 21.5% urban, and 6.3% estate sector residents. The estate sector has the characteristics of a rural scenario but has not been mandated to Local Authorities, in this case, Pradeshhiya Sabhas, to serve them. Exclusion of nearly 2200 state settlements and 0.9 million estate residents from the administrative purview and service delivery mechanism of Local Governments throughout its history is a major political and development issue in the country (Christine, 2003, Hetige, 2003, Vijesandiran, 2011). The objective of the study is to examine the causes for the exclusion of Plantation Tamils from the Local government service delivery, Ambagamuwa PS in particular. Primary and secondary data were used for the study. PS members, officials, public were purposively interviewed. The study found that the present Pradeshhiya Sabha Act was redrafted from the previous Village Councils Act which excludes estate residents being served from public funds. Clauses 2(1), of section 33, 18 (xiv), 18 (xxii) and 134 (4) of the present Pradeshhiya Sabha Act, states that every Pradeshhiya Sabha can administrate only rural areas. The estate residential areas that are part of the estate business enterprises are considered as private entities and any part of Pradeshhiya Sabha funds can be spent only on village and rural development. Further, they do not have the mandate to impose rates and taxes on estate residents, residential buildings and their properties because those are considered as built-up localities of estate enterprises. These clauses limit the legitimate/statutory mandate and powers of the Pradeshhiya Sabhas in extending their functions to the estate sector. Hence, estate residents remain as mere voters without entitlement to any services from local authorities. Exclusion of estate settlements from public service delivery leads to social, economic and political marginalization of all estate communities and to a non-economic form of poverty among them. It can be concluded that, reforms in the PS act, institutional arrangements and affirmative action would resolve this problem in the long run.

Keywords: Local Government, Service Delivery, Plantation Tamils, Ambagamuwa Pradheshiya Sabha, Affirmative action

The Geo-archaeological Study at the Galatara Proto-historic Burial Site at Kegalle, Sri Lanka

D. Ranawceera

Department of Archaeology, University of Peradeniya, Sri Lanka
kkdcr@yahoo.com

Abstract: The upper valleys of river basin should be studied for a better understanding of the early Iron Age cultural landscape and for the purpose of looking at alternative Iron Age sites in Wet Zone, Sri Lanka. This study investigates the environmental conditions of the proto-historic culture at Galatara, Kegalla, explains the relationship between to the location of this site, the environmental elements and investigates the cultural relationships with other archaeological sites which located at the upper Maha oya basin. Field work was performed to record the observations of the physical properties to support the data a comparative study or literary evidences was carried out. This is a solitary cist burial site located in the wet low-mountain area of Sri Lanka. The burials are found between the Urakanda range and the Bible rock within the limits of the Marahenawatta. The archaeological site at Galatara can be identified as cist burials site around the Early Iron age. This site is situated at the turmeric garden at present, and this cist burial site located in a small hill area. Nowadays we can see two burials on the surface and others are under the earth. Two caps stones on the surface can be measured. These investigations revealed pots and vessels containing bones, charcoal, iron, weapons, and metal ornaments. Non Brahmi symbols cannot be seen inside surface of these two capstones. It is clear that the uniform pattern can be observed even within the river valleys of Sri Lanka. The Galatara, proto historic site located at upper Maha Oya valley would be a location important place for socio-economic activities at that time. Further studies are expected to provide a complete understanding of the total cultural ecological background around the Galatara site during the proto-historic period.

Attitudes towards Lesbianism in Sri Lankan Context

H.U.S. Samaraweera

Department of Sociology, University of Colombo, Sri Lanka
unnathisamaraweera@yahoo.com

Abstract: Since social attitudes have established that heterosexuality is the one and only sexual orientation in human beings, homosexuality is defined as a deviant behaviour and excluded from the society. According to literature, homosexuals were excluded from society in the past because of their sexual orientation (Bacchetta, 2007, p.103; Barnett, 2004, p.123; Bersani, 1995, p.8; Dixon, 1983, p. 22). Also according to Bersani (1995), homosexuals hid their sexual identity from the society, because they faced not only physical violence but also emotional violence. First decade this was defined as a mental illness (Bacchetta, 2007). However movements of black people and feminist groups argued for their rights and today most countries see this depends on individuals sexual orientation and make lenient. But still today some other countries have more negative attitudes regarding homosexuality including Sri Lanka. According to the Sri Lankan Penal Code 365(A) homosexuality is a crime. Through this research I studied female homosexuality, known as lesbianism, how lesbians see their sexual identity and what kind of social attitudes people have towards them. My main research objective was to identify social attitudes towards homosexual behaviour as literature also proved that lesbians are excluded from Sri Lankan society and point out how social workers could create a more positive social environment for them. The four research questions in this study were: (i) how Sri Lankan society perceived lesbianism and how lesbians perceived this, (ii) would these perceptions differ according to their economic status, gender, education, age and geographical backgrounds; (iii) What are the reasons that influence lesbians to be a lesbian and how society believes the reasons for this sexual behaviour; (iv) Is society aware that homosexuality is a crime according to our Penal Code, what society thinks about this and does society think that homosexuality should be decriminalized?

Keywords: Homosexuality, Sexual orientation, Gender Identity, Social work

A Study on Financial Capacity of Rural Jaffna from Dowry System for Economic Development

S. Santhirasegaram

Department of Economics, University of Jaffna, Sri Lanka
selvarathnams@hotmail.com

Abstract: Principle objectives of this study are to assess the monetary value of dowry which is financial strength of region and to investigate the economic benefits of dowry to society. Most of the existing literatures explain that dowry system in Tamil society is social crime and adversely effect society. This study from a sample of rural Jaffna, Varany Eyattaly (J/343) during 2007-2011, shows that dowry system in Jaffna has been beneficial to Tamil society economically. Empirical findings show that single matrimony accumulates 5.49 million LKR worth saving as dowry in average. The major form of dowry is housing, average 2.44 million LKR and second one is cash 1.142 million LKR. Third one is jewelries average 0.852 million LKR. High and low land having average 0.42 million and 0.211 million LKR, respectively. Based on rural data, this study shows that average 23363.25 million LKR assets accumulated via dowry system in Jaffna district annually. This value of dowry may be more in urban than rural if reliable data will be collected. Key income source for accumulating saving for dowry is foreign remittance particularly earned from developed countries. The correlation between value of dowry and number of family members, living in developed countries is 67 percent. Correlation between value of the dowry and number of sisters as well as number of brothers are 49 percent and 56 percent respectively. Saving of Jaffna people for giving dowry is invested in house building, jewelries, land and bank deposit. Therefore, construction, real estate, banking and finance and jewelries related business in Jaffna are more active and profitable. Local and central governments can maintain a systematic tax system in these industries and increase their tax revenues. Tamil's dowry culture has internal financial capacity for economic development. Political power for provincial government is needed for regulating this saving toward the economic development of this region.

Impact of the Human Rights Council's Sri Lanka Resolution on the Reconciliation Efforts in a Post-war Context

W. Seneviratne

Faculty of Law, University of Colombo, Sri Lanka
wasanthas.law@gmail.com

Abstract: The United Nations Human Rights Council (UNHRC) adopted a resolution in March 2012 pertaining to the promotion of the reconciliation and accountability in post-war Sri Lanka. The crux of the resolution focused on the expeditious implementation of the constructive recommendations made in the report of the Government appointed Lessons Learnt and Reconciliation Commission (LLRC) and to take all necessary additional steps to fulfil its relevant legal obligations. The Government of Sri Lanka opposed the adoption of this resolution claiming it as an unwarranted intervention to domestic affairs of a sovereign State. The objective of this paper is to examine and evaluate the impact of the Human Rights Council's Resolution on the reconciliation efforts in post war Sri Lanka. At present, Sri Lanka is transforming from war to peace and attempts to establish rule of law and foster reconciliation to the country in the aftermath of a deadly armed conflict. Therefore, it is the utmost obligation of the country to take all the viable and appropriate steps to achieve the said purposes. However, the strong unwillingness demonstrated by the Government in Geneva against the adoption of the UNHRC resolution warrants a careful examination of the background that compelled the international community to pass a stern resolution on Sri Lanka requesting to achieve meaningful accountability upon which lasting reconciliation efforts could be built. Based on these developments, this paper wishes to discuss the following issues mainly: Can Sri Lanka reject the fulfillment of her obligations under the Resolution passed by the UNHRC claiming the sovereignty of the State and the principle of nonintervention, and, can the international community turn a blind eye where human security of people comes under severe strain due to the conduct or absence of conduct of the instrumentalities of the State? The paper finds the striking a balance between the primary obligations of a sovereign State and the residual responsibility of the international community is as extremely difficult. This paper further evaluates the recommendations made by the LLRC report appointed by the Government of Sri Lanka in May 2010 and the need of implementing them.

Keywords: State sovereignty, Reconciliation, United Nations Human Rights Council, Lessons Learnt and Reconciliation Commission

Long Memory of Food Inflation and its Dynamics: Empirical Evidence from Sri Lanka

S. Sivarajasingham and N. Balamurali

¹Department of Economics and Statistics, University of Peradeniya, Sri Lanka

²Regional Educational Services, The Open University of Sri Lanka, Sri Lanka
ssivarajasingham@gmail.com

Abstract: This study examines the statistical properties of dynamic behaviour of food inflation. The data used in this study consist of monthly price indices for all variables from 2003 to 2010. They were obtained from the Census and Statistics Department, Sri Lanka. The empirical analysis are done using descriptive statistics, Confidence ellipse, autocorrelation function, Kernel density function, Box-plot, GARCH model, Granger causality test, co-integration test. The empirical results of ADF, PP test, KPSS test show that food, nonfood, overall CPI price series in Sri Lanka are nonlinear, non-stationary series with stochastic trend, I(1). Standard deviation of each inflation rate distribution dominates the mean value. ARFIMA model estimation shows that Food inflation, nonfood inflation and headline inflation series are fractionally integrated. Their long memory parameter estimates, $d=0.374, 0.288, 0.389$ are given respectively. They are less than 0.5. This result indicates that inflation series are said to be long memory stationary process. They are statistically significant different from zero. Each ACF decays hyperbolically. Food prices are relatively persistent than non-food prices. Food price inflation is not only more volatile but also on average higher than non-food inflation. The co-integration analysis shows that food and headline inflation series have long run relationship (co-integrated -EG test). Slope coefficient of food inflation is 0.4747 and its p-value is 0.000. Coefficient on the error correction term is negative (-0.86, p-value=0.000) and statistically significant. The negative sign is consistent with theory. Short run changes in the food inflation affect positively headline inflation. Granger causality test shows that food inflation Granger cause non-food inflation (P=0.013). Results show that there is statistical significant pass-through from food price inflation to non-food price inflation. The food inflation is highly persistent. GARCH analysis shows that ARCH and GARCH effects of food inflation are very high (0.866) which implies that shocks to the conditional variance will be highly persistent. The contribution of food prices to headline inflation in Sri Lanka has increased quite significantly since 2003 to date. The results of this study establish the importance of food prices in overall inflation in Sri Lanka. Therefore, results of this study have important implications for food policy and monetary makers.

Keywords: Food inflation, Persistence, Dynamics, Core Inflation

Electronic Contract Formation: Global Harmonization or Local Variation? - with Special Reference to Sri Lanka

W.A.D.J. Sumanadasa

Department of Private and Comparative Law, University of Colombo, Sri Lanka
dsumanadasa@gmail.com

Abstract: In recent years, with the dawn of peace in the country, the promotion of investments and businesses has taken priority in the development drive of the post-war Sri Lanka. In that context, it is undeniable that the reliance on information and communication technology is inevitable. Moreover, electronic-contracts have gained importance in our daily life over last decades. Even more interestingly, in the world of growing Internet, electronic transactions seem to depict not only a phenomenal success of the new technology, but also a conceptual puzzle that challenges conventional wisdom on legal principles. However, limited academic attention has been paid to investigate the issues posed by e-commerce contracts not only in Sri Lanka but also in many jurisdictions. The traditional law relating to formation of contract seems to be not directly applicable for contracts that are entered into online in the era of rapid development of information technology and improvement thereof. Even the introduced e-commerce model laws do not provide clear-cut solutions for neo-native issues such as mobile electronic commerce. There is also a challenge to the validity of the orthodox concepts of contract law relating to the formation of contracts such as offer and acceptance, capacity to the contract and other formalities in the world of growing e-commerce transactions. In this backdrop, this research attempts to analyze the issue of novel application of electronic contract law in the context of the 'old wine in new bottles' and to come up with possible recommendations. Moreover, this research deals with the identification of possible solutions for the traced problems in the existing legal framework. It is hoped that this research would be a stepping stone for law reformers, practitioners, adjudicators and academics in their attempts to expand the horizons of the application of contract law in a digital era.

Post-Conflict Reconstruction: Role of UNDP in Sri Lanka

K.B. Thangavel

Regional Co-operation and Centre for South Asian Studies,
Pondicherry University, India
kbthangavel@gmail.com

Abstract: The United Nations policy of opposing amnesties for war crimes, crimes against humanity, genocide or gross violations of human rights, including in the context of peace negotiations, represents an important evolution, grounded in long experience. Capacity development is fundamental to the broader objective of transforming fragile states into stable nations. A growing body of research on these issues is emerging, pointing to the lessons that have been learned in recent years. UNDP supports capacity development initiatives of national governments, civil society organizations, independent national and regional institutions and other stakeholders through advocacy, policy advisory and implementation services. With this background this paper tries to analyse the UNDP role in post-conflict reconstruction in Sri Lanka after the Eelam war IV and also analysing findings and formulating capacity development responses in Sri Lanka.

Portrayal of Child Abuse News Stories in Jaffna Newspapers

K. Tharumarajah

Media Studies Unit, University of Jaffna, Sri Lanka
kiruththiraja@yahoo.com

Abstract: This paper examines the role of the Jaffna's newspaper in relation to child abuse and child protection and argues that the media have been essential to the task of placing the problem of child abuse in the minds of the public and on the political agenda. The media have played a major role in defining what is 'normal' and what is 'deviant' in society, thus contributing to definitions of what is, and what is not, considered to be child abuse. Talking about child abuse is a sensitive subject for many because of varying beliefs. Some believe that all abuse should be reported while others believe cases of abuse should not be reported by the media at all. There are also laws at work regarding the media. Sometimes media reports revealed the abused of children being abused and neglected, but no names were revealed, and rightly so. It is essential of protection of child abuse victims. When a victim of child abuse dies due to the abuse they suffered, their name and age is often listed by the media. However, when a child is being abused and the horrific details are exposed, no names are listed, in order to protect the minor child. It is said that the privacy of children should be honored; however, all abuse should be reported. How can we expect our society to take abuse seriously if no abuse is reported. For instance, if a child is being abused then the abuse should be reported while continuing to protect the privacy of the child. The more the media reports abuse, the more educated the public becomes. An example would be if the child protective agency confirms abuse then the media should report it. They must never reveal the name of the child. However, reporting that another case of abuse has occurred will help to educate the public. Media should have an active role in reporting abuse. The more awareness is raised, the more our society can attempt to prevent child abuse. But Media should follow some ethics to report child abuse news stories.

Keywords: Child abuse, Massmedia, Ethics

Enhancing the Citizens' Participation through Elections in Post-conflict Sri Lanka: Special Reference to Northern and Eastern Provinces of Sri Lanka

U.A.T. Udayanganie[†] and S. Susarithaa

Faculty of Law, University of Colombo, Sri Lanka

[†]uathakshila@yahoo.com

Abstract: Promoting democracy and strengthening good governance have become a core component of post-conflict and peace-building initiatives. Good governance and democracy play a key role in capacity building in Post-conflict countries in order to transit from recovery to sustainable development. In the post-conflict era of Sri Lanka as a country which suffered three decades of war has achieved many of the goals of democratization, good governance and capacity building. But if we look at the statistics citizens' participation and engagement in elections held in Northern and Eastern provinces of Sri Lanka in the post-conflict era which in the past used as escaping strategy from conflicts is now seen and used as a strategy for institution building, good governance and capacity building show the lack of engagement and participation of citizens. Some macro and micro reasons are the causes of such a problem such as no trust towards the existing government, lack of right to information in wartime as well as in post-conflict era, loss of their documents as a result of war, trauma and stigmatization as a cause of war, unawareness of the voting rights and etc. The intention of this paper is to analyze the main reasons and attempt to suggest sustainable recommendations to achieve sustainable democracy and build the capacity of Northern and Eastern provinces as a mean of good governance. At the same time, it is essential to repeat the widely accepted lesson which is the successful holding of one election does not guarantee continued peace, stability, and democracy in a post-conflict country. What elections can achieve is to give legitimacy to existing institutions. Finally authors wish to conclude by emphasizing the fact that third tier of government should be strengthen at the first phase of post-conflict capacity building.

Institutional Support and Social Work in a Post-war Context

V. Vasudevan

Sri Lanka School of Social Work, National Institute of Social Development
gowrynisd@yahoo.com

Abstract: The social work profession largely concerned with disaster-related issues has evolved using a combination of two approaches: residual and institutional. These paths while providing preventive or responsive support offers opportunities for capacity building of personnel as a critical responsive input that enhances the quality of the institutional support. This paper attempts to demonstrate the importance of capacity building of the relevant staff as a crucial factor in providing qualified and experienced institutional support as a responsive methodology in child protection during post war recovery. The Diploma programme in child protection initiated by the National Institute of Social Development has been engaged in this noble task of training quality personnel knowledgeable in the best practices and field work skills on child protection for the recovery period of a disaster. To protect the children during recovery the school of social work with support from northern provincial council and UNICEF initiated a Diploma programme in child protection to enhance and update the knowledge and skills of the probation officers, child rights promotion officers and child protection officers employed in Northern Province of Sri Lanka. This study is based on reflective practice illustrated the effectiveness of in-service training programme as a tool to enhance the capacities of the relevant officers in Sri Lanka. The data for the study was obtained from participants through questionnaires and key informant interviews. Field visits and supervision experiences were used as illustrations of evidence based knowledge in this study. This study showed that application of appropriate skills by the officers during field practices and after training was very much dependent on the provision of appropriate institutional facilities that promote best practices in child protection and also demonstrated further the fact that professional social work for rehabilitation and recovery was very much grounded in the adoption of proper skills imbibed through training in appropriate methodology practiced in the field under guided supervision. The study proved beyond doubt that quality training of the relevant personnel was a pre-requisite for the building of the capacity of the personnel providing institutional support in the area of child protection during post war recovery.

Direct and Active Participation of Women in Post-conflict
Reconciliation, Reconstruction, and Peace-building: Needs, Challenges
and National and International Obligations of Sri Lanka

R. Wijeyesekera

Department of Private and Comparative Law, University of Colombo, Sri Lanka
rose@law.cmb.ac.lk

Abstract: This paper analyses the social and legal issues concerning women's participation in post-armed conflict and peace-building in Sri Lanka, and reiterates the necessity to include a gender perspective into the process relating to peace and security, and attempt to establish that a difference in nation-building is possible if the rhetoric about including women is translated into reality. Women have not been equitably represented in the official negotiations during cease-fire periods or in post-war peace process in the country, and as a result, issues and concerns particularly relating to women, have not been adequately addressed. The inclusion of women in peace-building may be justified on two broad grounds. (i) State obligation under the national Constitution, CEDAW, and the pledges made by states under the UN Security Council Resolution 1325 and 1889 to ensure the full, equal and effective participation of women at all stages of peace process, particularly in post-conflict reconstruction, planning and peace-building; (ii) on the basis of justice and equity to more than half the population of the country, considering their multiple-victimization during the conflict as well as afterwards, as IDPs, returnees and civilians who make an effort to rebuild their lives as widows and heads of households, and on the ground of women's efficiency in peace-making. Despite all these reasons, and in spite of the abolition of more obvious discriminations from the law, women continue to be under-represented in the post-conflict reconciliation process. While the reasons for their non-inclusion vary, this paper analyses the impact of patriarchal structures and biases in the society on the gender-discriminatory application of the law and implementation of human rights of women that prevent women's effective contribution in post-war reconstruction efforts. The analysis is based on constitutional and international obligations on the part of the government to include women in post-war peace process so as to ensure the enjoyment of civil and political as well as economic and cultural rights on a basis of equality.

Keywords: Post-war reconciliation, Women

A Historical Analysis of Commercial Laws and Health Laws in Pre-modern Sri Lanka

N.A. Wimalasena

Department of History, University of Peradeniya, Sri Lanka
nettasinghew@yahoo.com

Abstract: Laws and Legal institutions are of vital importance for the security and progress of any society. Laws restrain members of a community from involving in crimes and acts of violence. There are prescribed punishments for offences. The present legal system consists of two parts, namely Civil Law and Criminal Law. Criminal law relates to crimes such as theft and murder. It consists of two parts, namely iniquitous and non-iniquitous crimes. Grave crimes carry the penalty of death or life-imprisonment. In the case of less serious crimes, the punishment is light. Civil Law pertains to matters relating to commerce, health, marriage, lands, property, water management, etc. In the present study, attention will be focused mainly on civil laws of pre-modern Sri Lanka with special emphasis on commercial laws and health laws. Even today, commercial law occupies a very important place in the legal system and it has many rules and regulations that are applicable for commercial activities. Similarly, In Ancient Sri Lanka, commerce was a very vital aspect among the economic activities. Some writers such as Emerson Tennent have reported that Ancient Sri Lankans were apathetic to commercial activities. However, Sri Lankan scholars researching on commerce have rejected that view. Their studies reveal that there was an internal and external trade in several commodities. Such a situation presupposes that there were very strict and comprehensive rules and regulations regarding commerce in Ancient Sri Lanka. In this paper attention will be paid to commercial rules and regulations that were formulated in ancient times. Every society has developed a system of health care and medical treatment. Presently Sri Lanka has a Department of Health services. The institutions under its management are governed by specific laws and regulations. It could be supposed that in ancient times, the island had a well-organized health system and also a hospital management system. Ancient inscriptions, literary sources and ruins of hospital buildings have confirmed it. The main objective of this study is to discern the rules and regulations relating to health and hospital management in pre-modern Sri Lankas found in ancient records. The research is mainly based on primary sources such as Pali chronicles, Commentaries and inscriptions such as the Badulla Pillar inscription, Viharahinna inscription, Lankatilake inscriptions, Kautilya Arthashastra, Mahavamsa, Medirigiriya inscription and Samantapasadika. Wherever necessary material will also be obtained from limited secondary sources on the ancient legal system of the island.

**யாழ்ப்பாணச் சமூகக் கட்டமைப்பில் அன்றும், இன்றும் இஸ்லாமியரின்
வகிபாகம் - ஒரு வரலாற்று நோக்கு**

க. அருந்தவராஜா

வரலாற்றுத்துறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
arunn.msu@gmail.com

சுருக்கம்: பல்லினச் சமூகத்தவர்கள் வாழ்ந்து வருகின்ற யாழ்ப்பாணக் குடாநாட்டில் இஸ்லாமிய மக்களுக்கென அச்சமூகத்தில் தனியான சிறப்பும், அவர்களுக்கென அப்பகுதியில் நீண்டதொரு வரலாற்றுப் பாரம்பரியமும் உண்டென்பது மறுப்பதற்கில்லை. இவர்களது ஆரம்பகாலக் குடிப்பரம்பல் காணப்பட்ட பகுதிகளாக நயினாதீவு, மண்கும்பான், மண்டைதீவு, அல்லைப்பிட்டி, காரைதீவு போன்ற தீவுப்பகுதிகளும், குடாநாட்டில் கொழும்புத்துறை, அலுப்பாத்தி, சாவகச்சேரி, உசன், பருத்தித்துறை, கொடிகாமம் முதலான சில இடங்களும் இனங் காணப்பட்டுள்ளன. இருப்பினும் ஏற்கனவே யாழ்ப்பாணக் குடாநாட்டுக்கும் முஸ்லிம் மக்களுக்குமிடையிலான வர்த்தகத்தொடர்புகள் கி.பி 8ஆம் நூற்றாண்டிலிருந்தே காணப்பட்டு வந்தமை குறிப்பிடத்தக்கது. போர்த்துக்கேயர்களது காலத்திலும்சரி, தொடர்ந்து வந்த ஒல்லாந்தர்கள் மற்றும் ஆங்கிலேயர்களது காலத்திலும்சரி, சுதந்திரத்தின் பின்பாகவும் யாழ்ப்பாணக் குடாநாட்டில் தங்களுக்குரிய சமூக, பொருளாதார, பண்பாட்டு அடையாளங்களைப் பின்பற்றி வந்தவர்களாகவே முஸ்லிம் மக்கள் இருந்து வந்துள்ளனர். இவ்வாறு யாழ்ப்பாணக் குடாநாட்டில் யாழ்ப்பாணத்து அரசர்களது காலந்தொடக்கம் குடியேறிச் செல்வாக்குடன் யாழ்ப்பாணத் தமிழ் மக்களுடன் பல நூற்றாண்டுகளாக இணைந்த வகையில் வாழ்ந்து வந்த முஸ்லிம் மக்கள் நாட்டில் ஏற்பட்ட அசாதாரண சூழ்நிலையின் காரணமாக 1990இன் பின்பாக யாழ்ப்பாணக் குடாநாட்டினைவிட்டு இலங்கையின் பிற பகுதிகளுக்கு இடம்பெயர் வேண்டிய சூழ்நிலைக்குத் தள்ளப்பட்டனர். பின்னர் மீளவும் நாட்டில் ஏற்பட்ட சமூகநிலமையின் காரணமாக இன்று அவர்கள் தாங்கள் வாழ்ந்த பகுதிகளை நோக்கிப் படிப்படியாக மீளக் குடியேறி வருகின்றனர்.

அருகிவரும் ஈரநிலங்களின் முக்கியத்துவம்: கல்முனை, காரைதீவு மற்றும் நிந்தவூர் பிரதேசத்தினை மையப்படுத்திய ஆய்வு

எம்.ஐ.எம். கலீல்

Department of Geography, South Eastern University of Sri Lanka, Sri Lanka
kalelmim@yahoo.com

சுருக்கம்: ஆழம் குறைந்த, வற்றுப் பெருக்கில் 6 மீற்றரைத் தாண்டாத, கடலக நீரின் பகுதிகள் உட்பட, நிலையான, உவர்ப்பான அல்லது தற்காலிகமான சதுப்பு, சகதி, சேற்று நிலம் ஈரநிலமாகும். இது புவியின் மொத்த நிலப்பரப்பில் ஏறத்தாழ 6.4 சதவீதமான பகுதியினைக் கொண்டது.. இத்தகைய ஈரநிலங்கள் இலங்கையின் பல பாகங்களிலும் பரவியுள்ளன. அடையாளப்படுத்தப்பட்ட ஈரநிலங்களாக 41 ஈரநிலங்களும் 3 ஈரம்சார் நிலங்களும் இலங்கையில் காணப்படுகின்றன. எனினும், அண்மைக்காலமாக இவ் ஈரநிலங்களின் எண்ணிக்கை குறைவடைந்து செல்கின்றமை முக்கிய பிரச்சினையாக உருவெடுத்துள்ளது. இதன் நிமித்தம், இலங்கையில் கிழக்கு மாகாணத்தில் தெரிவு செய்யப்பட்ட மூன்று பிரதேசங்களிலும் காணப்படும் ஈரநிலங்கள், அவை அருகிவரும் தன்மை, அதனால் ஏற்படும் சூழல் பிரச்சினைகள் ஆகியவற்றினை அடையாளப்படுத்துவதை இவ்வாய்வு நோக்கமாகக் கொண்டுள்ளது. இந்நோக்கினை அடைந்துகொள்வதற்காக முதலாம், இரண்டாம் நிலைத்தரவு மூலாதாரங்கள் பயன்படுத்தப்பட்டுள்ளன. முதல்நிலைத் தரவுகள் கட்டமைக்கப்பட்ட 100 வினாக்கொத்துக்களை எழுமாற்றாக விநியோகித்து பெறப்பட்டுள்ளன. இந்நூறு வினாக்கொத்துக்களும் தெரிவு செய்யப்பட்ட பிரதேசங்களில் பகிர்ந்தளிக்கப்பட்டது. (கல்முனை மாநகரம் - 50, காரைதீவு பிரதேசம் - 15, நிந்தவூர் பிரதேசம் - 35). இரண்டாம் நிலைத் தரவுகள் ஈர நிலங்கள் பற்றிய நூல்கள் மற்றும் ஆவணங்களிலிருந்து பெறப்பட்டுள்ளன. இத்தரவுகள் SPSS மற்றும் GIS மென்பொருட்களைக் கொண்டு பகுப்பாய்வு செய்யப்பட்டுள்ளன. ஆய்வினூடாக கண்டுகொள்ளப்பட்ட விடயமாவது, '1981 தொடக்கம் 2006 வரையான காலப்பகுதியில் ஈரநிலங்களின் எண்ணிக்கை ஆய்வுப் பிரதேசத்தில் குறைவடைந்துள்ளன' என்பதாகும். 1981 ஆம் ஆண்டு கல்முனை மாநகரப் பிரதேசத்தில் 1.74 சதுர கிலோமீற்றர் பரப்பு ஈரநிலமாகக் காணப்பட்டது. ஆனால் 2006இல் அதன் அளவு 1.14 சதுர கிலோமீற்றராகக் குறைந்துள்ளது. நிந்தவூர் பிரதேசத்தில் 1981 இல் 3.2 சதுர கிலோ மீற்றரில் காணப்பட்ட ஈரநிலம், 2006 இல் 1.6 சதுர கிலோமீற்றராகக் குறைவடைந்துள்ளது. குறித்த காலப்பகுதியில் காரைதீவு பிரதேசத்தில் 1.3 சதுர கிலோமீற்றர் பரப்பிலிருந்து 1.0 சதுர கிலோ மீற்றர் வரை குறைவடைந்துள்ளது. இவ்விதம் ஈரநிலங்கள் குறைவடைவதில் குடியேற்றத் திட்டம், உட்கட்டமைப்பு வசதிகள் விஸ்தரிக்கப்படுகின்றமை, சனாமிக்குப் பின்னரான மீள்குடியேற்றம், வியார நடவடிக்கைகளில் ஏற்பட்டுள்ள விஸ்தரிப்பு மற்றும் யுத்தம் ஆகிய காரணிகள் செல்வாக்குச் செலுத்தியுள்ளன. இவ்விடயத்தினைக் கருத்திற்கொண்டு ஈரநிலங்களின் முக்கியத்துவத்தினை வெளிப்படுத்துவதன் மூலம் அருகிவரும் ஈர நில வளத்தினைத்தினைப் பாதுகாப்பதற்கான நடவடிக்கை முகாமைத்துவ முறையினை இவ்வாய்வு பரிந்துரைக்கின்றது.

யாழ்ப்பாணத்து மரபுரிமைச் சின்னங்களும், அவற்றைப் பாதுகாப்பதன் அவசியமும்

ச. குமரதேவன்

வரலாற்றுத்துறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
sasithak@jfn.ac.lk

சுருக்கம்: இலங்கையின் எல்லாப் பிராந்தியங்களுக்கும் தனித்துவமான வரலாறு இருப்பதாகக் கூறமுடியாது. ஆனால் 3000 ஆண்டுகளுக்கு குறையாத வரலாறு கொண்ட யாழ்ப்பாணம் பண்டு தொட்டு இலங்கை வரலாற்று மூலங்களில் தனித்து அடையாளம் காணப்பட்டுள்ளது. இது பாளி இலக்கியங்களில் நாகதிபம்) எனவும், தமிழ் இலக்கியங்களில் நாகநாடு எனவும் குறிப்பிடப்பட்டுள்ளது. இதைச் சற்றுப் பிற்கால பிராகிருத மற்றும் தமிழ் மொழிக் கல்வெட்டுக்களும் உறுதிப்படுத்துகின்றன. ஆயினும் இதன் தொன்மையான தொடர்ச்சியான வரலாறு 16ஆம் நூற்றாண்டு வரை வரலாற்று இலக்கியங்களில் குறைவடைந்த நிலையில் காணப்படுகின்றது. இந்நிலையில் 1970 களின் பின்னர் மேற்கொள்ளப்பட்ட தொல்லியல் ஆய்வுகள் யாழ்ப்பாண வரலாற்றிற்கு புது வெளிச்சமூட்டுவதாக அமைந்துள்ளன. இதற்கு மேலும் வலுவூட்டும் வகையில் இலங்கை தொல்லியல் திணைக்களமும், யாழ்ப்பாண பல்கலைக்கழக வரலாற்றுத்துறையும் இணைந்து 2010 இல் இருந்து மேற்கொண்டு வரும் தொல்லியல் ஆய்வுகள் யாழ்ப்பாணத்து மரபுரிமையை மேலும் வெளிச்சத்திற்கு கொண்டுவர உதவியுள்ளன. மரபுரிமை என்பது எமது முன்னைய சந்ததிகளில் இருந்து கொண்டுவரப்படுவதாகும். இது பாரம்பரியமாக முன்னோர்களால் வைத்திருக்கப்பட்ட உருவமற்ற சொத்து அல்லது கலை அல்லது சம்பிரதாயத்தால் கொண்டுவரப்படும் நடைமுறைகள், கட்டடங்கள், சமூகம் மற்றும் கலாசாரம் போன்றவற்றிற்கு முக்கியமாக கருதப்படும் வரலாறு, நம்பிக்கைகள் போன்றவற்றை குறிக்கும். இதனால் மரபுரிமை என்பது வரலாற்றுச் சூழலின் ஒரு உள்ளீட்டு அங்கமாக கொள்ளப்படும். ஆனால் இதனை ஒரு விடயமாக மட்டும் வரைவிலக்கணப்படுத்த முடியாது. இது பல்வேறு அம்சங்களின் தொகுப்பாகும். பண்பு, அடையாளம், கலாசார வேறுபாடு என்பன காலந்தோறும் கட்டியெழுப்பப்படும். இவற்றின் கலவை ஒரு இடத்தின் மரபுரிமையை உருவாக்க பயன்படும். பொதுவாக ஒரு நாட்டின் மரபுரிமையை கலாசார மற்றும் இயற்கை அம்சங்களைக் கொண்டு கலாசார மரபுரிமை, இயற்கை மரபுரிமை என இரண்டாக பிரிக்கலாம். இதில் கலாசார மரபுரிமை, கண்ணுக்கு புலப்படக்கூடிய, கண்ணுக்கு புலப்படாத இரு அம்சங்களைக் கொண்டு காணப்படுகின்றது. இது ஒரு குழு அல்லது சமூகத்தால் கடந்த காலத்தில் பின்பற்றப்பட்டதும், நிகழ்காலத்தில் தொடர்ந்து பராமரிக்கப்படுவதும், எதிர்காலத்தில் அடுத்த சந்ததியினரின் நலனுக்காக கொடுக்கப்பட வேண்டியவையுமாகும். இவ்வாய்வு கண்ணுக்கு புலப்படக்கூடிய யாழ்ப்பாணத்தில் உள்ள புராதன குடியிருப்பு மையங்கள், வரலாற்று முக்கியத்துவம் வாய்ந்த சமய வழிபாட்டு ஸ்தலங்கள், யாழ்ப்பாண இராசதானி கால கட்டடங்கள், ஐரோப்பியர் கால கோட்டைகள், ஐரோப்பியர் கால அரச நிர்வாக மையங்கள், வெளிச்ச வீடுகள் முதலான மரபுரிமைச் சின்னங்களை அடையாளப்படுத்தி, ஆவணப்படுத்தி, அதன் வரலாற்று, முக்கியத்துவத்தினை மக்கள் மத்தியில் எடுத்துச் சென்று, மரபுரிமைச் சின்னங்களை பாதுகாக்க வேண்டும் என்ற சூழலை உருவாக்குவதாகும். இதன் மூலம் மரபுரிமைச் சின்னங்கள் அழிந்து போவது மக்களால் தடுக்கப்படுவதற்குரிய ஒரு சூழலை உருவாக்குவதுடன், அவற்றை பாதுகாப்பதன் மூலம் எமது எதிர்கால சந்ததியினருக்கு எமது மரபுரிமைச் சின்னங்களை ஒப்படைப்பதுமாகும்.

இலங்கையில் ஊடகவியல் கல்வியின் வளர்ச்சி
தமிழ் மொழியிலான முன்னெடுப்பும் சிக்கல்களும்

எஸ். மோசேஸ்^{1†} எம். பகீரதி²

¹Sri Lanka Rupavahini Corporation, Colombo, Sri Lanka

²Department of Social Sciences, Eastern University of Sri Lanka, Sri Lanka

†stanimoses@yahoo.com

சுருக்கம்: உலகளவில் தனிப்பெருந்துறையாக பரிணமித்து ஆழமான வளர்ச்சியினை எய்து கொண்டிருக்கும் ஊடகவியல்துறை சார்ந்த கல்விமுறைகளும் ஆய்வுகளும் இலங்கையில் மிகவும் பின்தங்கிய நிலையிலேயே காணப்படுகின்றது. இதற்கு பல்வேறுபட்ட காரணங்கள் ஏதுவாக அமைந்துள்ளதை எமது ஆய்வுகளினூடாக அறிய முடிகிறது. இலங்கையில் தரம் ஒன்பது தொடக்கம் பல்கலைக்கழக பட்டப்படிப்புகள் வரை ஊடகவியல் கற்கைகள் கற்பிக்கப்படுகிறது. அதேபோன்று கலாநிதி பட்டத்திற்கான ஆய்வுகள் வரை காணப்படுகிறது. இருந்த போதிலும் தமிழ்மொழியில் இதனது வளர்ச்சிநிலை மிகவும் பின்தங்கிய நிலையிலேயே காணப்படுகிறது. இவ்வாறானதொரு ஆரோக்கியமற்ற சூழ்நிலையில் தமிழ்மொழி மூலமாக இப்பாடத்துறையை கற்பிப்பதற்கும், ஆய்வுகளை ஊக்குவிப்பதற்கும் ஏற்ற நடவடிக்கைகளை சகல தரப்பினரும் முன்னெடுக்க வேண்டும். இங்கு ஆய்வுக்காக எம்மால் மையப்படுத்தப்பட்டுள்ள விடயங்களுக்கேற்ப தரீதியான ஆய்வு (Qualitative Research), தொகைரீதியான ஆய்வு (Quantitative Research), ஆகிய இரு ஆய்வு முறையியலும் பயன்படுத்தப்பட்டுள்ளன. அவற்றினூடாக முதனிலைத்தரவுகள் (Primary data), இரண்டாம் நிலைத்தரவுகள் (Secondary data) ஆகிய இருவகையிலும் தரவுகள் பெற்றுக்கொள்ளப்பட்டுள்ளன. பெறப்பட்ட தரவுகளின் அடிப்படையில் இலங்கையில் ஊடகவியல் கல்வியின் போக்கு, தமிழில் ஊடகவியல் கல்வியின் நிலை என்பவற்றை வரன்முறை ரீதியில் எடுத்துரைப்பதோடு அவற்றினூடாக தமிழ்நிலைப்பட்ட ஊடகவியல் கல்வித்துறை எதிர்கொள்ளும் பிரச்சினைகளும் சிக்கல்களும் அடையாளப்படுத்தப்படுகின்றன. அவற்றினடிப்படையில் இத்துறை சார்ந்த முயற்சிகளை எவ்வாறு முன்னெடுக்கலாம் என்பதை விபரிப்பதாகவும், அதற்கான வழிவகைகளையும் அவற்றில் ஏற்படக்கூடிய சிக்கல்களையும் ஆராய்ந்து குறிப்பிட்ட சிக்கல்களுக்கான காரணங்களையும், அவற்றினை தீர்த்து வைப்பதற்கான வழிவகைகளையும் எடுத்துக்கூறுவதாகவும், பாடசாலை முதல் பல்கலைக்கழகம் வரையிலான அனைத்து மட்டங்களிலும் இப்பாடத்துறையை முழுமையான வகையில் ஆரம்பித்து சீரிய முறையில் வளர்த்துக்கொள்வதற்கான தீர்வுகளையும் சிபார்சுகளையும் முன்வைப்பதாகவும் இந்த ஆய்வு அமைகிறது.

யுத்தத்தின் பின்னரான சமூக ஒருமைப்பாட்டு நிலை:
நாவிதன்வெளி பிரதேச செயலக பிரிவை மையமாகக் கொண்ட ஒரு
விசேட ஆய்வு

ஏ.எம். நிசார்

nisaram@gmail.com

சுருக்கம்: 2009ம் ஆண்டு முடிவுக்கு கொண்டு வரப்பட்ட உள்நாட்டு யுத்தத்தின் பின்னர் சமூக நல்லிணக்கம் என்ற பதத்திற்கு பதிலாக சமூக ஒருமைப்பாடு என்ற பதம் பயன்படுத்தப்படுகிறது. சமூக ஒருமைப்பாடு என்பது ஒவ்வொரு தனி நபரும் அவர்களுடைய உரிமைகள் மற்றும் பொறுப்புக்களுடன் செயற்பாடு மிக்க வகையில் இயங்கக்கூடிய அனைவருக்குமான சமூகத்தை அடைவதாகும். பரந்த சமூகத்திற்கான தேவையைக் கொண்ட இலக்கு, ஒருவரின் வயது, மதம், இனம், சாதி, குலம், மத நம்பிக்கைகள், கலாசாரப் பின்னணி, மற்றும் அரசியல் தொடர்பு என்பவற்றைக்கருதாது அனைவருக்குமான சம சந்தர்ப்பத்தை வழங்குவதைக் கொண்டதாகும். இந்த வகையில் நாவிதன்வெளி பிரதேச சமூகமானது கடந்த 30 ஆண்டுகளுக்கு மேலாக இன முரண்பாட்டினால் சமூகம் முற்றாகப்பாதிக்கப்பட்டு காணப்பட்டிருந்ததுடன், பொருளாதார, அரசியல் மற்றும் சமூக உரிமைகளின் ஒட்டு மொத்த புறக்கணிப்பினை அல்லது தாக்கத்தினைப் பெற்றும் வந்துள்ளது. இவ்வாறான உரிமைப்புறக்கணிப்பினைப் பெற்று வந்த இப்பிரதேச மக்கள் 2009ம் ஆண்டு யுத்தம் நிறைவடைந்த காலப்பகுதியின் பின்னர் தாங்கள் ஏனைய சமூகத்தைப்போன்று சமூக அந்தஸ்துடன் கூடிய நடத்தைகள், மனோநிலைகள், மற்றும் கட்டமைப்பினையுடைய சமூக ஒருமைப்பாட்டினை பெற முயற்சி செய்வதுடன் அவர்களது நடத்தைகளும் மாற்றமடைந்து வருகிறது. யுத்தத்தின் பின்னரான இப்பிரதேசத்தின் சமூக ஒருமைப்பாட்டு நிலை சமூக ஒருமைப்பாட்டு செயல்முறையினூடாக ஆய்வு செய்யப்பட்டுள்ளது. சமூக ஒருமைப்பாட்டில் நடத்தை ரீதியாக பிரிவினைகள் காணப்படுகின்றன. தனிமை, ஏனைய சமூகத்துடன் குறைவான தொடர்பாடல், சமூகத்திற்கிடையிலான மனத்தாக்கங்கள் ஆய்வினூடாக அடையாளங்காணப்பட்டுள்ளன. அத்துடன் மனோநிலை ரீதியாக பூரணமான உரிமைகளைத் தாங்கள் பெற்றுக்கொள்வதில் காணப்படும் குறைபாடு, மக்கள் பிரிந்து வாழ்தல், ஒத்திசைவில் காணப்படும் பயம், சமூகப்பிரிவுகள் என்பனவும் அடையாளங்காணப்பட்டுள்ளன. கட்டமைப்பு ரீதியாக ஏனைய சமூகத்துடன் ஒப்பிடுகையில் அரசியல், பொருளாதார மற்றும் சமூக வாழ்க்கையிலான பின்தங்கிய நிலையும், மேலிருந்து கீழான அதிகார முறையும் இவர்களிடையே காணப்படுகிறது. இவ்வாய்வுப் பிரதேசங்களில் கல்விபறிவின குறைவு, தொழிற்பயிற்சியின்மை, சமூக உறவில் காணப்படும் மந்த நிலை, மத மாற்றம், கல்விக்கான வளக் குறைவு, கிராமிய மட்ட கழகங்கள் வலுவழிந்து காணப்படுகின்றமை போன்றனவும் முறையான வலுவூட்டல் இல்லாமையும், பொது நல வசதிகளான நூலகம், வைத்தியசாலை, ஆகியவற்றில் காணப்படும் குறைபாடுகளும் ஆராயப்பட்டுள்ளன. இவ்வாறான குறைபாடுகளில் இருந்து மீளுவதற்கான தந்திரோபாயங்களும் நடவடிக்கைகளும் ஆய்வு செய்யப்பட்டுள்ளது.

நல்லூர் பிரதேச செயலாளர் பிரிவிற்ருட்பட்ட விதவைகளின் சமூக பொருளாதார நிலை பற்றிய ஓர் ஆய்வு

ச. புஸ்பலலிதா

பிரதேச செயலகம், துணுக்காய், இலங்கை
vathana.sun@gmail.com

சுருக்கம்: யாழ் மாவட்டத்தில் வளர்ந்து வருகின்ற பிரச்சனைகளில் ஒன்றாக விதவைகள் தொடர்பான பிரச்சனை விளங்குகின்றது. விதவைகளின் முன்னேற்றம் என்பது மாவட்ட அபிவிருத்திக்கு அவசியமாக காணப்படுகின்றது. இதனால் விதவைகளின் சமூகபொருளாதார நிலையை ஆய்வு செய்வதனுடாக அவர்களின் வாழ்க்கைத் தரத்தை மேம்படுத்தமுடியும். இந்தவகையில் நல்லூர் பிரதேசசெயலாளர் பிரிவிற்ருட்பட்ட 40 கிராமசேவையாளர் பிரிவுகளை அவற்றின் தன்மை அடிப்படையில் 10 பிரிவுகளாக வகைப்படுத்தப்பட்டன. அவையாவன அரியாலை, ஐயனார்கோவில், வண்ணார்பண்ணை, கந்தர்மடம், திருநெல்வேலி, நல்லூர், சங்கிலியன்தாபி, நீராவிடி, கோண்டாவில், கொக்குவில் என்பனவாகும். நல்லூர் பிரதேச செயலாளர் பிரிவில் 60 வயதிற்குட்பட்ட விதவைகளின் மொத்த எண்ணிக்கையில் 10% மாதிரியாகத் தெரிவுசெய்யப்பட்டு உயர்வருமானம் பெறும் 5 விதவைக் குடும்பங்களும், குறைந்தவருமானம் பெறும் 10 விதவைக் குடும்பங்களும் என ஒவ்வொரு பிரிவிலிருந்தும் 15 குடும்பங்கள் என்றவகையில் 150 விதவைக் குடும்பங்கள் தெரிவு செய்யப்பட்டு மேற்கொள்ளப்பட்ட ஆய்வின் ஊடாக நல்லூர் பிரதேச விதவைகளின் சமூக பொருளாதார நிலை என்பதால் சுயதொழில் செய்வதற்கு நிதிப் பற்றாக்குறையை எதிர்கொள்கின்றமையும் பாரம்பரிய சுயதொழில்களான கோழி வளர்ப்பு, மாடு வளர்ப்பு, கைவினைப் பொருட்கள் உற்பத்தி, தையல் போன்றவற்றையும் மேற்கொள்வதால் இன்றைய நிலையில் இவை மக்களின் வாழ்க்கைத் தரத்தை மேம்படுத்த போதுமானதாகக் காணப்படவில்லை. நல்லூர் பிரதேச விதவைகளில் பெரும்பாலானவர்கள் கல்வியறிவு குறைந்தவர்களாகவும், கீழ் உழைப்பு, வேலையின்மை போன்றன அதிகளவு நிலவுவதனாலும் இவ் விதவைகள் தற்கால உயர் பொருளாதார நிலையை அடைந்துகொள்வதில் சிரமங்களை எதிர்கொள்ளக் காரணமாக அமைகின்றது என்பதை அறியமுடிகின்றது. இந்த ஆய்வின் மூலம் விதவைகளின் வாழ்க்கைத் தரத்தினை உயர்த்துவதோடு, பொருளாதார சமூகரீதியில் அவர்களை வலுப்படுத்துவதற்கு சுயதொழில் ஊக்குவிப்புக்களை வழங்குவதன் மூலமும் அவர்களை மேம்படுத்த முடியும். எனவே கடந்த 30 வருடயுத்தத்தின் விளைவின் பின் நல்லூர் பிரதேசசெயலர் பிரிவுக்குட்பட்ட சமூகபொருளாதார நிலை பற்றிய ஆய்வு மேற்கொள்ளப்பட்டது.

யுத்தத்துக்குப் பின்னர், தமிழர், முஸ்லிம் சக வாழ்வு - சமூக அரசியல், இலக்கிய அடிப்படையிலான நோக்கு

எம்.ஏ.மு. றமீஸ்

மொழித்துறை, தென்கிழக்குப் பல்கலைக்கழகம், இலங்கை
rameez.abdullah@gmail.com

சுருக்கம்: இலங்கையில் தமிழர்களும் முஸ்லிம்களும் வரலாற்று, பொருளாதார, புவியியல் ரீதியாகவும் அரசியல், மொழி ரீதியாகவும் மிக நீண்ட காலமாக இணைந்தே வாழ்ந்து வந்துள்ளனர். குறிப்பாக, ஈழத்து இஸ்லாமியத் தமிழ் இலக்கியத்தின் தோற்றமே வடக்கிலேதான் இடம்பெறுகின்றது. வடக்கில் ஆங்காங்கே முஸ்லிம்கள் வாழ கிழக்கில் தமிழர்களும் முஸ்லிம்களும் பெருமளவு இணைந்தே வாழ்கின்றனர். இவர்களின் வாழ்க்கை, கொண்டும் கொடுத்தும் வாழ்வதாக அமைந்திருந்தது. குடி முறையின் நெருக்கமும், வாழ்விலும் சாவிலுமான பண்பாட்டு அம்சங்களும் இவ்விரு சமூகங்களையும் இணைத்தே வந்துள்ளது. முஸ்லிம்களின் ஆன்மீக, லௌகீக கல்வி எழுச்சி தமது சொந்த அடையாளங்களை வற்புறுத்தவும் செய்தது. இதற்கிடையில் எழுந்த ஈழத்து இனப் பிரச்சினை தமிழ், முஸ்லிம் சமூகங்களிடையிலான முரண்பாட்டுக்கும் வழிவகுத்தது. சேர். பொன்னம்பலம் இராமநாதனின் இஸ்லாமியத் தமிழர் கோட்பாட்டை (1888) முஸ்லிம்கள் கடுமையாக நிராகரித்ததிலிருந்து அரசாங்க சபையில் முஸ்லிம்களுக்கான தனிப் பிரதிநிதித்துவம் கோரப்பட்டது. இலங்கை சுதந்திரமடைந்ததன் பின்னர், குறிப்பாக இனத்துவம் அரசியலில் செல்வாக்குச் செலுத்தத் தொடங்கியவுடன் 1980, 90களில் தீவிரமடைந்த தமிழ்ப் போராட்டத்தின் விளைவாக தமிழ் - முஸ்லிம் உறவும் பாதிப்படையத் தொடங்கியது. இக்கால கட்டங்களில் அரசியல் கட்சிகளும் விடுதலை இயக்கங்களும் தமிழ் - முஸ்லிம் உறவு தொடர்பாக மிகக் காட்டமான கருத்துக்களையே வெளியிட்டு வந்தன. கிழக்கு முஸ்லிம் கிராமங்களில் இடம்பெற்ற இனப்படுகொலையும் வடக்கிலே முஸ்லிம்கள் துடைத்தழிக்கப்பட்டமையும் அதேபோல முஸ்லிம் தரப்பு ஊர்காவற் படையினர் முதலானவர்களின் செயற்பாடுகளும் இந்நிலைமைக்குப் பிரதான காரணமாகும். ஆனால், யுத்தத்திற்குப் பின்னர் இந்நிலைமை மாறியுள்ளது. தமிழ் - முஸ்லிம் தரப்பு அரசியல் கட்சிகளும் புத்தி ஜீவிகளும் சிவில் சமூகமும் இவ்விரு சமூக ஒற்றுமைக்காகவும் குரல் கொடுத்து வருகின்றன. அக்கருத்துக்களை, இரண்டாம்நிலைத் தரவுகளினூடாகப் பெற்று இக்காலகட்ட சகவாழ்வு கருத்துநிலையை வெளிப்படுத்துவதே இவ் ஆய்வின் பிரதான நோக்கமாகும்.

யாழ்ப்பாண பிரதேச செயலர் பிரிவில் மீனவக் குடும்பங்களின் வறுமை நிலை பற்றிய ஓர் ஆய்வு

ச.சி. உதயகுமார், பி. சிவதர்சன்

Department of Economics, University of Jaffna, Sri Lanka
ssuthayan@yahoo.com

சுருக்கம்: இயற்கை அன்னையின் கொடைகளுள் மகத்தான வளமாகக் காணப்படும் கடல்வளத்தான் தொடர்புடைய செயற்பாடுகளுள் மீன்பிடித்தொழில் முக்கியம் பெறுவதுடன், சர்வதேச ரீதியில் முக்கியத்துவமான தொழிலாகவும், உள்ளது. இவ்வகையில் இலங்கையைச் சுற்றியுள்ள கடற்கரப்பிலும் உள்நாட்டு நீர்நிலைகளிலும் பெருமளவில் காணப்படும் மீன்வளங்கள் இதுவரை சரியாகப் பயன்படுத்தப்படவில்லை. திட்டமிட்ட ஒழுங்கு முறையில் இவ்வளங்கள் பயன்படுத்தப்படுமாயின் நாட்டின் பொருளாதாரத்திற்கு கடல்சார் தொழில்துறையால் கணிசமான பங்களிப்பினை வழங்க முடியும். மீன்பிடித்தொழிலின் இயல்பானது மீனவக் குடும்பங்களிடையே வறுமையைத் தோற்றுவித்துள்ளது. வறுமை என்பது தீராத நோயாக மக்களிடையே பரவிக்காணப்படுகின்றது. இது உலக நிலையில் விரிவான பரிமாணத்தினைப் பெற்றுள்ளது. கல்வி மற்றும் சுகாதார ஆரோக்கியத்தில் குறைந்த நிலை, பொருட்களின் பற்றாக்குறை, அவற்றின் இழப்பு, மனிதவள இழப்பு, மக்களின் குரலுக்கு மதிப்பின்மை, அதிகாரமின்மை மற்றும் பல இழப்புகளுக்கு உட்பட்டல் என்பவற்றை உள்ளடக்கும் விதத்தில் விரிவாக்கம் செய்யப்பட்டிருக்கின்றது. அதாவது வறுமையானது பொருளாதார இயல்தகமைக் கருத்துக்களுக்கு அப்பால் சென்று அரசியலினதும் மனித உரிமைகளினதும் ஆக்கத்தினுள் நீடிக்கின்ற பரிமாணங்களை உள்ளடக்குவதாக அமைகின்றது. வறுமையானது நச்சு வட்டத்தன்மையில் இடம்பெறுகின்றது. இதனை வழிபடுத்தும் காரணிகளாவன உணவு நெருக்கடி, வதிவிட நெருக்கடி, போசாக்கின்மை, தொற்று நோய் அபாயத்துக்கள், மனவடு போன்றனவாகும். இவ்வாறான நிலைப்பாடுகளினை மீனவக் குடும்பங்களின் வாழ்வாதாரத்தில் அவதானிக்கக் கூடியதாக உள்ளது. இத்தகைய காரணிகளின் பரிமாணங்களை ஆராய்வதாகவே இவ் ஆய்வு மேற்கொள்ளப்பட்டுள்ளது. யாழ்ப்பாணத்தின் கரையோரப் பிரதேசங்கள், அவற்றின் அமைவிடம், அமைப்பு, புனிதியல் பின்னணிகள் போன்றன மீன்பிடித் தொழிலுக்கு சாதகமாக அமைந்துள்ளன. இருப்பினும் இந்த மீன்பிடித் தொழிலில் ஈடுபடுகின்ற தொழிலாளர்களின் பொருளாதார நிலையோ அல்லது வாழ்வாதார நிலையோ பெரிதும் வறுமையிலேயே இருந்து வருவதை அவதானிக்க முடிகின்றது. வறுமை என்பது தனியொரு பிரச்சினையோடு நின்றுவிடவில்லை. அது ஒரு நச்சுவட்ட சுழற்சியில் இயங்குவதால் மக்கள் மேலும் பல பிரச்சனைகளுக்கு முகங்கொடுக்கின்றனர். எனவே யாழ்ப்பாண பிரதேச செயலர் பிரிவில் மீனவக் குடும்பங்களின் வறுமை நிலையைப் பல்பரிமாண நோக்கில் ஆராய்வதாக இந்த ஆய்வு அமைந்துள்ளது. இந்த ஆய்வுக்கான ஆய்வுக்களமான ஆய்வுப்பிரதேசமானது இலங்கைத் தீவின் வடக்கே குறிப்பாக வடமாகாணத்தில் அமைந்துள்ள 5 மாவட்டங்களில் ஒன்றான, யாழ்ப்பாண மாவட்டத்தில் முக்கிய நிர்வாக மையப் பகுதிகளைத் தன்னகத்தே கொண்டமைந்துள்ள 28 கிராம சேவகர் பிரிவுகளை உள்ளடக்கிய யாழ்ப்பாண பிரதேச செயலர் பிரிவாக உள்ளது. நெடுங்குளம் (J/62) கொழும்புத்துறை கிழக்கு (J/63), கொழும்புத்துறை மேற்கு (J/64), பாசையூர் கிழக்கு (J/65), பாசையூர் மேற்கு (J/66), ஈச்சமோட்டை (J/67), திருநகர் (J/68), நெக்கிளமேசன் கிழக்கு (J/69), நெக்கிளமேசன் மேற்கு (J/70), குருநகர் கிழக்கு (J/71), குருநகர் மேற்கு (J/72) சின்னக்கடை போன்ற கிராம சேவையாளர் பிரிவுகளில் வசிக்கின்ற மீனவக்குடும்பங்களிடையே வறுமை நிலை பெருமளவில் காணப்படுகின்றது. இங்கு இயற்கையின் அனர்த்தமும், யுத்தத்தின் விளைவுகளால் வந்த கடல்வலயத் தடைச்சட்டங்களும், அதனுடனான கட்டுப்பாடுகளும் இப்பிரதேச மக்களது பொருளாதார மேம்பாட்டிற்குப் பாரிய சவால்களாக அமைந்துள்ளன.

எனவே இப்பிரதேச மீனவக் குடும்பங்களது வறுமை நிலை பற்றிய ஆய்வானது அவசியமானதும் பயன்பாடுமிக்கதாகும். யாழ்ப்பாண பிரதேச செயலக பிரிவில் வசிக்கின்ற 56029 பேரில் 35% ஆணவர்கள் மீனவக் குடும்பங்களாகவும், அவர்களில் 32% ஆணவர்கள் மிகவறிய நிலையிலும் காணப்படுகின்றனர். இவர்களிடம் காணப்படும் வறுமையானது பல்வேறு பரிமாணங்களைக் கொண்டதாகக் காணப்படுகின்றது. இப்பிரதேசத்தில் மீனவக் குடும்பங்கள் கூடுதலாக உள்ள கொழும்புத்துறை, பாசையூர், குருநகர், கொட்டடி, நாவாந்துறை போன்ற இடங்களில் 2010 ஆம் ஆண்டின் தரவின் படி மீன்பிடித்தொழில் சார்ந்த சனத்தொகை 14441 ஆகவும் இவர்களில் 4484 பேர் மீன்பிடித்தொழிலில் ஈடுபடுபவர்களாகவும், இவர்களில் 393 பேர் நிவாரணமாக (பிச்சைச்சம்பளம்) ரூபா 250/- உம், 176 பேர் ரூபா 300/- உம், 57 பேர் ரூபா 350/- உம், 37 பேர் ரூபா 400/- உம், 19 பேர் ரூபா 450/- உம், 12 பேர் ரூபா 500/- உம் என்ற வகையில் பெறுகின்றவர்களாகவும் உள்ளனர். இதிலிருந்து இப்பிரதேசத்தில் முழு வறுமையில் உள்ளோரின் பரம்பலை அறியமுடிகின்றது. இதனைவிட இப்பிரதேசத்தின் கல்வி நிலையும் (11 கிராம சேவகர் பிரிவுகளில் பாடசாலைகள் எதுவும் இல்லை), ஆரோக்கிய நிலையும் மிகவும் குறைந்த நிலையிலேயே காணப்படுகின்றது. ஆய்வுப் பிரதேசத்தில் மீனவக் குடும்பங்கள் வறுமை நிலையில் உள்ளதோடு, அவர்களிடம் காணப்படும் வறுமையானது, பல்வேறு பரிமாணங்களைக் கொண்டதாகவும் காணப்படுகின்றது. எனவே இவ்வறுமை நிலையைக் குறைப்பதற்கும் வருமானத்தை அதிகரிப்பதற்கும் சுயதொழிலில் ஈடுபடலில் பங்களிப்பினை அதிகரிப்பதோடு, மக்களின் கலாசார வாழ்க்கை முறைகளை மாற்றி அமைக்கும் வழிமுறைகளும் ஆராயப்பட்டுள்ளது. இதனை விட இவர்களிடம் சேமிப்புப் பழக்கத்தை அதிகரிப்பதோடு, இவர்களது வீட்டுவசதி, சுகாதார வசதி, உணவுப்பழக்கவழக்கங்கள், கல்வி அறிவு, முதலீடு, வருமானப்பங்கீடு, வாழ்க்கை முறைமை போன்ற பல காரணிகளை ஆராய்ந்து வறுமையைக் குறைப்பதற்கு இக்காரணிகளை எவ்வாறு மாற்றி அமைக்க வேண்டும் என்பது பற்றியும் ஆராயப்பட்டுள்ளது. எனவே இப்பிரதேச மீனவக் குடும்பங்களின் வறுமையின் போக்கினையும் அதற்கான காரணங்களும் இனங்காணப்பட்டு, வறுமையைக் குறைப்பதற்கான வழிமுறைகளும் அடையாளங்காணப்பட்டு, அவற்றை வெளிக் கொணர்வதாக இந்த ஆய்வு அமைந்துள்ளது. இவ்வகையில் இந்த ஆய்வானது எதிர்காலத்தில் இப்பிரதேச அபிவிருத்தி தொடர்பான திட்டங்கள் மற்றும் கொள்கைகளை முன்வைப்பவர்களுக்கும் மிகவும் பயன் மிக்க ஆய்வாக உள்ளது.

போருக்குப் பின்னரான பணப் பயிர்ச்செய்கை: யாழ்ப்பாண மாவட்டத்தை சிறப்பாகக் கொண்ட ஆய்வு

சு. உதயராசா

புவியியற்றறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
usubageo@gmail.com

சுருக்கம்: இலங்கையின் பொருளாதாரத்தில் விவசாயமே முக்கிய துறையாக விளங்குகின்றது. இங்கு விவசாய நடவடிக்கைகள் நுகர்விற்காக மட்டுமன்றி வர்த்தகத்திற்காகவும் மேற்கொள்ளப்படுகின்றன. இவ்வாறான ஒரு நிலைமை தான் இலங்கையின் வடக்கே அமைந்துள்ள யாழ்ப்பாண மாவட்டத்திலும் நீண்டகாலமாக காணப்பட்டு வருகின்றது. குறிப்பாக யாழ்ப்பாண மாவட்டம் அதிக வருமானத்தை ஏற்றுமதி செய்யும் பண்பயிர்களாலேயே பெற்றுக் கொள்கின்றது. அதாவது உற்பத்திப் பொருட்களை விற்பனை செய்து பணத்தை இலாபமாக பெறுகின்ற பயிர்களே பண்பயிர்கள் எனப்படுகின்றன. இப்பண்பயிர்களில் வெங்காயம், புகையிலை, மிளகாய், உருளைக்கிழங்கு, திராட்சை, வாழை ஆகியன இங்கு முக்கிய இடத்தினை வகிக்கின்றன. இதனைவிட குறிப்பிட்ட சில சிறுதானியங்களும் (உ+ம் எள்ளு) சில மரக்கறி வகைகளும் (கரட், பீற்றுட், தக்காளி, போஞ்சி) மிகக் குறைந்த அளவில் ஏற்றுமதி செய்யப்படுகின்றன. இவ்வகையில் இவ் ஆய்வானது போருக்குப் பின்னர் யாழ்ப்பாண மாவட்டத்தில் பண்பயிர்ச்செய்கையின் நிலையினை அறிதலாகவே உள்ளது. இலங்கையில் பண்பயிர்ச் செய்கையில் யாழ்ப்பாண மாவட்டம் முக்கியம் பெற்று விளங்குவதால் அதன் தற்போதைய நிலையை அறிதலும், இப்பயிர்ச்செய்கை எதிர்நோக்கும் பிரச்சினைகளை கண்டறிதலும், அவற்றிற்கான தீர்வுகளை முன் வைத்தலும் இவ் ஆய்வின் நோக்கங்களாக உள்ளன. ஆய்வு பிரதேசத்தில் உள்ள பதினைந்து பிரதேச செயலர் பிரிவுகளில் 4916 குடும்பங்கள் பண்பயிர்ச்செய்கையில் ஈடுபட்டுள்ளனர். இவர்களில் எழுமாற்றாக தெரிவு செய்யப்பட்ட 400 குடும்பங்களுக்கு விளாக்கொத்துக்கள் வழங்கப்பட்டு தரவுகள் சேகரிக்கப்பட்டன. அத்துடன் நேரடி அவதானம், பேட்டிகளானல், கலந்துரையாடல், போன்ற முறைகள் மூலமும், தரவுகள் சேகரிக்கப்பட்டன. இவ்ஆய்விற்காக இரண்டாம் நிலைத் தரவுகளும் சேகரிக்கப்பட்டு பெறப்பட்ட தரவுகளானது கணினி மூலம் குறிப்பாக Excel Package மூலமும், புவியியல் அளவைசார் நுட்ப முறை மூலமும் (Quantitative Technique in Geography), எளிய புள்ளிவிபர முறை மூலமும் பகுப்பாய்விற்கு உட்படுத்தப்பட்டுள்ளது. இவ் ஆய்வில் பெறப்பட்ட தரவுகளின் அவதானிப்புக்கள், பகுப்பாய்வுகள் மூலம் பெறப்பட்ட முடிவுகளின் படி பண்பயிர்கள் விளைவிக்கப்படும் நிலங்களில் பெருமளவான பரப்புக்கள் உயர்பாதுகாப்பு வலயத்தினுள்ளே காணப்படுகின்றன. குறுகிய பரப்பில் அதிக விளைச்சலை பெறும் நோக்குடன் அதிகளவான இரசாயன உரங்களை பயன்படுத்துவதால் நிலம் தரமிழந்து, வளமிழந்து போய் விடுகின்றது. அத்துடன் கிணற்று நீர் உவராகும் தன்மை, இடைத்தரகர்களின் தொல்லை, போதிய சந்தை வாய்ப்பு இன்மை, விவசாயிகளின் பாரம்பரிய முறைகளை கைக்கொள்ளல் போன்ற பிரச்சினைகளும் ஆய்வு பிரதேசத்தில் அடையாளம் காணப்பட்டுள்ளன. இப்பயிர்ச்செய்கை எதிர்நோக்கும் பிரச்சினைகளுக்கான தீர்வாக உயர்பாதுகாப்பு வலய விவசாய நிலங்களை விவசாயிகளுக்கு மீட்டுக் கொடுக்க வேண்டும். நிலம், நீர் போன்றவை தரமிழத்தல் தொடர்பாக விவசாயிகளுக்கு விழிப்புணர்வை ஏற்படுத்த வேண்டும். சந்தைப்படுத்துவதற்கு ஒழுங்கமைக்கப்பட்ட முகவர்களை உருவாக்குதல், அரசாங்கம் பண்பயிர்களுக்கு உத்தரவாத விலைத்திட்டத்தை அறிமுகப்படுத்துதல், விவசாயிகளுக்கு பயிர்க்காப்புறுதி திட்டங்களை அறிமுகம் செய்தல் போன்ற தீர்வுகளால் யாழ்ப்பாண மாவட்ட பண்பயிர்களின் உற்பத்தி, விளைச்சல், சந்தைப்படுத்தல், வருமானம்பெறல் என்பவற்றை வளர்ச்சிப்பாதையில் இட்டுச் செல்லலாம்.

பெண் தலைமை தாங்கும் குடும்பங்கள் எதிர் நோக்கும் சமூக, பொருளாதார பிரச்சினைகள் - முல்லைத்தீவு மாவட்டத்தில் மீள் குடியேற்றம் செய்யப்பட்ட பிரதேசங்களை அடிப்படையாகக் கொண்ட ஆய்வு

சு. உதயராசா

புவியியற்றுறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
usubagee@gmail.com

சுருக்கம்: இன்று உலகில் பெண் தலைமை தாங்கும் குடும்பங்கள் அதிகரித்துச் செல்வது முக்கிய ஒரு சமூகப் பிரச்சினையாக தோன்றி உள்ளது. இந்த வகையில் முல்லைத்தீவு மாவட்டத்தில் மீள்குடியேற்றம் செய்யப்பட்ட பிரதேசங்களில் பெண் தலைமை தாங்கும் குடும்பங்களின் எண்ணிக்கை மிக அதிகமாக காணப்படுகின்றது. பொதுவாக இக்கட்டுரையில் பெண்கள் குடும்பத்திற்குத் தலைமை தாங்குவது என்பது பல காரணிகளின் நிமிர்த்தம் ஏற்படக் கூடியதாக இருப்பினும் இங்கு கணவனின் இறப்பின் விளைவாக உருவாகிய குடும்பங்கள், மனமொருமித்து குடும்பமாக வாழ முடியாது சட்ட ரீதியாக விவாகரத்துப் பெற்ற குடும்பங்கள் மட்டுமே உள்ளடக்கப்பட்டுள்ளது. இக்குடும்பங்களின் சமூக, பொருளாதார நிலை குறித்தும், இக்குடும்பப் பெண்கள் சமூக, பொருளாதார ரீதியில் எதிர்நோக்கும் பிரச்சினைகள் குறித்தும், இக்குடும்பங்களை முன்னேற்றுவதற்கு எவ்வாறான திட்டங்களை முன் வைக்கலாம் என்பது குறித்து ஆய்வு செய்வதும், பிரச்சினைகளுக்கான காரணங்களைக் கண்டறிந்து அவற்றிற்கான தீர்வுகளை முன் வைப்பதும் இவ் ஆய்வின் நோக்கங்களாக உள்ளன. ஆய்வுப் பிரதேசத்தில் உள்ள ஐந்து பிரதேச செயலாளர் பிரிவுகளில் 616 கிராமங்களில் மக்கள் மீள் குடியமர்த்தப்பட்டுள்ளனர். இங்கு 30,359 குடும்பங்களில் 3775 குடும்பங்கள் பெண் தலைமைதாங்கும் குடும்பங்களாக உள்ளன. இவர்களில் 375 குடும்பங்கள் எல்லாக் கிராமங்களையும் உள்ளடக்கும் வகையில் எழுமாற்றாக தெரிவு செய்யப்பட்டு வினாக்கொத்துக்கள் வழங்கப்பட்டு தரவுகள் சேகரிக்கப்பட்டன. அத்துடன் நேரடி அவதானம், பேட்டி காணல், கலந்துரையாடல் போன்ற முறைகள் மூலமும் தரவுகள் சேகரிக்கப்பட்டன. இவ் ஆய்விற்காக இரண்டாம் நிலைத் தரவுகளும் சேகரிக்கப்பட்டு, பெறப்பட்ட தரவுகளானது கணினி மூலம் குறிப்பாக Excel Package மூலமும், புவியியல் அளவைசார் நுட்ப முறை மூலமும், (Quantitative technique in Geography) எனிய புள்ளிவிபர முறை மூலமும் பகுப்பாய்விற்கு உட்படுத்தப்பட்டுள்ளது. இவ்ஆய்வில் பெறப்பட்ட தரவுகளின் பகுப்பாய்வுகள் மூலம் பெறப்பட்ட முடிவுகளின் படி பெண்கள் தலைமை தாங்கும் குடும்பங்களின் சமூக பிரச்சினைகளாக சமூக அந்தஸ்து குறைவு, கல்வி அறிவு குறைவு, வீட்டு வசதிகள் சீராக இல்லாமை, மலசல கூட வசதிகள் இல்லாமை இதனால் சுகாதார சீரகேடுகள், பாதுகாப்பின்மை என்பனவும் பொருளாதார பிரச்சினைகளாக வேலையின்மை, வருமானமின்மை, வறுமை இதனால் பிள்ளைகள் சிறந்த கல்வியை பெற முடியாத நிலை, யோசாக்கான உணவின்மை போன்றன அடையாளம் காணப்பட்டுள்ளன. இதனை விட உளவியல் ரீதியான பிரச்சினைகளும் அடையாளம் காணப்பட்டுள்ளன.

இவற்றிற்கான தீர்வுகளாக முதலில் குடும்பங்களை தலைமை தாங்கும் பெண்களுக்குரிய சமூக அந்தஸ்தினை வழங்க வேண்டும். ஏனைய பெண்களைப் போல அவர்களையும் சமூகத்தில் மதித்து நடக்க வேண்டும். இளவயது விதவைகள் மறுமணம் செய்வதை அங்கீகரித்தல் வேண்டும். இப்பெண்களின் சமூக அந்தஸ்து உயரும் போது சமூகப் பாதுகாப்பு தானாகவே ஏற்பட்டு விடும். அரசும், அரச சார்பற்ற நிறுவனங்களும் இவர்களுக்கு வேண்டிய வீட்டு வசதிகளையும், கிணறு, மலசல்கூட வசதிகளையும் ஏற்படுத்திக் கொடுக்க வேண்டும். இவர்களின் பிள்ளைகள் கல்வியை சிறந்த முறையில் பெறுவதற்கு பொருத்தமான வழிமுறைகளை ஏற்படுத்திக் கொடுக்க வேண்டும். பொருளாதார பிரச்சினைகளுக்குரிய தீர்வாக இவர்களின் கல்வித்தகமைக்கு ஏற்ப வேலை வாய்ப்பினை ஏற்படுத்திக் கொடுக்க வேண்டும். பணத்தையோ, பொருட்களையோ தொடர்ந்து வழங்கிக் கொண்டிருக்காமல் வருமானத்தை நிர்ந்தரமாக கிடைக்கச் செய்தால் முன்னேறிச் செல்வார்கள். கல்வி அறிவுடையவர்களுக்கு சிறு வேலைவாய்ப்பையும், ஏனையோருக்கு சுயதொழில் முயற்சிகளையும் (கோழி வளர்த்தல், ஆடைகள் தைத்தல், பப்படம் தயாரித்தல், கயிறு திரித்தல், பன்ன வேலைகள், கைப்பணிப் பொருட்கள் செய்தல்) ஏற்படுத்திக் கொடுப்பதன் மூலம் அவர்கள் தொடர்ந்து வருமானத்தைப் பெற முடியும். அத்துடன் தலைமை தாங்கும் பெண்களிடம் மறைந்திருக்கக் கூடிய ஆளுமை, தன்னம்பிக்கை, துணிவு, மனவறுதி என்பவற்றை வெளிக்கொணரும் வகையில் பயிற்சிப் பட்டறைகள், கருத்தரங்குகள் போன்றவற்றினை நடாத்தி வலுவள்ளவர்களாக்க வேண்டிய பொறுப்பு அரசு மற்றும் அரசசார்பற்ற நிறுவனங்களுக்குரியது. இந்தவகையில் பெண் தலைமை தாங்கும் குடும்பங்கள் எதிர் நோக்குகின்ற பல்வேறு பிரச்சினைகளையும் அதற்கான பின்னணிகளையும் தீர்வுகளையும், ஆலோசனைகளையும் வெளிக்கொணரும் ஒரு ஆய்வாக இது அமைகின்றது.

தகவல் பரப்புகைச் செயற்பாட்டில் தொலைக்காட்சியின்
மேலாதிக்கத்தில் சிறுவர்களிற்கு ஏற்படும் தாக்க விளைவுகள்

க. ராஜ்குமார்

Media Studies, University of Jaffna, Sri Lanka
rajkumar.sudar@gmail.com

சுருக்கம்: சமூக பண்பாட்டுத் தளங்களின் மேல் ஒவ்வொருநாளும் இறுகிக்கொண்டுவரும் தொலைக்காட்சி என்னும் ஊடகம் வெறும் காட்சிகளை மட்டும் காட்டி மறைந்து விடுவதில்லை. பார்வையாளர்களின் மனதில் கருத்துக்களையும் படிமங்களையும் பதிந்து விட்டு செல்கிறது. இவ் மனப்பதிவு நீண்ட காலத்திற்கு அதன் விளைவை பதிய வைக்க வல்லது. தகவல்கள், காட்சி மற்றும் ஒலி வடிவங்களினூடாகப் பகிரப்படுவதால் அதன் தாக்கம் ஏனைய ஊடகங்களுடன் ஒப்பிடுகையில் மிகவும் சக்திவாய்ந்தது. தொலைக்காட்சியின் தகவல் வெளிப்பாட்டுச் செயற்பாட்டில் பார்வையாளர்களின் பால் நிலை வேறுபடும் (gender different), வயது நிலையும் முக்கியமானவையாகக் கொள்ளப்படுகின்றன. ஏனைய ஊடகங்களுடன் ஒப்பிடுகையில் சிறுவர்களை தன்முன் ஈர்க்கும் அபார சக்தி தொலைக்காட்சிக்குள்ளது. குறிப்பாக ஆரம்பக் கல்வியை கற்கு முன்பே சிறுவர்கள் தொலைக்காட்சியின் முன் தமது நேரத்தை அதிகம் செலவிடுகின்றனர். இதற்கான பெரும் பொறுப்பு பெற்றோரையே சாரும். குழந்தைகளின் ஆரம்ப கல்விச் செயற்பாடுகளை உள்ளடக்கிய கல்வி முறை DVD மூலம் கிடைக்கப்பெறுவதும் இதற்கான பிரதான காரணங்களில் ஒன்றாகின்றது. இது தொலைக்காட்சியே தமது உலகம் என்னும் மனப்பாங்கை சிறுவர்களிடம் ஏற்படுத்துகின்றது. வர்த்தக ரீதியான போட்டித்தன்மை காரணமாக ஒவ்வொரு தொலைக்காட்சி நிறுவனங்களும் நிகழ்ச்சியின் தன்மையில் மாற்றங்களை அறிமுகப்படுத்துகின்றன. மாறாக சமூகப் பொறுப்புணர்வுடன் செயற்பட்டால் மிகச் சிறந்த பயனை மாணவர்களும், சிறுவர்களும் பெற்றுக்கொள்ள முடியும். நிகழ்ச்சிகளின் பேசு பொருளாக வன்முறைக் காட்சிகள், வன்முறைசார் உரையாடல்கள், நன்நடத்தையற்ற பழக்க வழக்கங்கள், திகிலூட்டும் சம்பவங்கள், முத்தக் காட்சிகள், படுக்கையறைக் காட்சிகள், இளவயதுக் காதல் போன்றவற்றை வயது வேறுபாடின்றி அனைவரும் பாட்பதால், நாளடைவில் மது, புகைத்தல் போன்ற பழக்கவழக்கங்களுக்கு அடிமையாகிவிடும் போக்கினை அவதானிக்க முடிகின்றது. இந்நிகழ்ச்சிகளின் இடையிடையே ஒளிபரப்பப்படும் விளம்பரங்களும் சிறுவர்கள் மத்தியில் பெரும் செல்வாக்குச் செலுத்துகின்றது. சிறுவர்களை விளம்பர மாதிரிகளாக இணைத்துக்கொள்ளும் போக்கும் குறிப்பிட்ட சில ஆண்டுகளில் அதிகரித்துள்ளமையும் இதற்கான பிரதான காரணங்களில் ஒன்றாகிறது. விளம்பர வெளிப்பாட்டுத்திறன் என்னும் விடயத்தில் மட்டுமே விளம்பர தயாரிப்பாளர்கள் கவனம் செலுத்துகின்றனர். அவ்விளம்பரங்கள் சிறுவர்கள் மத்தியில் எவ்வாறான எதிர்மறை விளைவுகளை தோற்றுவிக்கின்றன என்பதை கவனிக்கத்தவறி விடுகின்றமையை காணக்கூடியதாகவுள்ளது. இவ்வாறான ஒரு சூழ்நிலையில் இப் பாதிப்புக்களிலிருந்து சிறுவர்களைப் பாதுகாக்க வேண்டியது ஒவ்வொரு பெற்றோரின் பொறுப்பாகும். அத்துடன் நிகழ்ச்சியின் தரமறிந்து சிறுவர்களிற்கு உகந்தநிகழ்ச்சியை தமது மேற்பார்வையில் வழிநடத்த வேண்டியவர்கள் பெற்றோர்கள், பாடசாலைகளிலும் ஆசிரியர்கள் பிள்ளைகளுக்கு இவ்விடயம் குறித்த விழிப்புணர்வுகளை ஏற்படுத்த வேண்டும். ஒரு நாளில் அதிகளவான நேரத்தை தொலைக்காட்சியின் முன் சிறார்கள் செலவிடுவதால் அவர்களின் கண்களுக்கும் முளைக்கும் பாதிப்பு ஏற்படுவதுடன், நினைவாற்றல் தன்மை குறைவடைவதுடன், மன உழைச்சலுக்கும் ஆளாகின்றனர் என குழந்தை மனநல மருத்துவ நிபுணர்கள் எச்சரிக்கின்றனர். இவ்வாழ்கக் கட்டுரையானது தொலைக்காட்சி தகவற் பரிமாற்றச் செயற்பாட்டில் சிறுவர்களை எவ்வாறான பாதிப்பிற்குள்ளாக்குகின்றது என்பதை எடுத்துரைக்கின்றது.

நிந்தவூர்க் கிராமிய அபிவிருத்தி நடவடிக்கைகளில் நெல்சிப் திட்டத்தின் பங்கு - ஓர் ஆய்வு

எம். நிஸ்வான்[†], எம்.பி.எம். சுபியான்

சமூக விஞ்ஞானங்கள் துறை, இலங்கை தென்கிழக்குப் பல்கலைக்கழகம், இலங்கை
†mriswan2008@gmail.com

சுருக்கம்: அபிவிருத்தி பற்றி நோக்குகின்றபோது குறிப்பாக கிராமிய அபிவிருத்தி தொடர்பாக பல்வேறு கருத்தாடல்கள் இடம்பெறுகின்றன. பொதுவாக கிராமிய மக்களின் வாழ்க்கைத் தரத்தை உயர்த்துவதுடன் அவர்களை சமூக, பொருளாதார, பண்பாட்டு, தொழிநுட்ப ரீதியாக மேம்பாடடையச் செய்வது கிராமிய அபிவிருத்தி என்று கூறமுடியும். “குறைவிருத்தி நாடுகளின் முன்னைய அபிவிருத்தித் திட்டங்களின் தோல்வி கிராமிய அபிவிருத்தியில் அக்கறை காட்டாமையாகும்” என பொருளியலாளர்கள் வாதிடுகின்றனர் (அன்கெர், கொட்டர், 1973). எனவே உலகில் கிராமங்களை நோக்கிய பார்வை, கிராமிய அபிவிருத்தி தொடர்பான சிந்தனை இன்று மிக அதிகமாகவே எழுந்துள்ளது. அதேவேளை கிராமிய அபிவிருத்தி தொடர்பில் அரசு மற்றும் அரசு சார்பற்ற பல்வேறு அமைப்புகள் பங்களிப்புச் செய்துவருவதனைக் காணலாம். குறிப்பாக வளர்ந்த நாடுகளை விட வளர்முக (கிழக்காசிய, ஆசிய, ஆபிரிக்க, லத்தீன் அமெரிக்க) நாடுகளில் இத்தகைய பணிகள் அதிகம் நடைபெறுவதனை சுட்டிக்காட்டலாம். இதன் பின்னணியில்தான் இவ்வாய்வானது கிராமிய அபிவிருத்தி தொடர்பில் நடைமுறையில் உள்ள நெல்சிப் (North East Local Services Improvement Project - NELSIP) திட்டத்தை அடிப்படையாகக் கொண்டு மேற்கொள்ளப்பட்டுள்ளது. இத்திட்டமானது இலங்கையில் குறிப்பாக வடகிழக்கு பிரதேசங்களிலுள்ள பின்தங்கிய கிராமங்களை மேம்படுத்துவதை நோக்காகக் கொண்டு உருவாக்கப்பட்டதாகும். எனவே, நெல்சிப் திட்டமானது கிழக்கு மாகாணத்தின் அம்பாறை மாவட்டத்திலுள்ள நிந்தவூர் பிரதேச சபையில் நடைமுறைப்படுத்தப்பட்டுள்ளமை குறிப்பிடத்தக்கதாகும். எனவே இவ்வாய்வானது நிந்தவூர் பிரதேச மேம்பாட்டில் நெல்சிப் எத்தகைய பங்கினைக் கொண்டுள்ளது என்பதை கண்டறிவதாகவுள்ளது. நிந்தவூர்க் கிராமிய அபிவிருத்திப் பணியில் பிரதேச சபை, பிரதேச செயலகம், சமுதாய மைய அமைப்புகள் (Community Based Organizations) மற்றும் ஏனைய நிறுவனங்கள் பங்களிப்புச் செலுத்துகின்ற அதேவேளை நெல்சிப் திட்டத்தின் பங்களிப்பு எவ்வாறுள்ளது என்பதை அறிதல் ஆய்வுப் பிரச்சினையாக வடிவமைக்கப்பட்டுள்ளது. இவ்வாய்வானது நெல்சிப் திட்டம் நிந்தவூர் கிராமிய அபிவிருத்திப் பணியில் எத்தகைய பங்களிப்பினைச் செலுத்துகின்றது என்பதை பரிசீலனை செய்வதை பிரதான நோக்கமாகக் கொண்டுள்ளது. அத்துடன் நெல்சிப் திட்டத்தின் நடைமுறையின் பின்னர் நிந்தவூர் பிரதேச அபிவிருத்தியில் ஏற்பட்ட முன்னேற்றத்தினை மதிப்பீடு செய்தல் உள்ளிட்ட நோக்கங்களைக் கொண்டுள்ளது. இவ்வாய்வுக்கான தகவல்கள் முதலாம் நிலை மற்றும் இரண்டாம் நிலை மூலகங்களிலிருந்து பெற்றுக்கொள்ளப்பட்டன. முதலாம் நிலை தரவில் வினாக்கொத்து (Questionnaire), பேட்டி காணல் (Interview), அவதானம் (Observation), இலக்குக் குழுக்களுடனான கலந்துரையாடல் (Focus Group Discussion - FGD) போன்றவை அடங்குகின்றன. இரண்டாம் நிலைத் தரவில் முக்கியமாக பிரதேச செயலக அறிக்கைகள் அடங்குகின்றன. இவ்வாறு சேகரிக்கப்படும் தரவுகளைக் கொண்டு எண்ணளவான முறை (Quantitative method), மற்றும் தர அளவிலான முறை (Qualitative method) எவ்வற்றின் அடிப்படையில் பகுப்பாய்வு செய்யப்பட்டன.

நிந்தவூர் கிராமிய அபிவிருத்திப் பணியில் நெல்சிப் திட்டமானது காத்திரமான பங்களிப்பினைக் செலுத்தியுள்ளதோடு, இத்திட்டத்தின் வருகையின் பின்னர் திண்மக் கழிவுகற்றல் முகாமைத்துவம், பொது மைதான விருத்தி, உள்ளூர் வீதி அபிவிருத்தி, சமய ஸ்தலங்களின் புனர்நிர்மானம், சந்தை வசதி ஏனைய பொதுவசதிகளில் காத்திரமான முன்னேற்றம் அடையப்பட்டுள்ளமை இவ்வாய்வின் மூலம் கண்டறியப்பட்டுள்ளது. இன்று கிராமிய அபிவிருத்தி பற்றியும் அதுனாடான தேசிய அபிவிருத்தியை அடைதல் பற்றியும் அனேக வளர்முக நாடுகள் பேசிக்கொண்டிருக்கின்றன. அதேநேரம் இலங்கை அரசாங்கமும் கிராமிய அபிவிருத்தி தொடர்பில் அக்கறை செலுத்துவதனையும் காணலாம். குறிப்பாக வடக்கு, கிழக்கு மாகாணங்களிலுள்ள கிராமங்களை அபிவிருத்தி செய்வதன் பொருட்டு அறிமுகப்படுத்தப்பட்ட நெல்சிப் திட்டமானது காத்திரமான ஒன்றாக உள்ளமை அடையாளம் காணப்பட்டுள்ளது. எனவே இந்த நெல்சிப் திட்டத்தின் நடைமுறைக்கும் கிராமிய மேம்பாட்டுக்குமிடையில் நேரடித் தொடர்பிருப்பதனை காணமுடிகின்றது. எனவே, இத்தகைய திட்டங்களை நடைமுறைப்படுத்தும்போது கிராமிய மேம்பாட்டுடன் கூடிய தேசிய அபிவிருத்தியை சாத்தியமாக்கலாம்.

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சி. வீரசிங்கம்

வரலாற்றுத்துறை, யாழ்ப்பாணப் பல்கலைக்கழகம், இலங்கை
sivaruby17@gmail.com

சுருக்கம்: தனக்கென தனித்துவமான பாரம்பரிய வரலாறு கொண்ட பிராந்தியங்களில் ஒன்றாக யாழ்ப்பாணக் குடாநாடு அடையாளப்படுத்தப்பட்டுள்ளதை வரலாற்று மூலங்கள் மட்டுமன்றி இன்றுவரை நிலைத்து நிற்கும் தொல்லியல் பண்பாட்டு சின்னங்களும் உறுதிப்படுத்துகின்றன. யாழ்ப்பாணக் குடாநாடானது வடமராட்சி, தென்மராட்சி, வலிகாமம், அயலில் உள்ள தீவுக்கூட்டங்கள் ஆகிய பிரதேசங்களை உள்ளடக்கி நிற்கின்றது. யாழ்ப்பாணக் குடாநாட்டிற்கு இற்றைக்கு 3000 ஆண்டுகளுக்குக் குறையாத தொன்மையான தொடர்ச்சியான வரலாறு உண்டு என்பதனை இதுவரை காலமும் இங்கு இடம்பெற்ற தொல்லியலாய்வுகள் எடுத்தியம்புகின்றன. எனினும் ஜரோப்பியர் ஆட்சிக்கு முன்பிருந்த தொல்லியல் பண்பாட்டுச் சின்னங்கள் பலவும் அவர்களது இறுக்கமான மதநடவடிக்கைகளினாலும், கலையழிவுக் கொள்கைகளினாலும் முற்றாக அழிக்கப்பட்டு அல்லது சிதைக்கப்பட்டுவிட்டன என்றே கூறலாம். தொல்லியல் பண்பாட்டுச் சின்னங்கள் அல்லது மரபரிமைச் சின்னங்கள் என்பது எமது சமுதாயத்தின் கடந்த காலத்தைப் பிரதிபலிக்கும் திருப்பி பெற முடியாதான அரும்பெரும் பொக்கிசங்களாகும். இவை எமது சமுதாயத்தின் தொடக்கத்தையும் அடையாளத் தன்மையையும் அறிந்து கொள்ள வாழ்ப்பாளிகின்றன. விலைமதிக்க முடியாத சொத்துக்களான இத் தொல்லியல் பண்பாட்டுச் சின்னங்களை உரிய முறையில் பாதுகாப்பதன் மூலமாக எதிர்கால சந்ததியினருக்கு அவற்றை உரிய முறையில் கையளிக்க முடியும். இது ஒவ்வொரு பிரசையின் கடைமட்பாடுமாகும். யாழ்ப்பாணக் குடாநாட்டின் பெறுமதிமிக்க இத் தொல்லியல் பண்பாட்டுச் சின்னங்களினைப் பொதுவாக ஜரோப்பியர் ஆட்சிக்கு முற்பட்ட கால பண்பாட்டுச் சின்னங்கள், ஜரோப்பியர் கால பண்பாட்டுச் சின்னங்கள் என இருவகைப்படுத்தலாம். ஜரோப்பியருக்கு முற்பட்ட கால தொல்லியல் பண்பாட்டுச் சின்னங்களாக கந்தரோடைச் சங்கம், நெடுந்தீவு இந்து பௌத்த சின்னங்கள், பூநகரி-மண்ணித்தலை இந்துக்கோயில், மாவிட்டபுரம் இந்துக்கோயில், நகுலேஸ்வரம் இந்துக்கோயில், மடம் மற்றும் யாழ்ப்பாணத்தரசர்கள் கால சங்கிலியன் தோப்பு, யமுனா ஏரி, மந்திரிமனை போன்றவற்றைக் குறிப்பிடலாம். ஜரோப்பியர் கால நினைவுச்சின்னங்களாக அவர்கள் கால கோட்டைகள், ஆலயங்கள், நிர்வாக மையங்கள் என்பவற்றைக் குறிப்பிடலாம். இவற்றுள் யாழ்ப்பாணம், நெடுந்தீவு ஒல்லாந்தக் கோட்டைகள், மணற்காடு, சங்கானை, சக்கோட்டை, அச்சவேலி, நெடுந்தீவு ஒல்லாந்தக் தேவாலயங்கள் மற்றும் ஏனைய நிர்வாக மையங்கள் போன்றவை குறிப்பிடத்தக்கன. இன்று வரை நிலைத்து நின்று யாழ்ப்பாணக்குடா நாட்டின் பாரம்பரிய வரலாற்றினை அல்லது மரபரிமையைப் பிரதிபலிக்கும் பெறுமதிமிக்க தொல்லியல் பண்பாட்டுச் சின்னங்கள் உரிய முறையில் ஆய்வுக்குட்படுத்தப்பட்டு பாதுகாக்கப்பட வேண்டும் என்பதுடன் யாழ்ப்பாணக் குடாநாட்டின் தனித்துவமான பண்பாட்டினை, பாரம்பரியத்தினை பிரதிபலிக்கும் மரபரிமைச் சின்னங்களினை அல்லது மையங்களினை அடிப்படையாகக் கொண்டு இப்பிரதேசத்தில் கலாசார சுற்றுலா மேற்கொள்வதற்குப் பொருத்தமான தொல்லியல் மையங்களை அடையாளப்படுத்துவதும் ஆவணப்படுத்துவதும் காலத்தின் தேவையாகும். ஏனெனில் ஒரு நாட்டின் அல்லது பிரதேசத்தின் பொருளாதார முன்னேற்றத்தில் சுற்றுலாத்துறையின் வளர்ச்சியானது கணிசமான பங்களிப்பை வழங்குகின்றது. ஆகவே அதற்கு ஏற்றவகையில் யாழ்ப்பாணத்தில் காணப்படும் தொல்லியல் மரபரிமைச் சின்னங்களின் வரலாற்று முக்கியத்துவத்தை வெளிப்படுத்துவதன் மூலமாகவும் தொல்லியல் பண்பாட்டுச் சின்னங்களின் அல்லது மையங்களின் பாதுகாப்புக் கோட்பாட்டில் சர்வதேச சாசனங்கள் (International Charter for the Conservation and Restoration of Monuments and Sites) குறிப்பிடும் வரைவிலக்கணங்களுக்கு அமைவாகவும் யாழ்ப்பாணக் குடாநாட்டின் தொல்லியல் மையங்களை உரிய முறையில் பாதுகாத்து, பண்பாட்டுச் சுற்றுலா மையங்களாக உருவாக்குவதற்குத் தன் மூலம் யாழ்ப்பாணத்து பல்வேறு அபிவிருத்திகளையும் பெற்றுக் கொள்ளும். இவ் மரபரிமைச் சின்னங்கள் எதிர்கால திட்டமிடல்களின் அடிப்படையில் பாதுகாக்கப்படும் போது இப் பண்பாட்டுச் சின்னங்களின் பாதுகாப்பில் யாழ்ப்பாணக் குடாநாட்டின் பாரம்பரிய வரலாறும் மரபரிமையும் பாதுகாக்கப்படும் என்பதில் எந்தவித சந்தேகமில்லை.

End of Track I



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