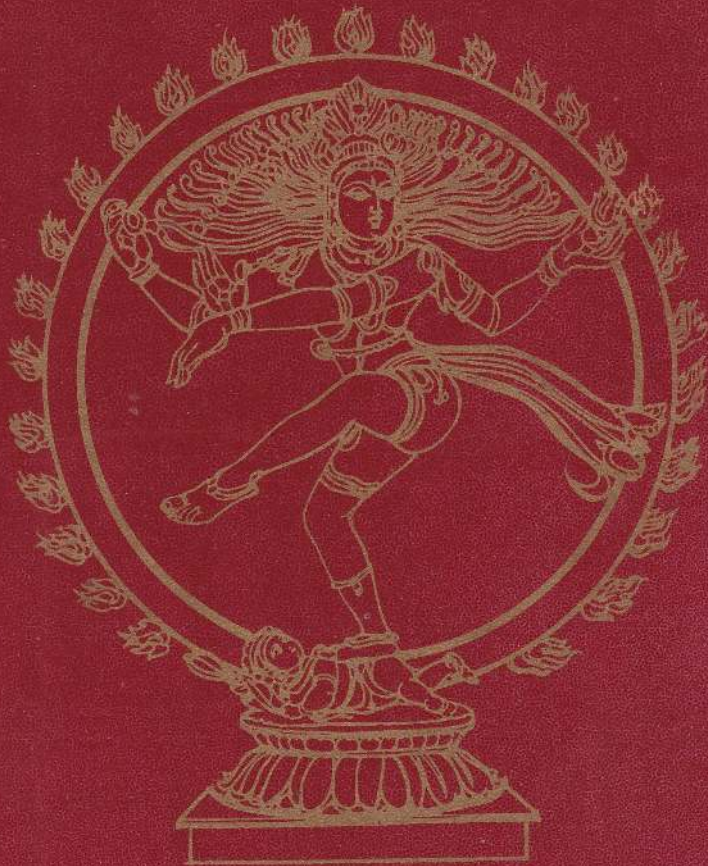




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A STUDY OF THE EPIC AND PURANIC RITUAL TRADITIONS YAJÑA, TAPAS, TĪRTHĀ, STOTRA, DHYĀNA, VRATA AND PŪJĀ WHICH RELATE TO AGAMIC RITUALS

Late Prof. Emeritus K. Kailasanatha Kurukkal

I. YAJÑA.

Throughout the various stages in the history of the Hindu religion the Vedas have continued to be held in high veneration. Their ultimate authority has been unanimously recognised by all the orthodox schools of thought¹. The high regard for the Vedas and the respect that was generally shown to the Śrotriyas who were proficient in them, can be seen to have been reflected in the Epics and the Purāṇas², though in the latter works such regard and respect become less marked. As a matter of fact, this Epic tendency to afford to the Brāhmaṇas (who were characterised as the veritable gods on earth), especially those well-versed in the vedas a high place from the religious point of view³ may be said to have continued even to this day. There is, therefore, no wonder that, even in the Epic and Purāṇic periods, the yajñas continued to be performed⁴. Nevertheless there are clear indications in the Epics and the Purāṇas, particularly in the latter texts, that the conditions were then becoming less propitious for sacrifice and that the Vedic ritual traditions steadily but surely losing their hold on the minds of the people⁵.

As for the continuation of the sacrificial tradition in the Epics and the Purāṇas, two distinct places of that tradition may be indicated. One of these relates to the performance of the sacrifices prescribed by the Veda and systematised by the śrauta texts. Prominent among the śrauta-yajñas, mentioned in the Epics and the purāṇas are the Vajapeya, the Rājasūya, the Aśvamedha and the Sautrāmaṇi⁶. The importance of sacrifice in general is indicated in the Mahābhārata by the mention of the gods having themselves performed the sacrifice. In one passage, Brahmā, Rudra and Śakra are described as having been engaged in performing sacrifices in which dakṣiṇā was liberally distributed⁷. Indra is said to have attained Indrahood and excelled all other gods by performing various sacrifices. Similarly, Mahādeva, who had offered himself as an oblation in a sarvamedha, has his glory spread out in all the worlds⁸. In the epics and the Purāṇas, sacrifices are described to have been performed also by kings and also rarely by sages⁹. Such sacrifices, however, soon receded into the background, because the new religious atmosphere created by the Epics and the Purāṇas was not conducive to their further continuation.

The other phase represents a tradition of the Vedic sacrifice itself, which was considerably altered and adapted to suit the new conditions¹⁰. This modified sacrificial system has a special relevance to our study. The purāṇas refer quite often to the sacrifice performed by Dakṣa¹¹. In the normal Vedic sacrifices Rudra was given rather a peculiar treatment. The god, Who was *regarded as not belonging to the hierarchical Vedic pantheon, did not receive any share in the regular sacrificial oblations¹². Even later, all that he got was the remnants of the oblations. In the post-Vedic period, however, the conditions had changed drastically and Rudra, or rather Śiva, who had become a powerful member of the trinity, could no longer be denied his due share in the sacrifice. We get in the Purāṇas detailed accounts of the punishments meted out to Dakṣa for having refused Śiva his share in the sacrifice all the gods except Śiva¹³. Even these participants were punished by Śiva¹⁴. The matters were set right only after Brahmā had proclaimed that, from that day onwards, Śiva was to be given a prominent share in the sacrifices¹⁵. Thus we may note the coming into existence of a new sacrificial tradition which differed from the regular Vedic tradition, particularly in respect of the allotment of share to Rudra-Śiva. The Mahābhārata refers to the yajñas which were performed in honour of Śiva¹⁶. King Jarāsandha propitiated Śiva by performing a yāga in his honour¹⁷. One

also comes across casual references in the Rāmāyaṇa and the Mahābhārata to the animals offered to Śiva in sacrifices¹⁸.

At the same time, passages are not wanting in the Purāṇas which seek to minimise the importance of sacrifices by means of such express statements as that the propitiation of Śiva by the various methods taught in the Purāṇas is far superior to the performance of the Vedic yajñas¹⁹. This may, in a sense, be said to represent the third phase.

It was but natural that the yajña-tradition in general should become unpopular in the Purāṇas, for these texts essentially reflect a religion of the people at large. A Vedic sacrifice was usually unwieldy and was often beyond the reach of the common man. The Purāṇas, therefore, sought to cater to his needs by providing alternative modes of worship which would be easily accessible to even the average type of devotee. It may also be pointed out that while a vedic Sacrifice held forth the promise, of the fruits to be enjoyed only in the life hereafter, most of the Purāṇic form of worship were believed to yield results during the course of this life itself. In this connection a comparison between Vedic yajña and Purāṇic tapas would prove quite revealing. The Asuras who used to practice tapas by subjecting

their bodies to severe mortification are described to have derived their relevant benefits and to have lived long to enjoy the superiority which they are said to have gained over the Devas²⁰. In the Purāṇas one often reads of the Asuras, who through their tapas, secured boons from the gods and who, on the strength of these boons, often had those very gods at their mercy. It has to be noted that wherever the practising of tapas is mentioned in the Purāṇas, the almost immediate securing of its benefits is also invariably mentioned. This cannot be said to be the case with sacrifice. And if tapas was found difficult to practise there were also other easier but equally efficacious ways of winning the favour of the god. Reference may be made at this stage to another significant point, namely that while yajña concerned itself with several gods at a time, the new modes of worship such as tapas, dhyāna, pūjā, etc. Usually centred round one single god, who usually happened to be one of the Trinity.²¹ As may be easily imagined, this feature of the new worship considerably enhanced its "effectivity".

II TAPAS

The word tapas is of very early occurrence. As early even as in the Rgveda for instance, the seven ṛṣis are referred to as together be taking themselves to the practice of tapas²². Again, in one of the later hymns of the Rgveda, truth and right, and with them the entire universe are said to be born of tapas²³. In the well-known

Nāsadīyasūkta²⁴ also. Tapas is shown to be playing an important role in the matter of the creation of the universe. According to the Atharvaveda, the first born skambha arose out of śrama and tapas and permeated the universe²⁵. We are further told in that Veda that it is through the tapas with which he discharges his duties that the Brahmacārin satisfies his teacher, the gods, and the realms of space, ascends on high as the sun protects both the worlds etc²⁶.

Two significant facts seem to emerge out of these references to tapas in the Rgveda and the Atharvaveda. Firstly, the very small number of references to tapas (particularly in comparison with those to sacrifice) occurring in the Vedic Samhitās would show that the practice of tapas was not wide spread in the Vedic period. At the same time, the connection with the cults of Munis and Brahmacārins clerly suggests the very important role which tapas must have played in the Pre-Vedic non-Aryan religious ideology²⁷. It may be presumed that the Pre-Vedic non-Aryan practice of tapas was temporarily suppressed in the Vedic period but that it again assumed great importance when the Brahmanism of the Veda was superseded by popular Hinduism of the Epics and the Purāṇas. Indeed, the traces of this revival of tapas can be seen even in some Brāhmaṇas and Upaniṣads. It is, however, in the Epics and subsequently in the Purāṇas that tapas may be understood to denote clearly a mode of propitiating god which is resorted to

with a view to winning his favour. One endowed with qualities derived from austerities is called a tapasvin and the power acquired by him is designated as tapobala. Similarly the excellence of tapas is indicated by its being dreadful or by its being practised with untiring perseverance.

The word tapas²⁸ literally means heat, and the semantic development from heat to ascetic fervour and then to asceticism itself is quite understandable. Indeed, it would appear that, even though the term tapas represented, in later times, the manifold forms of mortification, originally heat must have been the most prominent instrument of mortification. Another characteristic of tapas is its close connections with Yoga. The discipline of the mind aimed at by yoga necessarily pre-supposes great austerity on the physical plane implied by tapas. Like some schools of Yoga. The tapas cult of the purāṇas is necessarily centred round a god, and this god is usually one of the three gods. The mortification of the physical body and the subjugation of the senses prevent an undesirable dissipation of energies and there by promote undivided concentration on the god. Self mortification and concentrated meditation on the god are the most salient features of tapas²⁹.

Tapas is represented in the Epics and the purāṇas as a powerful rival of yajña. While in the Epics, one still comes across references to yajña, the

Purāṇas do not seem to give any prominence to it. In these latter works, tapas is definitely assigned a place higher than that assigned to yajña. A statement made by Śiva himself strongly recommends tapas as the most efficacious means of propitiating gods in the Kali age:

Tasmāt sarvaprayanena kalau kuryāt
tape dvijah³⁰.

Indra, who, as Śatakratu, is credited with the accomplishment of a hundred sacrifices, is described in the Mahabharata as having performed his various exploits by means of tapas. In another context in the Epic³¹ Brhaspati is said to have practised tapas to restore Indra to his former ranks. The Mahābhārata also presents to us king Nahuṣa, Who had usurped the office of Indra not through the performance of sacrifices but through tapas³².

At the same time one reads of tapas, which is sometimes mixed up with yajña. In the Mahābhārata, for instance, we are told that a sage practised tapas for a long time, but that the god did not favour him by manifesting himself before the sage. The latter, therefore, offered himself as an oblation on the sacrificial fire. When the sage had, almost put an end to his life, the god became manifest and granted him his desires³³. Through their severe tapas the Asuras propitiated the gods to such an extent that they could obtain from them whatever they wanted, with the exception of immortality. Brahmā

refused the demon Tāraka the boon of immortality, when the latter asked for it after the god had manifested himself before him at the end of his tapas. Brahmā said to the demon:

Na Yujoyate vinā mṛtyum dehino
daityasattama Yatastatopi varaya
mṛtyum yasmān na śa kase³⁴

Svarga may be generally regarded as the principal goal aimed at by the various kinds of sacrifices. But the goals aimed by tapas are almost unlimited. The gods seem to feel compelled to fulfil all the desires of the practitioner of tapas whatever they may be. In a sense, the fructification of both tapas and yajña is mechanical, for if properly practised and performed they do not fail to bring the desired fruits. In both these modes of worship, the gods became subservient to the actual practice and procedure of performance as also to the compelling desires of the performer. In other words, these modes of worship are by no means rooted in devotion, which necessarily implies complete self-surrender of the devotee before the god. Incidentally it may be added that, very often a god like Brahmā, who had been compelled to grant boons, later repented for having done so.

It may be presumed that the practice of tapas originally developed among the forest-dwellers. Subsequently all those who wanted to practise penance betook themselves to the forest. Life in the forest was evidently best suited for tapas. The Epics and the Purāṇas show that it was not only the mortals and the

generation of gods who used to revert to tapas, but even the three great gods- Brahmā,³⁵ Viṣṇu³⁶ and Śiva³⁷- had occasions to resort to tapas. Such references to the three great gods practising penance are highly significant. For they clearly show that tapas was not a mere mode of propitiating some god, but that it possessed an essentially cosmic character. Tapas constituted the most prominent force in all cosmic matter like the creation and the sustenance of the universe. Most of the Vedic references to tapas, given alone, would corroborate such a view.

However, usually the three members of the post-Vedic trinity-particularly Śiva and Viṣṇu -were the gods with reference to whom tapas was practised by the aspirants of the Epics and the Purāṇas. Among such aspirants are mentioned Indra³⁸, Uma³⁹ the Asuras⁴⁰ and the ṛṣis,⁴¹ as also several other persons.

The purposes for which tapas was practised were, according to the Purāṇas, many and varied. The Purāṇas instantly often narrate legends of the Asuras who practised tapas exhibiting thereby immense physical courage to withstand its severe strains,⁴² and in the end secured sufficient power to suppress the gods and to enjoy supreme sovereignty. Umā is said to have practised tapas in order to propitiate Brahmā so that he might change her complexion⁴³. Elsewhere she is said to

have practised penance in order to win Śiva with a view to obtaining a son⁴⁴. Brahmā practised tapas immediately before creation, while Viṣṇu did so in honour of Śiva⁴⁵ in order to obtain the sudarśana-cakra. Śiva himself is described as having practised tapas for the benefit of the beings.⁴⁶ The sages are described to have practised tapas with various definite motives.

The practice of tapas is often shown in the Epics and the Purāṇas as terminating with the god who is propitiated manifesting himself before the practitioner of tapas. Such manifestation of course, depended on the degree of the austerity of the tapas. Through tapas one could, indeed, achieve the sākṣatkāra of Śiva⁴⁷. The siddhas were noted for their immense capacity which they had for tapas. They practised ugra-tapas, as a result of which they enjoyed the vision of the god⁴⁸. The Purāṇas also often describe how, when tapas was practised the fire produced from there began to glow and spread its scorching heat everywhere. Indeed, the fire of tapas is often described as scorching the beings of the world⁴⁹. The god who was sought to be propitiated by means of tapas was as it were compelled to appear before the aspirant and fulfil his desires. It is said that the tapas, which was practised according to the set rules, brought great pleasure to the god. Śiva, for instance, was greatly gratified with the austerities of kṛṣṇadvaipāyana and so granted him his desires⁵⁰. As a matter

of fact, when Śiva was thus pleased, he unhesitatingly granted boons to the devotees⁵¹. As for the traditional rules relating to the practice of tapas mentioned above, it may be pointed out that, apart from the special austerities, certain general conditions have been laid down in different contexts in the Epics and the Purāṇas. First of all, such times and environments are to be chosen for the practice of tapas as in no way conducive to the comforts of the practitioner⁵². For instance, during the hot season, tapas was practised with flaring fires all around; while, during the cold season, it was practised with the body immersed in ice-cold water up to the knee or the neck. Rough garments, such as the barks of trees, constituted the apparel and food was strictly restricted or was entirely given up⁵³. The essential characteristics of tapas are, so to say, summarised in a Purāṇa as follows:-

Brahmacaryam tapo maunam
nirāhāratvam eva ca,
Ityetat tapaso mūlam sughoram
taddurāsadam.⁵⁴

The two passages reproduced below-one from the Mahābhārata, and the other from the Matsya-Purāṇa may be regarded as representing, in broad outline, the concept of tapas of the respective periods:

Tapasyugre vartamānah ugrate -jo
mahāmanāh
Darbhacīram vivāsyatha daṇḍa
jinavibhūṣitah
Pūrṇe pūrṇe triarātreṣu māsamekam
phalāsanah

Dviguneṇaiva kālena dvitīyam māsam
atyagāt

Tṛtīyam api māsam sa
pakṣeṇāhāramācaran

Śirṇam ca patīcam bhūmau parṇam
samupayuktavān

Caturthe tvatha samprāpte māsi pūrṇe
tatah param

Vāyubhakso mahābāhur abhavat
pāṇḍunandanah

ūrdhvabāhur nirālambah
pādāṅguṣṭhāgraviṣṭhitah

Sadopaṣpaṛśanāccāsyā babhūvur
amitaujasah

Vidyudambhoruhanibhā jaṭāsyasya
mahātmanah⁵⁵

Sthāṇubhūtohyanimiṣah

śuskakāṣṭhopal opamah

Saniyamendriyagrāmam avatiṣṭhat
anīścalah

Atha tasyasivam anīśam tatparasya
tadāśiṣah

Sahasramekam varṣāṇām divyam
apyabhyavaratata

Valamīkena samākrānto bhakṣyamāṇah
pipīlikih

Vajrasūcimukhais tīkṣṇaiḥ
vidhyamānas tathāivaca

Nirmāmsarudhiratvaḥ ca
kundasaṅkhendusaprabhah

Asthīśeṣo bhavat sarvām deham vai
cintayannapi.⁵⁶

Now to speak more specifically about tapas as a mode of worshipping Śiva, one finds quite a large number of allusions to it in the Epics and the Purāṇas. The Mahābhārata tells us that tapas had to be practised in order to

propitiate Śiva and thus win his favour.⁵⁷ Arjuna, for instance, practised

Tivratapas and won Śiva's favour. He was eventually, granted the famous

weapon by Śiva himself.⁵⁸ Similarly, Śiva appeared before Ambā in response

to her tapas.⁵⁹ Drupada is also said to have propitiated Śa kara by means of

his tapas and achieved his aim⁶⁰. As soon as Nārāyaṇa was born, he

practised tapas and gratified Śiva⁶¹. Aśvāthaman also is represented as

having himself practised penance in order to propitiate Śiva.

Kṛṣṇadvaipāyana practised tapas and Śiva granted him a son. It is said that,

during his severe austerities, the sage showed no signs of fatigue at all⁶².

Special mention may be made of the tapas practised by Arundhatī. As the

result of her tapas Śiva manifested himself before her and proclaimed that

her punya was far greater than what the sages had acquired during the

preceding twelve years⁶³. As a matter of fact, Śiva when pleased through

tapas, is described as bestowing boons unhesitatingly on any and every

devotee⁶⁴.

From among the Purāṇic references to Śiva having been propitiated by means

of tapas, the following may be regarded as typical: On the advice of Bhṛgu

Rāma retired to Himavat, established an āśrama there, and practised tapas to

win Śiva's favour⁶⁵. Yama, the god of death also practised tapas in honour of

śiva⁶⁶. Kālī practised tapas to obtain śiva as her husband⁶⁷. The intensity of the tapas to be practised by the goddess is said to be indicated by her name Umā⁶⁸. Her mother feared that the austerities would greatly oppress her tender body. She, therefore, constantly accosted her and advised her to desist from them, but Umā refused to do so. The Yogis and the tāpasas are often described in the purāṇas as meditating on śiva and worshipping him to have their desires fulfilled⁶⁹. According to the Śiva-Purāṇa, the sage Upamanyu told Kṛṣṇa categorically that tapas alone could bring him a boon from śiva⁷⁰.

It, has however, to be noted that the cult of tapas had begun to grow unpopular in the Purāṇic period itself. For, the references to tapas, in these texts tend to become rarer gradually. After all, tapas, which demanded a severely austere life and physical mortification, could not have ever become the common religious practise of people in general. Other popular and easily accessible modes of the propitiation of god, therefore came to be brought in vogue. Of course, as will be shown in the sequel, a few characteristics of tapas did find their way into these popular forms of worship⁷¹.

III TĪRTHĀS

The word tīrtha literally means passage, way, road or ford. It also denotes the stairs for landing from or

descent into a river. It then came to mean a bathing place as well. Ultimately a tīrtha acquired the sense of a place of pilgrimage situated on the banks of sacred streams. The Epics and the Pūrāṇas speak of several tīrthās. Actually these works devote several chapters to the enumeration and description of these holy places⁷². All such accounts are usually concluded with a proclamation that pilgrimage to these places would bring immense merit⁷³. These tīrthās are normally associated with certain specific gods, whose immediate presence there is believed to add to the sanctity of these places⁷⁴. Among these gods, Brahmā, Viṣṇu, and śiva particularly the last two are by far the most prominent. They have quite a number of tīrthās connected with them. Other gods tend to disappear gradually. These tīrthās are scattered all over the country, and pilgrims from all parts visit these places. It is interesting to note in this connection that just as the association with a particular god enhances the sanctity of a tīrtha, the pilgrimage to that tīrtha tend to enhance the popularity of that god. As has been pointed out elsewhere, the advent of the tīrtha-cult has contributed not a little to the high position in which Purāṇic trinity-Brahmā, Viṣṇu and śiva – had been established. This simple, to some extent, also exciting method of the propitiation of the gods, namely, periodically visiting the various sacred places, which was practised by a large number of pilgrims throughout the year

and every year, resulted in the continuity and the consequent perpetuation of the memory of these gods. For, so long as the gods continued to have connection with these places, they were not likely to pass into oblivion.

In our present context the tīrthas are regarded as constituting a type of ritual. Such a characterisation of the tīrthas may not be said to be quite unwarranted. For, visits to the tīrthas imply certain ceremonial observances and also the worship of the gods with whom those places are associated. From this point of view, they can be included among the religious practices of the Hindus. Indeed, they occupy a prominent place among such practices. Simple to perform, but by their very nature constituting an exciting experience, the pilgrimages to the tīrthas were always preferred to the elaborate complexities of the Yajña of the severe austerities of the tapas. Merit gained through visits to the tīrthas was immense and was often proclaimed to be superior to that brought about by the yajñas⁷⁵.

The number of tīrthas, that are regarded as sacred on account of the association with Śiva and other ancillary divinities of śaivism is, indeed, great⁷⁶. They are to be found scattered all over the country. The Mahābhārata mentions various tīrthas with which Śiva⁷⁷ and Kārttikeya⁷⁸ are connected. To those who propitiated him at these places, Śiva granted gāṇapatya, the highers

rank to which a devotee of Śiva was entitled⁷⁹. The immediate presence of the god at such places is repeatedly emphasised⁸⁰. Even Brahmā propitiated Śiva at these places⁸¹. Vārāṇasī is, however, by far the most important of the śaivatīrthas. With reference to Vārāṇasī it is claimed that the sin incurred elsewhere is wiped off by undertaking a pilgrimage to that place⁸².

We may now briefly describe the typical form of ritual – particularly so far as it concerns god Śiva – which is implied in the tīrtha – yātrā. To begin with it may be pointed out that, like tapas, tīrtha-yātrā also precludes the enjoyment of all comforts⁸³. A fully disciplined life is enjoined on the person who goes on tīrtha-yātrā. Keeping under restraint one's hands, feet, and mind and also tapas and fame is proclaimed as being necessary for gaining the fruits of tīrtha-yātrā⁸⁴. It has also been laid down that a true pilgrim should show complete aversion to pratigraha and keep his sense-organs under control, and take only light food. It is only when a tīrtha-yātrā is thus carried out in a more or less austere manner that a person obtains the fruits otherwise achieved by performing all kinds of sacrifices. A pilgrim is, indeed, expected to possess all kinds of virtues⁸⁵.

As has been mentioned elsewhere, the tīrthas are generally located in the vicinity of waters – on the sea-shore, on the bank of a river or by the side of

a lake. A bath in these holy waters constitutes an essential feature of the ritual of the tīrtha-yātrā⁸⁶. Such a bath is supposed to wash off even the most direfind of sins. Along the banks of these rivers ect., are usually installed the li gas of Śiva. The bath in the holy rivers is, therefore, closely followed by the worship of these liṅgas⁸⁷, in which the immediate presence of śiva is definitely assumed. In this, perhaps, one may see the earliest traces of the temple-cult of the Hindus, which later developed rich and varied traditions and which rapidly expanded itself all over the country. These li gas, installed along the banks of rivers ect., were probably afforded shelter by the trees which grow there. When, however, the peculiar form of worship associated with the li gas was gradually consolidated and became more and more popular, some kind of permanent structures began to be built for the installation and worship of the god. It must be noted that even these structures sought to retain, in some form or other, these original features, namely the river and the tree, to which great sanctity had been ascribed. The temple worship of Śiva in the South is always centred round the li ga. A temple dedicated to this god is significantly designated as⁸⁸ tīrtha. The temple in the South invariably has some river associated with it. It also has a tree specially assigned to it⁸⁹. This tree stands, in most cases, immediately behind the garbhagrha or the central shrine. The Purāṇas, which

specifically belong to these various temples, elaborately proclaim the glories of the sthala, the tīrtha, and the sthala-vṛkṣa and the mūrti of those temples.

The merits acquired by the visits to and the observances and worship at the tīrthas are often described in great detail⁹⁰. Even more thinking and remembering of these sacred places is said to constitute a meritorious act. The sight of them destroys all sin, while bathing there brings immense merit, even to those who have committed highly despicable deeds⁹¹. Those who remember the gods in these places, give special pleasure to the gods, and, we are also told that those who bathe at those places, have all their desires fulfilled. Among these desires are mentioned progeny, mokṣa or svarga, destruction of sin, in short, all pleasures in this world and the hereafter. As mentioned in an earlier context the merits acquired by performing various yajñas are easily attained by visiting the tīrthas⁹².

IV STOTRAS

Stotras are verses of praise. They glorify in various terms, the greatness of the gods. The formal enumeration of the many exploits of the gods, narrated in the Epics and the Purāṇas, also share the characteristics of the stotras. Several poet-saints both of the North and the South, the latter in particular, have composed stortas in praise of the great gods and the ancillary divinities. These stotras are composed for the

most part in the languages prevalent in the respective parts of the country. In the South, the saints, who are well known as Nāyanmārs composed verses of praise called *tevārams*. These are permeated, in a remarkable manner, with Purāṇic ideas.⁹⁸ Recitation of *stotras* has found a distinct place among the Hindu forms of worship. This mode of worship could be easily practised, and the householders to whom the tirthas tapas and yañja were not ordinarily accessible, found this method of propitiating the gods most suitable. Even today, many householders are seen to engage themselves, after the daily abutious, in reciting *stotras* – particularly those which relate to their own particular family god or goddess. The parayana of the Sahasranama *stotras* of Vishnu Śiva, and Lalitha (Sakti) most of which have to find place in the Puranas⁹⁵, is a regular feature of the daily worship by a devout hindu.⁹⁶

The origins of the *stotra* may be traced back to the *Rgveda*. The *stotras* like several hymns of the *Rgveda*, sing the glorious deeds of the god concerned. However, apart from this their essential nature, both the Purāṇic *stotras* and the vedic hymns also consist of implorings, on the part of the devotee, for god's favours - the only difference perhaps being that while, in the Purāṇic *stotras* there is an emphasis on favours in this world as well as in the next, the Vedic hymns mostly pertain to favours in this world only. The *stotras* are also generally characterised by a sense of

sinfulness, an attitude of complete self-surrender and an earnest longing for personal communion with god on the part of the devotee. In other words, *bhakti* is the key-note of these *stotras*⁹⁷. We are told in the *Linga-Purāṇa*⁹⁸, how Brahmā and Viṣṇu sang in praise of Śiva, how the latter manifested himself before them, and how when Śiva had offered them boons, both of them asked for nothing but devotion to Śiva. Brahmā is said to have them said: Tvayi bhaktim parām medya prasīda parameśvara.

In another context in the same Purāṇa,⁹⁹ Umā raises the question as to by what means Śiva's favour can be obtained by the devotees. Neither *tapas* nor *vidya* nor even *yoga* is recommended as the way to win the god's favour: *bhakti* alone is mentioned as the most efficacious means in this connection. In the Purāṇas these songs of praise, which are usually preceded by the bowing down of the head¹⁰⁰, are put into the mouth of the oppressed ones-sometimes the Devas and sometimes the Asuras. For instance, at the hour of final destruction, the Asuras are said to have repented for their many misdeeds and to have glorified Śiva with various verses of praise. Pleased with their devotion the god ultimately elevated them to the rank of *gana*¹⁰¹. From among the most significant *stotras* or songs of praise, found in the Epics and the Purāṇas, the following may be specially mentioned:

CONTENTS	REFERENCE
Kṛṣṇa and Arjuna praise Śiva	MBh.VII. 80.55-65.
Nārāyaṇa glorifies Śiva	Ibid.VII. 201.72-78.
A glorification of Śiva	Ibid.VII. 1.50.
Taṇḍin glorifies Śiva	Ibid.XIII.16.13 -66.
Śivasahasranāmastotra	Ibid.X. 17.1-182.
Kṛṣṇa glorifies Śiva	Harivamsa 74.22-34
The gods glorify Śiva	Ibid.1.34
Viṣṇu praises Śiva	Ibid.16.38.
The devas pray to Śiva and request him to free them from bondage of the Asuras	Ibid.III. 13.1-83.
Sahasranāmastotra	Brahma P.38
Paraśurāma glorifies Śiva	Brahmaṇḍa P.25.5-32
Andhaka glorifies Śiva	KurmaP.1. 16.194-206
Brahmā and Viṣṇu glorify Śiva	Ibid.I.26.78-93
Sakuntalā praises Śiva	Ibid.I.34.36-45.
Brahmā praises Śiva	Ibid.II.31.49-53
The sages praise Śiva	Ibid.II.39.21-32
Brahmā praises Śiva	LiṅgaP.I. 10.44-73
Viṣṇu glorifies Śiva in verses which contain one hundred names of the god	Liṅga. P.I.96

A <u>stava</u> in which Śiva, Umā and Nandin are glorified; this is termed as <u>Vyapohastava</u>	Ibid.I.82
The gods glorify Śiva and attribute to him the qualities of the Brahman	LiṅgaP.I.71.10 0-114.
The sages at Dāruvana sought Śiva's pardon by repeating the names of the god.	Ibid.I.32
The Devas and the Asuras jointly praise and seek the god's protection from the poison which was produced as a result of the churning of the milky ocean	MatsyaP.250.2 8-40.
Bāṇa prayed to Śiva and sang verses composed in the trotaka metre noted for its rhythm.	Ibid.188.63-67
The thousand names of Śiva	Śiva P.Jnāna-Smṛhita 71.1-166
Kāvya, the preceptor of the Asuras falls prostrate before Śiva and praises him.	VāyuPII.35.16 0-203
Brahmā and Viṣṇu glorify Śiva	Ibid.I.24.84-164.
Viṣṇu proclaims the achievements of Śiva	Ibid.I.24 50.88

Śiva is glorified by Brahmā	Ibid.I.27
Dakṣa praises Śiva and recites verses containing one hundred and eight names of Śiva	Ibid.I.30.180-284
The gods praise Śiva	Sūta-samhitā I.1-56

Even as literary productions the stotras must be assigned a special place of their own in the History of Sanskrit literature. They are often characterised by great poetic merit and musical quality. Such excellent religio-literary compositions are by no means rare in the Purāṇas themselves. For instance, the verses sung by Nāṇa in praise of Śiva¹⁰² may be cited as a striking example of religious lyrics. They are replete with both śabda and the arthaalankaras. Similarly, the Viṣṇu-sahasranāma-stotra and the Lalitasahasranāmastotra are both noted for a remarkable blending of poetry, religion and philosophy. It is also worth noting that the authors of these stotras sought to enhance the dignity, sanctity and authority of the stotras by incorporating within them several Vedic and other mantras. In course of time, the stotras themselves attained the character and status of the mantras. A devout repetition of the stotras, like that of the mantras, was believed to bring immense merit which could otherwise be acquired only by means of far more difficult modes of worship. The phalaśruti¹⁰³ appended to the

stotras-especially the sahasranāmastotras-proclaim the merit resulting from their recital¹⁰⁴.

IV. DHYĀNA

Dhyāna is usually regarded as an essential accessory of other religious practices, such as tapas,¹⁰⁵ yoga, and pūjā¹⁰⁶. Nevertheless it deserves to be classed as a separate form of worship. For, the purāṇas often speak of the dhyāna as an independent method of propitiating the god and winning his favour. In the Kūrma-Purāṇa, for instance, the dhyāna of Śiva is especially prescribed¹⁰⁷. Dhyāna is actually referred to as the highest religious practice,¹⁰⁸ and is, indeed, specially mentioned in connection with the Kali age¹⁰⁹. The Mahābhārata mentions dhyāna as a religious practice, along with japa¹¹⁰.

The importance of dhyāna as an independent religious practice is clearly pointed out in the Mahābhārata, where it is mentioned side by side with yajña, sanyāsa, dāna and prati-graha¹¹¹. Actually the manner in which dhyāna is mentioned in this context would seem to suggest that the author of the Mahābhārata regarded it as superior to the other religious practices mentioned there. This is confirmed in unequivocal terms by a purāṇic passage, where various types of yajñas are enumerated, and dhyāna is exalted as the best among them.

Yāvajjnanasya samprāptis tāvāt karma samācaret.

Karmaya jñasahasre by as tapaya jno visisyate

Topoya jnasahasrebhyo japayajno
visiṣyate.

Japaya jñasahasrebhyo dhyānayajño
visiṣyate.

Dhyānayajñāt param nāsti dhyānam
jñānasya sādhanam¹¹².

The yatis are, accordingly, advised to
take recourse to dhyāna¹¹³. It is further
claimed, in that very context, that
dhyāna which is the highest form of
worship destroys sins of all kinds.

Dhyāna plays a particularly important
role in the religion of Siva. The vāyu-
Purāṇa expressly states that meditation
on Mahesvara and that practice of yoga
are the only ways of warding off the
evil effects of ariṣṭas¹¹⁴. In the same
Purana, Siva is shown as exhorting
Brahmā that dhyāna is the only way
which can lead the devotee to a vision
of himself¹¹⁵. Elsewhere Siva
Proclaims to Brahmā that the only way
of perceiving him is dhyāna. This is
specially prescribed for the mortals:

Tapasa naiva vṛttena
dānadharmaphalena ca.

Na tīrthaphalabhogena kratubhir vā
pradakṣinaiḥ

Na vedādhy ayanair Vāpi na vittena ca
vedanaiḥ.

Na śakyam manavair draṣṭum ṛte
dhyānād aham tvidam¹¹⁶.

Meditation of a very subtle character is
described in the Linga-Purana¹¹⁷.
Elsewhere in that Purana the japa-
murmuring of Siva's names is also
prescribed¹¹⁸ in the course of
meditation. Indeed, great emphasis is
laid on the indispensability of dhyāna
in all modes of worshipping Śiva. The

following account of dhyāna, which
speaks of the identity of the self with
Śiva, is significant in this connection:

Dhyānaniṣṭhasya satatam naṣyeta
sarvapātakam.

Tasmān Maheṣvaram dhyātvā
taddhyānaparamo bhava.

.....
.....

Nānyam devam mahādevad
vyatiriktam prapaśyati.

Tam evam ātmanātmēti yah sa yāti
param padam.

Manyate ye svam ātmānam vibhinna
paramēṣvarāt.

Na te paśyanti tam devam vṛthā teṣam
pariśramah¹¹⁹.

VI. VRATAS

The observance of vratas became
particularly popular religious practice
in the Epic and the purāṇic periods.
Accordingly, there have been
prescribed in the purāṇas various kinds
of vratas which are intended for the
propitiation of the great gods, Brahmā,
Viṣṇu and Śiva, and other ancillary
divinities. The present context does not
call for any discussion about the origin
of the concept of vrata. Suffice it to say
that vrata is tapas in a miniature form,
for the underlying idea of vrata, like
that of tapas, is a rigorously disciplined
religious life. Of course, the austerities
implied in vrata are by no means as
severe as those demanded by tapas.
Vrata is indeed, a kind of tapas, which
may be practised even by ordinary men
and women. It does not involve like
tapas continuous rigorous practice. It is

a periodical observance, and its main features may be said to be a code of restriction in respect of the normal amenities of life and a particular mode of worship. Specific vratas are prescribed in connection with specific times in the course of the year; they thus constitute as it were an annual religious calendar.

VII. PŪJĀ

The Epics and the purāṇas speak for the first time of pūjā as a form of worshipping the gods¹²⁰. Generally speaking, this form of worship seems to have been originally restricted only to the great gods, with the exception of Brahmā¹²¹. However, the ancillary deities of the śiva cult, namely, Gaṇeśa, Kārttikeya and Śakti, are also represented in the purāṇas as having received the honour of being worshipped in this form. The sun-god is identified sometimes with Śiva and sometimes with Viṣṇu; probably of account of this identification this god also is offered pūjā. Thus the pañcāyatanapūjā, that is to say, the worship of the five gods, Gaṇeśa, Sūrya, Viṣṇu, Śiva and Śakti has been widely prevalent all along. This pañcāyatanapūjā must be dated back to fairly early times; for the god Śiva himself, is said to have started it¹²². So far as the Śiva-Pūjā itself is concerned, its popularity becomes quite evident from the many references to it occurring in the Epics and the Purāṇas¹²³.

By and large, the pūjā as reflected in the Epics and the Purāṇas may be equated with upāsana¹²⁴, saparyā, ārādhanā¹²⁵, or arcanā¹²⁶. This form of worship involves the employment of a variety of Pujopakaraṇas and pūjāsambhāras. These include many kinds of utensils, flowers, sandal¹²⁷, dhūpa, dīpa¹²⁸, and the various articles of upacāra¹²⁹, such as darpaṇa, chātra, cāmara, vyajana, patāka and tālābrnda. Śankha and ghaṇṭa are also mentioned as accessories of the pūjā¹³⁰. In course of time, the pūjā-rituals came to be further elaborated. The idol of the divinity constitutes the essential basis of all pūjā-rites. Vedic mantras were often recited to accompany these rites. For instance, Vedic mantras were recited when the idol was bathed or when the naivedya was made and the upacāras offered to it. Thus the same kind of connection was attempted to be maintained between the pūjā and the veda¹³¹.

The pūjā form of worship which, in its initial stages, was presumably more or less simple,¹³² became more and more elaborate, particularly in the case of śaivism. The Āgamās¹³³ seemed to have paved the way for such elaborated system of worship. They laid down that Śiva could be conceived and worshipped in various ways. The three Āgamas, namely, the Kāraṇa, the Kāmika and the Suprabheda, have described in detail the various images of Śiva¹³⁴. They also describe the rituals relating to the installation (pratiṣṭhā) of these images. These three

Āgamās concern themselves, for the most part with the rituals relating to these images. Such rituals are of two kinds, namely, those which are to be performed daily (nitya), and those which are to be performed on special occasions (naimittika). The process of the elaborations of the pūjā-ritual relating to Śiva which seems to have been elaborately explained in the pūrāṇās may be said to have reached its origin in the Āgamic Śaiva rituals. These will be reviewed presently under the four division into which the āgamic ritualism is divided, namely karṣaṇa, pratiṣṭha, utsava, and prāyascitta.

As indicated above, in the Epics and the Purāṇās we do not come across the full-fledged elaboration of pūjā of the Āgamās. We see, in these works, the pūjā ritual only on its early development and growth. As a matter of fact, the Epics make but very curt references to this form of worship. In some passages of the Mahābhārata, mere pūjā is mentioned, for instance:

Bhagavān pūjyate cātra hāsyarupena śaṅkarah¹³⁵. also

Pūjyate tatra śaṅkarah¹³⁶.

Elsewhere it is said that, when kṛṣṇa entered the apartments after consoling Subhadrā, who was mourning the death of her son, the paricārakas offered the tryambakabali to śiva¹³⁷. This is one of the very few instances where Śiva is described to have been offered bali¹³⁸.

On the other hand, the importance of the pūjā is fully realised and frequently proclaimed in the Purāṇās. In the following statement from the Linga-

Purāṇa, the pūjā -cult is represented as being far superior to the sacrificial cult: Smaraṇam pūjanam caiva praṇāmo bhaktipūrvakam.

Pratyekam aśvamedhasya yajñasya samam ucyate¹³⁹.

Elsewhere, Viṣṇu is described to have worshipped śiva with flowers to the accompaniment of the recital of the one thousand names of śiva¹⁴⁰.

Pūjā seems to have been the main- or perhaps the only - form of worship employed in respect of the Li ga. It may be mentioned in this connection that the pūjā of the Li ga did not differ from the other types of pūjā. The importance of upāsana in general is pointed out in the Li ga-Purāṇa, but, special emphasis has been placed there on the Śiva-pūjā¹⁴¹. The skanda-Purāṇa gives a detailed description of the Śiva-pūjā¹⁴². The advantages of worshipping śiva and the disadvantage of not worshipping him are often recounted¹⁴³. Various details of the Purāṇic Śiva-pūjā would become clear from the following passages:

Sampūjya śivabhaktena tryambakena śubhena ca.

Japtvā tvaritarudram ca śivasamkalpam eva ca

Nilarudram ca śakteyah tathā rudram.....¹⁴⁴.

Ārādhayan mahādevam bhāvabhūto maheśvaram

Mantreṇa rudragāyatrīṇa praṇavenātha vā punah.

Īśānenāthavā rudraih tryambakena samāhitah.

puṣpaih patraih tathādbhir vā
candanādyair maheśvaram.

Uktvā namahsivāyeti mantrenānena vā
japet.

Pradakṣiṇam tatah
kuryāt.....

Dhyāy ita.....¹⁴⁵
.....

Devatābhyarcanam kuryāt puṣpaih
patreṇa cāmbunā¹⁴⁶.

Svamantrair arcayed devān puṣpaih
patraih tathāmbubhih.

Brahmāṇam śankaram.....¹⁴⁷

flowers, dhūpa, dīpa, and naivedya are often specifically mentioned as the requisites of the pūjā¹⁴⁸. Pūjā with gandha, puṣpa, and akṣata occurs in the Śiva Purāṇa¹⁴⁹. Various other aspects of the pūjā, such as namaskāra, pradakṣiṇa and nyāsa are found in the Purāṇas¹⁵⁰. Bhūtasuddhi and nadīśodhanā are among the rites mentioned in the Devibhāgavata-Purāṇa¹⁵¹. In the Skanda-Purāṇa pañcāmṛta and śankhodaka are referred to in connection with the bathing of the image¹⁵².

Two chapters in the Śiva-Purāṇa contain a detailed description of the bathing (snapana) of the idol of Śiva¹⁵³. Bathing the image with pañcagavya is mentioned in the Linga-Purāṇa¹⁵⁴. A description of the bathing of the image with the waters of the kumbha or the kalāśa is given in the Matsya-Purāṇa¹⁵⁵. The Skanda-Purāṇa has laid down that all the upacāras be offered in connection with Śiva-Pūjā¹⁵⁶, and this

practice is still followed in the temples of the south.

Pūjā seems to have been the main - or perhaps the only- form of worship in respect of the Li ga. It may be mentioned in this connection that the pūjā of the Li ga did not differ from the other types of pūjā. The following passage would give an idea of the pūjā offered to the Li ga:

Vaidikair eva niyamair vividhair
brahmacāriṇah.

Samsnāpya sāṅkarair mantrair ṛgya
juhsāmasāmbhavaiḥ.

Tatah param samāsthāya gr̥ṇantam
śatarudriyam.

Samāhitāh pūjayadhyam saputrāḥ
sahabandhubih¹⁵⁷.

It may be pointed out that the various rites and religious practices of the Epics and the purāṇas which have been described earlier in this chapter, such as yajña, tapas, tīrthās, stotrās, dhyāna, and vrata are harmoniously blended into the pūjā-ritual, for, in the fully developed form of that ritual, which is best recorded in the Āgamās, we find a reflection of all of them. It is this fully developed form of pūjā, which is prevalent in the temples of the South. As mentioned elsewhere, the Āgamās, which are regarded as the principal authoritative texts dealing with the pūjā ritual, are twenty-eight in number¹⁵⁸. However, of these twenty-eight Āgamās, only a few have become available. And out of these which are available, only three, namely, the Kāraṇāgama, the Kāmikāgama and Suprabhedāgama are particularly important for the study of the rituals¹⁵⁹.

The Āgamas have given rise to several manuals of paddhatīs, which help the worshippers with many details of a practical character in connection with these rituals¹⁶⁰.

It will be seen that many essential constituents and accessories of the Āgamic Śaiva ritualism occur in the purāṇās in connection with the worship of Śiva: An indication of some of these has already been given elsewhere in this study. A few more may be referred to at this stage. The bilva tree, for instance, is represented in the purāṇās as being sacred to Śiva¹⁶¹. The tri-leaves of the trees are, therefore, offered to the god in Pūjā. Similarly, bhasma the holy ash is mentioned in the Purāṇās as being of high significance to the Saivites¹⁶². Great importance is attached to the rudrākṣa beads¹⁶³. These are worn with great reverence by the devotees of Śiva especially during the performance of the Pūjā. The pañcākṣarās are the five sacred letters, which express obeisance to Śiva, and in the Purāṇās, they are regarded as superior even to the Veda¹⁶⁴. It is the mūla-mantra, the most

fundamental of all the mantras associated with Śiva. The purāṇās also describe the dikṣā rites, only after going through which, persons are admitted within the fold of Saivism¹⁶⁵. It is only on becoming properly initiated by means of these rites that a devotee can engage himself in the pūjā of Śiva. Some other accessories of the Āgamic Śaiva rituals, such as āsana, pādya, arghya, ācamanīya are also mentioned in the purāṇās¹⁶⁶.

But perhaps more vital element of the Āgamic Śiva ritualism, faint traces of which are found in the purāṇās are mantrās, yantrās, maṇḍalās, kundās and mudrās. Mantras, which deserve a specialised study.

Emphasis, however, should be made that the epics and the Purāṇas, form a set of commentary literature, elaborately explaining and discussing the subject matter which Āgamas expound some what curiously in their characteristic way. This leads to the obvious conclusion that the familiarity with the Epics and the Purāṇas is indispensable for the thorough understanding and the Āgamic texts which belong definitely to much earlier period.

1. Excepting the Buddhists, the Jains and the Cārvakas, all the other schools of thought, both religious and philosophical, regard the Vedas with high Veneration. In later religious sects, in an enthusiasm to glorify bhakti, the Vedas are much belittled.

2. Cf.

Vācayitvā dvijaśreṣṭhān dadhipātraghṛtākṣataih
Niskair gobhir hiraṇyena vaobhiś ca mahādhanaih
Vardhamāna jayāśīrbhih sūtamāgadha vandibhih

MBh VIII.1.12.

Istam me bahubhir yajñaih dattā vipreṣu dakṣiṇāh

Ibid IX.5.27

Brāhmaṇās tatā loke , sminnarcanīyāh sadā mama.

Ete bhūmicarā devā vāgviṣā saprasādakāh

Ibid XII.39.38

3. Brāhmaṇān vācayethās tvam arthasiddhijayāśīṣah

MBh. XII.72.5.

4. It was, of course not to be expected that the faith in such a deep-rooted religious institution like sacrifice would be demolished all of a sudden.
5. The Trimūrti-cult, for instance, presumes the subordination of Indra, Agni and all other Vedic gods, who are afforded high places in the sacrifice.
6. The Mahābhārata contains more specific references to actual performance of sacrifices. King Mahabhiṣa is said to have performed one thousand sacrifices and one hundred vājapeya sacrifices and thereby incurred the pleasure of Indra and thus attained svarga. MBh I.91.2. The Pāṇdavas performed the rājasūya sacrifice. Ibid I. 1.84-85. Bharata performed many sacrifices, and in this respect he is said to have resembled Indra. Ibid 1.69.7. Other references to sacrifices are: Ibid I.48.4-10; III.187.8-9; 3.121.1-8 III.27.14 and so on. Frequent are the references that are found

to the (Vedic) sacrifice performed by Dakṣa, and in it Śiva was refused his share. Among the many references to the Aśvamedha the following may be cited: Padma P. Pātāla khaṇḍa, 44. Brahma P.II.57; Li ga P. II.1.6-7. The following quotations indicate how the sacrifices in vogue during the purāṇic period, had a strong rival in the li ga-form of worship:

Pade pade yajñaphalam sa prāpnoti na samśayah

Vāmana P.46.17.

Li'n gasya darśanādeva agniṣṭomaphalam labhet.

Ibid.46.33

Smaraṇam pūjanam caiva praṇāmo bhaktipūrvakam
Pratyekam aśvamedhasya yajñasya samam ucyate.

Linga P. II.1.6-7.

Sāutrāmaṇeśa yajñasya phalam prāpnoti mānavah.

Matsya P. 183.75

Vājapeyaśatair iṣṭvā yallabheta dvijotamah
Vipro li gatrirātreṣu madbhaktyā tadaśnute
Aśvamedhasahasraiś ca samyag iṣṭvā ca yat phalam
Masena tad avāpnoti

Siva P. Sanatkumāra-samhitā, 14.48-62.

7. Tatra brahmā ca rudraśca sakraścapi sureśvarah
Sametya vividhah yajnaih yajñate nekadakṣinaih

MBh. VI.7:17.

8. Yajñair indro vividhair annavadbhir
Devān sarvān abhyayān mahaujāh
Tenendratvam prāpya vibhrājate śau
Tasmād yajñe sarvamevopayojyam
Mahādevah sarvamedhe mahātmā
Hutvātmānam devadevo vibhūtah

Viśvān lokān vyāpya viṣṭabhya kīrtyā
Virocate dyutimān kṛttivāsāh

MBh XII.20.11-12

9. Tena yajñair bahuvidhair iṣṭam paryāptadakṣiṇaih
Sa rājā vīryavān dhīmān avāpya vasu puṣkalam

'MBh. VII.58.3

Śibi, a regular performer of sacrifice, was favoured by Rudra.

MBh. VII.58.12-15

10. Ramaswamy Sastri, in his paper entitled, "The Āgamic advance on Vedic Thought, draws our attention to the fact that "very few of the Vedic sacrifices have survived, though abundant lip homage is paid to them. They have been supplanted and transcended by Āgamic rituals, and sacrifices and other sādhanaś". See Kunhan Raja presentation Volume, p.77.

11. MBh. X.18.1-26. also XIII. 160. Brahma P.I.32,also 37.
Brahmaṇḍa P.I.13;Bhāgavata P.IV.5. Garuda P. I.5.35-38.
Hariv mśa III.32 Kālikā p.17. Kūrma7 P. I.14 and 15.
Li ga P. I.96 and 100. Śiva P. Jñāna-samhitā 7.
Ibid. Vāyu-Samhitā 15-20. Skānda P. I. 3 and 4
Vāmana P.5 Varāha P. 21 Vāyu P. I.30

12. Cf. Dandekar, "Rudra in the Veda" JUPH 1,pp.97.

This treatment which is reflected in the references given in FN 2, is clearly recorded in the following verses:

Yasmāt tyam matkṛte niṣṭam ṛṣiṇām kṛtavānasi
asmāt sārddham surair yajñe na tvām yakṣyanti vai dvijāh
Hutvāhutim tava krūra hyāpah sprakṣyanti karmasu

Brahmaṇḍa p.II.3.73

13. He cursed that Dakṣa be born a mortal. Garuda P. I.5.35-38.

14. Kūrma P. I. 15.49-80; Varāha P. 21.39-77.

15. Evam uktvā hariharau tadā lokapitāmahah
Brahmā lokān uvācedam rudrabhāgo sya dīyatām.
Rudrabhāgo jyeṣṭhabhāga idīyam vaidikī śrutih
Stutim ca devāh kuruta rudrasya parameṣṭhinag

Varāha P. 21.66-67

16. Sa katham mānuṣair devam yaṣṭum icchasi śa□karam

MBh. II.20.8-10

17. MBh. II.13.63.

18. While searching for Sītā Hanumat is said to have grown desperate and to have remarked:

Rāvānam vā vadhiṣyāmi daśagrīvam mahābalaṃ
Kāmam astu hṛtā sītā pratyācīṇam bhaviṣyati
Athavainam samutkṣipyā uparyupari sāgaram
Rāmāyopahariṣyami paṣum paśupateriva

Rām. V.13.49-50

The Mahābhārata refers to the offering of animal-offerings to Rudra:

Atraiva rudro rājendra paśum ādattavān makhe
Rudrah paśum mānavendra bhāgo yam iti cābravīt
Hṛte paśau tadā devāstamūcur bharatarṣabha
Mā paraśvamabhidrogdhā mā dharmān sakalān naśīh

MBh III.114.7-8

19. Vārāṇasī jāhnavībhyāṃ saṃgame lokaviśrute
Upavāsam tu yah kṛtvā viprān santarpayennarah
Sautrāmaṇesca yajñasya phalam prāpnoti mānavah

Matsya P. 183.73-75

20. The Aśuras became the rulers of the three cities which were given to them by the god and they lived long to enjoy the results of their achievements.
21. The Ultimate withdrawal of Brahmā from the sphere left only Śiva and Viṣṇu to share this high honour.
22. RV.X.109.4
23. Ibid. X. 109.1.
24. Ibid X. 129.
25. AV X.7.38.
26. Ibid. XI.5.
27. Cf. Dandekar, "Rudra in the Veda" JUPH, No. 1, pp99-100.
28. For further explanations of the term tapas see Bhattacharya's note on tapas, <HO Vol. IX.,p.104.
29. Brahmacyasm japo maunam nirāhāratvam eva ca
Ityetat tapaso mūlam sughoram taddurāsadam
Vāyu P. I.59.41
Sīvastikopavinistaśca namaskṛtvā maheśvaram
Samakāyaśirogrīvam dhārayannāvalokayet
Ibid. I. 19.35.
See also verses 36-40.
Dharmamantrātmako yajñas tapaśca naśanātmakam
Yajñena devānāpnoti vairāgyam tapasā punah
Ibid. I.57.117.
30. Vāyu P. I.32.36.
31. MBh. V. 16.26-27
32. Ibid. V.16.22.

33. Ibid. X. 7.54-68.

Rāvaṇa also offers himself on the fire in a similar manner.

Śiva P. Jñāna-samhitā 55.1-38

34. Matsya p. 148.22.

35. Brahmā practised tapas for a long time, This ultimately resulted in the appearance of Rudra to whom Brahmā gave several names. (Kūrma P. I.10.20-24). In another passage (Padma P. I.17) we are told, that, while Brahmā was practising penance, Śiva went over to him with the intention of begging. According to Kūrma P. I.11.1-13, Rudra issued, forth, in the Ardhanārīśvara form, from the mouth of Brahmā, who was living a life of penance, But the more frequent references are found to the tapas which Brahmā, practised on the eve of the creation of the universe, Cf Linga P. I.22.18-24.

36. Viṣṇu practised tapas on the banks of Cakrapuṣkaraṇi (Skanda P.

IV.1.26). Narayaṇa, soon after he was born, practised, tapas. At the end, Śiva appeared before him and granted him boons, MBh. VII.201. Kūrma P. I.24.86.

refers to the tapas which Hari practised in honour of Śiva: Cf.. Dṛṣṭvā lobhe sutam rudram taptvā tīvram mahat tapah.

37. The svarupasamadhi and tapas of Śiva are described in Skanda P. I.1.22. Elsewhere we are told that, when śiva was defeated in a game of dice by Uma, he abandoned Kailās and, retired to a lonely spot to practise tapas. (Ibid. I. 1. 34). Similarly according to Padma P. I.5, Śiva after granting a boon to Dakṣa, when the latter prayed to him and repented for his mistakes retired to the bank of the Gaṅgā and began to practise severe tapas. The Bhāgavata –Purāṇa narrates the following legend: On instructions from Brahmā Rudra began to create. The former was, however, not satisfied because of the high quality maintained, by the latter. He, therefore, asked Rudra to stop creating and exhorted him to perform tapas. (III.12.4-20). Śiva was for a long time, plunged, into mahāmoha, and enjoyed union with Umā. Consequently he lost his tejas. He had to practise tapas to regain it. (Vaṁana P. chapters 59 and 60).

MBh. XII.278.22-23. speaks of śiva's feat of practising tāpas under water, which Brahmā greatly commended. The following passage from the MBh (V.97.12) is particularly significant:

Atha bhūtapatir nāma sarvabhūtamahēśvarah

Bhūtaye sarvabhūtānām acarat tapa uttamam.

38. Indra thrown out of power by Nahusa, wondered as to what kind of tapas the latter had practised to attain Indrahood. MBh. V .16.22.

39. After Madana had been burnt to ashes, Pārvatī began to practise tapas with a view to winning Śiva as her husband. Brahmā and the other gods were awed at the vehemence of that penance (Skanda P. I.1.21.). In another passage of the same Purāṇa, one reads that Nārada visited Himavat and advised Pārvatī to practise tapas in honour of Brahmā so that her complexion should be changed. (Ibid.I.2.29; 3.2.18.) Pārvatī is further said to have retired to Kānci to practise tapas in order to wipe off the sin incurred by enveloping the sight of Śiva for a moment, which in fact was crores of years for the beings of the world. For, such an enveloping of the sight made the world plunge in to darkness (Ibid. I.3.1.3.) Ākāsava i advised Pārvatī to go to Aruṇācala and there Practise tapas, under the guidance of the sage Gautama. Accordingly Umā set up a hermitage at Aruṇācala and settled down there to practise tapas (Ibid.I.3.1.4-9). The Purāṇa further narrates that Umā practised tapas, and at the moment, the gods oppressed by the demons Mahiṣa, came to solicit her help. (Ibid.I.3.1.10). According to the Kālikā Purāṇa 45, Kalī practises tapas to win Śiva as her husband. The legend that Pārvaī practised tapas to have her complexion changed because she was mocked by Śiva for being dark-complexioned is also narrated in the Padma-Purāṇa 1.46. Other references to the tapas practised by Umā or Pārvatī for one reason or other are: to win Śiva as her husband (Vāmana P.51.): to change her complexion (Vāmana P. 54) to free herself from the stains caused by her being the daughter of Dakṣa (Varāha P. 22); to acquire strength to kill Mahisa she retired to

Nīlādri and began to practise tapas. (Varāha P. 90), Umā realised that tapas was the only means by which she could win Śiva as her husband. (Matsya P. 154.273-300) Umā practised tapas and had her complexion changed. (Ibid. 155.1-34)

40. Mayāsura oppressed the gods through his tapobala (Garuda P. I.82.1-6). The three sons of Tāraka practised tapas; as the result of it Brahmā appeared before them and granted them boons (MBh. VIII. 24). The demon Vṛka is said to have practised severe tapas and to have even gone to the extent of offering his own head into the fire (Bhagavata P. X. 88). According to Varāha P. 27, Andhaka practised tapas and obtained boons from Brahmā. Rāvana practised tapas and, won the favour of Śiva (Śiva P. Janānasamhitā 55.1-38). The Linga P. tells us that Jalandhara had obtained power through tapas. Śiva would not kill him because he did not like to falsify Brahmā's boons. According to Matsya P. 129, Maya, Tāraka and Vidyumāli practised tapas. The Matsya-Purāṇa (148.4-14) also narrates the legend, of Taraka having practised tapas and obtained the boons.

41. Harikesa, the only child of his parents, was deeply devoted to Śiva. He therefore, performed tapas in honour of that god. (Skanda P. IV.1.1.52.). Similarly, Markaṇḍeya practised tapas and secured longevity (Ibid. VI. 21). According to Brahmaṇḍa P.21 and 22.1.1-46) Bhārgava Rāma practised tapas in honour of Śiva and won the god's favour. Atri went to Gokarna and practised tapas (Śiva P. Dharma-samhitā 2.77-111). Sanatkumāra is also said to have practised tapas (Kurma P. II.1.16-41).

41. At Vrddhācala a Brāhmaṇa performed tapas; Śiva appeared before him and granted him boons (Skanda P. IV.1.1.26). Nārāyaṇa went to Bharadvāja's aśrama and practised tapas at Kāsi in honour of Śiva (Skanda P. IV.1.1.16). Śiva appeared before Ambā in response to the tapas practised by her. (MBh. V.188.7-15). Siddhanatha practised tapas and there after he was accepted by Śiva and Ūma as their own son. (Nāradya P. II. 69.). Sukra practised tapas and obtained from śiva the mṛtasanjivini-mantra. (Vamana P. 62.39-44). Arundhati practised tapas, which was highly

commended (MBh. IX.48.1-68). Asvatthāman practised, tapas and obtained a sword from Śiva (Ibid,X.7.54-68). Arjuna, also is said to have practised tapas and obtained the divine weapon from Śiva (Śiva P. Jnana-samhita 64.) Silada practised tapas in honour of Śiva (Kūrma P.II. 43.19-42).

42. The tapas practised by the three Asuras Maya, Vidyunmāli, and Tāraka, is described as follows:-

Lokatrayam tāpayantas to tepur dānvās tapah
Hemante jalasayyāsau grīṣme pañcatape tathā
Varṣāsu ca tathākāse kṣapayantastanupriyāh
Sevānāh phalamūlani puspāṇi ca jālani ca
Anyadācaritāharāh pa kenācitavalkalāh
Magnāh śaivālapa keṣu vimalā vimaleṣu ca
Nirmāmsāśca tato jātah kṛśadhāmani santatah

Matsya P.129.6-10.

43. Matsya P.156.1-39

44. Ibid. 154.

45. Skanda P. IV.1.1.26

46. MBh. V.97.12.Cf. Kumārasambhava I.57, in which, himself having no desires.to he fulfilled, Śiva is said to have commenced tapas.

47. MBh. VI.7.22-25.

48. Tam ugratapasah siddhāh..... paśyanti.MBh.VI.7.25.

49. Lokatraye tāpayantāh te tepur dānavās tapah

Matsua P. 129.7.

50. MBh.XII 310.1-29.

51. Ibid. III.163.45. Also Cf:

Ugreṇa tapasā tena praṇipātena śa karah

Īśvarah toṣitah..... Ibid. I.207.18.

52. Hemante jalaśyāsu grīśme pañcatape tathā

Varṣāsu ca tathākāśe kṣapayantah tanūh priyāh

Matsua P. 129.8.

53. Tattrāmbārāṇi samtyajya bhūṣanāni ca śailajā

Samvītā valkalair divyair darbhanirmitamekhala

Trih snātā pātalāhārā babhūva śaradām śatam

.....

Nirāhārā satām sābhūt samānam tapasām nidhih

Matsua P. 154.308-310.

54. Vāyu P. I.59.41.

55. MBh. III,39.20-24.

56. Matsya p. 180.15-19

57. Ugreṇa tapasa tenā prañipātena śa karah

Īśvarastoṣitah..... MBh. I.207.18.

58. Ibid. V. III.41.13-15

59. Ibid. V. 188.7-15

60. Ibid. 189.3-8

61. Ibid. VII.201.57-97.

62. Ibid. XII.310.1-29

63. MBh. IX.48.1-68.

64. Ibid. III.39.

65. Brahmaṇḍa p. I.21.71-81; also I.22.69-81.

66. Kalika p. 45.

67. Matsya p. 11.21

68. Matsya p. 154.298-299.

69. Kūrma p. I.25.29-46

70. Śiva p. Dharma-samhitā 2.35-55.

71. In the scheme of vrata, for example, certain characteristic features of tapas such as restraint of the body and senses, and renunciation of food and other comforts are fairly predominant.

72. The Mahābhārata has one full sub-parvan entitled tīrthayātra-parvan. This occurs in the third book of the Great Epic (80-154). The śānti and the Anuśāsana parvans also contain references to a few tīrthas. Among the Purāṇas, the Padma and the Skanda Purāṇas have devoted greater portions of their texts to the description of the tīrthas. The Skanda-Purāṇa should be specially mentioned in this connection. Only a very few chapters are devoted to the description of Skanda after whom the Purāṇa is named. One full section is devoted to Venkatācalamāhatmya; this speaks of the sacred tīrtha or rather kṣetra in which Viṣṇu is enshrined. Jagannātha, Ayodhyā, are the sacred places proclaimed in this Purāṇa as sacred and many tīrthas found in them are described in this single purāṇa in not less than 1500 chapters. The other Purāṇas, of course only to a less extent, have devoted a fairly large number of their chapters to the description of the tīrthas.

73. E.g see Nārada P. 49.

74. Cf. Prayāge brahmaviṣṇvādyāḥ devā munivarāḥ sthitāḥ

Saritaḥ sāgarāḥ siddhāḥ gandharvāpsarasah tathā

Agni P. III. 1-2

75. Śiva P. Sanatkumāra-samhitā 14.1-12.

76. A more or less comprehensive list of the tīrthas deserves preparation.

77. The third book of the Mahābhārata mentions the tīrthas connected with Śiva. These are found scattered in chapters 80,81,82,83,93 and 118, of this book. Some of these

tīrthas are merely mentioned and no details are given about them As these are interspersed with tīrthas associated with other deities, it is necessary to single out the tīrthas which pertain to Śiva and indicate their occurrence as follows:-

Chapter 80, verse 12,55,68,69,73,77,80, 82,87-89,108,111, 113,118,124.

Chapter 81,verses 18,46,59,70,71,85, 114,141,142, 149,153,155.

Chapter 82,verses 10,1619,24,35,69,79,87,103,116.

Chapter 83,verses 11,16-18,22,46,59,63.

Chapter 93,verses 4,10,

Chapter 118,verses 3,4,16.

78.Mahābhārata III.81. 116 –7;III..81.143;III82.68

79.Ibid III.82.10;III.81.18.

80.Mahābhārata III.80.84

81.Ibid. III.83.23-25.

82.Anyatra tu kṛtam pāpam vārānasyām vyapohati. Li ga P. I.103.75. Also see Kūrma P. I.31.

83.Pratigrahād upāvṛttah laghvāharo jitendriyah Agni P. 109.2.

84.Yasya hastau ca padau ca manaścaiva susamyatam

Vidyā tapaśca kīrtiśca sa tīrthaphalam aśnute.

Agni P. 109.1.

85.akrodhanaśca rājendra satyaśīlo dṛdhavratāh

ātmopamaśca bhūteṣu sa tīrthaphalam aśnute

MBh. III.80.33.

86.Cf. Pañcanadyaśca rudreṇa kṛtā dānavabhīsaṇah

Tena sarveṣu vedeṣu tīrtham pañcanadam smṛtam.

.....

Tasmin tīrthe narāh snātvā dṛṣtvā koṭīśvaramharam

Pañcayajñan avāpnoti nityam sraddhāsamanvitah

Vāmana P. 34.27-29.

87. While indicating the great merit derived by engaging oneself in the
li ga- worship, it is said:

Sivali ga-pra āmasya kalām nārhanṭi ṣoḍaṣim

Śiva P. Santkumāra-samhitā 14.

88. also cf. Bhūteśvaram ca tatraiva jvālāmālesvaram tathā

Tacca li gam samabhyarcya na bhūyo janma cāpnuyāt

Vamana P. 34.36

89.Cf. Gopinath Rao; Op. cit. Vol .I, Introd. p. 15.

90.Cf MBh. XIII.26.

91.Darśanāt sparśanāt pānāt tathā ga geti kīrtanāt

Punāti puṇyapurusañchataśo tha sahasraśah

Agni P. 110.6

Tatra brahmādayo devāḥ ṛṣayah siddhasāranāḥ

Gandharvāścāpsaro yakṣāḥ sevante sthānakāṅkṣināḥ

Vāmna P. 33.17.

Gamanam smaraṇam caiva sarvakalmaṣaṇāśanam

Ibid. 34.10.

See also Nārada P. II.51

92. Na dānaih na tapobhiśca na yajñair nāpi vidyā

Prāpyate gatir utkr̥ṣṭā yā vimukteṣu labhyate

Kūrma P.I.3.44-45.

(Vimukta is considered to be an eminent tīrtha)

93.Among suoh composers of stotras in Sanskrit, the name of Sa kara may be regarded
as perhaps the most prominent. His compositions are even today recited devoutly by

way- of pārāyana by all by the Śaivites, the Vaisnavites and the Śāktites, by householders and others.

94. Brahma P. I.38; Siva p. Dharma-samhita 28. Linga P. I.65.

95. Also Gaṇapatisahasranāma in the Gaṇeśa-Purāṇa I.46.1-22. The Lalitāsahasranāma-stotra has a colophon, which declared that the stotra Concerned is derived From the Specified puranaa For example Brahmāṇḍa-Purāṇa, Uttarakhanda. See Br̥hatstotraratnākara, Pt I, p.372.

96. The significance of the repetitions of the names of the various gods has been explained by Raghavan as follows:

"Hymns on the names of the Lord are recited as a means of salvation, being the easiest means and the best suited for the present age, when higher spiritual qualification are difficult for attainment. The repetition of the names helps to recall to mind the presence of the Lord, his infinite excellences and exploits, and enables one to become wholly absorbed in him."

The Religion of the Hindus, p.396.

97. This fact may be regarded as constituting another point of difference between the stotras and the Vedic hymns in general. Ofcourse, the doctrine and practice Of bhakti are clearly reflected in the Varuṇa hymns, particularly those in the seventh maṇḍala of the Rgveda;

98. Li ga P. I.72.170-175

99. Ibid. I.10.39 ff.

100. Praṇamya sirasā rudram vacah prāha sukhāvaham

Kūrma P. II. 1.14.

101. Kūrma P. I.16.194-206

102. Matsya P. 188.63-67

103. At the end of the Mantra-māṭṛkāpuspamālāstava, śa kara speaks of the merits which one may gather through this stava:

Śrīmantrākṣaramālayā girisutām yah pujayet cetasā

Sandhyāsu prativāsaram suniyatas tasyāmalam syānmanah

Cittāmbhoruhamṇdape girisutā nṛttam vidhatte sadā

Vāṇī vaktrasaroruhe jaladhijā gehe jaganma galā.

Bṛhatstotraratnākara Pt. II, p.425.

104. Lalitāsahasranāmāstotra pp.24—32 (at the end of the book) and

Visnusahasranāmāstotra, pp.12-13(at the end of the book)

105. The connection between dhyāna and tapas, though not explicitly mentioned, anywhere in the Purāṇas, is implied by the fact that meditation on the god to be propitiated by the worshipper is a necessary condition of tapas.

106. It is significant that the ślokās employed in connection with pūjā are designated as dhyāna-ślokas. These verses help the worshipper to meditate upon the god, as they are recited in the course of the pūjā.

107. Cf. Dhyānam samādhāya japanti rudram Kūrma P. I.32.27. also Dhyāyitvā devam
Isānam vyomamadhyagatam sivam Ibid. II.19.98

108. Dhyānam hi paramam dharmam kathitam paramam padam

Śiva P. Sanatkumāra-samhitā .26.1-70

109. Cf. dhyānam param kṛtayuge tretāyām yajña ucyate

Bhajanam dvāparau suddham dānameva kalau yuge

Linga P. 1.39.7.

110. Anudhyanena japena vidhāsyati sivam tava

MBh. III.2.11.

111. Yajñam eke prasamsanti sanyāsam apare janāh

Dānam eke prasamsanti kecid eva pratigraham

Kecit sarvam pratiyajya tūṣṇīm dhyayānta āsate.

MBh. XIII.21.8.

112. Śiva P. Jñāna-samhitā 26.1-10.

113. Kṛtvā hṛtpadmanilaye viśvākhye viśvatomukham

114. Vayu P. I.19.35-40
115. Ibid I.23.93-94.
116. Līṅga P. I.24.68
117. Ibid. I.28.
118. Ibid. II.19.1-43.
119. Kūrma P. II.29.37-44.
120. Though literary references to pūjā occur at a rather late stage, the concept pūjā undoubtedly dates from very early times. Indeed, it can be shown to be long to the pre-Aryan period. However, the pūjā form of worship namely homa. When, however, the popular Hinduism established itself, the ancient practice of pūjā which was obviously simpler than homa, came to be revived. for further discussion on the subject, see: Dandekar, "Rudra in the Veda" JUPHS, No. I, P.129ff.

In his elaborate paper on "Dravidian origins and the beginnings of Indian Civilizations", S.K.Chatterji has found an occasion to discuss the term pūjā. According to him "Pūjā" is unknown to the Aryan world of the Veda; homa has taken only a secondary place in the Hindu ritual,.... and pūjū, together with the great Gods to whom, it is now offered in India, namely Śiva and Ūmā and viṣṇu (in his new form), it is all likelihood a pre-Aryan, a Dravidian ritual; the word certainly is non -Aryan in origin – there is no cognate of this root in other Indo-European languages, but it once recalls the Dravidian pū 'flower' and it reappears in Sanskrit words like puṣkara, lotus puṣpa flower" modern Review, 1924, p.668.

121. Cf. Śiva P. Vidyeshvara-samhitā 61.21, Benarjee, however, feels that the introduction of this new form of worship in Hinduism was chiefly due to the advent Of Maheśa or Śiva as a prominent figure in the Hindu pantheon. He observes, "The advent of Maheśa or Íśvara as a prominent figure or conception of divinity marks

an epoch in ancient Hindu Civilizations. A new method of worship and a new mythology were inaugurated and developed into tantras and the tantric system. Music, art literature, yoga were all getting a new life and form". The author, ascribes about eight reasons for the orientation of this new epoch. See "The Evolution of Rudra or Maheśa in Hinduism." QJMS, Vol. X, No. 1 pp. 221-222.

122. Devī-Bhāgavata P. XI.17. The Śiva-Purāṇa describes the pañcāyatana as follows:-

Śivasya pra-timā vāpi Śivāyāh pratimā tathā.

Viṣṇoscaiva prayatnena sūryasyaivāthavā punah

Ganapater vā punas tatra pañcāyatanam uttamam.

Īāna-Samhitā 26.46-47

123. The topic of Śiva-pūjā receives repeated attention in the Purāṇas. Cf. Śiva P. Jñāna-samhitā 7&8. Skanda P. I.241. In this latter reference is made to the Āgamic traditions. Skanda P. 1.3.1.8. Linga P. I.79. The Linga-pūjā is elaborately described in Agni P. 27 & 28. Kṛṣṇaperforms Linga-pūjā. Kūrma P. I.26. 47-61. The same topic again is discussed in Skana P. I.2.12 Sūta samhitā I•4• Linga P. 1.25 & 27. Ibid. 1,74.

124. Cf. Brahmādayah piśācāntāh yam hi devam upāsate.

MBh. XIII.14.4.

125. See the occurrence of ārādnā in the following;

Jñānayogaratam nityari āradhyah kathitas tyayā

Kūrma P. II.1.2. Āradhayen mahādevam Kūrma P. II. 19.94.

Sarve prāñjalayo bhūtvā śūlapāṇim prapadyata. Ārādhayitum
ārabdhāh brahmaṇā kathitam yathā.

Ibid. II.39.7-8

See also Linga P. 1.35.31

126. Arcaṇā is described in the Śiva-Purāṇa as exceedingly superior to sacrifices of various types:

Vājapeyaśatair iṣṭvā yallabheta dvijottama.

Vipro liṅgatrirātreṣu rudrabhaktyā tadaśnute.

Aśvamedhasahasrasya samyag iṣṭvāsya yatphalam.

Māsenā tadvāpnoti rudraliṅgārcane ratah.

Siva P. Samatkumāra-samhitā 14.48-49.

The Garuda Purāṇa, though Vaisnavite in character, has devoted five chapters to the description of Sivārcanā

(Chapters.22-26).

127. Puṣpāḥ patrair athādbhīr vā candanādyaḥ mahāśvaram.

Kūrma P. II.19.96

128. In the Śiva-Purāṇa Jñāna-samhitā 29 dhūpa and dīpa are mentioned as the upacāras offered, in the pūjā. See also Agni P. 74.75-76.

129. Sixteen upacāra are offered in the pūjā.

Cf. Śoḍaśair upacāraiḥ śivaliṅgaṁ prapūjayet.

Śiva P. Vidyeśvara-samhitā 14.109

130. Cf. Skanda P. II.5.5-6. See also Moore Hindu Pantheon, p.69.

131. It may, however, be pointed out in this connection that, so far as the meaning of the Vedic mantras was concerned, they could hardly be said to be related, in any intrinsic manner, to the various rites in the pūjā which they were expected to accompany. Their use was often determined in a very strange manner. For instance, a Vedic mantra, which actually referred to the horse, dadhikravan, was employed at the time of the bathing of the idol with dadhi or curds. It may be recalled that, even in Vedic ritual itself, the Vedic mantras were employed without any regard to their original meaning. The following comment of K.S.

Srinivasapatratcharva also speaks of this peculiar usage of the Vedic mantras.

"Various passages from the Vedas are very often taken away from their context and used on occasion not contemplated by the Vedas themselves. One instance is the passage ganānām tvā gaṇapatim etc. This hymn is used nowadays by persons who worship Vinayake because the passage contains the word

gaṇapabi, a popular appellation of that god". Gopalakrishnamacharya Commemoration Volume, 4. 48.

132. As the word, pūjā, suggests, this form of worship must have originally consisted of besmearing the idol of the divinity with some unguent. To this were perhaps added the offerings of water, leaves and flowers.

Ananda Coomaraswamy in his History of Indian and Indonesian Art

(p.5), shows how "the popular Dravidian element has played the major part in all that concerns the development and office of image worship, that is pūjā, as distinct from yajña".

133. The Āgamas which deal with the rituals are mainly three (available in Grantha lipi). Though the number of the Āgamas is said to be twenty-eight, only a few of them are available to us. Of these, the Kāraṇāgama, the Kāmikāgama and the Suprabhedā, deal at some length with the rituals. The Skanda-Purāṇa refers to the Āgamic traditions of worship. (1.3.1.8.).

134. The descriptions of all these representations of Śiva, given in the Āgamas, are related to the Purāṇic accounts. The Āgamas refer to the representations, but do not relate the details of the events which gave rise to the conception of the representations. They, therefore, seem to assume that the accounts already known subsequently were recounted in the Purāṇas and the Epics.

135. MBh. 1.57.21. For a critical discussion of this passage, see Sukthankar Memorial Volume I. "Critical Studies in the Mahābhārata", pp.416-422.

136. MBh. VI.12.26.

137. MBh. VII.79.4.

138. This kind of reference is rarely found in the Purāṇas, and the practice of bali has almost disappeared in modern times. The MBh., however, mentions bali along with other rites;

Pūjāopahārabalibhir hiomamaniantrapuraskṛtaih.

(VIII.25.131-56)

139. Linga P. II.1.6-7

140. Ibid. I. 98.159-62.; also Śiva P. Jñāna-samhitā 70.1-24 also 71.

141. Linga P. II.18.26. also II. 11.1-41.

142. Skanda P. I.2.12; I.2.41.

143. Cf, Linga P. I.75.20-29.

144. Linga P. I. 64.75ff.

145. Kurma P. II.19.88-98.

146. Kūrma P. II.12.18.

147. Ibid. II.19.

148. Śiva P. Jñāna-samhitā 29.1-86

149. Ibid. 20.26-29.

150. Cf. Matsya P. 54.8.23

151. Devībhāgavata-P. XI.2.

152. Skanda P. II.5. and 6.

153. Śiva P. Jñāna-samhitā. 27 and 28.

154. Linga P. I. 15.18 ff.

155. Matsya P. 68.15-39

156. Skanda P I. 3.1-9

157. Kūrma P. II.39.3-5.

158. The following verses from the Siddhāntasāravalī (Caryāpāda), contain a list of the twenty-eight Āegmas:

Śaivah kāmika-yogajājitamadho' cintyam ca dīptāhvayam

Sūkṣmah kāraṇam amsumāśca daśddhā sāhasrakam suprabham Raudrāste
vijayam ca rauravam adho nisvāsam āgneyakam

Santānam kiraṇākhyasiddhavimalam sricandrahāsam param.

Udgītam lalitam ca mākuṭam adho śrīnāsimham tathā

Śrisvāyambhuvapāramesamukhayugbimbānibhadrāhvayam
Tenāstadaśasaṅkhyayordhvamukhataś sākṣāt sadeśena te
Proktah so pi parāpta eva nikhilo tīrṇo ' khilajnānavān.

159. These three Agamas occupy themselves mainly with the rituals, and the system of worship that prevail in the temples of South India are based on these texts.
160. The eighteen authors after whom the different paddhatīs are named are enumerated in the following verses:

Durvāsāh pi galaścaiva ugrahyotih subodhakah
Śrīkaṇṭho viṣṇukaṇṭhasca vidyakaṇṭhastathaiva ca
Rāmakaṇṭho Jñānāsiva jñānaśa kara eve ca
Somaśambhur brahmaśambhus trilocanaśivas tathā
Aghoraśiva evātha prasādaśiva eva ca
Rāmanātha Śivascaivam īśānaśiva eva ca
Vāruṇākhyāśivaścaivatadāsācāryapungavah
Stair divyāih śivācāryāih paddhatih paribhāṣitā

Aghoraśivacaryapaddhati, Krivākramajyotikā,

(upodghata) p.10.

161. Skanda P. I.1.33; 1.2.8; III.3.2; VI.250. Harivamaśa 74.
Bhaviṣya. P. III.10.1-20. Vāmana P. 62.27-31.

162. Skanda P. I.1.5; III.3; I.1.13.15-16.

Brahmaṇḍa P. 27.106-15. Sūta-samhitā-IV. 30. Devībhāgavata P. XI.10-05.

163. Kūrma P. 1.14.32-33, Śiva P. Vidyēśvara-samhitā 16.58-64, Padma.P. I.61, Siva.P Jñāna-samhitā 37.20-76, Sknda.P I.1.5;

III.3.1; III.3.20, Agni P. 325, Devībhāgavata P. XI. 5. and. 7.

164. Skanda P. III.3.1, Agni P. 304.

165. Agni P. chapters 81-90

166. Cf. Sūta-samhitā. I.4.

MARX ON ASIA / INDIA: REVIVING DEBATE ON ASIATIC MODE OF PORODUCTION

A.V.Manivasagar

Until recently, the legacy of the Leningrad Conference of 1931¹ has had unfortunate implications for the analysis of complex pre - capitalist social formations. Under the auspices of Stalin, this Conference concluded by rejecting the validity of the Asiatic Mode of Production (hereafter the A.M.P.) as a useful starting point for the analysis of the Chinese and, by implication, other post tribal precapitalist social formations.

From the early thirties through to the mid sixties, China and other social formations hitherto conceptualized by Marx in terms of the A.M.P. were subsumed as variants of the feudal mode of production. During this period there emerged a certain reluctance, often implicit, to transcend the theoretical dogmatism inherent in Stalin's² rigidly mechanical evolutionary progression of historical epochs. This tendency is reflected in much of the material written by Marxist scholars and practitioners in this area such as: Mao Tse Tung (1945), Maurice Dobb (1950) and Kuo Mojo (1957)³ Moreover, even amongst Indian Marxist historians of the calibre of Kosambi (1956) and Joshi (1958) there existed a marked

inclination to characterize the pre - colonial era in India as predominantly feudal. With the demise of Stalinism and in the dawn of revolutionary struggle in China, South East Asia, India, Latin America and Africa, interest in precapitalist social formations has been rekindled resulting in a proliferation of theoretical⁴ and substantive debate, discussion and analysis. I am in this paper primarily concerned, particularly, in that it relates to the conceptualisation of the A.M.P.

As I have indicated, the renewed interest in Marx's work on the A.M.P. has not emerged in a theoretical vacuum but in an ongoing socio - economic context. Coinciding with the general interest in complex precapitalist societies there has emerged a more specific concern with conditions of production in existence in Mughal, British and Independent India. It is generally accepted that no single dominant mode of production has prevailed over the entire land mass at any one point in time. In consequence, the concern has been with the identification of the dominant or most extensive mode and this question has been approached in a variety of different ways in the writing of: Rudra(1970, Patnaik

(1971,1972); Chattopadhyaya (1972); Alavi(1975); Davey (1975); McEachern (1976); Omvedt(1980); Gupta(1980) and Currie (1980,1981). This interest in substantive analysis has, in turn, important implication for the further theorisation of modes since if substantive analysis is to progress beyond mere description it is important to develop adequate conceptual apparatuses. We now have an adequate conceptual construct in the capitalist mode of production for theorising the capitalist world but many of the concepts, such as the A.M.P., that are crucial to an understanding of the dynamics of non-capitalist societies remain poorly constructed and ill defined. This remains the case in spite of some important contemporary attempts to rectify this state of affairs, e.g. Godelier(1965, 1968, 1977); Thorner (1966); Lichtheim (1967); Meillassoux (1972); Terray (1972, 1975); Rey(1975); Melotti(1977); Sawyer(1977); Krader(1980); and Clammer(1982). Regrettably, much of the current work of the Paris Centre D'Etudes et de Recherches Marxistes school on the analysis of precapitalist modes of production is still inaccessible to non-French reading scholars. On this point, it is worth noting that both Bloch(1975) and Seddon(1979) contain good selections in translation of the works of Godelier, Terray and Meillassoux and that the Italian theorist Melotti, provides a brief introductory sketch of some of the ideas of the Africanist Suret-Canale and the Sinologist Tokei. The primary purpose of my own paper is to critically examine the

manner in which Marx develops a theoretical basis for the analysis of complex pre-capitalist, non-feudal social forms of Asia / India. In the process of this evaluation I shall draw on some secondary sources and, in so doing, will assess the contribution to the discussion made by a number of writers from a variety of perspectives.

MARX ON THE A.M.P. - THE LOCATION OF A CONCEPT

My intention is to contextualise Marx's analysis of the A.M.P. within the corpus of his work as a whole. This approach necessarily entails a rejection of those interpretation of Marx, popularised through Althusserian Marxism, which are premised on the assumption of an epistemological break between the 'young' Hegelian influenced Marx of the period prior to the publication of the 1844 Economic and Philosophic Manuscripts and the mature ('scientific') Marx of Capital. The influence of Althusser is probably most clearly evidenced in the writings of Hindess and Hirst who operate within a rigid Althusserian frame. In their search for the A.M.P. in Marx they make explicit their intention to focus exclusively on Capital on the grounds that the theoretical status of Capital is higher, i.e. more scientific, than that of other writings, in particular, letters and journalistic work⁵. Ironically, this arbitrary process of selection is presented as scientific practice, and contrasted, by these authors, with the subjectivism of those authors, with the

subjectivism of those accounts of the A.M.P., which are derived from an analysis of Marx's work viewed as a totality.

In order to locate the discussion of the A.M.P. within Marx's materialist conception of history it is important to briefly comment on the notion of mode of production as it is developed within Marxian theory. Essentially, for Marx, a mode of production refers to a specific epoch or period in the passage of human history which enables us to identify and grasp the fundamental character, defined in material terms, of the epoch in question. This emphasis on the mode of production of material life contrasts sharply with the Hegelian view in which the character of an age is embodied in its essential 'spirit'. In Marxian theory, different modes of production can be differentiated on the basis of variation in the manner in which the surplus product is appropriated from the direct producer. It is in this sense that it can be argued that the mode of production comprises a combination of forces and relations⁶ of production in which relations structure forces and, in so doing, account for the form appropriation assumes.

In Marx's discussion of the capitalist mode of production, which is developed in the three volumes of *Capital*, his main concern or preoccupation is with the underlying structural mechanism of capitalism as a system of production predicated on the relationship between

economy and polity in the Eighteenth Brumaire of Louis Bonaparte (1967) and the relationship between classes in French society in *The Class Struggles in France 1848 to 1850* and *The Civil War in France* (1968). In *Capital*, however, Marx's prime objective is to articulate and construct a set of interrelated concepts - use - value, exchange value, relative surplus value, absolute surplus - value, fetishism of commodities, labour process, constant capital, variable capital, rate of surplus-value, mass of surplus-value, rate of exploitation etc. - which enable the reader to grasp the underlying structural relationship of the capitalist system of production. In terms of systematisation, consistency and detail, there is no A.M.P. equivalent of Marx's comprehensive and extended structural analysis of the capitalist mode of production. While references to the 'Asian form'; 'Oriental society'; 'Asiatic despotism'; 'Asiatic empires'; 'Asiatic society'; 'Indian communities' are scattered throughout his work, there are only two explicit references to the A.M.P. the Preface to a Contribution to the Critique of Political Economy (1968) and *Capital I* (1954).⁸ "Even in the 1859 Preface, however, Marx fails to develop on adequate conceptualisation of either the conditions of existence of the A.M.P. or its contextual relevance in relation to other modes. All we learn from the Preface is that:

In broad outlines Asiatic, ancient, feudal and modern bourgeois modes of production can

*be designated as progressive epochs in the economic formation of society*⁹

Neither here nor anywhere else in his writings does Marx provide a clearly articulated construct of the A.M.P. His discussion in the Preface does not extend beyond the assumption that the A.M.P. is one of several 'progressive epochs in the economic formation of society'.¹⁰ In relation to the A.M.P. this assumption creates difficulties even if we accept that the theory of historical materialism only stipulates that there should be a succession of modes. In the first place, the A.M.P. does not even feature in Marx's 1846 work on *The German Ideology*¹¹ in which tribal, ancient communal and feudal forms of property are distinguished as 'various stages of development in the division of labour'. Secondly, at various stages in history ancient, feudal and capitalist modes have been dominant in Europe whereas the A.M.P., in its pure form, has only emerged in the context of Asia, Africa and South America. If we assume that modes are not geographically specific¹² - and this is certainly the impression Marx creates in the *Grundrisse*, Preface and *Capital I* - then the dialectical relationship between different modes must be theorised. In the work of Marx this relationship, insofar as it relates to the dynamic between the A.M.P. and other modes, remains unclear. The problem cannot be resolved simply by identifying the contradiction between the unilinear evolutionary schema (so prevalent amongst

nineteenth century social theorists) of the *German Ideology* and Preface on the one hand, and the multilinear schema of the *Grundrisse*, on the other. Both unilinear and multilinear approaches leave unanswered the question of the dialectical relationship between the A.M.P. and other modes.¹³

It can be argued, and this argument is one favoured by Anderson (1989), that the Asiatic mode or form of production is the stage in the development of productive forces preceding the ancient mode. While this interpretation is certainly difficult to sustain in the light of the New York Daily Tribune articles of the 1850's and *Capital III*, where the static nature of the Asiatic form is stressed, it does have some foundation in the dynamic accounts of the 1857 *Grundrisse* and *Capital I*. Here, the thrust of the argument is that the Indian form of common property was the original form out of which Slavonic, Roman, Teutonic and Celtic forms emerged and, in consequence, such forms are deducible from Indian common property:

A ridiculous presumption has latterly got abroad that common property in its primitive form is specifically a Slavonian, or even exclusively Russian form. It is the primitive form that we can prove to have existed amongst Romans, Teutons and Celts, and even to this day we find numerous examples, ruin though they may be, in India. A more exhaustive study of Asiatic, and especially of Indian forms of common property, would show how from the different forms of

*primitive common property, different forms of its dissolution have been developed. Thus, for instance, the various original types of Roman Teutonic private property are deducible from different forms of Indian common property.*¹⁴

The locations of Marx's theoretical analysis of the Asiatic form (of the division of labour) are the Grundrisse¹⁵ and Capital III. In the Grundrisse¹⁶, however unsuccessfully, he attempts to situate the Asiatic form contextually whilst in Capital III he attempts a tentative articulation of the mode. In the Grundrisse Marx suggest that the Asiatic form (of the division of labour) is simply one of four routes out of primitive communalism (the others being: the ancient; the Germanic and Slavonic). The main problem with the Grundrisse account is that Marx slips between theoretical (attempts to conceptually locate the mode and articulate its structure) and empirical categories (in this instance, often fairly non-specific descriptions of pre-capitalist social forms). The account is heavily empiricist in that it draws substantially on pre-existing description of a wide range of societies including ancient Mexico, Peru, India, Germany and Rome. This conflation of theoretical and empirical categories has created confusion and ambiguity since it is never entirely clear whether Marx is discussing the mode in general or, a society in which the mode is dominant. One consequence is that interpretation of the Grundrisse-despite Hobsbawm's excellent

introduction to the section on pre-capitalist formations (published separately under that title)- is fraught with problems. In the discussion of the relationship between state and economy under the Asiatic form of property, Marx's major preoccupation is with the relationship between appearance and reality. A simple interpretation of Marx's Grundrisse view is that while the ruler appears to be the owner of all land, this is but a mask for a reality in which tribal-communal ownership of land prevails.

*...the all-embracing unity which stands above all these small common bodies may appear as the higher of sole proprietor... Oriental despotism therefore appears (my italics) to lead to a legal absence of property. In fact (my italics) however, its foundation is tribal or communal property, in most cases created through a combination of manufacture and agriculture within the small community which thus becomes entirely self-sustaining and contains within itself all conditions of production and surplus production.*¹⁷

An interpretation based on a more detailed reading suggests a considerably more complex relationship between the state (higher) and village (smaller) community. Here, Marx juxtaposes state and village, higher and smaller in an almost Durkheimian fashion. To illustrate this point I shall continue the quotation:

*The despot here appears as the father of the numerous lesser communities, thus realising the common unity of all. It, therefore, follows that the surplus product belongs to this highest unity. Oriental despotism therefore appears to lead to a legal absence of property. In fact, however, its foundation is tribal or communal property... Part of its surplus labour belongs to the higher community, which ultimately appears as a person. Thus surplus labour is rendered both as a tribute and as common labour for the glory of the unity, in part of the despot, in part of the imagined tribal entity of the god.*¹⁸

Marx goes on to point out that variations in the internal structure of the little communities will vary between despotic and democratic forms. Hence, the despotism of the higher unity is not necessarily reflected in the organisational form expressed within the village community. The juxtapositioning of state and village is clear. For the community, both despot and tribal god personify the underlying tribal unity and, in this sense, provide means whereby that unity is realised or expressed.

I have already drawn attention to the non-correspondence between the account of forms or stages in the division of labour appearing in the 1846 German Ideology and the 1859 Preface to a Critique of Political Economy. Marx's Grundrisse analysis points to the way in which inconsistencies in other accounts can be

resolved by effectively collapsing the two alternative formulations. Hence, in the Grundrisse Marx distinguish two major types of pre-capitalist socio-economic formation:

- (a) 'primary', encompassing Asiatic property and other communally based forms of property.
- (b) 'Secondary', encompassing both slave and serf based forms of the division of labour.

This characterisation of forms of property constitutes the basis for the multilinear schema but, as Sawyer(1977) correctly points out, there remains the tension, still unresolved in the Grundrisse, between the extent to which different forms of economic organisation pose real alternatives or are simply different stages of a universal historical progression.

While the focus in the Grundrisse is on the contextualisation of the Asiatic form, it is only in Capital III that we can locate an attempt at theoretical articulation of the mode. The thrust of Marx's arguments in this text is that the method of appropriation of the surplus product from the direct products entails a convergence of rent and taxes. Here, a quotation is relevant:

Should the direct producers not be confronted by a private land-owner, but rather, as in Asia, under direct subordination to a state which stands over them as their landlord and simultaneously as sovereign, then rent and taxes coincide,

*there exists no tax which differs from this form of ground-rent. Under such circumstances, there need exist no stronger, political or economic pressure than that common to all subjection to that state.*¹⁹

The main problem with this formulation - and it is a problem that underlies much of Marx's work on the A.M.P. - is, again, the conflation of theoretical analysis and substantive description. Is Marx actually analysing the mode or a particular society? I shall return to this question at a later stage.

THE SUBSTANTIVE DISCUSSION

In his substantive discussion of India Marx is preoccupied with providing an explanation of what he believed to be the underlying stationariness²⁰ of that society. At the level of description, i.e. the account of stagnation, his argument is explicit and consistent:

*The whole of her past history, if it be anything, is the history of the successive conquests she has undergone. Indian society has no history at all, at least no known history. What we call its history is but the history of the successive intruders who founded their empires on the passive basis of that unresisting and unchanging society.*²¹

The simplicity of the organisation for production in these self-sufficing

*communities that constantly re-produce themselves in the same form, and when accidentally destroyed, spring up again on the spot... this simplicity supplies the key to the secret of the unchangeableness of Asiatic societies, an unchangeableness in such striking contrast with the constant dissolution and refounding of Asiatic states, and the never-ceasing changes of dynasty.*²²

The hiatus between state and society expressed in these two passages and quite clearly be traced to Hegel's Philosophy of History:

*If China may be regarded as nothing else but a State, 1-Hindu political existence presents us with a people, but no State. Secondly, while we found a moral despotism in China... in India, is a arbitrary, wicked, degrading despotism has its full swing.*²³

For Hegel, the state in India, unlike most states in the Hegelian schema, did not constitute the embodiment of the 'spirit' of society but was rather superimposed upon society, hence, the introduction of the notion 'despotism without principle'. In the Indian instance, it is not the state form which constitute the embodiment of 'spirit' but society, itself, which reproduces its own essence and, in so doing, creates a continuity of form which contrasts sharply with dynastic changes. The similarity with Marx is obvious as is the legacy of the European Enlightenment tradition in which a rational, individualistic, progressive western social

order is contrasted with an irrational, collectivistic, stagnant Eastern world. The Europocentrism of this position, at any level of analysis, is clearly untenable. In addition to Hegel's Philosophy of History, an important work emanating from the Enlightenment tradition-and certainly one Marx consulted-is James Mill's 1819 History of British India. Marx was also influenced by reports of travellers and administrators. Here, it is worth mentioning Bernier's Travels in the Mogul Empire (1656-1658) and the 1812 Fifth (Parliamentary) Report from the Select committee on the Affairs of the East India Company.²⁴ After the publication of Capital, Marx returned to a more detailed study of pre-capitalist social formations, but died before this study has been published under the title of The Ethnological Notebooks of Karl Marx (1972)²⁵ It is clear from these notes that Marx consulted in detail Phear's study of the Aryan Village in India and Ceylon (1980) and Morgan's Ancient Society (1877). These notes are relevant in that they establish without doubt Marx's continuing scholarship in the general area of pre-capitalist social formations. Had Marx lived long enough to work on the material, these notes might well have provided the basis for a publication of tremendous theoretical significance. As it is, they simply establish his continuing interest in the field.

The emphasis on the unchanging nature of the social form together with the unity of industry and agriculture, which is

first introduced in the 1853 'British Rule in India' article, reappears in Capital III, where Marx presents his view of a self sufficient village economy independent form and outside of market forces:

The form of rent in kind, being bound to a definite type of product and production itself and through its indispensable combination of agriculture and domestic industry, through its almost complete self-sufficiency whereby the peasant family supports itself through its independence from the market... in short owing to the character of natural economy in general, this form is quite adapted to furnishing the basis for stationary social conditions as we see, e.g. Asia²⁶.

Marx's explanation of stagnation is directly related to the absence of private property in land on this issue he is unequivocal:

Bernier rightly considers that the basic form of all phenomena in the East-he refers to Turkey, Persia, Hindustan - is to be found in the fact that no private property in land existed. This is the real key, even to the Oriental heaven.²⁷

A degree of uncertainty regarding the genesis of this phenomenon, (the lack of private property in land) is expressed, however, in a letter to Engels, dated 14 June, 1853²⁸. Here, Marx suggests that it was the Mohammedans 'who first mainly established the principle of no property in

land throughout the whole Asia'. On the basis of available documentation this view appears incorrect since, at least under the Mughals, there certainly existed a hierarchy of land rights.²⁹ At the level of causation there is an underlying tension since this particular feature of Indian society, i.e. the lack of private property in land, is accounted for by reference to two empirically distinct phenomena:

- (a) the existence of a centralised despotic state holding a monopoly of land.
- (b) the existence of self-sufficient village communities based on common ownership of land.

Vacillation between these two explanation of the absence of private property in land underlie Marx's writings on the A.M.P. from the 1850's onwards and the problem is not resolved by the imposition of any artificial epistemological break between early and later works. What does seem clear is that Marx shared, or even adopted, Engel's underlying ambiguity made explicit in Anti-Duhring³⁰ where it is argued that the term landlord is absent in 'the whole of the Orient, where the village community or (my italics) the state owned the land'. This ambiguity pervades Marx's work. In the Grundrisse the reference is to defacto ownership of the commune, in Capital I the reference is to possession and in Capital III the reference is to common ownership of land. Capital III is highly relevant to the discussion since it is the location of two apparently conflicting accounts of the

foundation of the mode. In Marx's discussion of merchant capital in this work, the unity of agriculture and industry constitutes the basis of the A.M.P.

The broad basis of the mode of production here is formed by the unity of small - scale agriculture and home industry, to which in India we should add the form of village communities built upon the common ownership (my italics) of land.³¹

Further on in Capital III, it is the Asiatic despotic state itself, by virtue of its concentration of land ownership, that constitutes the basis of the mode. At this point, Marx attempts to clarify the ownership/possession distinction and relate it to the apparent state/village dichotomy and, in so doing, hints at a possible resolution of the problem:

*The state is then the supreme lord. Sovereignty here consists in the ownership (my italics) of land concentrated on a national scale. But, on the other hand, no private property in land exists, there is both private and common possession and use of land.*³²

If the absence of private property in land accounts for stagnation- and this is the thrust of Marx's argument-British rule, by the very introduction of private property in land, laid the foundation for economic development. This, then, is the source of Marx's ambivalent attitude to the British

presence in India. For Marx, the development of independent private ownership in land arose only with the dissolution of the organic order of society. With the introduction of zamindari and ryotwari settlements³³ the British established two distinct forms of private property in land and, as a consequence, paved the way for complex commodity production.

In Marx's substantive writings on India in the New York Daily Tribune, he adhered to the view that Indian society had failed to create the conditions for the transition to capitalism and it is this belief that provides the clue to his partial endorsement of European colonialism:

*England, it is true, in causing a social revolution in Hindustan, was actuated only by the vilest interests, and was stupid in her manner of endorsing them. But that is not the question. The question is, can mankind fulfil its destiny without a fundamental revolution in the social state of Asia. If not, whatever may have been the crimes of England she was the unconscious tool of history in bringing about that revolution.*³⁴

*England has to fulfil a double mission in India: one destructive the other regenerating-the annihilation of old Asiatic society, and the laying of the material foundations of Western society in Asia.*³⁵

In the very same article, Marx shifts his focus to the negative side of the imperial balance sheet:

*The British were the first conqueror superior, and, therefore, inaccessible to Hindu civilization. They destroyed it by breaking up the negative communities, by uprooting the native industry, and by levelling all that was great and elevated in the native society.*³⁶

The English bourgeoisie, then, fulfil an historical mission but the fruit of that mission can only be reaped when the British ruling class is supplanted by the proletariat and the yoke of colonialism overthrown. Only then is it possible for the mass of the people to benefit from what Marx believed to be a social and economic revolution in Asia: All the English bourgeoisie may be forced to do will neither emancipate nor materially mend the social condition of the mass of the people... But what they will not fail to do is to lay down the material premises for both. Has the bourgeoisie ever done more?³⁷

CRITICAL COMMENTS-ARE APPRAISAL

Thorner (1966) has commented that as far as the A.M.P. is concerned 'there is no single authoritative book, chapter or article by Marx or Engels on this subject'. Certainly, there is a sense in which Thorner's comment is accurate since Marx's detailed elaboration of the structural dynamics of the capitalist mode of production has no parallel in the scattered and schematic references to the A.M.P., in spite of the fact that references to the: 'Asian form'; 'Oriental despotism'; 'Asiatic despotism'; 'Asiatic empires'; 'Asiatic societies'; 'Indian communities' etc. can be readily located in his work. The

constant slippage between theoretical and empirical categories dominates discussion and culminates in the confluence of analytic and substantive argument. Essentially, the problematic status of the A.M.P. in Marx results from his failure to: (a) distinguish between the various descriptive categories (b) provide an adequate conceptualisation (c) analytically explore the nature of the relationship (if any) between the concept of the A.M.P. and the descriptive categories (d) analyse the conditions of the mode. i.e. consider the issue of the dialectic. In spite of these lacunae there is a striking disposition among commentators to transcend the various and qualitatively different conceptual problems. This has led to two main tendencies (a) the re-production of the collapse of theoretical/empirical categories (e.g. Melotti (1977) equates the A.M.P. with specific Asian socio-economic structures) (b) the elevation, concretisation and systematisation of inadequately structured and, often ambiguous, formulations of both the concept and the social formation(s).

Interestingly enough, the criteria which are seen to define the mode for one writer are strikingly similar to the features which, for another writer depict the archetypal Asian social formation. Mandel (1991), for instance argues unequivocally that the 'fundamental characteristic of this mode of production (the A.M.P.) were set out exhaustively enough (my italics) in the three letters of June 1853... and in four

articles published in the New York Daily Tribune.³⁸ The fundamentals of the mode are conveniently summarised by Mandel in terms of: the absence of private ownership of land; the cohesion of the village community; the union of agriculture and craft industry; geographic and climatic conditions precipitating the development of hydraulic agriculture (regulated by a central authority under taking large-scale irrigation work) and the acquisition of the greater part of the surplus product by the state. The foregoing are mirrored in Anderson characterisation of the Asian social formation. Anderson (1974) acknowledges both the ambiguity and lack of systematisation which impair Marx's discussion of the A.M.P. However, this awareness does not discourage him from identifying the 'fundamental elements'³⁹ of the Asian social formation, namely: the absence of private property in land: the presence of large-scale irrigation systems in agriculture: the existence of autarchic village communities combining crafts with village and communal ownership of the soil: the stagnation of passively rentier or bureaucratic cities and the domination of a despotic state machine which syphons off the bulk of the surplus and, as a consequence, functions not merely as the main repressive apparatus of the ruling class but also as its principal instrument of economic exploitation.

It is hardly surprising that Marx's constant shifting between theoretical and empirical spheres is reproduced in a variety

of guises. For Melotti, it is the historical and geographical peculiarities of Asia⁴⁰ (i.e. descriptions of specific societies) that structure the A.M.P. In developing this point Melotti effects the collapse of the theoretical/abstract formulation of the A.M.P. and the empirical/concrete description of Asian socio-economic forms) Thus, we find that the various page references to the A.M.P. In Melotti's index relate only to descriptive aspects of concrete Asian social formations. Wittfogel (1957), in his chapter 'The Rise and Fall of the Theory of the Asiatic society'. Lichtheim (1953), in an article entitled "Marx and the Asiatic Mode of Production' refers to Marx and Engels' account of 'Oriental society'. In a later collection of essays (1967), this article is actually reprinted under the most appropriate and accurate title of 'Oriental Despotism'. Sawyer (1978) in chapter on 'The Marxian Concept of the Asiatic Mode of Production', specifically focuses on the descriptive categories of: 'Asiatic despotism'; 'Oriental despotism'; 'Asiatic society'; 'Oriental society'; 'Oriental world' and 'Asiatic state'. Even in the work of Krader (1975), whose analysis of Marx on the A.M.P. is the most comprehensive to date, there is still a tendency to equate the Indian village economy with the mode of production. Thus Krader can argue: 'Much has been written about the stagnation of the A.M.P.; to be sure, these societies (my italics) showed a backward form to the outside observer and 'As a category of the Asiatic societies and economies it (the

A.M.P.) accounts primarily for the external relations of the Asiatic peoples and secondary for their internal relations and developments'.⁴¹

A contemporary instance of the inability to come to terms with the exceedingly problematic status of the A.M.P. in Marx's writings is well illustrated by Bailey and Llobera (1975) who argue that:.....we see in the different works of Marx and Engels, the genesis and development of the concept of the Asiatic mode of production'. But, where precisely, in the works of Marx and Engels do we find this concept 'developed'? Further on in the same article, in a paraphrase of Capital III, Bailey and Llobera claim 'When the state is the landlord, as happens with the Asiatic mode of Production, there is no distinction between ground rent and tax.'⁴² Now in the original text, the reference is not actually to the A.M.P. but rather to Asia. Here, my argument is that while the tax/rent couplet might suffice to define the mode (and this is another question) it is still quite misleading to substitute the notion A.M.P. for the descriptive category 'Asia'. The terms refer to different level categories: they are not synonymous.⁴³

STATE AND ECONOMY - THE UNRESOLVED RELATIONSHIP

The problem of the relationship between theoretical and empirical in Marx and subsequent commentaries is most

marked in discussion of the status of hydraulic agriculture in the A.M.P. and Asia. Hydraulic agriculture, as the central feature of the A.M.P. (Or 'oriental despotism', depending on one's inclination), is the key factor in many of the reconstructions. Yet, Marx mentions hydraulic agriculture in only two contexts. 'The British Rule in India' article:

*This prime necessity of an economical and common use of water... necessitated in the Orient...the interference of the centralizing power of Government. Hence an economical function devolved upon all Asiatic Governments, the function of providing public works.*⁴⁴

and, more obliquely, the Grundrisse:

*The communal conditions for real appropriation through labour, such as irrigation systems (very important among the Asian peoples), means of communication, etc. Will then appear as the work of the higher unity-the despotic government which is poised above the lesser communities.*⁴⁵

In neither work does Marx suggest that the genesis of the Asiatic state form is explicable in terms of an institutional response to climatic conditions of aridity. Nonetheless, albeit in varying degrees, Wittfogel; Godelier; Thorner; Lichtheim; Mandel; Anderson and Sawyer all emphasize the indispensability of hydraulic agriculture in Marx's characterisation of Asiaticism. In consequence, hydraulic agriculture has become generally accepted as a necessary

condition of existence of the mode.⁴⁶ According to Wittfogel (1957) and Andreski (1964) Marx was attempting to establish a causal link between irrigation agriculture and the emergence of the Asiatic despotic state. This claim, at least in unqualified form, is difficult to sustain since Marx did not establish a causal connection between conditions of irrigation agriculture and the emergence of the Asiatic despotic state form but rather suggested-at least in the New York Daily Tribune article-a link between conditions of irrigation agriculture and the extension of state control. In this sense, the Asiatic state is simply a noncapitalist interventionist state. A detailed articulation of the precise relationship between condition of aridity and Asiatic despotism is nowhere to be found in the works of Marx. In 'The British Rule in India' article Marx does argue that the necessity of economic and common use of water devolved upon all Asiatic governments the function of providing public works, but this argument does not imply, as Wittfogel would have it, a theory of the genesis of the state. Wittfogel's claim that 'it was the need for government-directed water works that according to Marx gave birth to the Asiatic state'⁴⁷ is certainly overstated. In a discussion of the relationship between economic base and superstructural forms in Volume III of Capital, and immediately following on the discussion of the tax/rent couplet, Marx indicates the complexity of the relationship between economy and polity:

*It is always the direct relationship of the conditions of production to the direct producers... which reveals the innermost secret, the hidden basis of the entire social structure, and within the political form of the relation of sovereignty and dependence, in short, the corresponding specific form of the state. This does not prevent the same economic basis - the same from the standpoint of its main conditions-due to innumerable different empirical circumstances, natural environment, racial relations, external historical influences, etc., from showing infinite variations and gradations in appearance, which can be ascertained only by analysis of the empirically given circumstances*⁴⁸

Clearly, in the light of the foregoing, the crude teleological determinism implicit in Wittfogel's portrayal of Marx is without justification.

Setting aside the distortion introduced by Wittfogel, the explanation of the genesis of the state in the Orient, nonetheless, poses a number of problems for the Marxist theory of the state. According to the materialist view of history expressed by Engels in *The Origin of the Family, Private Property and the State* (1948) the state 'is a product of society at a certain stage of development' i.e. the stage at which a class of non-labourers engage in extracting the surplus product from the direct producers. Within the context of the classical West this process is associated with both the expansion

of the division of labour and the development of the private property. In consequence, the state emerges in response to class antagonisms and in midst of class antagonisms. Here, it is not difficult to detect an underlying functionalist leading in Engels' 'alleviate the conflict' - by appearing to transcend society - and maintain it within the bounds of order. Thus, the function of the state is the 'orchestration' of class conflict and the maintenance of social order. While the state appears to transcend class interests, in effect, the very structure of the state is itself shaped by the interests of the economically dominant classes. In *Anti-Duhring* (1859) the same functionalist tendency reappears. In this work, Engels argues that 'the exercise of a social function was every where the basis of political supremacy; and further that political supremacy has existed for any length of time only when it discharged its social functions'⁴⁹. Now, if we accept his emphasis on universal 'social function' it becomes possible to locate the genesis of the Asiatic state in Engels' general theory. For Engels - whose position is actually very close to that attributed by Wittfogel and Andreski to Marx-the function of the Asiatic state is the provision of centralised irrigation works, whereas the function of the state in the West is the containment of class antagonisms. Whereas both Marx and Engels associate the expansion of the division of labour in the West with the development of private property, the East is characterised, in contrast, by the lack of

correspondance between these two phenomena. Certainly both writers are well aware of the extension of the division of labour in classical, medieval and early British India. Marx, for instance, in 'The British Rule in India' draws on an old official report of the British House of Commons on India, affairs to provide a detailed outline of such an occupational division:

*The Kurnum keep the accounts of cultivation, and registers every thing connected with it. The tallier and the totie, the duty of the former of which consists in gaining information of crimes and offences, and in escorting and protecting people traveling from one village to another; the province of the latter appearing to be more immediately confined to the village.... The boundaryman, who preserves the limits of the village.... The superintendent of tanks and watercourses distributes the water for the purposes of agriculture. The Brahmin, who performs the village worship. The schoolmaster, who is seen teaching the children in a village to read and write in the sand.*⁵⁰

Neither Marx nor Engels, however, believe that the extention of the division of labour in the East has implications for the development of private property and the concomitant emergence of class antagonism. This position is defensible only if the state - as is the case in their analysis of Asia - is both part of the superstructure and part of the productive base itself. This is effected

through the state as 'owner' of the dominant means of production, i.e. the state as landlord. Under such conditions, the surplus product is appropriated by the state, hence rent and taxes coincide and the development of private property is curtailed.

Marx's analysis of the Oriental state poses a further problem for the Marxist theory of the state. According to Marx, Indian village communities were both exploited by and dependent upon the centralised state while concurrently remaining self-sufficient and isolated. The conditions of co-existence of exploitation, dependency, isolation and self-sufficiency need to be explained. The exploitative relationship between state and society and the variation in that relationship in specific empirical instances is omitted from Marx's analysis. If we accept that the economic surplus is extracted from the direct producers by a parasitic non-productive and exploiting class, then this fact must have implications for (a) the internal economic organisation of the village and (b) the maintenance reproduction of the isolated village complex. If land is held in common possession - and this is the argument developed by Marx regarding village India in the Grundrisse and Capital I - then it is possible that tension may develop at the point of intersection between the non-productive and exploitative state class on the one hand, and the seemingly 'classless' and productive village communities on the other. The source of such tension could derive either from the form and

method of extraction of the economic surplus or the form and method of mobilisation of labour for public works.

Of course, the whole question of communal ownership within the Indian village context is exceedingly problematic. Marx's failure to specify the period to which his data relates does not help. Under the Mughals, available evidence (Habib, 1963) indicates that peasant cultivation was essentially individualistic. Marx's characterisation of a communally based form of property holding was most probably reinforced by nineteenth century British officer reports of communal ownership and redistribution in the North West provinces which arose out of a misunderstanding of the occasional practice in which a tenant, rather than paying rent directly to an individual peasant proprietor, might opt to contribute to a common pool covering village expenses. In the pre-Mughal period there is evidence of both individual and communal ownership in various regions of India. Under the Cholas of South India, for instance, whilst individual land holding did exist, communal holding was predominant. Again, under the Gupta Empire, there is evidence that patterns of both communal and individual land holding co-existed.

For Marx, the method which unpaid surplus labour is extracted from the direct producers is seen to correspond to a definite stage in the development of the productive process which, in the absence of the class

struggle, guarantees the re-production of the mode. This assumption - which appears in the Preface to a Critique of Political Economy, the Grundrisse and Capital III - does not correspond with that static characterisation of Asiatic despotism popularised in the New York Daily Tribune articles on the nature of British rule in India and, paradoxically, reappearing in Capital III. For if the Asiatic form is immanently static how then can it constitute a progressive stage in the development of productive forces? The contradiction is explicit. If we shift the focus to village India, the contradiction in Marx's analysis is evident in that he fails to resolve the underlying tension between two conflicting postulates: those of the classes and hierarchical models of village social structure, respectively. In Capital I, for example, he focuses on the classless egalitarian model:

Those small and extremely ancient Indian communities, some of which have continued down to this day, are based on possession in which have common of the land, on the blending of agriculture and handicrafts, and on an unalterable division of labour, which serves, whenever a new community is started, as a plan and scheme ready cut and dried.⁵¹

In 'The British Rule in India' article the accent is on the delineation of classes and/or ranks within the village context:

We must not forget that these little

*communities were contaminated by distinctions of caste and by slavery... that they transformed a self-developing... social state into never changing natural destiny, and thus brought about a brutalizing worship of nature, exhibiting its degeneration in the fact that man... fell down on his knees in adoration of Hanuman, the monkey, and Sabbala, the cow.*⁵²

Now, if we assume a class/status model then there is no necessary contradiction between the two approaches. For Marxist theory, however, the problem remains unresolved. Of course, if it can be established that: (a) class struggle is absent, therefore, (b) the mode of production is reproduced unimpeded then, at least, the context of Marx's seemingly Europocentric analysis of the effect of British rule in India becomes clear.

RIGOUR MORTIS

To date, theoretical objections to the A.M.P. have been most vigorously expressed by Hindess and Hirst (1975). Hindess and Hirst are exclusively concerned with concept formation, that is, they are concerned with providing formalistic definitions which have theoretical validity in Marxist theory. What actually constitutes Marxist theory is determined in relation to the Althusserian notion of the epistemological break. This thesis is itself highly ideological. Essentially, Hindess and Hirst are concerned with

developing a critique of empiricism. In *Pre-Capitalist Modes of Production* (1975) they argue that 'Our constructions.... are theoretical and can only be evaluated in theoretical terms, i.e. in terms of their rigour and theoretical coherence. They cannot be refuted by an empiricist recourse to the supposed 'facts' of history'.⁵³ Now I would like to suggest that their critique of Marx on the A.M.P. falls short of their own methodological structures since it entails a discrepancy between intention and practice. This means that on occasions their constructions are, indeed, derived from the supposed 'facts' of history.

Hindess and Hirst reject the theoretical validity of Marx's formulation of the A.M.P. on the grounds that where rents and taxes coincide, i.e. where the state is both landlord and sovereign, it is not possible to deduce an articulated combination of forces and relations of production. Since it is the unitary articulation of forces and relations of production which define the mode and since the tax-rent couplet could be arbitrarily conjoined with either the forces of production of independent cultivation or communal cultivation such an articulation is absent and, in consequence, the mode is theoretically invalid. The Hindess and Hirst position can be conveniently simplified. The main thrust of their argument is that in the absence of a ruling landlord class independent of the state the means used to appropriate the surplus product from the direct producers are identical to those used

by all states to levy taxes, hence, it is theoretically possible to establish that the subordination of peasants is identical to that of all subjects of the state. Moreover, once the absence of a landlord class is assumed, it can be argued that the tax/rent couplet (defining relations of production) may be coterminous with two distinct sets of productive forces: independent peasant cultivation and communal production. For Hindess and Hirst, and this is the argument propounded in *Pre-Capitalist Modes of Production*⁵⁴, it is the absence of a unitary relationship between forces and relation of a unitary relationship between forces and relations of production that invalidates the concept of the A.M.P. According to their argument, since the same relation of production can co-exist with both independent peasant production and communal productions, a unitary relation between relations and forces is absent and, in consequence, the concept A.M.P. lacks theoretical validity. Why- in the context of the A.M.P.- do Hindess and Hirst assume the absence of the necessary unitary relation? Clearly, there is no obvious theoretical explanation and Hindess and Hirst are, after all, concerned with theoretical explanation. Arguably, the absence of a unitary relation is assumed because Hindess and Hirst implicitly accept one particular interpretation of Marx's view of Asian social formations namely, that which features the absence of property but the existence of both private and common possession of land. An alternative theoretical formulation of the

A.M.P. might assume a unitary relationship and, in terms of their criteria, this would assure the validity of the concept.

The problem of Hindess and Hirst's implicit empiricism is not just restricted to the formulation of the A.M.P. They could well have argued, for instance, that a unitary relation between forces and relations of production is absent in the ancient mode since the relations of production (i.e. the extraction of the economic surplus by the state and redistribution among citizens) could co-exist with both independent peasant production and communal production. However, that is not the case and they do assert that a unitary relation exists between forces and relation of production. Why? Arguably, because such a theoretical position can be derived from and is not at variance with Marx's *Grundrisse* account of the ancient world.

Despite protestation to the contrary, the construction which result in the non-formation of the concept A.M.P. and the formation of the ancient mode are derived from descriptions of concrete social formations. This failure to comply with their own methodological prescriptions highlights the problems of theoretical abstractionism. While it is important to maintain a distinction between concepts as analytic tools and descriptions of reality we must not forget that we develop concepts for the very purpose of illuminating our understanding of that reality. This is

precisely what Hindess and Hirst fail to grasp.

CONCLUSION

The tendency on the part of Kosambi, Joshi and Alavi to characterise pre-colonial India as predominantly feudal can be appreciated in the context of a critique of colonialism. The problem of the transformation of the A.M.P. has been left largely unanswered by Marx who vacillates between two accounts of this question. In the New York Daily Tribune the A.M.P. is perceived as inherently static and it is this statism that legitimates the colonial intervention. By contrast, in the Grundrisse and Capital I, a more dynamic view is expressed in which the AMP gives way other models. Marx's thesis provides an indirect justification of colonialism and imperialism, but that justification cannot be upheld if it is established that the prevailing mode in the immediate pre-British India era was feudal rather than Asiatic. By claiming a feudal heritage, Kosambi and Alavi can maintain a position in line with Marxist analysis while rejecting Marx's legitimation of imperialism. If, however, it can be established that the A.M.P. does have an inherent dynamic then the defence of the feudal view is weakened. Arguably, the maintenance of massive standing armies-which consumed two thirds of the surplus product but were essential for the reproduction of the mode-constitute the location of such a dynamic. The point at which the maintenance of armies becomes

prohibitive is the point at which the mode must start to disintegrate since its reproduction can no longer be guaranteed. In the case of the A.M.P. unlike the capitalist mode of production, there are no offsetting factors.

The explicitly ideological and geographical connotations of the term 'Asiatic', which are central to Melotti's characterisation of Marx's analysis, are both misleading and unessential. It is difficult to (a) reject the term 'Asiatic' without (b) negating the mode to which that term has been applied. The rejection of the term, however, does not necessarily entail the negation of the mode. For Marx it is the tribute raising state which appropriates the surplus product from the direct producer and which stands in the same objectively antagonistic relationship to that producer as does the slave-owner to the slave, the feudal lord to the serf, and the capitalist to the wage labourer. Thus, it is the means whereby the surplus product is appropriated which sets apart the mode in question-which may legitimately be designated 'tributary'⁵⁵ - from other modes. This is the sense in which the tax/rent couplet does have theoretical validity. However, that the tax/rent couplet may constitute the dominant mode of appropriation of the surplus product in a particular geographical location - Asiatic or otherwise - at a specific point in time does not justify the conflation of mode and society.

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Notes

1. For a good resume of the debates culminating in the Leningrad Conference decision of 1931 see: Bailey and Llobera (1975) and Sawyer (1977)
2. Stalin's unilinear progression of historical stages is made quite explicit in 'Dialectical and Historical Materialism' (1938). According to this thesis, the socialist system replaces the capitalist system as the capitalist system replace the feudal before it. The A.M.P. is conspicuous only by its absence.
3. Dobb in a reply to Sweezy's critique of Studies in the Development of Capitalism (1946) refers to 'Asiatic feudalism' where Kuo Mojo and Mao Tse Tung identify the pre-capitalist mode of production in China as feudal. Stalin, of course, in his 1927 article, 'Notes on Contemporary Themes: China', affirms that same position (Franklin, 1973).
4. Among the most theoretically significant contributions to this debate are: Frank, (1967,1969); Moore (1969); Laclau(1971); Banaji (1972,1973,1977); Anderson (1974);

Alavi (1975); Hindess and Hirst (1975); Taylor (1975,1979). Amin (1976); Asad and Wolpe (1976); Melotti(1977); Omwedt and Patankar (1977); Foster-Carter (1978); Kahn (1978); Omwvedt(1980).

5. Hindess and Hirst (1975:181)

6. Banaji (1972) suggests a basis for the further delineation of modes of production by distinguishing the category of 'relations of exploitation' from that of 'relations of production'. Serfdom constitutes the dominant relation of exploitation under the feudal mode; tribute or corvee labour the dominant relation of exploitation under Asiatic mode; and wage labour the dominant relation of exploitation under the capitalist mode.

However, neither serfdom, tribute nor wage labour suffice to define the conditions of existence of feudal, Asiatic and capitalist modes. It is only when relations of exploitation are contextualised within the general development of the productive forces - as, for example, is the case where wage labour exists under conditions of generalised commodity production - that they constitute relations of production proper, i.e. relations that define the mode.

7. References to 'Oriental depotism' for example, feature in The 'British Rule in India' (New York Daily Tribune, 1853); Grundrisse (1857); Engels' article 'On social Conditions in Russia' (1875) and Anti Duhring (1878).

8. *As the reference to the A.M.P. in Capital (1954) is not widely known it is worth quoting:*
In the ancient, Asiatic and other ancient modes of production, we find that the conversion of products into commodities, and therefore the conversion of men into producers of commodities, holds a subordinate place, which, however, increases in importance as the primitive communities approach nearer and nearer to their dissolution(79).

9. Marx, K and Engels, F: Selected Works (1968,183).

10. The term 'society' is actually much more frequently employed by Marx than the recently discovered notion of 'social formation' popularised by Althusserian influenced writers such as Poulantzas (1974) and Hindess and Hirst (1975), and now in common usage among contemporary scholars.

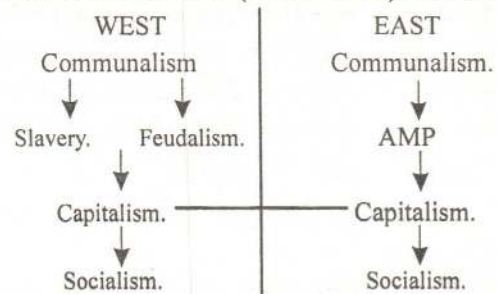
11. Marx, K: The German Ideology (Part 1, 1970, pp. 43-45).

12. The explicitly ideological and geographical connotations of the term 'Asiatic' are unfortunate. As Hindess and Hirst(1975,180) correctly argue:... concepts can no more be 'Asiatic' than they can be green or feline'. It is difficult (a) to drop the term 'Asiatic' without (b) negating the very mode which that term represents. The rejection of the term, however, does not necessarily imply the negation of the mode, a position which at times would seem to be implied by Hindess and Hirst. The resolution of the problem lies in the adoption of the term 'tributary' in lieu of 'Asiatic'. The use of this term is firmly grounded in Marx's writings (1962:321,325,771: 1973:473). For Marx it is the tribute raising state which appropriates the surplus product from the direct producer and which stands in the same objectively antagonistic relationship to that producer as does the slaveowner to the slave; the feudal lord to the serf and the capitalist to the wage labourer. This question is discussed further in: Amin (1976), Trimberger (1977) and Currie (1980).

13. Both Melotti (1977) and Sawyer (1977) address this question and develop diagrammatic reconstructions of both types of schema. In both works, problems of the dynamic of change remain largely unresolved. For the interest of the reader, I have included Sawyer's reconstruction of Marx's multilinear (Grundrisse) schema (see

below). I have chosen to omit Melotti's more complex reconstruction since Melotti has developed the model well beyond Marx's own analysis.

Marx's Multilinear (Grundrisse) Schema.



14. Capital I(1954:77)

15. The relevant section of the Grundrisse is Section II, 'Original Accumulation of Capital' (Forms which Precede Capitalist Production). My references to the text are drawn from: Marx, K (1964): Pre-Capitalist Economic Formations (with an introduction by Eric Hobsbawm).

16. Here, it is only fair to note that, for Marx, although the Grundrisse was an important text which he valued highly, it was not intended for publication. This view is clearly expressed in a letter to Lasalle (November 12, 1858) in which Marx describes the Grundrisse as, monographs, written at widely varying periods, for my own clarification and not for publication; Marx, K(1964:10).

17. Marx K:Pre-Capitalist Economic Formations (1964;PP.69-74).

18. Lbid.

19. Marx, K: Capital III(1962:PP 771-772).

20. In this paper I am not primarily concerned with evaluating the accuracy of Marx's descriptions of Indian society. It is my belief, however, that he over emphasised and exaggerated the extent of stagnation, isolation,

and the degree of village independence from market forces. This theme is explored in a paper on petty commodity production in Mughal India (Currie:1981).

21. Marx, K: 'The Future Results of British Rule in India', New York Daily Tribune, August 1853, cited in Marx, K and Engels< F: On Colonialism (1959:81) and reproduced in Avineri, S: Karl Marx on Colonialism and Modernization (1969).

22. Marx, K: Capital I (1954:358).

23. Hegel, G: The Philosophy of History (1956:161).

24. To my knowledge, amongst the best commentaries on the 'intellectual heritage' of the India writings are Hobsbawm's 1964 introduction to *Prc-Capitalist Economic Formations*. Thorner's 1966 *Contributions to Indian Sociology* article and Anderson's 1974 note on the A.M.P. in *Lineages of the Absolutist State*.

25. This work is transcribed, edited and introduced by Krader (1972)

26. Marx, K: Capital III (1962:776). Gupta (1980:251) argues that by 1858 Marx 'no longer considered despotism and stagnation to be the essential features of societies characterized by the Asiatic mode of production'. I find no evidence for this assertion.

27. Letter to Engels, June 2 1853 in Marx, K and Engels, F: *Correspondence 1846-1895* (1934:66).

28. Lbid: 70.

29. To my knowledge, the best and most fascinating source relating to the existence of private ownership of land in an earlier period of Indian history (A.D.800-1200) is Gupta's *Land System in South India* (1926). In this work, Gupta cites the instance of a gift of land made by temple trustees to a dancing girl for acting in a play at a religious festival; other grants of land being made

to teachers giving lessons to the youths of a monastery; and the grant of land from temple trustees to fan bearers, musicians and stone cutters... Under the Cholas, when a private person made a grant of land he first had to gain permission from the King. When the grant was for religious purposes, permission was rarely refused. Here, I am not claiming that private property existed in the context of a legal framework approaching that of bourgeois property law either under the Mughals or in earlier periods of Indian history. My point is simply that the laws governing ownership of land were both more complex and more fluid than Marx assumed.

30. Engels, F: *Anti-Duhring* (1959-243).

31. Marx, K: *Capital III* (1962:328).

32. Lbid:772.

33. More of the standard sources on the early British colonial period contain accounts of the two major types of settlement. Essentially, *zainindari* settlements (mainly in the East) involved the incorporation of local officials into the process of tax collection in a system in which the *zamindar* received a property right. By contrast, in *ryotwari* settlements (mainly in the South) revenue was collected directly from the peasants rather than through official intermediaries. In both cases, settlements were not nearly as secure as Marx seemed to have assumed. Arguably, dispossession of *zamindars* was an important factor in the 1857 Sepoy Mutiny.

34. Marx: 'The British Rule in India', New York Daily Tribune, June 25, 1853 cited in Marx, K and Engels, F: *On Colonialism* (1959:41).

35. Marx, K: 'The Future Result of the British Rule in India', New York Daily Tribune, August 08, 1853, *lbid*:82

36. Ibid : 82
37. Ibid : 85
38. Mandel 1991 : 121
39. Anderson 1989 : 483
40. This is the position adopted by Melotti in spite of the fact that Marx's use of the terms 'Asiatic Despotism' and the 'Asian form' encompassed : Egypt, ancient Mesopotamia, Persia, Mexico and ancient Celtic society (Marx and Engels : On Colonialism (1959 : 37) and Marx Pre-Capitalist Economic Formations (1964 : 70)
41. Krader 1975 : 292, 176
42. Bailey and Llobera 1975 : 95, 100
43. I have considered this question in some detail elsewhere. See Manivasagar 1997 : 28-30
44. Op. Cit : 37
45. Op. Cit : 71
46. Krader (op cit : 290) is an important exception to the trend in that he does not accept that the centralisation of the management of water control is a specific and determining feature of the A.M.P.
47. Wittfogel : 1957 : 374
48. Marx, K: Capital III (1962 : 772)
49. Engels, F: Anti-Duhring (1959 : 248)
50. Marx, K: op. Cit: 39. This description also appears in Capital I. (op. cit : 357)
51. Ibid
52. Op. Cit : 41. This passage provides a further illustration of Marx's ethnocentrism. The similarity with Hegel's view of the East (op. cit. : pp. 166 - 167) is quite striking.
53. Hindess and Hirst (1975 : 3)
54. By 1977 the positions advanced in Pre-Capitalist Modes of Production are revised. The necessity of maintaining a correspondence

between forces and relations of production is dropped and new grounds are established for invalidating the A.M.P. In the recent account it is argued that the state forms a necessary part of economic relations crucial to the existence and re-production of the productive process only if we assume conditions of hydro-agriculture. This would involve accepting a simple functionalist theory of the state and must, therefore, be rejected. In consequence, the tax/rent couplet cannot constitute relations of production so the mode cannot be constituted.

55. I have discussed this notion elsewhere : see note 12 and Manivasagar 1997 : 17 - 19

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Identifying Socio - Economic Inequality by Food Consumption Patterns in Jaffna Peninsula - A Multivariate Statistical Approach

C. Elankumaran

Abstract

Socio- Economic indicators of developing countries vary depending on their Economic structure. However, food consumption pattern has been a common indicator of socio - economic status in almost all the societies. Food consumption patterns are undergoing substantial change in many countries as economic development proceeds. Food insecurity, food deprivation and famine are also some common phenomena in some under developed countries. But, in the Jaffna peninsula of Sri Lanka the food consumption patterns have been terribly affected due to the ethnic conflicts and civil war during the last two decades. This is more severe during the last decade, end of the last century. A cross sectional study named "Jaffna Socio- Economic Health Study" conducted in early 1999 reveals that there is much variation in the food consumption patterns among the society. Altogether 1172 families, throughout the peninsula drawn by a two stage sampling technique, were subjected to study.

The data collected by a pre-designed questionnaire include information of a demographic nature, characteristics of parents, monetary status, and food consumption patterns of families. Exploratory data analysis and Multivariate techniques such as Principal components analysis, Factor analysis and Canonical correlation analysis were employed to extract the common factors causing the variation in food consumption patterns. A notable demographic variation was observed among the families. Broad variation in income and expenditure distribution was also detected. An important factor namely "Effective income as controlled by non - health expenditures and food subsidy" was identified to cause the changes. The variations in individual food items in different zones were observed according to the domestic features of the zones.

A cluster analysis on the food consumption patterns of the families was performed on the basis of seventeen important food items mostly consumed by the Jaffna society. Cluster analysis was also performed on the basis of three important nutrients 'energy', 'protein', and 'fat' data transformed from the food consumption data. The analysis revealed that there are three major groups of similar food consumption patterns in the society. Canonical discriminant analysis was used to strengthen the results. The demographic structure or family composition showed the most positive effect followed by moderate effects by characteristic of parents and monetary status of the families on discriminating food consumption patterns. The three distinct clusters of families with varying food consumption patterns and the variation in the monetary status of the families in the corresponding clusters give a different dimension in socio - economic inequality in the war affected Jaffna peninsula of Sri Lanka.

1. INTRODUCTION

The problems accounted with food are usually approached by economists through two dimension, 'food supply' and 'food demand'. Food production and food consumption are the practical events directly connected to these two economic terms, respectively. We concentrate on food demand, i.e. Food consumption, in this paper. Although monetary expenditure on food consumption is not a good indicator, it is well known that the family budget includes highest priority on food expenditure. Actual physical quantity of food intake will be an appropriate indicator for the analysis of food consumption of a family (JSA, 1993).

Different food items contain varying quantities of different nutrients or nourishing matter, needed by the body for its growth, and well being. The nutrients needed differ, according to the physiological functioning and process ; more being needed at times of rapid growth, as infancy, early childhood, adolescent period and stress situations such as pregnancy, lactation, sickness, recovery and work. The Jaffna society, which traditionally is a vegetarian society, today gives more emphasis to

non-vegetarian diet, without considering quantity of the items included in the food. The infants and preschool children of the Jaffna society suffer lack of nutrition due to lack of knowledge amongst mothers and grand mothers and the wrong dietary habits adopted (Nachahinarkiniyan, 1993).

Rae (1998) examined the effect of expenditure and urbanization growth on the demand for animal based products through time in a number of Asian countries, and found that urbanization often had a significant positive effect on consumption of such products. Huang and Bouis (1996) , using 1991 Chinese cross sectional data shown that, moving a consumer from a rural area to an urban area, would produce an increase in consumption of meat and fish. Chernichovsky and meesook (1982), based on the National Socio- Economic survey of Indonesia 1978 (Susenas) , found that increasing household size was associated with decreased consumption of animal products and fruits, and that increased educational status of the spouse was associated with increased consumption of the more expensive foods. Telku and Johnson (1988) found that household size lead to a reallocation of expenditure on foods.

We move closely with the current study. Ariyawardana, et.al (1999) studied the varying food consumption patterns of Sri Lanka. The study reveals that the Sri Lankan food consumption pattern has certain similarities with the developed as well as other fast developing countries. This study also highlights that the cereal consumption is at higher level, rice consumption exhibits a declining trend, and wheat consumption shows an increase which is registering a consistency with other countries. The data used in this Sri Lankan latest study is the data published by the Department of Census and Statistics of the Government of Sri Lanka covering the period 1986 to 1996. Unfortunately, this database does not include the data for Jaffna district as the function of Government departments on this type of field activities is not in operation due to the war and conflict in the region. Hence, the present study with primary data collected in 1999 will be meaningful for national as well as international comparison and conclusions.

The Jaffna peninsula of Sri Lanka faced a series of armed conflicts, military battles and economic blockades during the last two decades. People of Jaffna peninsula have been dynamic

since 1983. The degree of displacement of population has increased specifically in 1987, 1990 and 1995. People have been Socially, Economically, Physically, and even Mentally affected due to these continuous military battles and displacements. These conflicts and displacements have caused significant effects on food supply and food distribution to the people at village level within the peninsula. The vulnerable groups of people such as pregnant and lactating mothers, preschool children and infants had to face a dangerous situation and some of them have died due to lack of food supplies. The consequence of war includes, reduced and erratic supply of food and nutritional supplements (Sivarajah, 1993). The food situation in Jaffna peninsula has been unstable throughout the last decade. The war and related economic embargo affected the farmers and their crop production and hence the food supply from the local market was irregular and unstable. Hence, the traditional food habit practised by the people prior to 1990 has been substantially changed.

The custom and tradition of food intake style of Jaffna people could be characterized as follows. Lunch is taken as the main meal and most of the people have rice and curry. Some men have rice

and curry for both lunch and dinner. many people prefer flour-based meals for dinner, locally called 'palakaram' . This palakaram includes pittu, hoppers, string hoppers, thosai, idli, roddy, etc. The breakfast may also be of palakaram for some people, but many consume bread and supplements. These supplements include jam and butter or sampal or curry. Hence, the meals of Jaffna people can be categorized into three groups which are (1) 'rice and curry', (2) 'palakaram and curry', (3) 'bread and supplements' . The war in the Jaffna peninsula affected the occupation and income, hence the people had to change their life style and food intake patterns. This was also depended on the issue 'Nivaranam' which is the assistance given by the Government to the displaced, affected and economically poor families (Elankumaran, 2001). The 'Nivaranam' is defined as an indirect payment or 'food subsidy' by the Government to its village food supplier, called Multi-Purpose Co-operative Society (MPCS).

Three issues motivate the current study. The first is to find any common factors, which cause the food consumption pattern of the society. The second motivation is aimed at classifying the families of Jaffna peninsula into a

suitable number of clusters that reflect different food consumption patterns. Third is to determine which, if any, of a set of socioeconomic variables can be used to classify the families at various stages of dietary transformation. Hence to show the socio-economic inequality among the families with new variables which include 'family food subsidy' an incidental war related variable.

2. Survey Methodology

2.1 Jaffna socio- Economic Health study 1999

A cross- sectional study named 'Jaffna socio - Economic Health study 1999' (JSEHS 1999) was conducted by the author during March to June 1999. The study area includes six administrative divisions, called Divisional Secretariat's Divisions (DS Divisions) of the Jaffna peninsula. These six DS divisions constitute the valikamam sector of the Jaffna peninsula, experienced the major displacement , called 'Exodus 1995'. A two stage stratified random sample of 1172 families was drawn from 34 Grama Servaka (GS) divisions, which represent 34 villages of the Area. A GS division is the smallest administrative division in Sri Lanka. Every administrative district

is divided up into number of DS divisions and they in turn are further divided into GS divisions.

The preliminary investigation carried out in December 1998 and January, 1999 prior to commence this survey revealed that a total of 256,791 persons belonging to 73,302 families were registered and living in the study area which constitutes six DS divisions. The survey information on these six DS divisions, i.e. six zones, are given in Table 1. Teams of data collectors, headed by the author, conducted the data collection process. Direct and Indirect investigation methods were adopted to gather information and statistics from the families sampled.

A fifteen page questionnaire, consisting different headings on Social, Economic, and Health concepts, was used in this

survey. The data collectors recorded the information from the families while the author conducted the direct oral investigation with the respondents. The response rate of the survey was 95.82%. The collected data set is named as 'JAFFNA DATA'. Four sections of the questionnaire, namely, '**Family composition**', '**Food intake pattern**', '**Family expenditure**', and '**Occupation and Income**' are considered in the present study.

2.2 Variables and Data

Several studies have examined aspects of food consumption patterns with suitable data relevant to the region and its people. the primary focus of some Indonesian studies using 'Susenas National Household survey data' has been 'the influence of changing prices, incomes , and expenditures on food consumption'

Table 1: Details of population, sample and period of Jaffna Socio - Economic Health study 1999

Zone Code	Population (No of Families)	Second Stage Sample (No of Families)	Period of Survey (Dates 1999)	Not - Responded (No of Families)
JAFF	12,303	173	16/05 to 09/06	6
NALL	16,102	238	13/05 to 14/06	14
VASW	10,691	164	16/03 to 01/06	7
VAWE	9,131	172	18/03 to 12/05	4
VASO	9,859	193	24/03 to 09/05	8
VAEA	15,216	232	24/03 to 13/05	10
Total	73,302	1,172		49

and 'the nutritional status of house holds' Only one or two studies reported the impacts of variables that accounted for demographic and household characteristics. The explanatory variables used by Timmer and Alderman (1979) were expenditure and prices. Household characteristics such as size, age and sex distribution or educational status were not included.

In the present study JSEHS, four sections of the questionnaire, namely, **'Family Composition'**, **'Food Intake pattern'**, **'Family Expenditure'**, and **'Occupation and Income'** are mainly considered. The variables and data selected for this study are as follows. From the 'Family composition' section of the questionnaire, Family size, Age and Educational levels of husband and wife were directly obtained. The educational level defined for this study is the total number of years spent on **Schooling** and **Higher education**, which were two different variables in the questionnaire. **'Number of pre school children and Infants'**, **'Number of School/college/University students'**, **'Number of Unemployed Adults and Youths'**, and **'Number of Elders and Disabled persons'** were counted by using the occupational codes and the proportions

of these numbers related to family size are defined as variables.

From 'family expenditure' section, the details of monthly budget on various expenditure categories were obtained. The expenditure on **Food, Health, and Education** were directly used. But expenditure on eight other categories in the original questionnaire were combined into two new expenditure categories which are named as Expenditure on Household management and other Expenditures. Various types of savings were also combined and expressed as Total saving. From 'Occupation and Income' section, the occupational status of husband and wife, their monthly income, income of others in the family were obtained. The occupational codes of them were transformed into the scores of Occupational levels on a 50-point scale*. Monthly income of husband and wife are added together and the Monthly income of others are added separately to use two different income variables. The variable Household revenue due to Agricultural and Livestock production was defined by accumulating eight such revenue categories. Household revenue from other sources was obtained by three different sources of revenue on the

* C.Elankumaran, Ph.D thesis, Volume II, University of Jaffna (Unpublished).

original questionnaire. The seasonal revenues or incomes given by the respondents for the year were converted into monthly basis.

From 'Food Intake Pattern' section, Type and number of meals per day, and weekly consumption (Quantities) of seventeen different food items to the family were directly obtained. In addition to the variables on the above seventeen food items, three nutrient content variables, namely, Energy, Protein, and Fat are also defined. The food consumption data, collected by the quantities of seventeen food items were converted into energy, protein and fat. This is done on the basis of the conversions due to Nachchinarkiniyan (1993) and Wikramanayake (1987). These follow from tables of Food and Agriculture Organization (FAO) and National Institute of Nutrition, India.

The effects of war and conflict in Jaffna peninsula and a consequent event major exodus happened in 1995 in the study area, resulted loss of traditional occupations of many people. As a result of this situation the Government of Sri Lanka issued food subsidy to the families. This subsidy allowed the families to obtain essential food items

required for the survival of the family (Elankumaran, 2001). The amount of this food subsidy, called 'Nivaranam', is being considered as an additional revenue data, which is relevant, as far as the food consumption pattern is concerned. Hence a list of variables, with notations under two sub sections **Socio - Economic Data** and **Food Consumption Data**, has been prepared and given in Appendix A.

3. Food Consumption Model and Statistical Methods

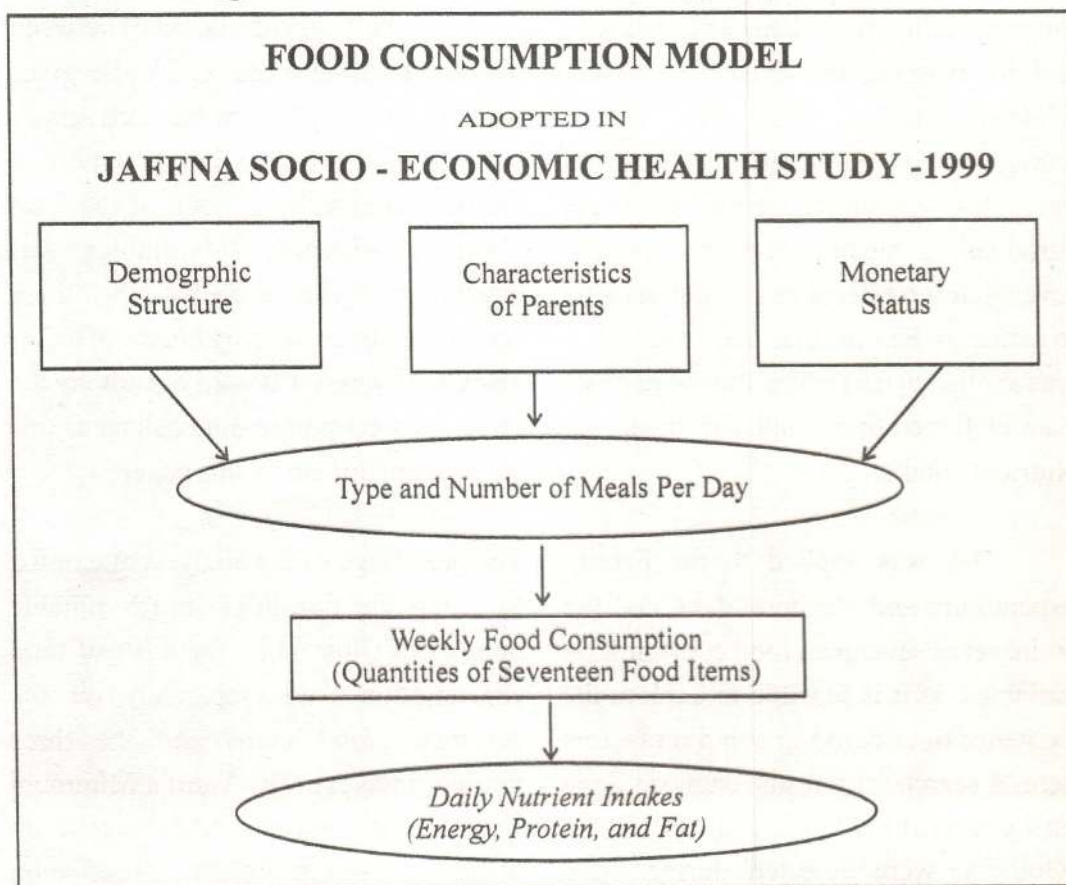
In the study of 'Clustering Dietary variables and Other lifestyle factors', Karin et. Al. (1992) employed Cluster analysis to classify subjects into groups based on similarities in dietary variables. K-means Cluster analysis was used to classify individuals into a limited number of groups on the basis of similarity in nutrient intake. In the study of 'Food Consumption pattern', Rae (1999) employed Cluster analysis to identify the typical clusters of households and then applied Discriminant analysis to see the consumption pattern.

The method of analysis for the present study originates with the definition of the following Food

consumption model. It is defined on the basis of the selected sets of variables of Socio-economic data and Food consumption data. The model is given by Figure 1 and its explanation also follows. The 'type and number of meals' is considered as the general food consumption pattern which is supposed to be determined by the socio-economic dimensions 'Family composition', 'Characteristics of Parents', and 'Family Expenditure and Household

Income/Revenue'. These three dimensions are shown as independent dimensions in this model. The 'Food consumption pattern' is defined on the basis of the intermediate factor 'Type and number of meals per day' shown in the model. The 'real food consumption' could be measured by the '**seventeen food items**' or '**three nutrient contents**', which are the depending dimensions according to this model.

Figure 1 : A model for food consumption patterns



In our study, a statistical methodology is required that allows a relationship to be established between a set of dependent variables (Food consumption pattern) and a set of independent variables (Socio- Economic status). We began with an Exploratory Data Analysis (EDA) to bring out the basic features and characteristics of the six - multivariate data sets shown in the model under investigation. The second stage of the analysis utilised Principal Component Analysis (PCA) and Factor Analysis (FA) to see whether the dimensionality of the data can be reduced and to examine the existence of any common factors. PCA was neither carried out on the family composition variables as aggregation of these variables is meaningless; nor on the seventeen food items as it is not suitable to nature of the variables. However, PCA was applied to Characteristics of parents, Family Expenditure and Revenue, and Nutrient intake.

FA was applied to the Family expenditure and Revenue data, and the entire set of seventeen food consumption variables, as it is feasible to explore the existence of underlying common factors here. A search for unusual data was done on the basis of EDA, PCA, and FA. Some 'Outliers' were detected during these

first and second stages of the analysis, and were removed prior to further analyses of the various data sets. The interrelationships between sets of variables were studied during the third stage of the analysis. Only suitable pairs of sets of variables were considered for exploration. This analysis allowed to interpret the individual relationships. At the second step, structural relationship between sets was performed. The statistical technique Canonical Correlation Analysis (CCA) provides a procedure for computing correlations (called 'canonical correlations') between two sets of dimensions. CCA also gives (Canonical) coefficients for both sets of variables for possible interpretation of the interrelationships. Each of the food consumption sets of variables was interrelated with each of the three economic dimensions by means of CCA. The CCA was not carried out among the three socio-economic dimensions as this was not a major aim in this paper.

The next stage of the analysis attempted to group the families into a suitable number of Clusters on the basis of food consumption data (separately on the seventeen food items and the three nutrient intakes). The Ward's Minimum Variance method based on the 'euclidean distances' between the observation

vectors was utilised here. Once the clusters of families were obtained, an attempt was made to see which food consumption patterns influenced the creation of family clusters. Multivariate Analysis of Variance (MANOVA) was utilised to examine the significance of the differences between the family clusters obtained and to choose an optimum number of clusters for further investigation. Cross classifications was also considered to see whether the new family clusters had any similarity with the existing administrative set up in the Jaffna peninsula.

The differences between the clusters of families (once detected by MANOVA) were highlighted using 'canonical discriminant functions' of the dimensions considered for clustering procedure. This was carried out using Canonical Discriminant Analysis (CDA), applied on the clustered data. The canonical functions were used to verify the discriminatory power of socio-economic variables on the food consumption patterns (as the clusters were obtained based on the food consumption variables). Descriptive statistics of the new family clusters were also computed for further interpretation.

4 Results and Discussions

4.1 Features and relationships of Different Dimensions of the model

We first describe the three socio-economic dimensions 'Family composition', 'Characteristics of parents' and 'Family expenditure and revenue' which are defined, described, and shown in the model.

A. Description of Family Composition

We have considered five variables Fsize, PrPSI, PrStu, PrUnE, and PrEID to describe the family composition. Because, Pre-School children, Infants, Students, Unemployed persons, Elders and Disabled persons give more burden to the chief occupants and spouse in determining the weekly food basket of their respective families. The descriptive statistics of these five variables for the six zones and the entire region were examined.

If we consider the entire study area, the family size varies from 3 to 13 and the average size is 6. Pre-school children and infants occupy nearly 10 percent in a family. Similarly students, whether they are school going or colleges and universities going, they occupy nearly 34 percent in a family, Unemployed adults

and youths occupy nearly 5 percent in a family. Similarly elders, disabled and handicapped persons together occupy nearly 5 percent in a family. These estimates are validated by their small standard errors, which is understandable due to the large sample. The proportions described are significant and they should naturally influence the food consumption patterns.

B. Description of Characteristics of the Parents.

We used eight variables AgeH, AgeW, EdLeH, EdLeW, OcLeH, OcLeW, SIHsH, and SIHsW to describe the characteristics of parents. The last two variables, sleeping hours, were not measured from 34 husbands and 3 wives, as they were not residing at the houses during the study. The descriptive statistics of the characteristics of parents for the six zones and the entire region were examined. In the entire area average ages of husbands and wives seem to be 47 and 42 years respectively. These ages vary from 22 to 80 years and 19 to 79 years respectively. Average educational levels for them are around 9 years. Average occupational levels, on a 50 - point scale defined in JSEHS, are 18 for husbands and 9 for wives. Average sleeping hours seems to be 7 hours for all

the parents and vary from 3 hours to 11 hours. The standard error of occupational level of husbands seems to be very high; this is because of the varying occupations of the husbands. This could be due to the frequent shifting of occupations due to the exodus happened in 1995 and continuous war atmosphere.

We further analysed the characteristics of parents by PCA. The results revealed that the first four components all together explain 83.5 percent of the total variation and hence we examined them. The first two components (PC1 and PC2) which absorb 54 percent of the total variation, leads the following conclusions. The PC1 is highly influenced by educational levels and occupational levels of both husbands and wives, while both sleeping hours affect the component in the opposite direction. Though this component explains only 31% of the total variation, it can be seen from Figure 2 that there appears to be a demarcation between families with notable educational level of husbands and wives and the occupational levels of husbands from others. The PC1 is a contrast between sleeping hours with the rest of the variables, among which educational level and occupational level have large negative loading.

The PC2, which alone explains 23% of the total variation, is influenced by ages of both husbands and wives and hence the age effects could be seen in the component and figure. The sleeping hours of husbands and wives seem to influence the third component, which explains 19% of the variation. The fourth component with 10% variation is highly affected by the occupational levels of wives. As a whole, from the figure, we could see two different sub groups of families, one influenced by occupational levels and other influenced by ages, from the main group of families.

C.Description of Family Expenditure and Revenue

In this case we have considered 1121 families for income and revenue data and 1120 for expenditure data, since the respondent of one family refused to disclose the details of expenditure only. We have considered eleven variables ExFoo, ExHih, ExEdu, ExHoM, ExOth, TotSa, InH&W, InOth, ReA&L, ReOth, and FoSub to describe the monetary status of a family. The descriptive statistics of the variables for the entire region and for the zones are given in Table 1 of Appendix B. Here the first five variables explain the direct expenditure categories, sixth variable explains the

total savings (an indirect expenditure), the next four variables explain direct income and revenue and the last explains the food subsidy amount indirectly paid (indirect income) by the Government.

Average food expenditure per family is Rs. 4184 and it is a good estimate supported by its standard error Rs. 43. This expenditure varies from Rs.500 to Rs. 12000. The minimum food expenditure Rs.500 is reported from NALL zone. The family related to this minimum manages its food security with the food subsidy given by the Government. The maximum food expenditures Rs.12000 is observed from a rich family living in JAFF zone. Expenditure on Health and Education come to the second importance to the families. The average expenditures on both of these per family seem to be Rs.228 and Rs.489 respectively. Here also the standard errors are very low. These expenditures also vary from Rs.0 to Rs.3000 and Rs.4000 respectively. Both maximum expenditures are observed from the urban JAFF zone.

The average expenditures on Household management and Pooled other expenditure categories seem to be Rs.593 and Rs.1249 respectively. The

standard errors also very small here. These expenditures vary from Rs.0 to Rs.4950 and Rs.9100 respectively. The maximum expenditures on household management is observed from NALL zone and on other categories observed from JAFF zone. The average total - savings seems to be Rs. 1954, but its standard error is little higher than the previous four expenditure types. This varies from Rs.0 to Rs 70300. This reveals that the savings of the families must follow a distribution with broad variation. The unusual maximum of total - savings is observed from a family from JAFF zone whose chief occupant is a higher level proprietor.

The average income of husbands and wives together and all others in the families together seem to be Rs.5702 and Rs. 1126. The standard error of first income is higher, but of second income is small. The occupational inequality and hence the heterogeneity on salaries or wages reflect through this measure. Both incomes vary from Rs.0 to Rs. 70000 and Rs. 26000 respectively. The maximum Rs. 70000 is observed from the some family mentioned above from the JAFF zone. The maximum Rs. 26000 is observed from a family from NALL zone.

The average revenue on Agricultural and Livestock production together and all other categories together seem to be Rs. 774 and Rs. 1236 respectively. The standard errors of these mean revenue estimates are small and support the estimation. These revenues vary from Rs. 0 to Rs. 25000 and Rs.45000 respectively. The maximum revenue of the first case is observed from VASO zone, which is an agricultural zone. The maximum revenue of the second case is observed from JAFF zone, which has more businessmen and large property owners. The last variable is the food subsidy amount provided by the Government. The average amount seems to be Rs.866, and its standard error is also small. This amount varies from Rs.0 to Rs.2940.

Since the characteristics of monetary variables examined above show contrasting features 'Factor analysis' on these eleven variables was also performed. The factor analysis has become the most appropriate one here as one may argue that there may be some common causes for these contrasting features. The results due to varimax rotation are given in Table 2. Five factors have been extracted and all these together explain 70 per cent of the total variation. The factor loading vectors are also presented in this table.

Table 2: Results of factor analysis on the variables of Expenditure and Revenue.

Factor Analysis						
Rotated Factor Loading and Communalities,					Varimax Rotation	
Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Communality
ExFoo	0.644	0.066	0.262	0.217	-0.213	0.581
ExHlh	0.142	0.130	0.124	0.019	-0.896	0.855
ExEdu	0.616	0.114	-0.233	0.140	-0.251	0.529
ExHoM	0.616	0.102	0.214	-0.033	-0.119	0.450
ExOth	0.705	0.098	0.190	0.096	-0.155	0.576
TotSa	0.610	0.543	0.356	0.068	0.191	0.834
InH&W	0.829	0.188	-0.004	-0.209	0.142	0.787
InOth	0.113	-0.051	0.916	-0.038	-0.122	0.871
ReA&L	-0.000	-0.017	-0.044	0.961	-0.017	0.927
ReOth	0.105	0.909	-0.100	-0.022	-0.190	0.883
FoSub	-0.623	0.201	0.212	0.292	-0.054	0.526
Variance	3.1617	1.2536	1.2424	1.1372	1.0599	7.8548
% Var	0.287	0.114	0.113	0.103	0.096	0.714

If we consider the loading coefficients of the first factor in the table above, the first factor heavily positively loaded by the variables ExFoo, ExEdu, ExHoM, ExOth, TotSa and InH&W, and also highly negatively affected by the variable FoSub. This reveals that there must be a common cause in the monetary environment of the families that is created by the income of husband and wife together with various expenditures other than expenditure on health. But the food subsidy directly affects all these characters. If we inspect the loading

coefficients of the other four factors they are heavily loaded by single variables. The second factor is heavily loaded by 'Revenue from other sources' (ReOth) and the third factor is similarly loaded by 'Income of other members in the family' (InOth). The fourth factor is loaded by 'Revenue due to Agricultural and Livestock production' (ReA&L) and the fifth factor is loaded by 'Expenditure on Health' (ExHih). The variable 'Food subsidy' (FoSub) seems to load only the first factor in contrast.

Hence we could name the factors of the monetary status of families as; 'Effective Income as controlled by non - health expenditure and food subsidy', 'Revenue from Other sources', 'Income of other members in the Family', 'Revenue from Agriculture and Livestock production', and 'Expenditure on Health card',

Food consumption data.

First of all, the overall picture of food consumption is described by the intermediate index 'Type and Number of meals per day', followed by the 'Food consumption by Quantity of food items', and finally 'Nutrient intakes' have been described.

A. Description of Type and Number of meals

The types of meals consumed per day are explained above in section 1. The three variables NoR&C, NoP&C and NoB&S are defined as the number of such three types of meals. The cross - tabulated frequency distributions of type and number of meals for all the six zones and the region revealed that out of 1121 families studied, 761 families consume exactly one and 358 families consume exactly two rice and curry (R&C) meals. Only 2 families have reported that they consume R&C meal at all three times. More people of VAW zone consumed

two R&C meal per day, while, majority of the people from other zones consumed one R&C meal. It is also clear that only 170 families do not eat rice/wheat flour made meals, palakaram and curry (P&C). But it is clear that majority of the families (632) consumed only one such meal per day. A considerable number of families (319) consumed P&C meal.

Further, only 17 families have reported that they consume two 'bread and supplements' (B&S) meal. Also 568 families consume one such meal. But, 536 families never eat this type of meal. It is also clear that the rice and curry meal is more popular as every family consumes at least one such meal. This is because this meal is the traditional meal of the people of this region. Further, palakaram and curry meal is also popular next to rice and curry. But it seems that the bread and supplements meal is less popular. Hence from the above review, we can characterize the typical meal of Jaffna society as; 'one rice and curry,' 'one palakaram and curry' and 'one bread and supplements' per day.

B. Weekly consumption of Quantities of Food Items

The variables in this section measure the quantities of seventeen food items consumed weekly. The descriptive

statistics are calculated and presented in Table 2 of Appendix B.

These descriptive statistics reveal that, weekly average consumption of 'rice and rice flour', 'wheat flour', 'pulses and cereals' and 'bread' seems to be 8.66 kg, 4.57kg, 1.19kg, and 2.72 kg per family respectively. The consumption of these four basic food items vary from 0 kg to 28kg, 15 kg, 10 kg, and 21 kg respectively. The wheat flour consumption seems to be high in the JAFF zone, as the urban people always depend on this type of food 'Palakaram and Curry', but rice consumption seems to be high in the rural zone VAEA, which has more paddy fields. The consumption of bread is high in NALL zone. Weekly average consumption of 'biscuits', 'sugar', 'milk products', 'tea and coffee', and 'fresh mild' seem to be 0.34 kg, 2.94kg, 0.48kg, 0.25 kg, and 1.77 liter per family. The consumption of these five sub food items vary from 0 kg/ltr to 4kg, 20kg, 10.4kg, 6.5kg, and 35 liters respectively. Milk products and fresh milk consumption seem to be very high in VASW zone, this means that most of the people of this zone must have more knowledge on nutrition. Sugar, tea & coffee consumption seem to be very high in VAWZ zone, this means that most of the people of this zone are most

habituated to drink tea and coffee.

Weekly average consumption of starchy roots, green leaves, other vegetables, edible oils, and coconuts seem to be 1.62kg, 1.05kg, 2.35kg, 1.01 liter, and 21 numbers per family. The consumption of these five vegetable food items vary from 0 kg/Ltr/Nos to 30Kg, 9Kg, 9kg, 15 Liters, and 21 numbers respectively. Consumption of starchy roots is high in VAWZ zone, this may be because the production of roots is very high in that zone. Similarly, green leaves and vegetables are highly consumed by the people of VASO zone, because this zone is an agricultural zone and has more farmers on vegetable production. Further, edible oils and coconuts are mostly consumed by the people of VAEA zone, and this may be due to the number of coconut trees are more in this zone. If we consider the non-vegetable food items, weekly average consumption of seafood, meat, and eggs seem to be 1.85kg, 0.28kg, and 9 numbers per family. The consumption of these three items vary from 0 Kg/Nos to 20.50kg, 4 kg, 40 numbers respectively. The seafood consumption seems to be very high in VAEA zone, this is because of the accessibility of fish from lagoon also an additional reason. The meat and egg consumption seems to be high in the

urban JAFF zone.

As already argued finding common causes for contrasting features has become necessary in the consumption of different food items. Hence factor analysis was carried out on the seventeen food consumption variables and the results are given in Table 3. Eight factors were extracted. If we consider the factor loadings of the variables in Table 3, the first factor is seemed to be highly loaded

by the consumption variables of 'Rice and Rice flour', 'Wheat flour', 'Pulses and cereals', and 'Cocounts'. Though the first factor explains only 11% of the variation, it appears that there exist two extreme groups of families according to its score plot. They are namely those consume more 'Rice and rice flour', 'wheat flour', 'pulses and cereals' and 'coconut', and less of these but more of other food items. Also there is a middle group which uses a nominal amount of

Table : 3 Results of factor analysis on the variables of seventeen food items

Factor Analysis									
1120 cases used 1 cases contain missing values									
Rotated Factor Loading and Communalities,					Varimax Rotation				
Variable	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Factor 7	Factor 8	Communality
CoRic	0.528	0.047	-0.355	-0.337	0.201	0.126	-0.145	-0.130	0.615
CoWFi	0.790	0.019	0.035	0.075	0.093	-0.012	0.010	0.022	0.641
CoPul	0.478	-0.113	-0.469	-0.092	-0.178	-0.072	0.041	0.096	0.518
CoBre	-0.176	-0.039	-0.123	-0.805	0.056	0.031	0.003	0.054	0.702
CoBis	-0.049	0.423	-0.118	0.210	-0.499	0.087	-0.114	0.130	0.525
CoSug	0.422	0.183	0.005	-0.560	-0.201	0.081	-0.089	0.086	0.587
CoMkp	0.036	0.061	-0.103	-0.077	0.070	0.037	-0.048	0.914	0.866
CoSeF	0.151	0.672	0.065	-0.398	0.148	0.009	-0.084	-0.038	0.668
CoMea	-0.042	0.723	-0.242	-0.007	-0.003	-0.032	0.076	-0.073	0.595
CoStR	0.161	-0.005	-0.468	-0.125	0.262	0.208	-0.312	-0.231	0.523
CoGrL	-0.022	0.150	-0.785	-0.016	-0.089	-0.010	0.023	0.119	0.662
CoVeg	0.278	0.005	-0.397	-0.137	-0.145	0.442	-0.076	0.221	0.525
CoT&C	0.030	0.013	0.017	-0.030	-0.014	0.927	0.033	-0.013	0.864
CoMIK	0.073	-0.057	-0.039	-0.079	-0.844	0.025	-0.060	-0.114	0.746
CoEdo	0.032	0.000	-0.024	-0.036	-0.118	-0.028	-0.941	0.062	0.907
CoCoN	0.609	0.277	-0.084	0.074	-0.200	0.169	-0.051	0.014	0.532
CoEgg	0.143	0.668	0.073	0.064	-0.091	0.026	-0.006	0.141	0.505
Variance	1.8717	1.7574	1.4569	1.3491	1.2719	1.1686	1.0559	1.0489	10.9804
% Var	0.110	0.103	0.086	0.079	0.075	0.069	0.062	0.062	0.646

the food items. These food items are connected to main meals either with lunch or with dinner.

Similarly the second factor, with 10% of the total variation, is highly loaded by the consumption variables of 'Seafood', 'Meat', and 'Eggs'. This essentially tells us there are two groups of people; one who uses more of non - vegetable foods and the other uses less of non - vegetable foods. Hence the second factor essentially explains the cause created by non - vegetable food items. The third factor, with 8% of the total variation, is highly negatively loaded by the consumption variables of 'Starchy roots', and 'Green leaves'. That is the food items used for curry. Similarly, the fourth factor is highly negatively loaded by the variables of 'Bread' and 'Sugar'. These items are mostly consumed for break - fast. Fifth factor is highly negatively loaded by the consumption variables of 'Biscuits' and 'Fresh milk', which are nutritional supplements to the children.

Sixth factor is highly loaded by the variables of Vegetables, and Tea and Coffee. Seventh factor is highly negatively loaded by the variable of Edible oils and the eighth factor is highly loaded by the variable of Milk products. All these eight factors together explain 65 per cent of the total variation

explained by the factor loading. From the above analysis, we could name the above eight factors as 'Consumption of food items for Lunch', 'Consumption of Non-Vegetable food items', 'Consumption of food items for curry', 'Consumption of food items for Breakfast', 'Consumption of Vegetable, Tea and Coffee', 'Consumption of Edible oils', and 'Consumption of Milk products'.

C. Daily Nutrient Intake

This is an analysis of the transformed data of three types of nutrient intakes. In this section we have considered the variables EneIn, proIn, and FatIn. The three type of nutrient intakes have been calculated for the family per day. The descriptive statistics of these three nutrient variables are given in Table 3 of Appendix B.

If we consider the entire region, the average energy intake per family per day seems to be 14338 Calories. It varies from 4578 to 35123 Calories. The minimum and maximum energy intakes are reported for VASW and JAFF zones respectively. Among the four rural zones VASW has the majority of economically poor people and hence the results give valuable information. It is also clear from these results that the maximum energy intake family comes from developed

urban zone JAFF. The average protein intake and average fat intake per family per day for the region seem to be 398.37 and 363.24 grams. These nutrient intakes vary from 139.36 to 1266.91 grams and 104.64 to 2475.33 grams respectively. Both the minimum protein and fat intakes are reported in NALL, which is the only urban suburb zone. This may be because most of the people are vegetarians in this zone and the consumption of animal protein must be less compared to other zones. The maximum seafood and meat consumption levels are lower in this zone compared to other zones. Both the maximum protein and fat intakes are reported in VAEA, which is the most developed zone among the four rural zones.

Interrelationships between Socio-Economic Status and Food Consumption - Canonical Correlation Analysis

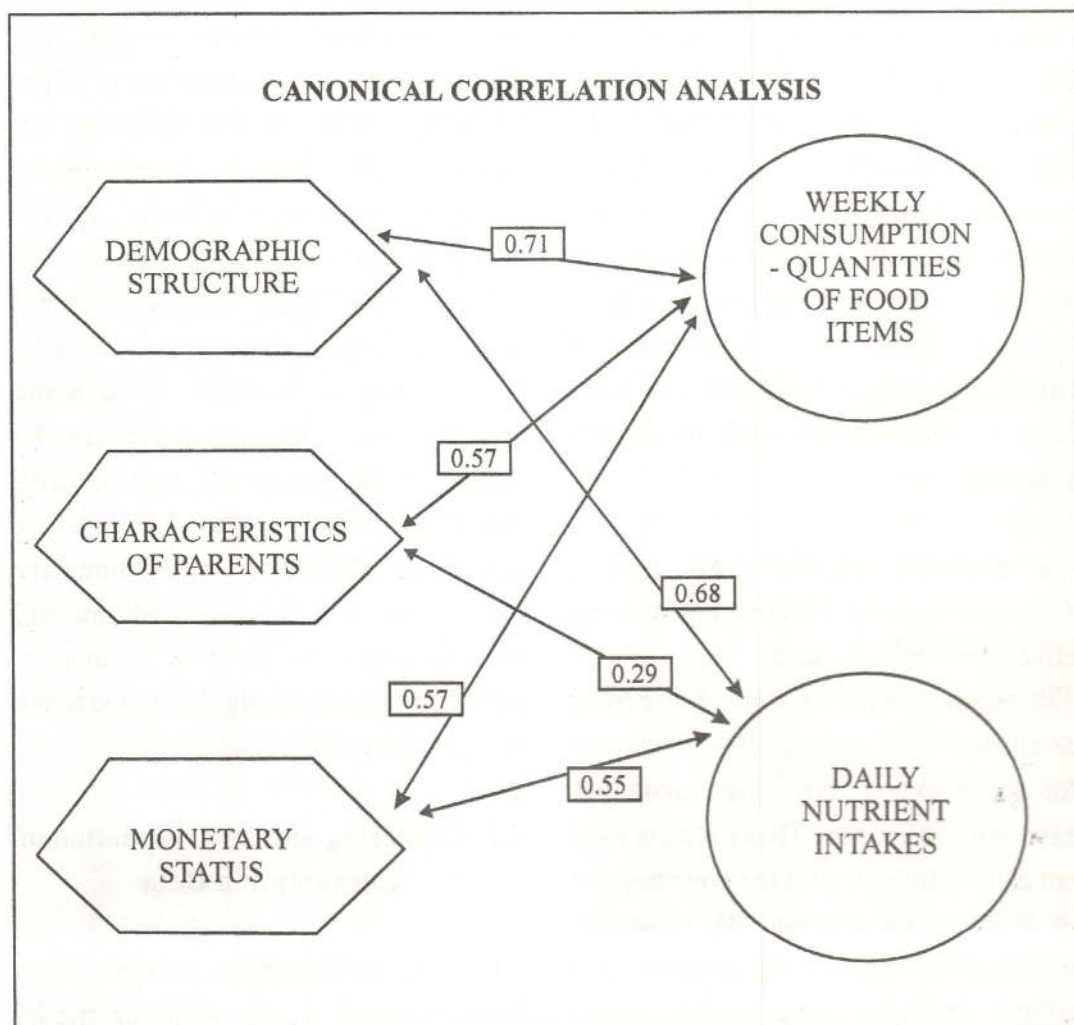
The multidimensional analysis on food consumption patterns commenced with a total of 1121 responded families. However, at the first instance the families related to partial response data and single parent families were deleted. Further, on the basis of the results obtained in this section the outliers detected were also deleted. Hence the number of families

subjected to the continuing analyses was 1032. We intend to analyze the variation in food consumption pattern and to find out the socio - economic causes, which determine such variations. Hence we need to study the structural relationships between the socio - economic dimensions and food consumption . Suitable statistical tool applied here is Canonical Correlation Analysis (CCA).

The following six pairs of sets are suitable, according to the consumption model given in Figure 1. Family Composition versus Different Food Items (FC - FI), Characteristics of Parents versus Different Food items (CP-FI), Monetary Status versus Different Food Items (MS -FI), Family Composition versus Nutrient Contents (FC-NC), Characteristics of parents versus nutrient Contents (CP - NC), and Monetary status versus Nutrient Contents (MS - NC). The canonical correlations between the linear combinations of the two sets of variables were calculated. The corresponding vectors of canonical coefficients for both sets were also found. Overall inspection of the first two canonical correlations revealed that the 'Family Composition' has the most positive effects on food consumption of both different food items and nutrients . The 'Characteristics of

parents' has average positive effects on 'Consumption of Different Food items' and very low positive effects on 'Nutrient intakes'. The 'Monetary status' seems to have average positive positive effects on both type of consumption. The details are shown by Figure 2.

Figure 2 : Canonical correlations between socio - economic dimensions and food consumption patterns



We can further elaborate the individual effects of different variables on the above structural relationships by inspecting the related vectors of canonical coefficients. The Table 4 of Appendix B gives the corresponding vectors of standardized canonical coefficients between the sets of variables of Economic dimensions and Food consumption by different food items. If we inspect the canonical vector of 'Family composition', it seems that 'Family size' is the most influencing variables on food consumption by different quantities. Other family structures seem to have no effects. Further this effect is also seen mostly on the 'Consumption of Rice and rice flour' and some effects on the 'Consumption of Bread'. Consumption of other food items have no relationships with the family structure.

As already mentioned above 'Characteristics of Parents' has average effect and this is also only due to 'Educational level of wife' for certain extent and 'Educational level of husband' for some extent. No other characters have any influence. These effects have not clearly reflected on the consumption of different food items. We have also seen that the monetary status has average effects on food consumption. These

effects are created due to expenditure on food and the food subsidy given by the Government. But these effects have not shown any clear picture of the consumption of any type of food items.

Similarly the corresponding vectors of standardized canonical coefficients between the sets of variables of Economic dimensions and Food Consumption by three nutrient contents were examined. Similar results are obtained for 'Family composition'. That is, family size has the influence on nutrient intakes. Mostly energy intake seems to have been affected by the family composition. If we consider the characteristics of parents, educational level of wife gives some positive effects, but the age of husband gives some negative effects. Here the protein intake seems to be positively related with characteristics of parents. If we consider the third relationship with monetary status, here also food expenditure and food subsidy, give positive influences. These influences are highly related to the energy intake of families.

4.2 Clustering and Discrimination of Consumption Data

The food consumption patterns have been analyzed so far with the model

defined above. We have described the Socio -Economic dimensions and Food consumption separately. Further more, the inter- relationships have also been analyzed. However, the real food consumption patterns will be highlighted only if we could find different segments of the society, which will have distinct types of food consumption patterns. One way to achieve this goal is to classify all the families in the sample into a suitable number of clusters in terms of their food consumption habits. Hence, we carried out Cluster analysis to find clusters of families. The 'Food consumption quantities' and 'Nutrient contents' were separately used as response variables for clustering. This is then followed by Canonical Discriminant Analysis (CDA) to determine the responses that influences the clusters.

a) Clustering Families

We classified the entire set of 1032 families into a suitable number of clusters. Since the units of the variables are different (Kg, Litre, and Count) the variables were standardized before clustering. At the first stage, clustering was done with seventeen food consumption quantities. Two to six clusters were obtained and the

amalgamations were observed. The maximum number of clusters decided was six, because we wondered if there was a relationship with the clusters and the six administrative zones covered in the study area. The corresponding dendrogram is presented in Figure 3. The dendrogram reveal that, as far as the seventeen food items quantities are concerned, the society has highly varying food consumption patterns. Hence, the varying food consumption patterns among the families of Jaffna society is confirmed. The same type of clustering was also performed on the basis of three nutrient variables. Here also we picked up to six clusters.

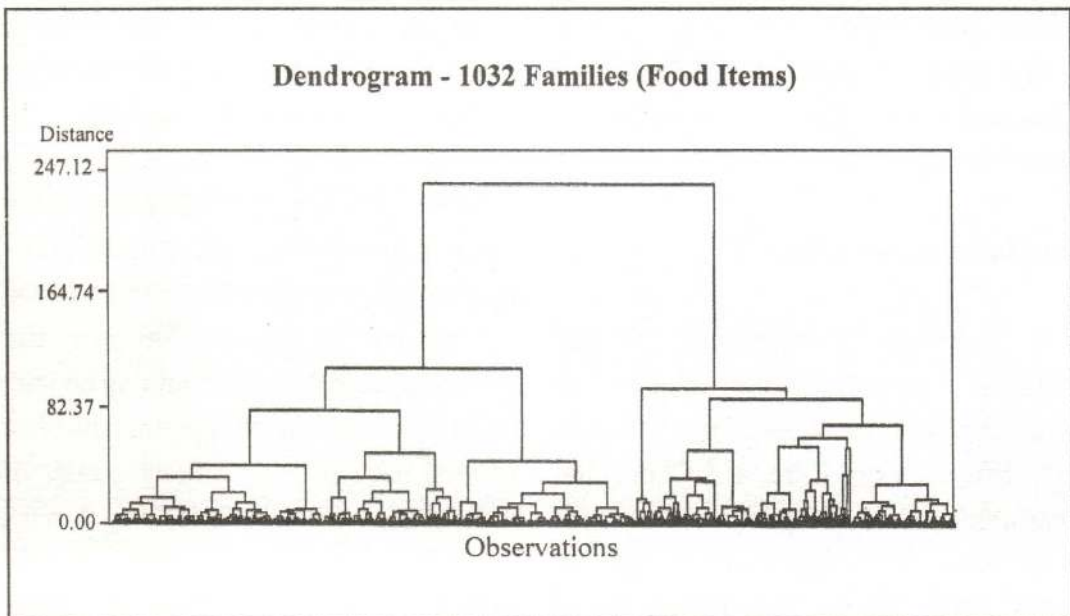
Here our interest was to see whether there exists any natural grouping in terms of food consumption among the individuals of the population where our sample was taken. This will simplify the description of a large set of multivariate data to generate hypothesis to be tested on future samples. Though the consumption pattern vary among people, in an individual basis, there is always a general pattern exists among groups of individuals, for example, vegetarians and non - vegetarians. By looking at the dendrogram it is very clear that there exists a minimum of three to a maximum of six reasonably homogeneous groups.

Therefore, our interest is also to see what variables or group of variables brings such groupings. This is determined by the Canonical Discriminant Analysis.

The crossed - classified frequency distributions of the 1032 families in terms of cluster memberships derived on the basis of seventeen food quantities versus three nutrient intakes were obtained for three, four, five and six clusters. This distribution revealed that, the clustering on the basis of both

seventeen food-items and three nutrient contents yielded almost similar results, but do not help us to select the best classification. These descriptive statistics of the seventeen food items and the three nutrient contents for the different clusters were obtained and examined. The descriptive statistics support to certain extent to select the best pattern among them. Note that the three - cluster means seem to be different rather than four, five or six cluster - means.

Figure 3 : Dendrogram for Hierarchical clustering of 1032 families on the basis of seventeen food items.



We had to choose the best among the four cases of clustering mentioned above for both types of clustering. We confirmed this by applying the technique MANOVA in conjunction with CDA for selecting the best classification. We also analyzed the clustering variation across the DS divisions. A cross - classification was performed for the cluster members on the basis of three nutrients versus DS divisions. The distributions for three, four, five and six clusters revealed that the spread of the members of all the clusters across all the six DS divisions appears to be uniform. That is, the food consumption patterns can not be related to the DS divisions. Hence any rehabilitative process on the basis of the food consumption patterns by DS divisions is meaningless.

b) Canonical Discriminant Analysis

It was decided to apply Canonical Discriminant Analysis (CDA) separately for 2,3,4,5, and 6 cluster contexts, and allow taking a decision by comparison. At the first step, the CDA was applied on the clusters based on seventeen food items and it was found that three- cluster grouping is optimal. The Table 6 describes the results of MANOVA and Eigen analysis of the CDA applied on three-cluster grouping. This table reveals

that the mean vectors of seventeen food items are significantly different among the three clusters obtained. Further, the first two canonical variates respectively explain 85 per cent and 15 per cent of the total variations. A careful inspection of the standardized canonical coefficients of both of the canonical variates and the score plot of canonical scores obtained, given by Figure 3, for all the 1032 families confirmed the existence of three different clusters on food consumption patterns. The direction of first canonical axis, which alone explains 85 per cent, separates the first group from the other two groups. The second canonical axis, which explains 15 per cent, separates second and third groups. The significance of this discrimination was confirmed by the one way ANOVA on the scores of both canonical variates.

We noticed from the canonical vectors produced in this analysis that, the consumption of bread, sea food, meat, and coconut influences the first canonical variate and hence the first group differs from the other two groups by the consumption of these food items. Further, the second canonical variate is influenced positively by the consumption of pulses, sugar, and milk and negatively by the consumption of bread, meat and sea food and hence, the

Table 6 : Results of MANOVA and CDA on three cluster grouping for seventeen food items.

Multivariate Statistics and F Approximations					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.37792626	37.34	34	2026	<.0001
F Statistic for Wilks' Lambda is exact.					
Eigenvalues of Inv (E) * H = CanRsq/ (1 - CanRsq)					
	Eigenvalue	Difference	Proportion	Cumulative	
1.	1.1883	0.9791	0.8503	0.8503	
2.	0.2092		0.1497	1.0000	

second and third groups are discriminated by these food items. Similar score plots drawn for four, five and six cluster groupings gave evidence that the existing three clusters were segregated in the subsequent stages, but those sub clusters did not show any natural groupings. Hence, the three - cluster pattern was finally accepted.

At the second step the CDA was applied separately to the three, four, five and six clustered groups obtained on the basis of three nutrient contents. The results due to CDA were compared among the three, four, five, and six clusters and it was found that three - cluster grouping is optimal. The results revealed that the mean vectors of three nutrient contents are significantly different among the

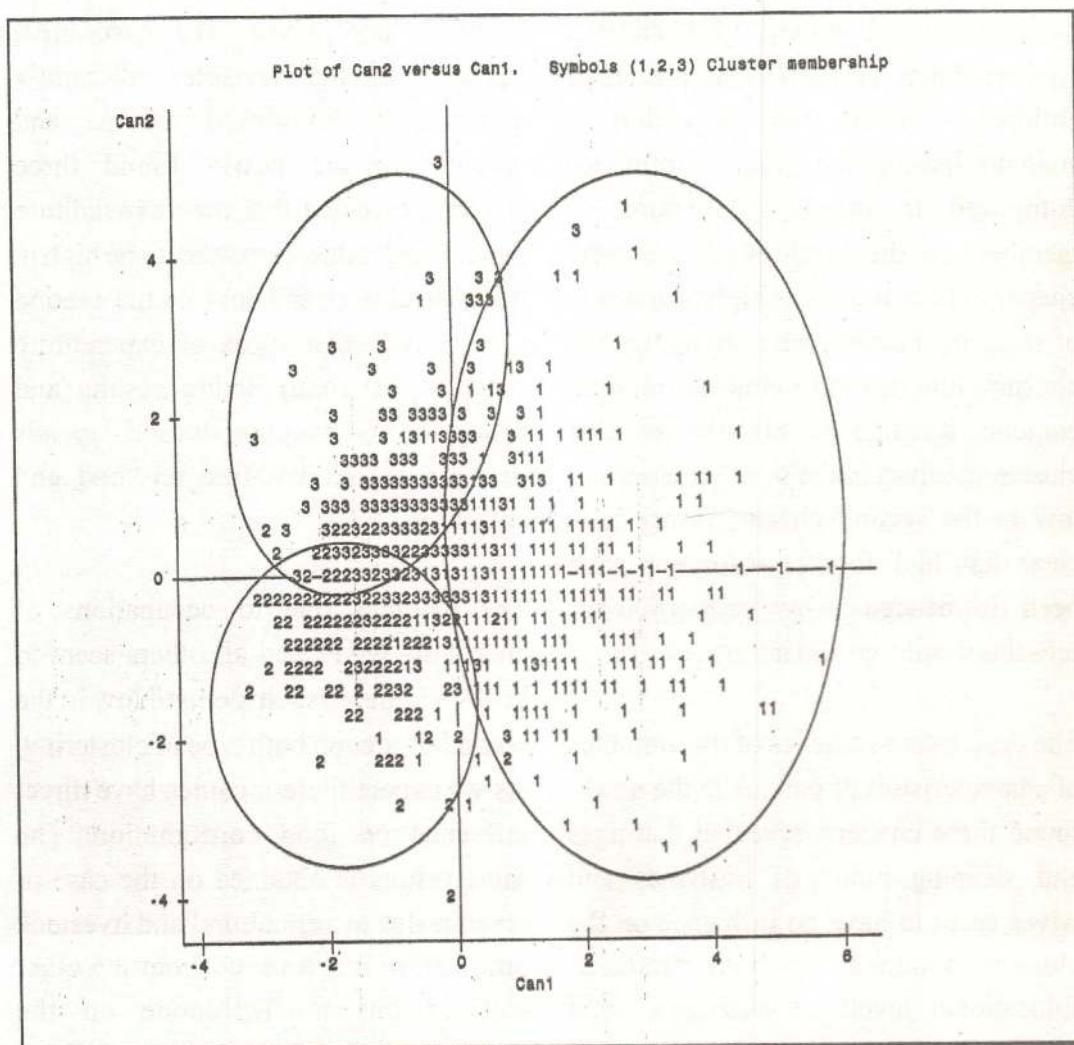
three clusters obtained. Further, the results revealed that the first two canonical variates share 99.6 per cent and 0.4 per cent of the total variations respectively. We noticed from the canonical coefficients of the first canonical variate that, this is highly influenced by the consumption of energy. The protein intake also has some influence. Hence the pattern is determined by the consumption of energy.

The canonical scores obtained for all the 1032 families on the basis of the above coefficients were plotted and inspected. This inspection clearly confirms the existence of three different clusters on food consumption patterns by three nutrient contents. The direction of first

canonical axis, which alone explains 99.6 per cent, separates all the three groups significantly and confirmed by ANOVA on the first canonical scores. On the basis of the Cluster analysis and subsequently with the Canonical discriminant analysis we have found that

the food consumption patterns of Jaffna peninsula can be expressed by three different major consumption groups based either on the seventeen important main food items by quantities or on the three main nutrient contents energy, protein and fat.

Figure 4 : Scatter plot of the scores of two canonical variates on 17 food items.



c) Discriminatory power of socio-Economic Variables

The descriptive statistics of family composition on the above identified three clusters revealed that the variation in the food consumption patterns has been influenced by all the five family composition variables in both types of clustering. The influence by family size is quite natural, but the other variables have produced meaningful results. Among them, proportion of preschool children - infants and proportion of students have given more influence compared to other proportions of members in the families. The second cluster in both types has high proportion of students. Further, we noticed that the consumption of food items and nutrient contents seem to be high in the first cluster, medium in the third cluster, and low in the second cluster. Hence it is clear that, high food consumption have been influenced by 'proportion of preschool children and infants.'

The descriptive statistics of the variables of characteristics of parents in the newly found three clusters, revealed that ages and sleeping hours of husbands and wives seem to have no influence on the clusters obtained by both methods. Educational levels of husbands and

wives seem to be high in the third cluster on the clustering by food items and high in second cluster on the clustering by nutrient contents. They are low in second cluster and first cluster by food items and nutrient contents respectively. This again confirms that the educational level has contradictory influence on the food consumption patterns of the society. Similar results are revealed for the occupational levels of husbands and wives. The descriptive statistics of the variables of family expenditure, household income and revenue in the newly found three clusters, revealed that the expenditure on food and education seem to be high in the first cluster and low in the second cluster. All other types of expenditure seem to be contradicting results and hence the consumption of food depends only on the expenditure on food and education.

The incomes due to occupations of husbands- wives and all others seem to be high in the first cluster and low in the second cluster on both type of clustering. As we expect these incomes have direct influence on food consumption. The same results is obtained on the case of revenue due to agricultural and livestock production. But revenue from the other sources has no influence on the

consumption patterns. As explained in the previous sections, here also the food subsidy seems to influence the food consumption patterns as all the three clusters have unequal cluster means in both types of clustering.

5. Conclusions

Socio - Economic Conditions

There is a notable variation in the 'Family size', proportions of 'Pre-school children and infants', 'Students', 'Unemployed adults and youths', 'Elders and disabled persons' in the families. The overall averages of these variables in the region are 6, 10%, 34%, 5%, and 5% respectively. These numbers vary from location to location. For example, unemployed people are less in urban area and high in rural areas. A close look at the data on characteristics of parents reveal that, the ages range from 19 to 80 years, average educational level is 9 years, and average occupational levels of husbands and wives are 18 and 9 respectively in a 50 point scale. A global view of the data revealed that there are two different subgroups of families one influenced by occupational levels and other influenced by ages from the main group of families.

Looking at the family expenditure and

household income data it is very clear that the families spend less on food and uses the government subsidy 'Nivaranam' to complement their food expenditure. The major emphasis is on health and education. The average monthly expenditures on Household management and Pooled other expenditure categories seem to be Rs. 593 and Rs. 1249 respectively. The average total - savings seems to be Rs. 1954, which varies up to Rs.70300. Further the savings of the families follow a distribution with broad variation. There is a high heterogeneity on 'salaries or wages' of the parents and the other members. The monthly average revenue on 'Agricultural and Livestock production together, and 'all other categories together' seem to be Rs.774 and Rs.1236 respectively and these revenues vary up to Rs.25000 and Rs.45000 respectively. The average of food subsidy amount provided by the Government seems to be Rs.866, which varies up to Rs.2940.

Positive correlations of 'Income of husband and wife' with 'Expenditure on Food, Education, Household Management, and Total - Savings' seem to be significant. Further the positive correlations of Food expenditure' with 'Expenditures on Education', and

'Income of husband and wife' reveal that the expenditure on education affect the food expenditure through the income of husband and wife. Factor analysis among the monetary variables reveals that the first factor is heavily loaded with expenditures on 'Food, Education, Household Management, Total - Savings' and Income of 'Husband and Wife', and is also highly affected by Food Subsidy. Hence this factor is identified and named as 'effective Income' as controlled by 'Non - health expenditure and food subsidy. Other factors are named accordingly.

Food consumption

Overall food consumption pattern by type and number of meals show that majority of the families is found to consume one rice meal a day. Palakaram meal is also equally popular but taken once a day. It was also noticed that average families consume one bread meal every day.

If we consider the seventeen food items, weekly average consumption of rice and rice flour, wheat flour, pulses and cereals, and bread seem to be 8.66 kg, 4.57kg, 1.19kg, and 2.72kg per family respectively. The consumption of these four items vary up to 28kg, 15 kg, 10kg,

and 21 kg respectively. The wheat flour consumption seems to be high in the Jaffna zone, as the urban people depend on this type of food 'Palakaram and Curry', but rice consumption seems to be high in the rural zone Valikamam east. The consumption of pulses and cereals is more in another area Valikamam west. The consumption of bread is high in Nallur zone, because the farming people of this urban suburb zone do not engage on the cultivation of paddy or cereals. Weekly average consumption of biscuits, sugar, milk products, tea and coffee, and fresh milk seem to be 0.34 kg, 2.94 kg, 0.48kg, 0.25kg, and 1.77 litre per family. The consumption of these five items vary up to 4 kg, 20kg, 10.4kg, 6.5kg, and 35 litres respectively. Milk products and fresh milk consumption seem to be very high in Valikamam south-west zone. Sugar, tea and coffee consumption seem to be very high in Valikamam west zone.

If we consider three nutrients, the average energy intake per family per day seems to be 14336 calories. It varies from 4578 to 35123 calories. The minimum and maximum energy intakes are reported from Valikamam south-west and Jaffna zones respectively. Among the four rural zones Valikamam south-west has the majority of

economically poor people and hence the results give valuable information. It is also clear from this results that the maximum energy intake family comes from urban zone Jaffna. The average protein intake and average fat intake per family per day seem to be 398.37 and 363.24 grams. These nutrient intakes vary from 139.36 to 1266.91 grams and 104.64 to 2475.33 grams respectively. Both minimum protein and fat intakes are reported in Nallur zone, which is the only urban suburb zone. This may be because most of the people are vegetarians in this zone and the consumption of animal protein must be less compared to other zones. Both maximum protein and fat intakes are reported in Valikamam east zone. This is because the maximum seafood consumption is higher compared to other zones.

The correlations of energy intake with the other two nutrient intakes seem to be positive and high. However, the correlation between protein intake and fat intake seems to be weak. This means that the people of this region have an alternative dietary habit on choosing the foods for protein and fat. Further it was found that there exists a sub division of families such that these families have more energy consumption from the rest of the families.

Inter - relationship : Socio-Economic Status and Food Consumption

Food consumption patterns are found to be independent of age, educational level and occupational level of parents of the families. Other socio-economic variables also appear to be independent of the food consumption variables. Further, there is a significant association between consumption of rice and monthly food subsidy. It was also noted that large number pre-school children and infants in the family consume low nutritional diets. The food expenditure has strong positive association with the nutrient intake variables. Protein intake has stronger association than energy intake, but fat intake has negligible association.

In a stable environment, the people can make their own food consumption pattern and other life style well ahead in time and budgeting can be made accordingly. But, in Jaffna during this survey the political situation was very unpredictable and therefore the people are unable to make decisions ahead of time for their daily living and other activities. This could be the reason for our findings that, for example the education level of the parents, which normally enhance the food patterns in the family, is found to be unrelated in our survey. This is mainly due to the fact that the people are making instantaneous

decisions because of the everlasting unrest in this region. This again necessitates the importance of a stable social and economic environment in this region.

When we looked at the structural relationships between socio - economic status and food consumption, it is very clear that the family composition has the most positive effect on food consumption. Family size appears to be the most influencing factor. The 'Characteristics of Parents' has average positive effects on 'Consumption of Different Food items'. The 'Monetary status' seems to have average positive effects. Other family structures seem to have no effects. We have also seen that the monetary status has average effects on food consumption. These effects are created due to expenditure on food and the food subsidy given by the Government.

Clustering and Discrimination of Food Consumption pattern

Clustering of families on the basis of seventeen food items by quantities and as well as three types of nutrient intakes produces similar pattern of clusters. It was noted that there is a minimum of three to maximum of six groups of similar consumption patterns. This problem is not related to different zones

of study area. We noted that three clusters are significantly different in the means. This was also seen in the plot of discriminating scores. Further it was noted that the first cluster was characterized by the highest consumption of food items and nutrient intakes which are not much in the other two clusters. It is clear that both family size and proportion of students have influenced high food consumption.

The results on family expenditure, household income and revenue in the newly found three clusters revealed that the expenditure on food and education is high in the first cluster and low in the other clusters. It appears that the income of parents and their educational level has direct influence on the consumption of food. The food subsidy has a direct influence on the food consumption.

Food consumption data were collected for the family rather than individuals as the methodology of the present study does not include the individual's food consumption data. Further, the physical consumption of food items from the markets were only supplied by the respondents. According to the limitations of this research we have not collected the actual or real consumption quantities, edible portion of consumed food items, from the individuals or from the whole family. Hence further analysis or comparisons are impossible.

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Appendix A: Data Type

Socio Economic Data

1. Family Composition: (1) Number of members in the family (Fsize), (2) Proportion of Preschool Children and infants in the family (PrPCI), (3) Proportion of Students in the family (All School/ College/University students) (PrStu), (4) Proportion of Unemployed Adults and youths in the family (PrUnE), (5) Proportion of Elders and Disabled persons in the family (PrEID).

2. Characteristics of Parents of the Family: (1) Age of Husband (AgeHu), (2) Age of Wife (Age Wi), (3) Educational Level of Husband (EdLeH), (4) Educational Level of Wife (EdLeW), (5) Occupational level of Husband (OcLeH), (6) Occupational level of Wife (OcLeW), (7) Daily Sleeping Hours of Husband (SIHsH), (8) Daily Sleeping Hours of Wife (SIHsW).

3. Family Expenditure and Revenue

Family Expenditure: (1) Expenditure on Food consumption (ExFoo), (2) Expenditure on Health Care (ExHih), (3) Expenditure on Education (ExEdu), (4) Expenditure on Household Management (ExHoM), (5) Expenditure on All other purposes (ExOth), (6) Total Family Savings (TotSa).

Family Income and Revenue: (1) Income due to Occupations of Husband and Wife (InH&W), (2) Income due to Occupations of Other members in the family (InOth), (3) Revenue due to Crops and Livestock production (ReA&L), (4) Revenue from All other Sources (ReOth), (5) Food subsidy amount (Nivaranam) paid to the Family (FoSub).

Food Consumption Data

1. Number and type of meals per day: (1) Number of meals with Rice and Curry (NoR&C), (2) Number of meals with Palakaram and Curry (NoP&C), (3) Number of meals with Bread and Supplements (NoB&S).

2.(a) Weekly Consumption of Different food items by quantities by the Family:

(1) Consumption of Rice and Rice flour (CoRic), (2) Consumption of Wheat flour (CoWFI), (3) Consumption of Pulses and Cereals (CoPul), (4) Consumption of Bread (CoBre), (5) Consumption of Biscuits (CoBis), (6) Consumption of Sugar (CoT&C), (9) Consumption of Fresh Milk (CoMlk), (10) Consumption of Starchy Roots (CoStR), (11) Consumption of Green Leaves (CoGrL), (12) Consumption of Main vegetables (CoVeg), (13) Consumption of Edible Oils (CoEdO), (14) Consumption of Coconuts (CoCoN), (15) Consumption of Seafood (CoSeF), (16) Consumption of Meat (CoMea), (17) Consumption of Eggs (CoEgg).

2(b). Daily Nutrient Intakes by the Family: (1) Energy intake (Calories) (EneIn), (2) Protein intake (Grams) (ProIn), (3) Fat intake (Grams) (FatIn).

Appendix B: Tables of Descriptive Statistics

Table 1: Descriptive statistics of the variables of Expenditure and Revenue (Rs).

Variable		JAFF	NALL	VASW	VAWE	VASO	VAEA	Region
ExFoo	Mean	4747	4364.5	3911.9	4014	4178.0	3903.8	4184.3
	StErr	149	95.1	97.8	101	86.9	89.2	43.0
	Min	1500	500	1200	1000	1500	600	500
	Max	12000	9000	9000	9000	8000	10000	12000
ExHih	Mean	272.1	216.3	228.3	187.8	251.5	217.6	228.1
	StErr	26.7	15.3	18.5	14.0	20.7	14.1	7.5
	Max	3000	2000	1500	1000	3000	2000	3000
ExEdu	Mean	678.4	567.2	399.4	380.1	452.7	442.0	488.9
	StErr	52.9	35.7	34.6	34.0	36.0	31.3	15.6
	Max	4000	3000	3000	3000	3500	3000	4000
ExHoM	Mean	986.8	784.2	346.2	331.3	531.9	527.5	593.5
	StErr	50.6	41.5	27.5	20.1	32.2	26.5	15.8
	Min	50.0	0.0	0.0	50.0	90.0	0.0	0.0
	Max	4500	4950	3000	1700	4050	3000	4950
ExOth	Mean	1673.5	1401.6	915.6	1127.2	1113.0	1214.7	1249.1
	StErr	9736	75.7	50.5	49.4	58.4	59.7	28.6
	Min	0.0	100.0	50.0	250.0	50.0	100.0	0.0
	Max	9100	8200	4550	3650	4800	5300	9100
TotSa	Mean	3327	2246	1592	1317	1809	1482	1954.0
	StErr	520	250	207	151	198	132	109
	Max	70300	31000	17000	12500	21000	16000	70300
InH&W	Mean	8691	6974	4249	4677	4685	4807	5702
	StErr	575	328	300	222	352	221	148.0
	Max	70000	35000	23500	21500	45000	20000	70000
InOth	Mean	1546	1182	918	1247	918	814	1125.8
	StErr	246	188	163	154	150	113	70.2
	Max	24000	26000	14500	9000	10000	9500	26000
ReA&L	Mean	68.9	246.9	713	758	1570	1231	774.0
	StErr	43.2	62.0	141	108	208	136	54.5
	Max	7000	8000	18500	13000	25000	15000	25000
ReOth	Mean	1461	1174	1365	695	1622	1127	1235.8
	StErr	304	121	200	100	273	115	78.7
	Max	45000	11000	16000	7000	40000	10000	45000
FoSub	Mean	620.0	648.4	1127.7	982.1	964.8	915.4	865.7
	StErr	52.0	43.5	43.7	48.1	47.5	44.4	19.8
	Max	2520	2268	2268	2940	2884	2464	2940.0
No of Families		167	224	156	167	184	222	1120

(Minimum values are also included where ever possible, other minimums are zeros)

Table 2 : Descriptive statistics of the variables - Quantities of different food items.

Variable		JAFF	NALL	VASW	VAWE	VASO	VAEA	Region
CoRic	Mean	7.984	7.915	8.627	10.205	8.659	8.791	8.663
	StErr	0.248	0.185	0.260	0.263	0.241	0.241	0.099
	Min	3.000	3.000	0.000	1.000	3.000	3.000	0.000
	Max	18.000	21.000	22.000	19.000	22.000	28.000	28.000
CoWFi	Mean	4.219	4.668	4.421	4.077	4.771	5.087	4.578
	StErr	0.218	0.146	0.198	0.146	0.185	0.174	0.073
	Min	15.000	10.500	14.000	14.000	14.000	14.000	15.000
	Max							
CoPul	Mean	1.2557	1.0779	0.9606	1.4506	1.0783	1.3172	1.1913
	StErr	0.0578	0.0423	0.0609	0.0402	0.0467	0.0714	0.0231
	Min	3.5000	4.000	7.0000	2.5000	3.5000	10.0000	10.0000
	Max							
CoBre	Mean	3.408	2.585	2.585	2.746	2.902	2.298	2.7273
	StErr	0.181	0.143	0.158	0.158	0.176	0.149	0.066
	Min	13.000	14.000	12.2000	10.000	15.000	21.000	21.000
	Max							
CoBis	Mean	0.3743	0.2850	0.3026	0.3384	0.3625	0.3914	0.3425
	StErr	0.0340	0.0199	0.0315	0.0290	0.0396	0.291	0.0125
	Min	3.0000	1.5000	3.000	2.0000	4.0000	3.0000	4.0000
	Max							
CoSug	Mean	3.0416	2.8627	2.7500	3.2760	2.7538	2.9889	2.9427
	StErr	0.0941	0.0649	0.0841	0.1250	0.0971	0.0884	0.0378
	Min	0.7000	0.5000	1.0000	0.3000	0.0000	0.3000	0.0000
	Max	7.000	7.5000	7.0000	20.0000	10.0000	10.0000	20.0000
CoMkp	Mean	0.5398	0.4596	0.4452	0.5009	0.4646	0.4912	0.4828
	StErr	0.0229	0.0238	0.0666	0.0473	0.0268	0.0457	0.0165
	Min	1.2000	4.0000	10.4000	8.0000	3.5000	9.0000	10.4000
	Max							
CoSef	Mean	2.0930	1.5480	2.0237	2.1881	1.6223	1.8018	1.8536
	StErr	0.1020	0.0595	0.0870	0.0923	0.0730	0.109	0.0370
	Min	6.0000	3.5000	6.0000	6.0000	5.0000	20.5000	20.5000
	Max							
CoMea	Mean	0.4524	0.2263	0.2063	0.3107	0.2443	0.2522	0.2780
	StErr	0.0488	0.0230	0.0266	0.0263	0.0334	0.0289	0.0131
	Min	4.0000	1.5000	1.000	2.5000	3.000	3.5000	4.000
	Max							
CostR	Mean	1.1608	1.2627	1.5628	2.1580	1.7939	1.8690	1.6174
	StErr	0.0580	0.0470	0.0946	0.1830	0.0922	0.0917	0.0417
	Min	5.000	5.0000	10.0000	30.0000	7.0000	10.0000	30.000
	Max							
CoGrL	Mean	1.1353	0.9687	0.8603	1.5839	0.9628	0.8638	1.0491
	StErr	0.0482	0.0345	0.372	0.0599	0.0588	0.0391	0.0203
	Min	4.5000	3.0000	3.5000	4.0000	9.0000	4.0000	9.000
	Max							
CoVeG	Mean	2.2530	2.3167	2.2583	2.7321	2.3234	2.2661	2.3525
	StErr	0.0656	0.0498	0.0812	0.0787	0.0872	0.0733	0.0299
	Min	1.0000	1.000	0.0000	1.0000	0.0000	0.5000	0.0000
	Max	7.0000	4.5000	6.0000	7.0000	9.0000	7.0000	9.0000
CoT&C	Mean	0.2659	0.2183	0.2446	0.2838	0.2648	0.2707	0.2568
	StErr	0.0123	0.0116	0.0128	0.0381	0.0212	0.0290	0.0094
	Min	0.1000	0.0000	0.1000	0.1000	0.0500	0.02000	0.0000
	Max	1.5000	2.5000	1.8000	6.5000	3.0000	6.0000	6.5000
CoMlk	Mean	1.933	1.981	1.956	1.473	1.496	1.759	1.7706
	StErr	0.2070	0.1590	0.3220	0.2030	0.1640	0.1650	0.0820
	Min	10.5000	8.0000	35.0000	14.0000	10.5000	10.5000	35.0000
	Max							
CoEdO	Mean	0.8087	0.8147	1.0140	1.5098	0.8000	1.1720	1.0140
	StErr	0.0522	0.0271	0.1220	0.0647	0.0472	0.1260	0.0348
	Min	0.0000	0.2500	0.2000	0.0000	0.0500	0.1000	0.0000
	Max	8.0000	5.0000	10.0000	10.000	7.5000	15.0000	15.0000
CoCoN	Mean	6.772	7.172	5.808	6.869	6.297	7.100	6.7189
	StErr	19.10	0.173	0.188	0.160	0.203	0.236	0.082
	Min	1.000	0.500	1.000	1.000	0.000	2.000	0.0000
	Max	14.000	17.000	14.000	15.000	21.000	21.000	21.000
CoEgg	Mean	10.030	8.946	8.728	9.994	8.322	8.864	9.1160
	StErr	0.575	0.437	0.454	0.400	0.468	0.451	0.1910
	Min	40.00	40.00	25.00	21.00	28.00	35.00	40.00
	Max							
No of Families		167	224	156	168	184	221	1120

(Minimum values are also included where ever possible, other minimums are zeros)

Table 3 : Descriptive statistics of the Variables of nutrient intake

Variable		JAFF	NALL	VASW	VAWE	VASO	VAEA	Region
EneIn	Mean	14055	13455	13783	16093	13880	14887	14338
	StErr	335	215	346	258	272	338	123
	Min	6225	5768	4578	8683	5747	6051	4578
	Max	35123	23438	29761	26118	25682	34650	35123
ProIn	Mean	414.40	370.73	385.04	436.67	385.16	405.54	398.37
	StErr	10.3	6.37	9.64	7.88	7.72	9.58	3.57
	Min	182.30	139.36	150.27	195.15	158.79	156.87	139.36
	Max	1044.80	689.71	960.37	730.29	689.16	1266.91	1266.91
FatIn	Mean	346.10	332.63	346.50	446.40	319.83	391.90	363.24
	StErr	10.90	6.03	19.20	10.40	8.83	19.50	5.67
	Min	124.80	104.64	108.50	216.70	153.83	111.90	104.64
	Max	1438.30	894.67	1770.20	1690.30	1271.64	2475.30	2475.33
No of Families		167	224	156	168	184	221	1120

(EneIn - Calories, ProIn and FatIn -Grams)

Table 4 : Standardized canonical coefficients of Economic dimensions with seventeen food items

FC versus FI		CP versus FI		MS versus FI	
FSIZE 0.90326	CORIC 0.6055	AGEHU -0.0478	CORIC 0.6055	EXFOO 0.7933	CORIC 0.6055
PRPCI -0.2169	COWFL 0.2666	AGEWI 0.0262	COWFL 0.2666	EXHLH -0.0489	COWFL 0.2666
PRSTU 0.0792	COPUL 0.0813	EDLEH 0.3544	COPUL 0.0813	EXEDU 0.2254	COPUL 0.0813
PRUNE 0.2003	COBRE 0.3367	DELEW 0.5482	COBRE 0.3367	EXHOM -0.0615	COBRE 0.3367
PRELD -0.0729	COBIS -0.0070	OCLEH 0.2518	COBIS -0.0070	EXOTH 0.0764	COBIS -0.0070
	COSUG 0.1038	OCLEW 0.0094	COSUG 0.1038	TOTSA -0.1514	COSUG 0.1038
	COMKP 0.0455	SLHSH -0.0720	COMKP 0.0455	INH&W 0.0937	COMKP 0.0455
	COSEF 0.0515	SLHSW 0.0230	COSEF 0.0515	INOTH 0.1898	COSEF 0.0515
	COMEAL 0.0117		COMEAL 0.0117	REA&L 0.2084	COMEAL 0.0117
	COSTER 0.0708		COSTER 0.0708	REOTH 0.0046	COSTER 0.0708
	COGRL 0.0183		COGRL 0.0183	FOSUB 0.3778	COGRL 0.0183
	OVEG 0.0616		OVEG 0.0616		OVEG 0.0616
	COT&C -0.0031		COT&C -0.0031		COT&C -0.0031
	COMLK -0.0337		COMLK -0.0337		COMLK -0.0337
	COEDO -0.0139		COEDO -0.0139		COEDO -0.0139
	COCON 0.0178		COCON 0.0178		COCON 0.0178

Pauttamum Tamilum

Peter Schalk

We learn from four Brāhmī inscriptions in Prakrit that Tamiḷar from Iḷam embraced Pauttam already in the early Anurātapuram period, when Pauttam was not yet identified with cultural and "racial" characteristics of the Ciṅkala(va)r. The religious situation in the island was then completely different from the situation in Tamiḷakam in the precolonial period-and from the situation in Iḷam today. There was no ethnonationalism based on the concept of race. The dominant religion in the island was not Caivam. It was Pauttam, Caivam, not Pauttam, was a minor religion. The dominant insular language was not Tamiḷ. Prakrit had developed into Eḷu, an early form of Ciṅkala, in about the 8-9th centuryAD.¹

Tamiḷ was a minor language. For Tamiḷar to be integrated, it was necessary to use Prakrit-Eḷu-Ciṅkala. They actually did use Prakrit in the early Anurātapuram period. There was no opinion that Tamiḷ speaking people in their capacity of speaking Tamiḷ as mother tongue, were disqualified to become Pauttar. Their integration was possible due to their becoming Pauttar, to their use of Prakrit, and to their recognition of territory dominated by the Prakrit speaking group. It would be anachronistic to project the concept of race into the pre-colonial period. Only during the later colonial period, the idea was generated that Tamiḷar per se are disqualified. Then Pauttam had been reserved as identity marker for the Ciṅkalavar as economic, linguistic and racial group.

¹ I use Eḷu here as a language stage in the development from Prakrit to Sinhala. I do not use it in the Purist sense, as Sinhala purified from Sanskrit and other foreign elements.

² G.Obeyesekere, *A Meditation on Conscience*, Occasional Papers I (Colombo: Social Scientists' Association, 1988).

The precolonial evaluation of Tamiḷar by representatives of the dominant Prakrit speaking group can be highlighted by a famous passage, 25:101-111, in the *Mahāvaiṇṣa*. The *Mahāvaiṇṣa* defined a true human as a person expressing the values of the *buddhasāsana*. It would of course be unhistorical to search in the *Mahāvaiṇṣa* for a concept of humanity that was defined in terms of universal values; it was defined in terms of specific and specified religious values.

When Gananath Obeyeskere in 1988² and I in 1986³ wrote about this passage in the *Mahāvaiṇṣa*, we tried to understand and relativise it "contextually". Today, I see this passage in a different light. I compare it not any more with similar religious

anthropologies in the Sanskrit *Śāstra* literature where we find the idea that *dharma* constitutes true humanity. Furthermore, I have no intention here to again confront this passage from the *Mahāvaiṇṣa* with the message of the Puttan, and with modern views about the universality of human rights. I think the adequate point of comparison is the excluding doctrine of modern Ciṅkala-Pautta ethnonationalism. Then, this passage in the *Mahāvaiṇṣa* comes into another light.

The passage 25:101-111 in the *Mahāvaiṇṣa* from the 5th century AD, conveyed two ideas. 1. Tamiḷar who were not belonging to the *buddhasāsana* were regarded as *micchādiṭṭi*, "wrong believers" and *dussilā*, "evil-doers," and *pasumā*, "like beasts". This is the rejecting side of this passage, but there

³ P Schalk, "Landets söner. Om nutida buddhistisk historietolkning och konflikten mellan singhaleser och tamiler i Sri Lanka", *Häften för Kritiska Studier*, 1, 19 (1986), pp.24-41. Also published in *Chaos* 4 (1985), 39-55.

⁴ This fourfold refuge is mentioned by the Anagārika Dharmapāla but was later taken up by Maḍihē Pañña sīha, by the Mahanāyaka of the Amarapura Nikāya. Vide *Vīra Carita. Anāgarika Dharmapāla tumā*, Vol.1 (Nugegoda:Kurunāḍḍa Taruṇa Bauddha Saṅgamaya, 1985), p.22. For a comment on this vide P Schalk, "Lejonet och tigern. Kampen med symboler i Sri Lanka", *Svensk Religionshistorisk Tidskrift* 2 (1986), pp.45-76, especially p.50.

⁵ P Schalk, "Kette ohne Anfang und Ende. Die Welt der Fundamentalisten in Sri Lanka ist hermetisch gegen Kritik versiegelt". *Der Überblick. Zeitschrift für ökumenische Begegnung und internationale Zusammenarbeit*. 33. Jahrgang. März 1997, pp.83-88 Id., "Twisted Cross: The Religious Nationalism of the German Christians". *Studia Theologica, Scandinavian Journal of Theology* 52, 1, (1998), pp.69-79.

was another, inviting side also. The passage implies 2. that Tamiḷar could become humans, even gradually, if they turned systematically towards the *buddhasāsana*. If they accepted the refuge formula, they could become half-humans, and if they accepted the precepts, they could become full humans.

This inviting opening for Tamiḷar to enter the path towards humanity has been closed by modern ethnonationalists. A window to their mental *gehäuse* (Karl Jaspers) of modern ethnonationalists or their "locked minds" (TN Madan), housing "the four jewels," country (*raṭa*), race (*jātiya*), religion (*āgama*), language (*bhāṣava*), cannot be locked up.⁴ No dialogue is possible.⁵ The idea of Tamiḷ Pauttam appears in the light of ethnonationalism as an anomaly. I conclude that modern ethnonationalism has broken with the *vaṇsa* tradition according to which Tamiḷar also could become humans by taking over values of

the *buddhasāsana*. What today is commonly called a "*Mahāvaṇsa*-mind-set" by Western commentators without professional training in history and philology is not a *Mahāvaṇsa*-mind-set; it is a modern ethnonationalist mind-set that claims to be and anachronistically historicises itself to be the authentic *Mahāvaṇsa*-mind-set. These

commentators make themselves-unconsciously-representatives of an ethnonationalist view of history according to which Ciṅkala ethnonationalism is the essence of the *vaṇsa* tradition.

We move at a time not only when the *Mahāvaṇsa* was compiled in the 5th century AD., but also at a time when this passage was transmitted from generation to generation, and also in other sources, for example in the *Saddharmālaṅkāraya* in Ciṅkala from the 13th century.⁶ There, no doubt is left, that Tamiḷar who did not belong to the *buddhasāsana* were regarded as cattle, dogs and mice,⁷ but also that

⁶ *Saddharmālaṅkāraya*, Makuḷuvē śrī Piyaṛātnabhidhāna (Kolam??ba:Ām Di Guṇasēna, 1971), p.550.

⁷ *Saddharmālaṅkāraya*, p.550

Tamiḷar can become humans, even gradually, if they enter the *buddhasāsana* step by step. We shall meet several examples of Tamiḷar whom have chosen for themselves that approach to humanity defined by the dominant group.

We have to consider also the canonical norm in the *Vinaya* about the languages in which the *dhmma* should be learned [and taught] by the monks. The *dhmma* should be learned by each in his own language in accordance with the famous saying ascribed to the Buddha in the *Vinaya-Piṭṭaka*, Cullavagga V.33..

*anujjanāmi bhikkhave sakāya
niruttiyā buddhavacanaṃ pariyāpuṇitun
ti.*

"I allow you, o monks, to learn the words of the Buddhas each in his own language".

True, Buddhaghosa from the 5th century had a special interpretation according to which this *buddhavacana* should be construed to refer to the language of the Buddha, which he

classified as Magadhī, which again he wrongly identified with the language of the canonical texts, with Pāli. This interpretation is, however, a re-interpretation of the buddhaword quoted above. The context makes it clear that each monk should learn the buddhaword in his own language. I imply that each monk also should teach in his own language.

Even, if we had to commit ourselves to Buddhaghosa's interpretation, Magadhī is not Cīṅkala. Buddhaghosa chose Magadhī not because he wanted to "nationalise" or parachiolise Pauttam, but, on the contrary, because he wanted to internationalise Pauttam. He thought wrongly that Pāli was known in his world. He wanted to replace the insular parochiolised Parakrit in the commentaries with an "international" language Pāli. His action can be seen as taking the consequence of the missionary order of the Buddha in the *Vinaya*, Mahāvagga I.II, according to which the liberated monks should have in mind the welfare of the many, the happiness of the many. They should show

compassion with the [whole] world and have both humans' and gods' happiness in mind. So, there is no support in the work of Buddhaghosa for constructing a parochialised insular Pauttam. The concept of Ciṅkala Pauttam questions the spirit of his work and the work of the Puttaṃ.

The history of the island shows that the island was a permanent target for migrations from many parts of India, not only from Tamiḷakam. Warriors from northern India, indicated by the projection of Vijaya, the alleged first king, were spillovers from internecine dynastic struggles, like also Tamiḷ chiefs having come from the Southern parts of India. These were either assimilated with the Prakrit-Elu-Ciṅkala speaking population, or with the Tamil speaking population. The pre-Pallava period is a profiled example of the former and the imperial Cōḷa period a profiled example of the latter.

I cannot see a deviation between Buddhaghosa's interpretation of the languages and the views of the position of Pauttaṃ in the world of the compiler

of the *Mahāvārṇsa*. True, the latter had a special view about the island being selected for making the lamp of the *dhamma* shine to the world, but there is no view the Pauttam is the religion of one ethnic only, of the Ciṅkalavar.

True again, there are several documented physical persecutions and verbal outbursts against the Tamiḷar even in the pre-colonial insular history of the island. An examination of the *varṇsa* tradition shows, however, that these negative attitudes and actions were directed against a special group of Tamiḷar. These were either on realistic grounds or by prejudice associated to anti-Pautta open or subversive activities against Pauttam. We saw above that they were characterised as *micchādiātṭhī*, "wrong believers" and *dussilā*, "evil-doers," who destroyed Pautta institutions. They were characterised as *pasumā*, "like beasts," but all these characteristics indicate anti-Pautta activities. We have to realise, however, that to be a Pautta means much more than to have a religious conviction. There was no such concept as "religion only." The *buddasāsana* was the

religion of the state. It was a royal state ideology. 'To be' anti-Pautta implies therefore 'to become' an enemy of the state. If I destroy a *stūpa*, rob the alms bowl, and smash the tooth relic, I also become an enemy of the state. Religious man and political man could not be separated in the *vaṃsa* tradition, which affected his evaluation of anti-Pautta activities. What I want to say is that it was easy to be classified as anti-Pautta. Every action against the state was potentially an anti-Pautta act. This idea is still living today among traditional and traditionalist militant, and even martial, Pautta groups.

Pre-colonial insular Pautta state formations co-operated regularly with Tamiḷar, but not with anti-Pautta Tamiḷar. It co-operated with the Pāntiyar, Portuguese, Dutch and British, but not with anti-Pautta, Pantiyar, Portuguese, Dutch and British. Numerous are the conflicts with the colonial powers due to an alleged anti-Pautta performance by them. The Pauttar, including Tamiḷ speaking Pauttar, felt selected for a privileged destiny to transmit the *dharma* as lamp

on the island from generation to generation. They had good reasons to feel the infiltration of Christianity as a threat to its mandate.

The other side of this coin was that Pautta state ideology as depicted in the *Mahāvaṃsa* became selective, exclusive and excluding inter-and intra-religiously during the precolonial period, but it was not anti-Tamiḷ. It was at times anti-Caiṇa, anti-Caiva, and even anti-Mahāyāna, even to the extent of physical persecution and elimination, when for example Mahāyāna was experienced as a threat to Pauttam in the island. This was, however, not always and everywhere the case. This "vaṃsic" sectarian ideology was not all pervading, especially not at royal courts. There we find regularly a suspension of sectarian Pautta considerations. We find pragmatic endurance of Pautta rulers, who were dependent of large groups of Tamiḷ Caiva mercenaries, settlers, and travelling merchants. They even bestowed royal patronage to Caiva sanctuaries. Caivar and Pauttar could co-exist under periods due to this pragmatic endurance that was practised

on "the other shore" also by the Cōḷar towards Pautta institutions. Ideological excluding sectarian commitment and pragmatic endurance are the two extremes between which rulers on both shores tried to position themselves. It goes without saying that this pragmatic endurance has nothing to do with recognition of human rights or with tolerance. It is nothing but pragmatism that could be replaced by sectarianism at any time.

The polarisation between Tamiḷar and non-Tamiḷar was conveyed still more colourfully in the continuing chronicle known as the *Cūḷavaṃsa*. In the *Cūḷavaṃsa*, which covers the "medieval" period, the idea of Damiḷa as being *in general* anti-Pautta, is also one of the essential themes. This idea is the precursor of the idea that Tamiḷar *in general* are alien to Pauttam. This idea can be re-enacted even by the present reader of history knowing details about the ruthless invasions by mainland Tamiḷar. This idea built on a concrete and repeated experience of war and conflict, was, however in the *Cūḷavaṃsa* abstracted from this experience and

made into a general view about the Tamiḷar being anti-Pautta. The inversion of this idea is that Pauttam in the island is transmitted by and for the Prakrit-Eḷu-Ciṅkala speaking people only, and indeed, scholars raised this inverted normative message to the level of acceptance in the twentieth century. It was projected anachronistically by them to the beginning of historical times. A work by Seneraṭ Paranavitana from as late as 1970 states that "Pauttam in Ceylon had, from the earliest times, become a Cinkala Pauttam, adapted to the conditions of life of the people in this Island" ⁸. Seneraṭ Paranavitāna was consistent on this question throughout his long career. Seneraṭ Paranavitāna's sinhalisation, parochialisation, and even communalisation of Pauttam were expressed in his denial of a Tamiḷ substratum in insular Brāhmi Prakrit inscriptions.

In addition to all that, Ciṅkalavar were not only regarded as a language group of people, but also as a race in the 20th century. Pauttam became the religion of a race, and invertedly and symmetrically, Caivam

was related to the Tamil race. Religion became a racial factor like the colour of the skin, that cannot be changed.

The 2000-year-old insular Prakrit inscriptions refer to Pauttar and to language groups, but not to representatives of races. They show also that there was no ideological connection between language and religion. Members from both language groups based on a lingua franca that was Prakrit shared Pauttam. To talk about a special Tamil Pauttam would therefore be an anachronism from the perspective of the inscriptions-as it would be to talk about Ciṅkala Pauttam. Pauttam was not yet communalised.

In the island, there is one indication that Tamil Pauttar were organised as a separated community of monks during the reign of King Udaya I (792-797, 797-801). We learn from the *Cūḷavaṇṇa* 49:24 that King Udaya's *mahesī* handed over the Jayasenapabbata (vihāra) to a *damīḷabhikkhusaṅgha*:

*kāretvā Jayasenam ca pabbatam
Dāmiḷass' adā
bhikkhusaṅghassa*⁹

"...and having caused the Jayasenapabbata (vihāra) to be built, she handed (it) over to the Tamil *bhikkhusaṅgha*..."

This text contradicts the present dominating norm embraced by both sides that Tamils cannot be Pauttar. It implies that at least some Tamil Pautta monks lived separately based on their speaking Tamil, probably because a specialisation was required to create a Tamil Pautta caṅkam that could do missionary work among Tamils.

During the late Aunrātapuram Period, which coincides with the period of the imperial Cōḷar and Pāṇṭiyar, there was a connection established between the two "m" and the administration of the Pautta state. The two "m" are Tamil merchants and mercenaries. They were involved into the building of institutions of the state, among them Pautta institutions. Tamil inscriptions bear witness to their involvement. They also

show that Tamiḷar were integrated into the ideology of the state that was Pauttam.

In the tenth century documents in Tamiḷ referred to a type of Pauttam that was closely connected with the imperial Cōḷar. This can rightly be called a special Tamiḷ Pauttam. It was transmitted in Tamiḷ and not in Prakrit-Eḷu Ciṅkala or Pāli. The Cōḷar ideologically and ritually forged it. Caiva terms and concepts were used to expound on Pauttam. Let us call it, "īlaccōḷappauttam, from Īlam". This was a new start for Pauttam among Tamiḷar. There is no connection to earlier Prakrit Pauttam among Tamiḷar from this īlaccōḷappauttam. Some insular Pautta institutions that had been conquered in the wars were made centres for the establishment of this īlaccōḷappauttam, like the *rājarājaperumpaḷḷi* in the East. The question of whether there was a special Īla (ttu) Pautta ideom, proposed

originally in 1978 by Ālvāppillai Vēlupillai,¹⁰ is justified and can be answered in the affirmative.

Īlaccōḷappauttam was self-contained. It was specific in the sense that Tamiḷar in a former Ciṅkala-Pautta transmitted it in Tamiḷ surrounding that had been conquered by war. It was specific also in the sense that its terminology was akin to Caivam. With the disappearance of Īlaccōḷappauttam through annihilation or assimilation in the 14th-15th centuries, there is nothing more to say about Pauttam among Tamiḷar in Īlam in the pre-colonial period.

Today, it is not easy for Tamiḷar to be Pauttar. To revive Īlaccōḷappauttam would be an atavism. To make it into a special Īlappauttam would just be the inversion of Ciṅkala Pauttam. The door to Ciṅkala Pauttam is closed because Tamiḷar do not bring the necessary qualification, which is to

⁸ S Paranavitana, "Introduction", *IC* 1, pp.cii.

⁹ For a critical comment on the source see CvT., p.129, note 4 and R A L H Gunawardana, *Robe and Plough. Monasticism and Economic Interests in Early Medieval Sri Lanka* (Tucson: The University of Arizona Press, 1979), p.47. The best reading of the Pāli is Geiger's given above.

be of the Cinkala race. The door to traditional Pauttam in the vamsa tradition, Tamilar do not wish to pass through: they think that humanity is universal, not Pautta. So, the last possible door to pass through is to go

back to the teaching of the Puttan whose words in all languages were addressed not to animals and beasts, but to humans of all kinds independent of sex, age, race, class or caste.

¹⁰ Ā Vēluppi|lai, "Language variations in Sri Lanka Tamil Inscriptions", *Journal of Tamil Studies* (1978), p.80 [65-83].

THE INDIRA DOCTRINE THE GUJRAL DOCTRINE AND INDO-SRI LANKA RELATIONS SINCE 1983

A.Sivarajah

INTRODUCTION

In Sri Lanka's foreign relations India occupies a prominent place. This is not only because of the disparities between the two countries in size, population, military strength and resource potential but also due to close cultural relations between the two countries.

Shri Jawaharlal Nehru outlined the basic principles guiding India's foreign relations in a broadcast on 7 September 1946: "end of colonialism and racialism, independence of African and Asian countries, independence from power blocks, support for United Nations striving for world peace and cooperation security through commonwealth membership".¹ The above objectives were based on the modest role that India wanted to play in world affairs. But Nehru did not develop a regional policy for India. However a combination of many factors pertaining to South Asian region finally resulted in the emergence of a dual pattern of foreign policy—a pattern that was global as well as regional "Dualism was the broad frame work that was conceptually discernable in India's foreign policy behaviour during Nehrunian era."²

But what is important to note is that "through the years, and under different leaders, a trend has emerged where the relative importance of globalism has slowly declined, while regionalism has acquired a much larger place in India's foreign policy."³

In this paper an attempt is made to examine the relations between India and Sri Lanka since 1983. In order to examine the relations between India and Sri Lanka since 1983 it is essential first to understand the changed nature of India's regional policy. At global level India built up her image as a non-aligned peaceful and anti-imperialist country. Considerable efforts were made during Nehru's premiership to build up this image.

II. INDIA'S REGIONAL POLICY

The military impasse in which India found herself during her first encounter with Pakistan in 1948 and the humiliation defeat that she suffered at the hands of the Chinese in 1962 eroded her image in South Asia. After Nehru things began to change. Priorities began to be reversed. Interests began to shift. There was a new Indian determination to play

¹ A.Appadurai, Documents of India's Foreign Policy (Delhi: Sterling Publications, 1963), p.1

² Ashok Kapur and A.Jeyaratnam Wilson, The foreign Policy of India and the Neighbours (London: Macmillan Press Ltd., 1996), P.5

³ Harris Kapur, India's Foreign Policy 1947-92 (New Delhi: Sage Publications, 1994), p.5

dominant role in South Asia.³ The defining moment in this ongoing process was India's military intervention in East Pakistan. Since 1971, the broad Indian policy towards South Asia under different governments has revolved around the following objectives:

- i. Politics of accelerating the strategy of increasing Indian military clout.
- ii. The confrontational aspect of Indo-Pakistan relations.
- iii. Increasingly unstable, violent and guerilla like situation that has developed within its boundaries.
- iv. Politics of bilateralism in her relations with her South Asian neighbours.
- v. Eliminate or reduce Chinese influence in the states of the region, and
- vi. The next objective of India's regional policy is to disallow the destabilization attempts in any of neighbouring states by any internal or external forces perceived to be inimical.⁴ There were few such cases. Example:
 - a) Influx of a large number of economic and political refugees from Bangladesh has seriously destabilized Assam and other areas of northeast.
 - b) The United Liberation Front of Assam (ULFA) a guerilla movement operating from the area has made Assam more unsettled and chaotic than ever.
 - c) The large number of Nepalis traditionally residing in India have started a movement for the establishment of a autonomous Gorkhaland.
 - d) The existence of parallel government in Pakistan occupied Kashmir territory.

- e) Sri Lankan ethnic conflict has been seriously destabilizing the Indian State of Tamil Nadu.⁵

III INDO SRI LANKA RELATIONS UNDER INDIRA GANDHI

Although the origins of the ethnic conflict in Sri Lanka could be traced to misunderstandings between the middle class leaders of the Sinhalese and Tamil communities during the British rule in 1920s it became explosive in the late 1970s and early 1980s due to escalation of the struggle against the armed forces by the Tamil militants.

In the last week of July 1983 Sri Lanka witnessed and unprecedented racial riot with extensive destruction of factories, shops and houses and brutal killings of defenceless Tamil people. During the anti-Tamil riots of July 1983 Mrs. Indira Gandhi sent her Foreign Minister Narasimha Rao to Colombo to ascertain the facts on the spot on July 29, 1983. On his return from Sri Lanka, Mr. Rao informed his Prime Minister that the Sri Lankan situation was serious indeed and that "the government of Sri Lanka had failed to bring the ethnic violence under control. Rao also confirmed media reports that the Sri Lankan government had sought military assistance from the United States, Britain, Pakistan and Bangladesh to meet the crisis."⁶ India took this seriously. The Heads of the Foreign Office and asked to tell the respective governments to keep their hands off Sri Lanka.⁷

⁴ H.M.Jain, India's Foreign Policy (New Delhi:)

⁵ Ibid., p.76.

⁶ P.Vekateshwar Rao, Ethnic Conflict in Sri Lanka India's Role and Perception Asian Survey VI. XXXVIII No.4 April 1988, p.420

⁷ Khan Alilham, "The Tamil Question in Historical Perspective: Its Impact Pakistan Horizon Quarterly. Vol. 27 No.3, 1984, p.6

Office and asked to tell the respective governments to keep their hands off Sri Lanka.⁷

Urmila Phadnis and Nancy Jetly pointed out that "Indira Gandhi's policy towards the neighbouring countries in the seventies was essentially three pronged - these were mutually exclusive and were in fact simultaneously explored -i) to sustain, and if possible broaden through confidence-winning gestures, areas of agreement between India and its smaller neighbours; ii) to maintain a high power profile which would make it unwise or impossible for them to pursue goals that would be antithetical to India's national interests; and iii) to seek to keep External powers presence/influence in the region at bay resulted in the emergence of a regional policy".⁸ "This policy gave way to a two track strategy by Indira Gandhi: militant supportive on the one hand and mediatory on the other."⁹

Policy towards Sri Lanka under Indira Gandhi after 1983 anti-Tamil riots had been expressed by herself as follows:

We have made it clear in every forum and in every possible way that India does not pose and threat to Sri Lanka, nor do we want to interfere in their internal affairs. I reassured the President on this. We want the unity and national integrity of Sri Lanka to be preserved. At the same time I pointed out

to the president that developments in Sri Lanka affect us also. In this matter, India cannot be regarded as just any country....¹⁰

Indira Gandhi appears to have believed that United States was engaged as a strategic action designed to sandwich India between China on the one side and the smaller pro-Western States of Pakistan, Sri Lanka and Bangladesh on the other. In this connection Prof. Bhabani Sen Gupta has developed India's policy of regional security into a doctrine of regional security known as Indira doctrine as follows:

India has no intention of intervention in internal conflicts of a South Asian Country and it strongly opposes intervention by any country in the internal affairs of any other. India will not tolerate external intervention in a conflict situation in any South Asian country if the intervention has any implicit or explicit anti-Indian orientation. No South Asian government therefore should ask for external military assistance with an anti India bias from any country.¹¹ This doctrine has been the guiding principle for the Congress I governments under Rajiv Gandhi and Narasimha Rao. Only exception was the V.P.Singh's National Front government. Before examining the policy followed by V.P.Singh it is appropriate to examine the policy followed by Rajiv Gandhi at this juncture.

⁸ Urmila Phadnis and Nancy Jetly "Indo-Sri Lanka Relations: The Indira Gandhi Years" Indian Foreign Policy eds AK Damodaran and U.S. Baipai (New Delhi: Radiant publishers), p. 156.

⁹ Government of India, Selected Speeches and Writings of Indira Gandhi, Vol. V. January 1982 - October 30, 1984 (New Delhi: Ministry of Information and Broadcasting, 1986), p. 418.

¹⁰ Ashan Ali Khan op.cit p. 63

¹¹ M.S Iyar, Foreign Policy At Ease with the World" in Rajiv Gandhi: A Political Study (New Delhi: Vikas Publishing Ltd. 1992) p. 151

IV. INDO-LANKA RELATIONS UNDER RAJIV GANDHI

Although Shri Rajiv Gandhi who had become Prime Minister of India after his mother's untimely death followed mother's two track strategy he gave more emphasis to mediation. His efforts resulted in two rounds of talks between the representatives of the Sri Lanka government and the Tamil moderates and the militants at Thimpu capital of Bhutan. However this attempt did not bring the desired result. Continuing his efforts to find a political solution to ethnic conflict in Sri Lanka Rajiv Gandhi sent a team to Sri Lanka in May 1986 headed by the State Minister for Internal Security of India P. Chidambaram. The talks between the Chidambaram delegation and the Sri Lanka government paved the way for two rounds of talks between the Tamil United Liberation Front (TULF) and the UNP government. From these two rounds of substantial talks emerged the proposals for setting up of provincial councils.

The ethnic conflict in Sri Lanka entered a new phase when the Sri Lanka government imposed an economic and communication blockade on the Jaffna Peninsula in early 1987. This caused considerable hardship to the Tamil civilian population. Therefore the government of India decided to send urgently needed relief supply to Jaffna.

Relations between India and Sri Lanka reached an unprecedentedly low ebb when the Indian government air-dropped what it described a humanitarian relief supplies

over Jaffna Peninsula by plans on 4 June 1987. Outraged by this action, Sri Lanka lodged a strong protest with the Indian government describing the Indian action as a naked violation of Sri Lanka's independence. However Indo-Sri Lanka relations entered a new phase of reconciliation and friendship when a peace accord was signed between president Jayawardene and Prime Minister Rajiv Gandhi. As M.S.Iyer has observed "Rajiv Gandhi did not seem to have a foreign policy 'design' of his own", in his speeches and statements, it is difficult to find a conceptual framework of the world and India's place in it. However, piecing his foreign policy thrust together, it is possible to discover with an effort, an attempt to join Jawaharlal Nehru's orientation to the centre of world politics to Indira Gandhi's focus on regional prominence....."

V. INDO-LANKA RELATIONS UNDER V.P.SINGH

Unlike his predecessors, when V.P.Singh assumed office as Prime Minister of India in December 1989, he did not face any serious problems with any of India's neighbours. In his address to the nation on 3rd December 1989, V.P.Singh said that effective steps will be taken to improve relations with India's neighbours. He also said that he will endeavour to make SAARC a dynamic institution.¹² But after eight months of his rule he did a stock taking. During his address on the occasion of the Independence Day celebrations V.P.Singh observed that "India has not

¹² Ambalavanar Sivarajah, India and its Neighbours, Lanka Guardian Vol.13, No.7, January 7, 1991, p.9.

¹³ Ibid., p.9, 17 February 1992, p.9

¹³ Ibid, p.10.

only solved the problems which had cropped up with Nepal but also maintaining good relations with Bhutan, Maldives and Bangladesh.¹³ In the case of Sri Lanka, he said that "India was concerned about the life and property of the Tamils and volunteered to help Sri Lanka where Tamils could feel secure. At the same time he insisted that India will not allow extremists and militants to use Indian soil as their place."¹⁴

Keeping in line with the new approach then India's External Affairs Minister and later Prime Minister of India Inder Kumar Gujral said that "the Indian government would never send its army to intervene military abroad and stressed that Tamil security and welfare was ultimately the responsibility of the Sri Lankan government."¹⁵ In fact, Gujral said that the National Front government has succeeded in improving good neighbourliness between the two countries. What is important to note is that Gujral had laid the foundation for his five principles developed later known as Gujral Doctrine. When he served as Minister of Foreign Affairs in V.P.Singh's government.

VI. INDO-LANKA RELATIONS UNDER NARASIMHA RAO

Prime Minister Narasimha Rao's approach to India's relations with Sri Lanka was as follows:

- i) India continues to be supportive of the legitimate political, social and cultural aspirations of the Tamils.

- ii) India, however, opposes the LTTE's violent and terrorist methods to achieve these aspirations.

- iii) India would be supportive of initiatives aimed at resolving the crisis in Sri Lanka through political dialogue.

- iv) Having been criticised by all parties concerned, for the sincere efforts made by India to mediate between Tamils and Sinhalese dominated government, we would not desire to take any active part in resolving the problems of Sri Lanka.

- v) Apart from these specific aspects of Indo-Sri Lanka relations, India would try to build up bilateral relations and cooperation in the political, economic and cultural spheres with Sri Lanka.

- vi) The Government of India and government of Tamil Nadu would ensure to the extent possible, that the LTTE does not have bases or sanctuaries in India. India remains opposed to any secessionist or terrorist operations from its territory against any of its neighbours.¹⁶

VII. INDO-LANKA RELATIONS UNDER DEVGOWDA AND I.K. GUJRAL

The National Front government's policy headed by Devgowda towards India's neighbours was first made known when I.K. Gujral as foreign minister of India made a speech on foreign policy objectives of India's United Front

¹⁴ Ibid., p.10.

¹⁵ Shri I.K. Gujral, Foreign Policy Objectives of India's United Front Government (India: Graphic Point Pvt.Ltd., 1966), p.6.

¹⁶ Urmila Phadnis and Nancy Jetly op.cit., p.157.

government at Chatham House, London on September 13, 1996. During the course of his speech I.A.Gujral said that:

The United Front Government's neighbourhood policy now stands on five basic principles. First with the neighbours like Nepal, Bangladesh Bhutan, Maldives and Sri Lanka. India does not ask for reciprocity but gives all that it can in good faith and trust. Secondly no South Asian country will allow its territory to be used against the interest of another of the region. Thirdly none will interfere in the internal affairs of another. Fourthly, all South Asian countries must respect each other's territorial integrity and sovereignty. And finally, they will settle all their disputes through peaceful bilateral negotiations.¹⁷

The above five principles known as Gujral doctrine has already brought dividends to India as well as to countries in the neighbourhood. According to Gujral "the principal objective of the UF's foreign policy is to promote all-round economic and social development with justice and equity. The accelerated development of every country in the subcontinent is a key goal of the Gujral doctrine."¹⁸

Since taking office Gujral has tried to put the five principles into practice. With Pakistan's Foreign Secretary level talks have taken place. Gujral has initiated his own diplomatic initiatives in respect to Pakistan.

One of the biggest achievements of Gujral's second tenure as External Affairs Minister was the resolution of the contentious water dispute between India and Bangladesh. This landmark event, it was hoped would help the development of the backward northeastern India and the adjoining areas of Nepal, Bhutan, and Bangladesh.¹⁹

The foundation for sound relations between India and Sri Lanka was laid when Mrs. Chandrika Kumaratunga visited New Delhi in March 1995 on her first state visit abroad.

In her convocation speech at the Bandaranaike Centre for International Studies on September 29, 1995 President Chandrika Kumaranatunga said that

It is no accident indeed it is a matter of deliberate choice-that my first official state visit as President was to our largest and immediate neighbour, India. I think I can say that this visit succeeded in eliminating at one stroke the legacy of mutual suspicion and distrust that had been carried over for the past and restoring friendly relations."²⁰

During his official visit to Sri Lanka in January 1997, Gujral reiterated the same principles enumerated at Chatham House, London addressing a joint press conference with Minister Luxman Kadirgamar at Colombo Taj Samudra on the conclusion of his visit to Sri Lanka

¹⁷ Shri I.K.Gujral, Foreign Policy Objective of India's United Front Government (India:Graphic Point Pvt.Ltd.) p.6

¹⁸ John Cherian Clear and Coherent Front Line, April 4, 1997, pp.4-5.

¹⁹ Ibid., p.5

²⁰ The Sunday times February 2, 1997.

²¹ The Island, January 26, 1997.

Gujral said " I am prepared to take the first step to move forward in the context of Indo-Sri Lanka relations (economic and otherwise) without expecting anything in return. India will do its best for Sri Lanka and whatever possible will be done"²¹ "More significant was Gujral's firm assurance that India did not wish to interfere in the internal problems of Sri Lanka."²²

As in the case of political relations Indo-Sri Lanka economic relations also have improved in the recent years. For example during the third session of the Joint Commission held in Colombo in January 1997 four agreements were signed: (1) Bilateral Investment Protection Agreement (2) Second Tranche of Government of India Line of Credit Agreement for US \$ 15 million (3) Programme of cooperation in the field of Science and Technology (4) Cultural Exchange Programme (5) A Joint Workshop on Bio-Technology was held in New Delhi on January 1997. Also India allocated credit for purchase of buses, locomotives and rice mills under the Indian Line of Credit. In addition India gifted 100 computers to Sri Lanka Ministry of Science and Technology worth of Sri Lankan Rs. 13.3 million. Indian experts visited Sri Lanka to prepare a detailed project report on Dandro Thermal Power Plant in early 1997.²³

According to trade statistics India is the second largest supplier of Sri Lanka's import in 1995. She supplied Sri Lanka with imports valued at Rs. 24, 045 million of 9.0 percent of Sri Lanka's total imports following Japan supplied imports to the value of Rs. 25, 556 million or 9.6 percent of total imports.²⁴.

CONCLUSIONS

Our examination of Indo-Lanka relations since 1983 shows that the relations between India and Sri Lanka have undergone several changes. In the seventies India's policy under Indira Gandhi towards Sri Lanka was based on confidence building and resolution of conflicts through negotiations. However this policy underwent changes with the escalation of ethnic conflict in Sri Lanka. Changed policy was both Tamil militants supportive and mediatory. This policy was continued by her son Rajiv Gandhi and Narasimha Rao both became Prime Ministers after Prime Minister Indira Gandhi's death. Only exception was V.P.Singh.

²² The Island, April 2, 1997.

²³ John Cherion, op.cit, p.7.

²⁴ Ibid., p.9.

PEDAGOGICAL IMPLICATIONS OF LISTENING COMPREHENSION PRACTICAL SKILL CONDUCTED BY THE ENGLISH LANGUAGE TEACHING CENTRE OF THE UNIVERSITY OF JAFFNA.

M.Saravanapava Iyer

ABSTRACT:

In the University of Jaffna for the Undergraduates of Faculties of the Arts and Management Studies and Commerce English as a second language (ESL) is taught by the English language Teaching Centre (ELTC) to promote the general basic English language proficiency from 1st year to 3rd year. ESL is a compulsory component for the Arts and Management Studies and Commerce undergraduates. For the Faculty of Science undergraduates, even though they are highly motivated to learn English, when compared to the students of the Faculty of Arts students, ESL has been introduced as a compulsory component along with their main subjects up to second year in view of achieving the general basic English language proficiency.

To reach this goal ELTC provides training with all the four basic skills in relation to English language teaching with the available resources such as physical and human, within the University of Jaffna using formal teaching methods with eclectic style.

This paper specifically brings out the pedagogical implications of listening comprehension practical skill and provides suggestions for an effective ESL teaching programme.

01. INTRODUCTION

In Sri Lanka, English gradually gained a new status as a second language after the introduction of mother tongue as the medium of instruction for imparting the general education in all the government schools, particularly after Kannangara's recommendations in 1945. After the implementation of Educational Reformation Act 1950 English has been taught as a second language in almost all the government schools from 3rd standard onwards.

Generally in any foreign language learning process, intrinsic and extrinsic motivation play an important role. But in recent years there has been a shift from an emphasis on intrinsic motivation to a concern with extrinsic factors. Before the Second World War people in the world learnt English for pleasure and prestige. English found its way into the regular timetables of a school or college regular timetable. In Sri Lanka also it was introduced in the similar way by the British government. This was known as 'General English'. It satisfied the intrinsic needs of the people. The goal of that kind of education was wide and general. It was considered that the purposes of

learning an additional language were to allow interaction with the rest of the world and for personal enjoyment.

But this situation gradually changed at the end of the World War in 1945. From this time onward expansion of scientific technical and economical activities on an international scale developed vastly. This situation generated a great demand for an international language. For various reasons most notably the economic power of the U.S.A in the Post World War, this role fell onto English. English was the key to the international currencies of technology and commerce. Since the British Empire had already transplanted English in its colonies (including Sri Lanka), English became the instrument of communication in the field of international trade.

At this stage a new generation of learners were created who understood why they were learning a language. For example businessmen and women who wanted to sell their products, advertise their products, mechanics who had to read instruction manuals, doctors and engineers who needed to keep abreast of new development in their respective fields.

Due to these influences the language teaching profession was brought under a pressure to provide required knowledge in English. This is called English for specific purposes (ESP). The chief principle of ESP is **'tell me what you need English for and I will tell you the kind of English that you need'**. These learners do not study English for personal enjoyment. They learn it because of the extrinsic factors based on instrumental needs.

In Sri Lanka, as mentioned previously, after 1950 English is taught as a compulsory second language. Thereafter these learners are also influenced by extrinsic factors. In Sri Lankan context, English as a second language is learnt and taught on the basis of extrinsic motivation to fulfill the instrumental needs. The instrumental needs of the Sri Lankan context are, reference reading (specially for the students), magazines reading, communicational needs within the country and with speech community of other languages other than Sri Lankan national languages (Sinhala/Tamil), need to hear and understand international sports news, and need to enhance the knowledge of Science and Technology.

As mentioned previously in the University of Jaffna, for the first year Arts and Management Studies and Commerce students ESL is taught throughout the two semesters in view of mastering four basic skills with general competency.

Before the commencement of the core ESL programme students are grouped. A placement test is conducted in ESL by the ELTC to identify the basic proficiency level of the new entrants. Even though it is not accepted in the modern ESL teaching trend, students are grouped according to their performance in the placement test for the departmental administrative purposes; for example assigning appropriate instructors to teach different groups comprising students of different levels of proficiency. Further, this grouping system will facilitate an instructor to carry out his ESL teaching programme successfully and plan according to the proficiency level of the groups.

For the academic year of 1999/2000 there were ten groups in the Faculty of Arts and six groups in the Faculty of Management Studies and Commerce. Total ESL teaching hours available for the first and second semester are one hundred and fifty for Arts

and another one hundred and fifty for Management Studies and Commerce. Each Faculty has allocated thirty-five hours for the listening comprehension practical skills.

02. THEORETICAL ASSUMPTION

In ESL teaching programme, for a method to be economical as well as efficient it must be borne in mind that equal and simultaneous attention be focussed on all the four skills. Language teaching courses are very commonly designed with emphasis on four skills; speaking, listening (or understanding lectures/films/speech/ radio broadcasts / T.V.programmes), reading and writing.

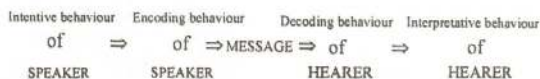
Basically, among these four skills listening and speaking are suggested to relate to language expressed through the aural medium and writing and reading are suggested to relate to language expressed through the visual medium. According to the activity of the language user, speaking and writing are called productive skills/active skills and listening and reading are said to be receptive/passive skills. Since this paper is primarily concerned of only listening practical skill in ESL

teaching/learning process it does not concentrate on other skills.

In the modern trend, teaching language for communicative purpose has become an accepted aim of the second language teacher all over the world. In this process what is expressed or communicated by a speaker/radio announcement and broadcasts/ T.V/lectures, etc. should be understood very clearly and accurately. If it is not so the user can't participate properly in a communication process. If a person does not understand what is communicated in a foreign language, he will not be able to respond properly. As a result a breakdown will occur in the communication; he has to face an embarrassing situation; perhaps it will lead him to considerable emotional fits.

Therefore, listening comprehension of spoken language is also given primary importance in a second language teaching/learning process. In the field of listening comprehension many communication engineers have carried out research using telephonic and telegraphic equipment and proved the needs of listening comprehension in a communication passage.¹

Many foreign language teaching planners also follow their models and interpret the usual communication system in a language speech situation. For example Carroll (1953:88) presents the following organismic communication model.



Earlier, English language teaching instructor when they teach it as a foreign language concentrated on the above model and applied it when they provided training to their student in listening comprehension. On the basis of the above model they made the students aware of the main aspects of the code (Vocabulary, phonological and morphological features, syntactical rules, etc.).

A student, while he learns his mother tongue, familiarizes himself with certain patterns of sound system in the mother tongue itself. Therefore, he has to face some difficulties when he learns any second language where different sound System are adopted. A student has to hear the new patterns, sequences with accepted loudness, pitch variation and length of pause. During

the course of time the student identifies the sound system and learns to recognize grouping of the above patterns as clues to meaning. In addition to sound sequences, human beings have the capacity to convey further elements of meaning by gesture, facial expression, little changes in breathing and degree of emphasis. Linguists call the above elements as paralanguage aspects. These aspects of a particular language also differ from speech community to speech community. No full comprehension of oral communication is complete without considering these aspects. For example socio-cultural elements can't be isolated from any language. Each language is associated with its own socio-cultural aspects. In the listening comprehension programme these aspects also must be incorporated to understand the language fully (e.g: pragmatic factors).

A. Listening comprehension process

A student while he is learning a foreign language moves through several stages in the comprehension of speech of that particular language. For the first time he will not identify any utterances of a foreign language. At this stage for him they will be

undifferentiated noises for him. During the course of time he will be able to make out some order in the noise. For instance, patterns in the pitch variation of voice and in the breath groups. Then a student identifies some of the associations of the particular language (verbs, vocabularies, etc.) and begins to differentiate the phonic and syntactic patterning. Anyhow this is not full comprehension. He has to reach the capacity of identifying the crucial elements. In the next stage he recognizes familiar elements in the mass of speech. Even now he is unable to find out the interrelationships within the total stream of sound.

In the final stage, that is after a length of practice, a student listens to more foreign language speech and acquires the level of making out the crucial aspects which determine the message. In brief, listening comprehension skill can't be achieved immediately. It requires considerable practice and time.

It is good to have a brief discussion on Broadbent's (1958) Theory of Memory and Retention. This will help to understand the stages while a student involves himself in

understanding listening comprehension practical exercises. According to him, a human being has a limited capacity for absorbing information. A set of information is at first filtered by the perceptual processes. Thereafter, the immediate memory of a human absorbs the above said filtered information. This is known as short-term storage mechanism. From this storage information will very easily goes off if it is not recirculated through the perceptual steps at considerable intervals. Then only a little information is transferred to long-term storage in the memory. An instructor who is in charge of listening comprehension practical class for the ESL should understand the above theory and programme should be conducted accordingly.

B. Material for listening comprehension

As it has been mentioned previously no language basic skills should be taught in isolation. Achievement will be very high if listening comprehension activities are related to materials of other skills like reading and writing. For the initial stage materials are prepared in view of developing

the IDENTIFICATION skill of sounds along with the paralanguage elements such as stress, pitch and intonation. In the second stage also students are said to listen to a programme with moderate speed, ideally conversation or dialogue with normal everyday diction. At this stage materials are prepared in view of developing the skill of IDENTIFICATION AND SELECTION WITHOUT RETENTION. This stage is applied only for the pleasure with no question to be answered.

In the third stage students are supplied with some questions beforehand. This will facilitate him to answer while he is listening to the programme. Material can be prepared with clearly distinctive voice with interested themes with the purpose of providing a practice on IDENTIFIED AND GUIDED SELECTION WITH SHORT - TERM RETENTION.

Finally, students are required to listen to all kinds of materials freely. For instance, a student may listen to drama, poems, lectures, pertinent to the interested subjects of the students, literary extracts, etc. This would be the advanced stage and provides training on IDENTIFICATION,

SELECTION, AND LONG-TERM RETENTION.

03. LISTENING COMPREHENSION AT THE E.L.T.C

From this academic year onwards (1999/2000) ELTC has commenced regular practical classes for listening comprehension for the Faculties of Arts and Management Studies and Commerce only for first year undergraduates. Out of the total one hundred and fifty ESL teaching hours, sixty hours are reserved for listening comprehension practical works. These hours are equally distributed to the ten groups of Arts ESL students and another sixty hours are also equally distributed to the six groups of Management and Commerce ESL students.

A. Physical resources

A special listening comprehension practical room is set up in view of the conduction of practical exercises. Twenty four separate individual booths are available in order to conduct the programme without any disturbances. Two audio speakers (output-30 watts each) are permanently fixed at the centre of the two walls in order to enable

the students to hear from equal distance from both sides. Audio tape player is operated from the control table. To locate the countries a world map is fixed at the centre of the room. In order to reduce further noise students are requested to remove their footwear outside the practical room. This will avoid the collection of dust inside the programme hall, as well.

At the centre of the hall a T.V is placed on a stand. Selected films are shown to listen to native English with gestures, facial expression, etc. However, these movies are played for listening for pleasure with no questions to be answered.

B. Lessons for exercise

Altogether six lessons are designed for the two semesters. ELTC prepares its own lessons with Jaffna English pronunciation. The immediate purpose is to make the students understand Jaffna English with the moderate speed. Selected general themes are sports, international geography, English culture, world trade, scientific technology, etc. ELTC is planning to introduce subject oriented themes from second year onwards in future. Audio

recording is done in the ELTC with selected voice and low speed for the 1st semester. In the second semester normal speed is maintained when preparing the materials. Printed task sheets are distributed among the students, but they are advised to prepare their own task sheet to familiarize with spelling and structure.

C. Method

Before starting the lessons, the importance of listening comprehension skill in a language learning process is explained to the students and instruction on listening comprehension practical work is also given. At the initial stage bilingual medium is used in the hall, then gradually the medium is switched on to English with low speed.

Step 1

An audio tape, recorded in England is played in the listening comprehension hall. It is a conversation between an English and an American lady. The theme is about the general behaviour and the life style of an English and an American. General task of this exercise is to listen to English with the native pronunciation. After completing the first listening of the above tape, some

information in the contents of the conversation is recognized and students are requested to listen for the second time. During the fourth time they reach the capacity of making out 10-15 words in a ten minutes conversation. In between popular songs are played for the students' relaxation.

Step 2

Audio tape lesson 1 is played in the listening comprehension hall. Instruction for the lesson is also recorded. Students have to listen to the lesson and the questions for the first time. Thereafter, students are asked to complete their own task sheet. For this work 15-20 minutes is given. While the audio tape is played for the third time a considerable gap is applied between the sentences using pause button of the audio player. This will facilitate the slow listener to identify the necessary vocabulary. To check their answers tape is played for the fourth time. Thereafter, casual discussion is encouraged regarding the performance. This step will help the instructor to identify the problem of slow learners. If necessary, tape is played for the fifth time.

At the end of the class students are requested to submit their task sheet and

correction is made immediately. In the first lesson a general theme, which is world trade is incorporated and very simple questions using 'who' are asked in the first part of the task sheet. To reinforce the lesson a 'fill in the blanks' section is provided in the second part of the task sheet. This section will enable students to confirm the already known answers. This method is repeated for all lessons. The selected title for lesson two is **Normal life of people in Winfield**, for lesson three **Geography of Colorado**, lesson four **Geography of Zaire**, lesson five **Speed of sound** and finally for the sixth lesson **Geography of United States**.

D. Evaluation

Continuous in course assessment system is adopted to provide a total of 10 marks for all the six lessons out of 100 marks of ESL. No examination is conducted for listening comprehension following the traditional method. While they participate and submit their task sheet, students are assessed and marks are recorded. Regular counselling also takes place while conducting the practical classes for improvement. Since it is an informal evaluation system with practical works, the

effectiveness can be measured. This approach allows the students to participate individually and it is a student centred programme. They are allowed to discuss freely after the programme. Slow learners learn from fast learners. Therefore, they are able to perform well. Further, this evaluating system will not affect any slow learners. The outcome is comparatively very high unlike formal evaluation system.

E. Limitations

The available equipment are not enough to produce quality audio tapes at the ELTC. There is danger in audial quality deterioration if the equipment are not up to the required out-put power. Since the primary task is discriminating the sound system of a language, audial quality should be maintained.

For each lesson visual accompaniment is of vital importance as explained previously. This will enable the students to make out the paralanguage aspects since they play a key role in a successful communication. Further it will create a sense of reality. ELTC is unable to produce this type of programme at present.

Motivating the students towards this programme seems extremely difficult since they are not familiar with this type of programme. Regular attendance is neglected by the students. The responsibility of the students appears very poor. ELTC attendant sheets prove this overtly. To give chances for the absentees ELTC conducts repeat programmes also.

04. CONCLUSION

ELTC tries to create an artificial English language atmosphere to enhance the exposure of the students to English language. Lessons are prepared within the theoretical framework and refashioned to suit the class room needs. Since lessons are recorded at the ELTC, it can accommodate the necessary speed matching the class room needs. However, the producers should concentrate on systematic style of the particular language. While producing the materials here at the ELTC, there is a possibility of selecting familiar themes of the students. This will help to motivate the students towards the practical classes. As far as ESL programme of the ELTC is concerned, listening comprehension regular practical classes are entirely new. It is introduced in

view of improving the ESL proficiency of the students. The listening skill practical hall set up at the ELTC differs from traditional classroom. Therefore, participating rate of the students in the total ESL learning process will be promoted. The existing programme is more or less close to the principle of student centered one. Students are able to concentrate, participate systematically and complete their work individually. Instructor functions as an operator of audio system and speaks if there is a need only. This type of student centered activity leads to his entire satisfaction and achievement rate of the language competency seems very high. Though motivation for English language learning in general is low, ELTC listening

comprehension programme helps to improve it rapidly. Very frequently ELTC invites instructors to observe the above programme. In future their valuable suggestions will be incorporated when preparing materials for the listening comprehension. ELTC is taking measures to extend this programme to the second and third year in the future.

FOOTNOTE

01. From W. Weaver, "**Recent Contribution to the Mathematical Theory of Communication**" in C.E.Shannon and W.Weaver, *The Mathematical Theory of Communication* (Urbana, Ill., 1949), p.98.

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Land Evaluation by Integrated Use of Remote Sensing and Geographic Information System for Cropping Pattern Analysis.

K.Suthakar

Abstract

Land evaluation using Remote sensing and Geographic Information system (GIS) for suggesting suitable cropping pattern was taken as an objective to avoid over and under utilization of the land resources. The study area is a part of Bijnor district of the Uttar Pradesh, India, comprising diverse landforms of piedmont plain, alluvial plain and flood plain with sub humid and subtropical climate. Land evaluation was carried out by using FAO frame work and its subsequent guidelines (1976&1984). The deterministic land qualities such as soil texture, drainage, slope, erosion, coarse fragment, and flooding hazards were taken for GIS based suitability analysis for seven land utilization types (LUT) viz, paddy, wheat, sugarcane, maize, mustard, pigeonpea, and mango. Finally, crops suitability maps of two season both winter and rainy were generated. Integrating both season maps, the suggested suitable cropping pattern map was generated.

Introduction

Agriculture is the prime sector for economic development of many countries in the world. But its development trend has reached plateau due to the lack of proper land use planning, and necessary information to farmers and other decision makers involved in this sector.

When population were far smaller than today most societies were able to live in balance with their environment. As population increased man has a greater impact on the land through clearance for farming and in order to obtain fuel and construction material. More recently, human population have increased very rapidly, especially in developing countries, and demand for food and fuel has grown alarmingly. At the same time, changing economic and social condition have undermined or destroyed traditional system of land resources management. Soil and environmental degradation are proceeding rapidly over large area of the world. There is an urgent need for a new alternative approach. For making alternative approach, it is necessary to collect the right information about physical, social and economic aspect of land area in question and asses the land's relative suitability for different use. This

process is known technically as land evaluation.

Land evaluation is an important component for land use planning, which helps to evaluate the productivity function of the area and suggesting suitable cropping pattern keeping in view the existing land use, physical, social and economic background of the area. Land evaluation may address some of the problems related to the land use by presenting favourable land use, that meets the objective of crop planners and farmers. The potential of integrated approach using remote sensing and GIS technology for quantitative and qualitative physical land evaluation was demonstrated widely by several researchers all over the world. Therefore, the objective was to accomplish the land evaluation by using remote sensing and GIS for suggesting suitable cropping pattern.

Grography of the area

The study area is a part of Bijnor district of Uttar Pradesh, India with a subtropical to tropical with mild to severe summer and severe cold winter. The mean air temperature ranges from 25.60 c in summer to 14.00 c in winter. The mean annual rainfall is 1059 mm. The physiography of the study area comprises of

piedmont plain, alluvial plain and flood plain. The soils were dominantly of typic hapludolls, Udorthents and typic Agriudolls in different physiographic units. The Malin, Ratnal and Pathrnal rivers are the main seasonal streams in the area and also many other small streams which originate from shiwalik hills and traverse through the area. The major agricultural crops are paddy, wheat, maize, sugarcane and mustard. Horticulture plantations are also occupy in considerable area.

Materials and methods

Data set

The satellite data of IRS-IC LISS-III for the period of 09th October 1998 and 02nd March were used. Survey of India toposheets (53K/6 and 53K/5) at 1:50,000 scale were used for generating base map and contour map to the study area. PC based raster GIS software, Integrated land and water information system (ILWIS) windows version 2.2, was used for integrated analysis.

Physiographic-Soil map

A collective approach of combining satellite data, topographic information, supplement with the field data on soil survey information of the soil in the sampled areas was adopted. Physiographic soil map at 1:50,000 scale of the Bijnor district prepared

by Agriculture and Soils division of Indian Institute of Remote Sensing (IIRS), Dehradun was used as a source map to prepare physiographic soil map.

Land use/Land cover map

IRS IC-LiSS III temporal images in the form of False Colour Composite (FCC) were interpreted monoscopically for land use/land cover using the image elements like colour, texture, pattern, shape size, and association. Land use/land cover types were drawn from imagery with the help of identification keys. The field work was undertaken to verify and check the pre-field interpreted land use/land cover map of the area and modification was made wherever necessary. Ground truth verification of each land use category was done intensively to cover the area of maximum heterogeneity. After completion of ground verification final land use/land cover map was prepared for both seasons of rainy and winter.

Land suitability analysis

Eight land utilization types (LUTs) were chosen for land evaluation. Each physiographic-soil unit was evaluated for the LUTs suitability. The selected LUTs, LUT-I (paddy), LUT-II (wheat), LUT-III (sugar cane), LUT-IV (maize), LUT-

V(mustard), LUT-VI (pigeon pea), LUT-VII (mango), were evaluated by using FAO framework of land evaluation. The deterministic land qualities such as soil texture, drainage, slope, erosion, coarse fragment, fertility, and risk of flooding were taken for suitability analysis (table 1 and 2). The methodology adopted is presented in figure 1. By incorporating the land utilization criteria (requirements) in map calculation module of the ILWIS, the suitability ratings for each land quality were generated. By further integration and reclassification each land quality with each LUT, the suitability maps were generated in max operation module. Rainy and winter season suitability map were generated separately by further integrating the respective seasonal crops in cross operation. By integrating rainy and winter season suitability maps, the suitable cropping pattern map for the agricultural crop calendar was generated.

Results and Discussion

Three major physiographic-soil units and 20 sub units have been found in the study area. These are Piedmont, alluvial plain and flood plain. Piedmont is found in the

northern part of the area. The total area under this unit is 27710 hectare. Alluvial plain is formed as a result of fluvial deposition carried by rivers. 15833 hectors of area is under this physiographic unit. Flood plain is the low land in both sides of rivers. This unit has recent alluvial deposits. Total area of this unit is 528 hectares. The soils were found to be dominant by typic Hapludolls, Udorthents and typic Ustochrepts in different physiographic soil units. Soil units P221, P211, P231, P321, P311 and P331 are not assessed for crop suitability analysis because these units are today under forest cover.

The results on land use/land cover analysis by visual interpretation by temporal satellite imagery (table 3) showed that maximum area was predominantly under paddy, wheat, and sugar cane. Dense forest occupies 1.09 percent of the area. It is interesting to note that the area under degraded forest more than under dense forest (16.86%) which indicate the deforestation activities in the area. At the same time forest plantation covers 6.85 percent in the study area. River course also occupies 1.87 percent of the total area.

Table 1: Criteria and rating of soil and land qualities for seven LUTs

Soil and Land quality	Suitability Class	LUT-I (paddy)	LUT-II (wheat)	LUT-III (sugar cane)	LUT-IV (maize)	LUT-V (mustard)	LUT-VI (pigeon pea)	LUT-VII (mango)
Texture	S1	CL	S1	CL	SL	SL	L	LS
	S2	SL	SL	SC	L	CL	SL	SC
	S3	coarse SL	LS	C	CL	SC	S	CL
	N	S	fragmental	S	S	S	fragmental	C
Drainage	S1	imperfectly to poor	well drained	well drained	well drained	well drained	well drained	well drained
	S2	Mod to well drained	mod well drained	mod well drained	mod well drained	mod well drained	mod well drained	mod well drained
	S3	some what excessively	imperfectly drained	imperfectly drained	imperfectly drained	imperfectly drained	excessively drained	imperfectly drained
	N	excessively level	poorly drained	poorly drained	poorly drained	poorly drained	poorly drained	poorly drained
Slope	S1	very gentle	gentle slope	v.gentle	nearly level	nearly level	flat to nearly flat	flat to mod slope
	S2	gentle slope	mod. slope	gentle slope	mod.sloping	very gentle	gentle slope	strongly slope
	S3	moderate to steep	steep sloping	steep sloping	mod. steep	mod.to strong slope	mod.slope	mod steep to steep
	N	moderate to steep	steep sloping	steep sloping	steep to very steep	steep sloping	steep to very steep	steep to very steep
Erosion hazard	S1	none	none	none	none	none	slight	slight
	S2	slight	slight	slight	slight	slight	moderate	moderate
	S3	moderate	moderate	moderate	moderate	moderate	Severe	Severe
	N	Severe	Severe	Severe	Severe	Severe	Very severe	Very severe
Risk of flooding	S1	Very severe	none	none	none	very low	low	none
	S2	low	low	low	low	low	moderate	moderate
	S3	moderate	moderate	moderate	moderate	moderate	high	high
	N	high	high	high	high	high	very high	high
Coarse fragment	S1	none	none	none	none	none	none	slight
	S2	slight	slight	slight	slight	slight	slight	moderate
	S3	moderate	moderate	moderate	moderate	moderate	moderate	moderate
	N	Severe	Severe	Severe	Severe	Severe	Severe	Severe
Fertility status	S1	high	high	high	high	high	high	Very severe
	S2	medium	medium	medium	medium	medium	medium	medium
	S3	low	low	low	low	low	low	low
	N	very low	very low	very low	very low	very low	very low	very low

SL = sandy loam, CL = clay loam, L = loam, LS = loamy sand, S = sand, S1 = highly suitable, S2 = moderately suitable, S3 = marginally suitable, N = not suitable.

Table 2 Soil and land characteristics of the mapping units.

No.	Mapping Unit	Texture		Drainage	Topography Slope	Erosion	Fertility	Coarse Fragment	Risk of Flooding
		Surface	Subsurface						
01	P11	sl	sl	well	v gentle	none	high	moderate	nil
02	P12	sl	sl	well	v gentle	slight	medium	moderate	nil
03	P221	sil	sil	well	level	none	high	none	nil
04	P222	l	sil/l	well	v gentle	none	medium	slight	
05	P211	sl	l	mod well	level	slight	high	none	nil
06	P212	l	sil	mod well	level	none	medium	none	nil
07	P231	ls	sl	mod well	level	slight	high	none	nil
08	P232	sl	l	well to mod well	level	none	medium	none	nil
09	P321	sl	sl	well	Nearly level	none	high	none	nil
10	P322	sl	l	well	Nearly level	none	high	none	nil
11	P311	sl		well	v gentle	none	high	none	nil
12	P312	sl	l	well	v gentle	none	high	none	nil
13	P331	sl	l	well to mod well	level	none	medium	none	nil
14	P332	sl-l	lc-l	well to mod well	level	none	medium	none	nil
15	A12	sl	l	well	v gentle	none	medium	none	nil
16	A11	sicl	l-sicl	modwell	level	none	medium	none	v low
17	A13	cl	l	imperfect	level	none	medium	none	v low
18	A21	l	cl	mod well to well	level	none	medium	none	v low
19	F1	ls	sl	well	v gentle	none	medium	none	high
20	F2	fs	fs	excessive	v gentle	slight	very low	none	v high

Notations: fs-fine sand, is-loamy sand, sl-sandy loam, l-loam, sil-silty clay loam cl-clay loam, cultivation.

Figure 1. Methodology of Suitability analysis for land utilization types

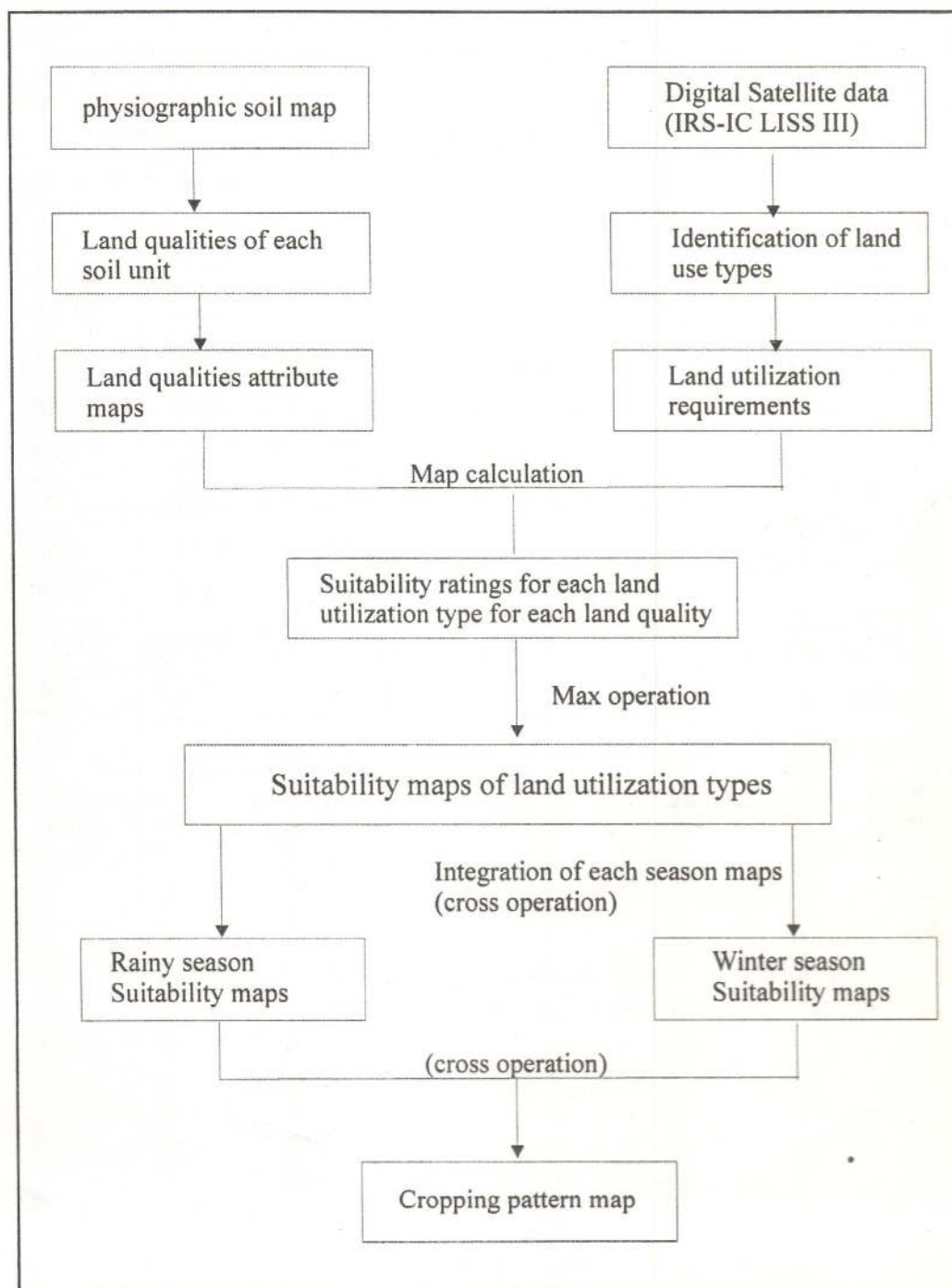


Table 3. Spatial extent of different land use/land cover of the study area.

Land use/Land cover	Rainy		Winter	
	Hectare	Percentage	Hectare	Percentage
Dominantly Paddy	11906	24.25	---	---
Dominantly Wheat	---	---	12652	25.79
Sugarcane	9426	19.19	10652	21.69
Mixed	6336	12.95	6170	12.59
Fallow	2728	5.56	922	1.88
Horticulture	200	0.42	200	0.42
Dense Forest	538	1.09	538	1.09
Degraded Forest	8313	16.86	8313	16.86
Opean Forest	4310	8.78	4310	8.78
Forest plantation	3378	6.87	3378	6.87
Habitatrian	1002	2.05	1002	2.05
Water bodies	58	0.11	58	0.11
River	919	1.87	919	1.87
Total	49114	100.00	49114	100.00

Crop Suitability Analysis

For paddy none of the physiographic-soil units were found highly suitable. Seven units are not suitable due to coarse fragment, texture and flooding hazard. Rest of the soil units are found to be moderately suitable for paddy which covered 29535.38 hectares (59.89%) of the total area.

For wheat, it is found that soil units, P221 and P322 are highly suitable and the area is 4341.84 ha(8.8%). Four units are found as not suitable, the limitation are coarse fragment, floods hazard and soil erosion. Most of the units are found moderately suitable and marginally suitable for sugarcane and the extent is 28667.89 ha, (56.92%) and 3040.80 ha, (6.26%) respectively.

Soil units P311 and P321 are found highly suitable for maize covering an area of 1519.85ha(3.08%). Nearly 50% of the total area belongs to moderately suitable for maize. It was observed that three land units are highly suitable (P221, P321, P322) for mustard and the area is 5254 ha, (10%). Soil units under piedmont plain were found highly suitable for mango, covering area of 6522.35ha. (13%)

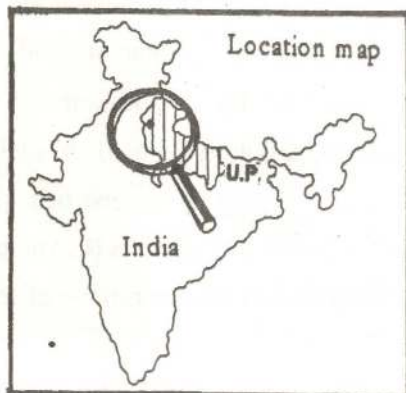
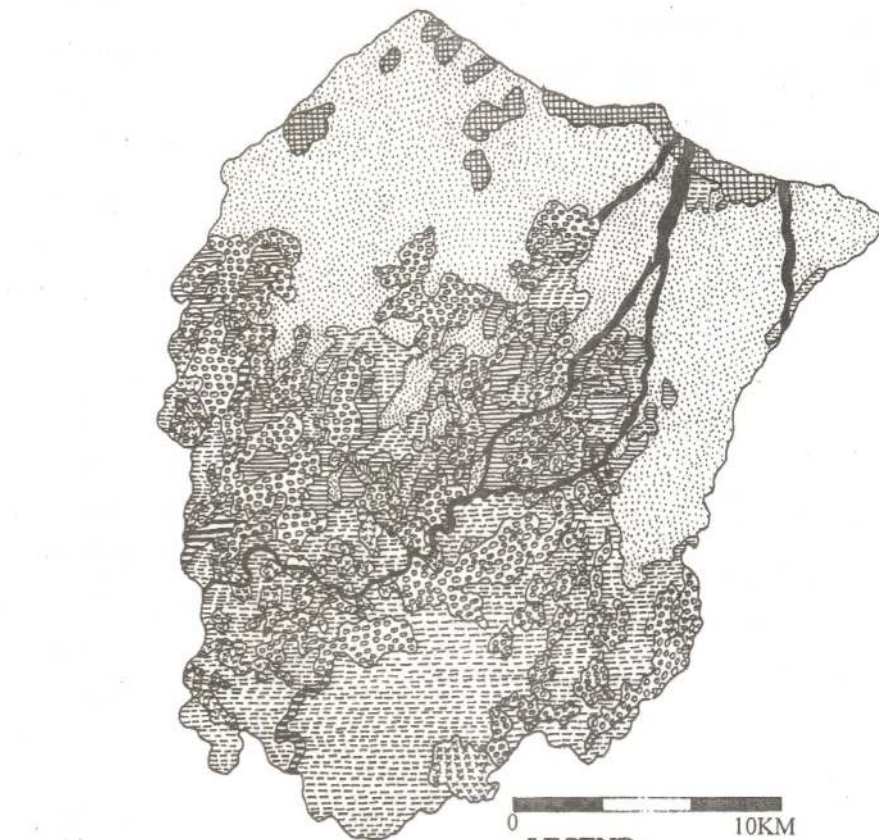
In piedmont plain coarse fragment, texture and erosion hazards were found as limiting factors for some of the land utilization types, whereas texture, drainage and fertility are limiting factors in alluvial plain for some of the land utilization types. In flood plain, flooding hazard and drainage are limiting factors for all land utilization types.

Cropping Pattern

As observed in the suitability analysis in the upper piedmont, horticulture plantation especially mango was suggested (map 1). In the soil units of middle piedmont, wheat, maize and mustard sequence was found suitable. Paddy, wheat, sugarcane and mustard were suggested on the soil units of lower piedmont.

Most of the soil units of alluvial plain were suggested for the combination crops such as paddy, wheat, sugarcane and pigeon pea. Due to the texture and flooding limitations, soil units F1 of flood plain was recommended only for pigeon pea. In the other land unit of flood plain (F2) no crop is suggested due to the limitations of texture, drainage, flood and fertility. By overall examination of the suitability combination wheat, mustard, pulses along with sugarcane

Map1 - Suggested Cropping Pattern for the Study Area
(Najibabad Block, Bijnor District, U.P, India)



LEGEND

- | | |
|--|----------------------------|
| | all crops |
| | paddy/wheat/s.cane/mustard |
| | paddy/wheat/pluses |
| | wheat/maize/pluses |
| | wheat/mustard/pluses |
| | wheat/pluses |
| | horticulture |
| | forest (existing) |
| | river |

as ratoon cultivation was found to be a suitable. The suggested crop combination of wise suggestion for winter season. paddy, wheat, sugarcane, mustard and pigeon. Similarly, for rainy season paddy, maize, pea were occupied 30.35Percent of the total with sugarcane as ratoon were found to be cropped area.

Conclusion

The study clearly demonstrates the petential use of satellite data in mapping of soil resources and land use/land cover types. On the other land, the multipte integration options and ease in analysis offered by GIS technology helped in land evaluation for cropping pattern analysis by incorporating variety of input parameters in interest.

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The Megalithic Culture of Sri Lanka - A Critique

S.K.Sitrampalam

In an article referring to the Pre and Proto-historic settlements in Sri Lanka Dr.Siran Deraniyagala (1996) while acknowledging that the Megalithic Early Iron Age mortuary complex is akin to the Megalithic complex of Peninsular India and falls primarily or possibly totally within the Proto historic phase concluded that "Megalithic Mortuary trait is but a discrete facet of the Proto historic Early Iron Age culture complex of India had its distribution from the Gangetic Valley down to Sri Lanka with regional variations. Hence it is misleading to refer to a Megalithic Culture, as several scholars are apt to, since this mortuary trait is not necessarily a concomitant of the Early Iron Age of Peninsular India or Sri Lanka." He further added that, the Black and Red ware ceramic tradition is a hall mark of much of the subcontinent's Early Iron Age (except in the North West) and is not confined to the Megalithic mortuary facies in Peninsular India, a point that is frequently overlooked. Finally he concluded by saying that it is important, therefore, that the nature of this interrelationship between (a) the total Early Iron Age complex of the subcontinent (b) its Black and Red ware ceramic complex

(c) Megalithic cemetery complex in Southern India and Sri Lanka be kept clearly in mind so as to avoid confusion in interpreting the Archaeological record. The Sri Lankan data need to be interpreted against the backdrop of the total subcontinental Early Iron Age, since medium to long range cultural diffusion appears to have been prevalent.

Now coming to the Megalithic Culture itself, it has four component elements. They are habitations, burials, rice fields and the tanks. In Archaeological terminology Megaliths are termed as tombs built with big stones in natural forms of roughly dressed or even a grave marked with a prodigious rude stone or an excavation in soft rocks containing human remains of the dead. It is also applied to the erection of huge stones either memorial or religious in function. Besides graves without any lithic appendage, but by virtue of possession of certain other cultural traits, especially the pottery, commonly found in the other types of Megaliths are also classed as Megaliths.

In respect of South Asia the distribution of Indian Megaliths have been

grouped into various zones of which the South Indian Zone forms a class by itself (Ramachandran.K.S. 1971:244). In Peninsular India and Sri Lanka Iron and Black and Redware, occurs in direct association with Megaliths and hence the term Iron Age has often been used interchangeably with Archaeological labels referring to the construction of stone monuments viz. Megalithic period Megalithism and even Megalithic Civilization. The focus of this culture lies South of the Vindhyan range, particularly in the watersheds of Godavari and Krishna and along the Eastern and Western Ghats. The Island of Sri Lanka is the Southern most extension of this culture. However the analysis of the Archaeological and the Anthropological data from the excavations show that it was the Neolithic people of Peninsular India who were the progenitors of the present day Dravidian language speakers of the states of Tamil Nadu, Kerala, Andhra and Karnataka (Kennedy.K.A.R. 1975) developed the Megalithic forms of burials and acquired the knowledge of Iron and Black and Redware which became the diagnostic elements of the Megalithic Culture (Sitrapalam.S.K. 1983).

However Dr.Siran Deraniyagala's main contention is based on the view that the Early Iron Age settlement at Anuradhapura does not have a Megalithic Cemetery to which it can be remotely linked. Hence he adds that the Megalithic mortuary complex could possibly have been associated with

just a special group of people, such as pastoralists on the periphery of those who occupied Anuradhapura. This view is nothing but the repetition of the view of Leshnik (1975) who called this Megalithic culture as "Pandukal Complex" and has put forward a theory of nomadic origin for the Indian Megaliths. He contends that there is a putative association of graves with the habitation sites and the association of Black and Red ware and iron with the graves is circumstantial. While elaborating his theory he feels that at those few excavated sites where graves occur near supposed habitations, the remains can in each case also be understood as those of a camping site, perhaps one recurrently visited. Finally he concluded by saying that "Whatever the truth, the effect of the Pandukal people quo nomadic pastoralists on the subsequent development of the South Indian society seems minimal and in that sense their presence represents merely an episode in the course of Dravidian history."

Nevertheless some three decades back Nagaraju and Gururaja Rao (1971: 321 328) have convincingly shown as to how the Iron Age Megalithic Culture overlaps with the preceding Neolithic Chalcolithic phase and later early historic phase. Finally while meeting the arguments of Leshnik with regard to the putative association of graves with habitations they observed that "However strong the above arguments may seem, when a close similarity of Black and Red Ware from burials and habitations

particularly the techniques, fabric and shapes and common graffiti is taken into consideration and the fact that the pottery the trait of the Iron Age is to be seen as the single major ceramic component of the Megalithic graves, their contemporaneity can hardly be considered coincidental." The above view was affirmed by our study of Megalithic Culture of Sri Lanka in 1980 (Sitrapalam.S.K. 1980,1988).

In Sri Lanka the explorations and the excavations conducted during the last three decades (Sitrapalam.S.K. 1980; Seneviratne.S.1984), have now yielded vestiges of Early Proto historic sites running to more than fifty in the littoral, North and South Eastern plains and the lower Montane region. To elaborate it little further, besides the Protohistoric habitation sites such as Anuradhapura (Coningham.R.1999) Kantarodai, Mantai and Tissamaharama (Akurugoda), (Sitrapalam,S.K. 2002), the explorations in the East such as Kuchaveli, Seruvavila and Illankaiturai and South East Panama Moderagala and Ambalantota (Deraniyagala.S.U. and Abeyratne,M. 1997) as well as on the sea ports on the estuaries of the rivers in the Western and the South Western Sri Lanka have confirmed the evolution of early historic phase as in Peninsular India from its preceding Proto - historic or Iron Age phase (Bopearachchi, Osmand 1998)(Plate I).

With regard to iron, the Peninsular Indian region forms a class by itself,

although it appears at the same time as in North India around 1000BC. A broad spectrum of similar tools and weapons of iron found in a number of Megalithic sites suggests a cohesive group of iron workers. These could be even weapons of war apart from the tools of Agriculture and reflect the development of tribes and tribal warfare due to territorial rights or even due to the desire of one group to subdue the other. In short these tools while reflecting the similarity of functions, also exhibit their homogeneity and individuality. The evidence from the Sangam literature as well as the Sri Lankan Brahmi inscriptions do reflect the part played by the tribes and tribal leaders in the early state formation in Sri Lanka (Sitrapalam,S.K. 1986/87, Seneviratne.S. 1992)(Plate II).

It is now pertinent to quote Dr.Siran Deraniyagala with regard to Iron tools which he excavated at Anuradhapura in 1969. He observed that " in technological and typological terms the assemblages at Gedige from 3 A to 4 B (Proto historic to the Early historic phase) is related to the Megalithic assemblages of Peninsular India". For example the chisel tools found at Anuradhapura and chisels and wedges at Tissamaharama have parallels in Maski (Thapar. B.K 1957. Fig.37), Brahmagiri (Wheeler R.E.M 1948, Fig.38), and Perumbair (Rea.A 1915, Pl.XI). This reminds us of the prevalence of common techniques in the making and utilization of Iron tools both in Peninsular India and Sri

Lanka. Similar observations could be made with regard to Copper tools, Beads etc. In fact these all form part of the cultural complex which had its component parts both in the habitation sites and the burials. Similarly the study of the pottery types unearthed during the Megalithic sites (both habitations and burials) while showing a correlation between the two also shows that they are part of the wider South Indian Cultural complex where Black and Red ware, a diagnostic element of this culture predominated. While referring to the Black and Red ware at Kantarodai Vimala Begley (1973) observed that "certain ceramic types especially the Black and Red ware parallel those of the Iron Age of South India and possibilities are great that settlers in both areas were of common origin or at least in close contact". Similarly the pottery forms from Anuradhapura and Pomparippu (Urn burial site) indicate that they are part and parcel of the South Indian Iron Age cultural Complex (Sitrapalam. S.K.1980:228 - 277).

Now coming to the origin of the Black and Red ware several scholars who have studied this problem have arrived at different conclusions. However, a notable breakthrough in the systematic study of the ware was made by Srivatsava (1971:322-417). He sought to analyse this problem on the basis of typology, fabric and chronological position and the cultural context in which the ware occurs. His study revealed that this ware should not be

associated with a single group of people or culture and there is nothing common among the Black and Red ware of different regions within India excepting for the similarity in the technique of manufacturing. Even in the latter aspect, there are variations and the types produced in different regions are also not closely similar. He further classified the Black and Red ware occurring sites into various Zones ranging from A to F. Of these regions E and F are important for our study. His region E comprised the present day state of Maharashtra and F comprised areas of Southern Mysore, Kerala, Tamil Nadu, Andhra Pradesh and Orissa. His contention is that the origin of this ware in region E goes back to a period not later than the middle of the 2nd millennium B.C. and it occurs in the Neolithic Chalcolithic context in this region and the technique of manufacturing was borrowed from region E by the people of the region F. In this context it is rather important to note that when the ware occurs in the Chalcolithic and Neolithic contexts, the burnishing aspect of this ware is remarkably absent. This process began to appear only in the subsequent period, namely Megalithic cultural complex. Hence as mentioned earlier not only the homogeneity of the pottery forms from Sri Lankan Megalithic cultural complex bespeak their ancestry to their counterparts in Peninsular India but also the other artefactual similarities confirm that both the regions were in the same Megalithic cultural Zone beginning around 1000 B.C.

The above view has been amply demonstrated in a recent article of Sudharshan Seneviratne (1996) where he made the following observations.

“Archaeological investigations at Proto historic habitations and burial sites indicate that Sri Lanka formed the southern most sector of the broader Early Iron Age Peninsular Indian techno cultural complex. The ecofact and artefact assemblages from these sites in Sri Lanka have established that rice cultivation, animal domestication, the horse, small scale metallurgical operations involving iron and copper, bead production, village settlements, the 'Megalithic' burial ritual, the ceramic industry involving the production of Black and Red Ware and Black ware, and post firing graffiti symbols were introduced to Sri Lanka from Peninsular India, or specifically from South India. This chronological context (largely) obtained in the form of radiometric dates, the techno cultural elements and their region of origin, does not in any way agree with the descriptions of the peopling of Sri Lanka narrated in the Middle historic Chronicles of Sri Lanka

.....These Early Iron Age habitats continued through the Proto historic and Early historic transition, and well into the Early Historic

Period. The association of the earliest Brahmi inscription bearing cave shelters in and around Proto Historic burial as well as habitation sites indicated the continuation of the descendants of the Proto historic communities into a new cultural milieu”.

Thus it is now evident that the people who speak Sinhalese and Tamil are the descendants of the Megalithic people. This is confirmed by the Anthropological analysis of the human remains from Pomparippu (Kennedy K.A.R. 1975). This is further confirmed by the genetical study of the Sinhalese and Tamil populations by Roychoudhury (1984), Kirk (1984), Papiha .S.S., Mastana, S.S and Jayasekara.R. (1996) and finally by Sahan (1988). In this regard it is relevant to quote Saha who made the following observations.

“The present and earlier investigations produced no evidence whatsoever that the Sinhalese are genetically nearer to Eastern Indian populations than to the Tamils or to other South Indian populations. Even though there has been some legendary connection of the Sinhalese with East Indian or East Asian populations through trade or social links, there is no evidence to suggest that the present day Sinhalese population is in anyway genetically distinct from the Tamils of Sri Lanka. As far as we can see, the genetic evidence falls short of

supporting the legend that the Sinhalese are descendants of Prince Vijaya"

That the legend of Vijaya does not provide any evidence for the early Sinhalese colonisation had been clearly brought out by one of our pioneer historians G.C Mendis (1965:263 - 279) in his article on "Vijaya legend" contributed for the *Paranavitana Felicitation volume*. Even Paranavitana, a doyen of Sri Lankan Archaeology, commenting on the Megalithic Culture in his Book entitled "*Sinhalayo*" published in 1970 prophetically made the following statement.

"These Megalithic sites and Urn fields are found throughout the regions inhabited by Dravidian speaking people. The burial customs to which they bear witness are referred to in early Tamil literature. It is therefore legitimate to infer that the people who buried their dead in Dolmens and cists as well as in large earthenware jars were Dravidians. The Megalithic monuments and Urn burials discovered in Ceylon are obviously an overflow from South India. The Archaeological evidence is supported by literary sources. The Dravidian people influenced the course of the Island history about the same time they gained mastery over the South Indian Kingdoms".

The common cultural base of the Sinhala -

Tamil cultures is also reflected by the comparative linguistic analysis of Sinhala Tamil Languages by Mudaliyar Gunawardhana (1915). Sociological analysis also endorses a common Kinship system and caste system. The folk religion of the Sinhalese again corroborates this. As aptly observed by Susantha Goonetillaka (1980) "Sinhalese was fundamentally a cultural process associated with Buddhism and that migration even if it did take place was of a minor kind, so as not to have left a significant trace in the Archaeological data or in demographic terms on the population." In short Sinhalese came after and not before Buddhism". Hence as K.M.De.Silva's (1981) assertion in 1981 that the evidence available at present would tend strongly to support the conclusion that Aryan settlement and colonisation preceded the arrival of Dravidian settlers by a few centuries is no longer valid in the light of data available to day.

In the light of the data presented above it was the people of the Megalithic Culture, who laid the foundation for the Sri Lankan Civilization and were exposed to influences or more aptly long range cultural diffusion. The Urban centres of the Gangetic Valley seem to have played a decisive role in the cultural transformation. This is corroborated by the study of Brahmi inscriptions which not only reflect the earlier Hindu beliefs of the authors of these inscriptions (Sitrapalam, S.K. 1990) but also the role played by the local chiefs

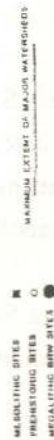
(Parumaka/ Perumakan/ Parumakan) in the early state formation of the Island. (Sitrapalam, S.K. 1986/87; Seneviratne, S.1992) (Plate II).

Hence the non discovery of the burials associated with the earliest Proto historic settlements such as Anuradhapura as Dr. Siran Deraniyagala feels does not in any way make us to conclude that the Megalithic mortuary complex could possibly have been associated with just a special group of people, such as pastoralists, on the periphery of those who occupied Anuradhapura. It is very likely that the burials of the Proto- historic Anuradhapura settlement would have got submerged in the Architectural activities during the early historic period. Even one cannot discount the possibility of the utilization of the stone slabs used for the burials by the converts to the new religion, namely Buddhism to construct the monuments for their new faith of adoption after 3rd century BC. It is also possible that the same stone cutters who were familiar with the preparation of the stones for the erection of Megalithic tombs would have been employed for the services of the new missionary religion, namely Buddhism as well when this faith was introduced into Sri Lanka. Commenting on the early caves which contained the Brahmi inscriptions Parker (1909:221) observed that

"It is certain that the men who employed the tools for such purposes were not mere learners of the Art of trimming stone. The cuttings at the earliest cave inscriptions exhibit a freedom and accuracy of touch which are a clear proof of previously acquired skill."

Finally coming to Dr. Siran Deraniyagala's other argument that the presence of few pottery forms, beads and stone styli on bone of North Indian origin, along with Brahmi writing in Prakrit language on pottery datable to 600-500 AC corroborate the view that Indo - Aryan was predominant from at least as early as 500 BC in Sri Lanka can not be sustained in the light of Archaeological data delineated above. They only reflect cultural penetration and not actual colonization. With regard to the context in which the inscribed potsherds occur he himself had suggested a possibility that certain levels might have been disturbed (Deraniyagala, S.1990). This doubt has been confirmed by Wimalasena (1998) who studied the Palaeographical features of the script claims that it is not earlier than 3rd century BC. Even the Prakrit language, which was popular all over south Asia can not be tied up with the long distance southward migration of the Indo - Aryans elite only.

Plate I: Map Showing later Prehistoric and Iron Age sites in Sri Lanka



(By courtesy of Coningham Robin, 1999)

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A BUDDHIST WOMAN'S PATH TO ENLIGHTENMENT

Acta Universitatis Upsaliense's, Historica Religionis 13

Publishers: Almqvist & Wiksell International, Stockholm, Sweden.

A. Shanmugadas

Buddhists and Jains have been contributing to the development of Tamil language and literature from time immemorial. Pālai Pātiya Kautamanār is considered to be one of the Buddhist poets who has composed some of the Cankam poems which are dated roughly between 300 B.C. and 300 A.D. A significant contribution by the Buddhists to Tamil literary texts is the narrative called Maṇimēkalai, which is traditionally believed to have been composed between 200 A.D. and 500 A.D. This major narrative was written by Cīttalai Cāttan. Uppsala University organised a workshop on this narrative in May 25 - 29, 1995. The papers presented at this workshop and the proceedings have been edited by Peter Schalk. The Editor in chief has given an appropriate and attractive title to the Volume namely.

A Buddhist Woman's Path to Enlightenment

The Maṇimēkalai is a narrative poem describing the circumstances under which Maṇimēkalai, the daughter of Kōvalan renounced the world and took the vows of a Buddhist nun. Her path to enlightenment is the main theme of the narrative. Having gone through the mundane life, she at last sat at the feet of the venerable abbot and learnt the doctrines of Buddha. She was convinced that the doctrines were true and was prepared to take refuge in the threefold gem, the Buddha, Dharma and Sangha. Having learnt the duties of a nun, she was ceremoniously admitted into the order. This great narrative was the subject of an interesting and serious academic seminar at Uppsala. The outcome is an elaborate study on the narrative Maṇimēkalai as a historical

document for the situation of Buddhism in Tamilnadu in the 6th century A.D., historical problems regarding the text and problems regarding its authorship, genre, dating, historical setting and sectarian affiliation.

The Chief Editor, Peter Schalk, has written a long and critical introduction to this volume. In the introduction, Peter Schalk, has highlighted the salient features of all the papers in the Volume. It is methodically and meticulously written so that the readers would be guided to read through the entire papers with ease and clarity.

Students of History of Tamil literature would have naturally expected that the problem of dating Maṇimēkalai would have been settled at this workshop. But this volume indicates that the debate on date of Maṇimēkalai would continue. The editor in Chief has summarised the contributors' opinions as follows: "To sum up, there are then three main scholarly traditions of dating, an early one that places that Maṇimēkalai in prepalava period a

middle one that focuses on the 6th century A.D., and finally a late one that stipulates the 9th - 10th centuries. There are also smaller deviations from this classification. This volume's contributors have not been able to reach a consensus on the date of the Maṇimēkalai " (p.21). However, I feel that the readers of this volume have for the first time been presented with clear arguments for different datings. In this way A.Veluppillai's paper "Historical Background of the Maṇimēkalai and Indigenization of Buddhism" and S.Pathmanathan's paper "The Maṇimēkalai in its Historical Setting" are useful

Paula Richman's treatment of gender and persuasion in Maṇimēkalai is very interesting and she raises certain appropriate questions for which we have to find the correct answers. One such question is: "on numerous occasions, characters in the Maṇimēkalai comment that she has assumed the garb of an ascetic, yet Cāttanār continues to describe her tasteful jewelry and her bangle - covered wrists. Although the nun

eschews sexual love, Cāttanār dwells on descriptions of her Mound of Venus and the red lines in her eyes traditionally signs of sexual allure. Why?" Paula Richman has reasonably raised the question as to why Cāttanār dwells on describing Maṇimēkalai's Mound of Venus when she was not really pondering on sexual love. This seems to be poetic tradition found in many Tamil literary texts. Let me give one example. In Ariccantira Purāṇam, Cantiramati's son dies of snake-bite. His friends are coming to convey this sad news to Cantiramathi. The boys say "Maṇa Kamaḷ Kuḷalay! un maintanai aravutīṇṭi....." ("Oh Maiden with sweet smelling hair! Your son has been bitten by snake....."). One wonders why on earth these boys think of Cantiramati's fragrant hair when they come to convey a really sad news to her. Traditionally, the poets want their heroes or heroines to be fit and beautiful even when they are in distress. Cāttanār is not exception to this. Paula Richman's statement that "The red lines in her eyes traditionally signs of sexual allure" is not true. Red lines

in eyes are traditionally considered to be signs of beauty not signs of sexual allure. There is a subtle difference between "aiyarineṭuṇ kaṇ" ('long eyes with beauty lines'-in Maṇimēkalai) and Matavi Cen Kan-um" (Matavi's red eyes - In Cilappatikāram). Red eyes in Tamil literature is always a sign of sexual allure but not the red lines in the eyes which are always considered to be signs of beauty in both male and female. Paula Richman's examination on the relationship between gender and Buddhism has brought out new facts regarding the artistic talents of Cāttanār and the Tamil literary traditions. These, I am sure, would provide food for the readers' thoughts.

Prema Nanthakumar views Maṇimēkalai as an inspirer of the sacred narrative in Tamil literature. She says "and ever since the Maṇimēkalai, a brilliant mix of creative imagination, historical databank, religious instruction, moral artistry and spiritual affirmation, Tamil poetry has assumed the sacred narrative as a serious literary genre. Call it historical accident or the deliberate choice of the

"Time Spirit", a Buddhist story has come to be a major inspirational source for Tamil poetry down the age". With this pronouncement she goes on to provide literary compositions up to 1985 which have been inspired by Maṇimēkalai.

The Magic Bowl is the subject of two papers in this Volume, one by Prema Nanthakumar and the other by D.Dennis Hudson. The concept of Amuta Curapi, according to Prema Nanthakumar, "was alien to the ancient Tamil temperament of rationalist humanism". But she has correctly linked it with the ancient Tamil precedents. She points out that early Buddhism did not speak of annadāna but it spoke of physicians who helped the common people. Here she sees hunger as a disease and cites an ancient Tamil poem where chief Paṇṇan was referred to as Pacippiṇi Maruttuvan "Physician of the hunger disease". Cāttanār refers to Maṇimēkalai as āruyir Maruttuvi. Therefore, Prema Nanthakumar concludes, "Thus hunger was considered a disease and the charitable ones who gave food to the

hungry people were referred to as doctors. The vessel then is a symbol of the medicine that cures disease, a symbol of plenty, a symbol of charity and no more". Dennis Hudson, on the other hand, views the magic bowl referring to the mantric rites that were used to produce prosperity for Kings and Kingdoms and to purify the consciousness of those who employed them. He links it with other sacred vessels referred to in other non-Tamil texts. Paula Richman and David Shulman too have attempted to interpret the story of magic bowl (amuta curapi) in Manimekalai. As Peter Schalk correctly stated it is true that "the amuṭacurapi seems to be an inexhaustive source not only of food, but of possible interpretations as well.

Peter Schalk in his paper "A Comparative Study of the Flower Offering in Some Classical Tamil Texts, including Maṇimēkalai" has shown that the reference to flower offering in Maṇimēkalai is the very first reference to a Buddhist puṣpadāna in the whole literary Tamil Buddhist tradition. He dismisses often quoted

poetic lines in old Tamil Texts Maturaikkānci and Neṭunalvāṭai which were considered to be reference to "flower offering". He has presented irrefutable evidences to prove his thesis that a genuine Buddhist "flower offering" ritual practice is found only in Maṇimēkalai and not in any other Tamil texts that precede it.

A.Veluppillai in his paper on "A Negative Evaluation of Non-Buddhist Indian Religions in the Maṇimēkalai " has clearly shown that the polemical trend in Tamil literature could have started with the Tamil Buddhist text Maṇimēkalai. He had made a detailed study of the twenty-seventh chapter of the text, which is devoted entirely to the exposition of the logic and Philosophy of various Indian religions, except Buddhism. He has devoted the entire paper to show that the author of Maṇimēkalai has guided his heroine to adopt a negative evaluation of other religions.

One paper that is strikingly unique in this volume and opens up a new dimension on the study of

Maṇimēkalai is " Cāttanār's Dream-Book" written by David Shulman. Basing on the patikam, he says that Maṇimēkalai is a kind of dream-text. According to patikam, Cāttanār had been "lying" or "sleeping" in a temple when Madurai was burning by the fiery breast of Kaṇṇaki. Cāttanār seemed to have overheard the conversation between the Madurai goddess and Kaṇṇaki and he learnt the entire story of Cilappatikāram and Maṇimēkalai. David Shulman thinks that "The whole conversation-indeed the entire story of our two intertwined texts-would be a dream". He also states that the poet could have overheard the goddess in a dream. So, according to David Shulman, the poet composes a Kavya out of his dream. Peter Schalk in his Introduction to this Volume (p.11) compares what Gananath Obeyesekere (The Cult of the Goddess Pattini, 1984) says about the ritual gammaduwa in a Sinhala-Buddhist tradition about Kaṇṇaki. Taking it as a cue he says "so Cāttanār (did not dream nor did he observe or remember historical events, but he) witnessed a powerful and

moving dromenon". Therefore, Peter Schalk concludes, Cāttanār is not a dreamer. The whole arguments about dream or no dream are based entirely on the patikam preface, which is said to have been added later to the completed text. I leave it to the readers to draw their own conclusions. However, one cannot deny that David Shulman has, opened a new dimension of Cāttanār's mindset and the pattern of the story of Maṇimēkalai.

Two papers, one on "Ētunikaḷcci in the Maṇimēkalai: the Manifestation of Beneficial Root "Causes" and Renunciation" by Anne Monius and Arankaracan Vijayalacumi (Rangarajan Vijayaluxmy) and the other on "The Role of Rebirth in the lives of Maṇimēkalai" by A.Veluppillai highlight the process of causation. Their papers give us the impression that the cognitive and strong emotional

process of realisation of Karmic causality is Cāttanār's very focus of interest in the Buddha dharma. The last paper on "Vedic Traditions in the Maṇimēkalai" by Ira Nākacuvāmi details the influence of vedic traditions on the essentially a Buddhist Text Maṇimēkalai.

The workshop, according to the Editor of this Volume, was organised "to exploit Maṇimēkalai as a historical document for describing the situation of Buddhism in Tamilakam in the 6th century A.D" All the papers in the Volume highlight this central point. The Editor should be congratulated for his painstaking efforts in compiling the papers with such precision and meaningful outlay.

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