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Talking Economics Digest



Getting smart
about what we **eat** and how we
grow it

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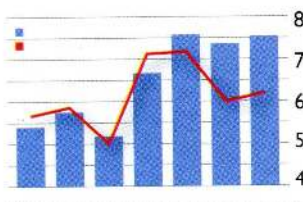
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The Institute of Policy Studies of Sri Lanka (IPS) is an autonomous institution that aims to promote policy-oriented economic research and to strengthen the capacity for medium-term policy analysis in Sri Lanka. Its mission is to contribute to the socio-economic development of the country through informed, independent and high quality research that seeks to influence the policy process. With over two decades of substantial research expertise, IPS has emerged as a regional centre of excellence and the most influential think tank in Sri Lanka.

What's In Our Food?

The ongoing crisis with imported milk products has made one thing clear – all of us need to pay closer attention to what is in the food we consume and take a greater interest in how it is sourced and produced. Globally, consumers are becoming more discerning – they are getting a lot smarter at identifying produce that is good for their health and places a lower burden on the environment. 'Eating local' and 'going organic' are no longer just buzzwords. The question of "what's in our food?" is intrinsically linked to another question – "how do we grow what we eat?". There is now clear evidence that the rise of kidney disease in the country's North Central Province is linked to the intense use of chemical fertilizers and pesticides. In this edition, we take a special look at several aspects of this question – a debate on the emergence of genetically modified food and its implications for Sri Lanka; policy options to better regulate imported food products to safeguard consumers; as well as new initiatives like the Colombo Good Market that are expanding the choice Sri Lankan consumers have in eating healthier and all-natural foods.

Overall, Sri Lanka is going to have to pay closer attention to the environmental impacts of its current growth trajectory. Of course, there will be some compromises. At a relatively low level of growth, it's not easy to balance "green" policies with "growth" policies. Yet, it must be acknowledged that global climate change is now a reality, and Sri Lanka will, like most developing countries, be at the receiving end of its effects. In May this year, the world broke through a symbolic climatic threshold. The Mauna Loa recording station in Hawaii, run by the US National Oceanic and Atmospheric Administration (NOAA), announced that carbon dioxide levels in the Earth's atmosphere had breached the 400 parts per million mark for the first time in human history. Scientists have warned that the threat posed to agriculture by environmental hazards like climate change and water scarcity is so great that it could wipe as much as £ 5 trillion off the value of the world's farm land.

Sri Lanka can demonstrate true leadership in moving towards a greener growth path. Issues of climate change adaptation and mitigation must be considered in this process, But this does not necessary have to go against growth. With clever public policies, it can go hand in hand. This issue brings a special focus on everything 'green', including leveraging bio-diversity for sustainable development, managing electronic waste as the country embraces more technology products, the potential water scarcity for agriculture in Sri Lanka, and a special feature on recent green initiatives taking place around the world.

Meanwhile, Sri Lankan experts will join international experts in September to discuss how these issues are impacting at a pan-South Asian level at the 6th South Asia Economic Summit (2-4 September, 2013). One of the 'Big Four' themes at this Summit will be 'Managing Water Resources, Food Security, and Climate Change in South Asia'. Several parallel sessions will go into specific aspects of this challenge – 'Examining Climate Change Impacts and Mitigation across South Asia', 'Towards a Green Growth Path', 'Political Economy of Water Sharing', and 'Meeting the Food Security Challenge'.

As always, this issue also contains insights on many other areas, including external sector stability, tax incentives for FDI, economic cost of violence against women, labour and health care.

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Safeguarding Consumer Interests by Strengthening Food Safety in Sri Lanka

In this special feature article marking World Consumer Rights Day (15th March), Raveen Ekanayake (Research Assistant - IPS) writes that with the growing incidence of food safety risks globally, Sri Lanka must introduce smarter and coherent regulation for imported food products to protect consumers' health and safety.



Increased international trade in food has resulted in consumers benefitting from access to food at lower prices, year-round supplies, and a greater quality and variety of food. On the contrary however, the globalization of the food supply chain has posed new challenges by way of food safety and quality issues, revive previously controlled risks, and spread contaminated food wider¹. Food safety/quality and trade-related concerns are becoming more pronounced than before. The ongoing horse meat scandal in Europe is a salient example of this. As governments across the globe seek to regulate food markets in the interest of public health and safety, notifications from WTO members show an increasing use of non-tariff measures since the mid-1990s; notably technical barriers to trade (TBT) and sanitary and phytosanitary (SPS) measures. Whilst trade effects of SPS/TBT measures have been widely documented, analyzed, and debated - especially in relation to their developing country market access implications - their implications on consumer welfare have been given little prominence.

Food Safety and Food Quality Risk: An Overview

In Sri Lanka, there has been growing fear/incidence of food safety and quality

risks in recent years. In 2008, fears were raised that melamine contaminated imported baby food, milk, and fish feed from China had made its way to the market². In June 2011, concerns were raised surrounding E-coli contaminated canned fruits and vegetables imported from Europe. Fears were also raised with regards to the importation of bird flu-infected poultry. More recently, a shipment of stainless steel- and aluminum-based cookware with exposure to cobalt 60 (a radioactive material) was detected at the port by the Atomic Energy Authority in September 2012. Adulterated brown sugar mixed with sand imported from Brazil was confiscated by the Consumer Affairs Authority in January earlier this year³. Whilst the documented incidence of substandard food entering the market is sparse, anecdotal evidence suggests otherwise; given the lack of regulation substandard food creep into the market undetected. With the growing incidence of food safety and quality risks it is critical that the government steps up its efforts at and beyond the border to better regulate the quality of imported food in the interest of public safety.

Non-tariff measures (NTMs), such as SPS/TBT measures, are often the first-best instruments to achieve public policy objectives, to address information asymmetries,

and imperfect competition as well as protect public health. Given their importance of ensuring consumer safety, 94% of SPS and 23% of TBT measures notified to the WTO relate to trade in agricultural products.

SPS and TBT Measures: Implications for Consumer Welfare

In the presence of information asymmetry one set of agents to an economic transaction possess an informational advantage over others. Under such circumstances producers can/ have the incentive to produce and supply substandard products compromising the health and safety of unwitting consumers, leading to a number of socially undesirable outcomes. The sale and subsequent consumption of substandard food has the potential to cause bodily harm or at worst, fatalities. SPS and TBT measures such as the establishment of Maximum Residue Levels (MRLs), quarantine, the application of processing standards such as Hazard Analysis and Critical Control Points (HACCP) and Good Manufacturing Practice (GMP) certification are designed to address such types of market failure by weeding out those products be it domestic or foreign that have the potential to adversely impact health and safety of consumers.

Information asymmetries are also present in international trade. Countries differ with respect to the safety and quality of goods produced. Preferences of consumers in countries also differ, with some willing to pay more for quality than others. At the same time consumers are unable to differentiate between qualities. Under such circumstances high-quality products may lose out if trade takes place with a country producing low-quality products, forcing high-quality producing countries to bring down quality standards to compete. This adversely impacts the welfare of all consumers in the importing country, as a consequence lowering the overall quality of the imports. Measures such as labeling allow consumers to distinguish between quality and pay according to their preferences. Consumers who are quality conscious are armed with the additional information to differentiate and pay accordingly, which improves the welfare all consumers.

Whilst SPS and TBT measures are deployed by governments in the interest of consumer welfare, if administered incorrectly and/or inefficiently, they have the potential of actually reducing consumer welfare. Adhering to SPS and TBT requirements involve two type of compliance costs. Exporting firms must revamp their production processes and production technologies to meet standards of the importing country and as such firms will incur additional fixed costs to access foreign markets.

Compliance also results in increased variable costs as consequences of following testing and certification procures established by the importing country. Increases in both fixed and variable costs have two effects, firstly exporting firms will cut back on export volumes and secondly the least efficient exporters will completely exit the market as a result of not being able to cover their fixed cost. Under circumstance where such measures are imposed in the absence of a genuine market failure (e.g., political economy considerations or otherwise) consumers in the importing country may lose out as a consequence of a reduction in the variety of goods available and also a rise in prices as a consequence of the reduced supply.

It is also important to note that inefficiencies relating to compliance procedure in importing countries such as high testing and certification charges, delays in testing and certification have similar consequences as a result of increased variable costs owing to inefficiencies. It is therefore critical that measures enacted to minimize food safety risks are administered incorrectly/inefficient may lead to reductions in consumer welfare, thus when designing

and implementing such measures due prudence should be given to ensure undesired consequences of the use of such measures are kept to a minimal.

Food Safety for Consumers: Sri Lankan Context

Maximum Residue Levels (MRLs) refer to the upper legal levels of a concentration for pesticide residues in or on food or feed based on good agricultural practices and to ensure the lowest possible consumer exposure. MRLs have been widely adopted by countries around the world; developed countries, compared to developing ones have adopted much higher standards. In the case of Sri Lanka the use of pesticides are governed by the Control of Pesticides Act of 1980. The Act does indicate that food crops should not contain pesticide residues in excess of levels as "may be prescribed." However, Sri Lanka has yet prescribed a national list of MRLs. Under such circumstances imports are merely subject to the exporting country MRLs or shippers have the discretion to employ the codex standard⁵.

In the absence of MRLs, exporters do not have any incentive to comply with higher standards and as such there exists a heightened risk that substandard produce with unsafe level of pesticide/chemical residue are consumed by Sri Lankan consumer unwitting. There also exists the very real possibility that food contaminated with chemicals which have been banned in other countries on grounds of serious human health consideration enter the market in the absence of such regulations. In this light is recommended that the government established a national list of acceptable pesticides/chemicals and associated MRLs in harmonization with the codex standards and worldwide best practices to ensure consumer safety to minimize trade-related food safety implications. It is also crucial that laboratories are equipped with modern technology to detect radioactive contaminants and other emerging biological threats.

Whilst establishing of MRLs is considered a priority it is also key that governments bolster the testing and conformity assessment capabilities of local institutions/testing laboratories both private and public through investments in equipment and human resources to complement and enforce regulations. Exporters in Sri Lanka have complained of the lack of adequate testing facilities within the country leading to increased compliance costs and delays owing to having products being tested abroad. Likewise in relation to imports the lack of testing facilities may lead to inefficiencies and as a consequence increase compliance

costs leading to a lowering of consumer welfare.

In Sri Lanka, the task of ensuring food safety is conducted in a rather ad hoc and piecemeal manner, tasks are dispersed to a number of government agencies and departments such as the Department of Agriculture, the Consumer Affairs Authority, the Sri Lanka Standards Institute, Atomic Energy Authority, Sri Lanka Customs – Quarantine Department, and the Ministry of Health, based on their respective areas of expertise. Food safety is however a more cross-cutting issue and effectively tackling the issue requires collaborative effort by all agencies concerned. In this light it is envisaged that an overarching independent body/institution along the lines of the European Food Safety Authority, The Food and Drug Administration of the United States and the Canadian Food Inspection Agency be established to better identify and coordinate actions to address perceived food safety risks.

Way Forward

With the growing incidence of food safety risks it is fundamental that regulation be introduced to regulate the flow of imported produce. Sri Lanka has a long way to go in effectively tackling the issue. A good first step would be to introduce a nationally acceptable list of pesticides/chemicals and their MRLs. Due prudence however must be exercised to when designing such regulations to ensure unwarranted outcomes do not materialize. Investments must be made in testing and certification facilities to ensure effective implementation of regulations. Yet, the need of the hour is the establishment of an overarching body, as discussed earlier, to better coordinate all these issues so that consumers in Sri Lanka can be ensured better food safety.

Endnotes

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2 Daily News 2008, 'Melamine Contamination highlights human food chain risks', <http://www.dailynews.lk/2008/11/05/fea31.asp>

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4 European Food Safety Authority 2013, Maximum residue levels, <http://www.efsa.europa.eu/en/pesticides/mrls.htm> on 11 March 2013

5 FASOnline 2013, 'Sri Lanka Pesticide MRLs Market Information Page', http://www.mrldatabase.com/marketinfo/marketinfo_332_6120051201100229.pdf

Utility Vs. Environment:

Sri Lanka's Policy Outlook on Managing E-Waste

By Chatura Rodrigo



The United States, European Union (EU), and China claim to be the biggest producers of Waste Electrical and Electronic Equipment (WEEE). During the year 2011, more than 34 million TVs, 24 million PCs, and 139 million portable communication devices – including mobile phones, were produced and sold in the market. Over the past 5 years, United States reported a growth of 50% in WEEE generation. In the year 2011, the EU produced 3.8 billion electrical and electronic units, including 265 million computers, 254 million in-home consumer electronic appliances, and 197 million consumer appliances. Adding to the equation, China sold approximately 20 million refrigerators, 48 million TVs, and nearly 40 million personal computers. Electrical and electronic equipment was invented to improve efficiency and to make the lives of users easier. In developing countries, this ease and efficiency used to be limited to the higher income classes, because technology remained an expensive investment. However, over the years, manufacturers have made tremendous gains in making these items affordable for the average consumer in these countries as well and, as a result, developing countries have also increased their consumption of WEEE items.

In the process of improving the quality of life, the consumption of electrical and electronic equipment will also increase rapidly. However, at the same time, the lifespan of these consumer items will decrease as new items will come to the market almost every day. Therefore, as the production of WEEE is high, disposal of WEEE waste is one of the biggest waste disposal issues of the 21st century. At the same time, there is an argument that developing countries are the destinations, or rather, dump sites for most of the developed world WEEE. For developing countries like Sri Lanka, this is a wake up call, and it is the right time to take a closer look at deriving strategies and policies to tackle this emerging issue. This article urges the importance of deriving successful strategies and policies for the management of electrical and electronic waste, while highlighting the successful efforts of the Government of Sri Lanka, and the private sector.

Why is WEEE a Problem?

The problem of WEEE can be categorized as an environmental problem, social problem, as well as an economic problem. First of all, it is an environment problem. WEEE contains ma-

“Sri Lanka is making significant progress in dealing with WEEE management, however, in the long run, better market mechanisms need to be established to motivate the consumers to participate in WEEE management effectively. At the moment, WEEE waste management in Sri Lanka is based on voluntary actions, and it is time to consider the establishment of compensation mechanisms to make the WEEE management process more mainstream.”

materials that can generate threats to the environment, especially materials such as lead, mercury, cadmium, as well as nickel, beryllium, and zinc that is commonly found in circuit boards. These materials can cause serious damage to the environment, the ecosystem, as well as the health of humans who associate with these products. At this point, WEEE becomes a social problem creating negative social externality to the society in addition to the negative externality it had already created to the environment. Therefore, the disposal of WEEE is quite significant and consequently involves technology and money, creating a negative economic externality. As suggested by the United Nations University, 20-50 billion tonnes of WEEE are being produced annually around the world and it is very important that proper recycling and disposal techniques are developed to safeguard the environment and those who associate with it.

Are Developing Countries Victimized?

As mentioned earlier, there is a significant argument among scholars that the developing countries are being used as dump sites for the WEEE of developed countries. Research has proved this to be true; however, one has to remember that the disposal of WEEE is a global business. It has become an entrepreneurial activity for some developing countries. Therefore, we have to admit to the fact that the developed world does not forcefully send its WEEE to developing countries, rather it happens as part of a negotiated business transaction. At this point, one would like to raise a question. Who should we blame; the developed world or the developing world, or are both responsible?

Since WEEE is important in terms of the environment, society, and the economy, countries that trade in WEEE have rules and regulations established. A country which collects WEEE cannot simply export; they have to comply with the rules and regulations of the Basal Convention. In addition to the Basal Convention, countries or rather regions, especially in the EU have established their own guidelines on what is to be exported or imported in terms of WEEE. To address who is to be blamed and to see whether the developing countries are victimized, we need to take a closer look at this.

One way to look at this is the increased demand for second hand electrical and electronic equipment from the developing world. Since the prices of some new electrical and electronic items are not affordable for developing countries, they tend to favour the used ones. This has created a way for the developed world to send across the WEEE in terms of used items to the developing world. At the onset, this is a viable business option as well as an opportunity to the consumers. However, within several years all this electronic and electrical items will become the “WEEE of the developing world”.

Another way to look at it is to evaluate the existing regulatory mechanisms, globally, regionally, and on a country specific level. It is not the intention of this article to look at it in great depth at this point; however, I am not discounting the fact that loopholes in regulatory mechanism could be a potential candi-

date that allows developed countries to exploit the developing countries.

Therefore, to answer the argument built up in this section, it is “YES”, developing countries have become victimized. The fault lies greatly with the socio-economic situation of the developing countries themselves, where the demand for second-hand products lies. At the same time, developed countries should not exploit the developing countries just because they can afford to do so. We have to look at WEEE as a global issue. Rather than passing the problem to another party via economic instruments, collective ethical and sustainable actions are needed.

Global Best Management Practices in Battling WEEE

Global best management practices are country or region specific. They largely depend on the available technology, the affordability of the technology, the commitment of the regulatory bodies of the countries, and the people’s willingness to participate in the management of WEEE. In a more process oriented view, management of WEEE would cover the steps of collection, dissemination, recovery and reuse, and ultimate disposal. With the available technology and money, most developed countries have been able to set up large operations managing WEEE, and addressing the issues of shelf-life of WEEE. However, the mechanisms adopted by the developing countries are centred on the “public private partnerships (PPP)” and voluntary mechanisms.

In this aspect, Sri Lanka is increasingly pulling ahead of the flock. A national policy on WEEE waste management has already been drafted and plenty of public private partnerships have been established to manage the WEEE waste in a sustainable way. The Ministry of Environment and Renewable Energy and the Central Environment Authority (CEA) are heading the efforts as policy makers and enforcers of the law.

Sri Lanka’s Strategy to Fight WEEE Issues

In addition to achieving a draft policy for WEEE management, the next best thing that Sri Lanka engaged in was the “Electronic Waste Management Project”. Implemented under the purview of the CEA, this project has been able to sign MOUs with 14 partner organizations in an effort to manage the WEEE in Sri Lanka. The partner organizations comprised of telecommunications industry (Telecom, Mobitel, Dialog, Etisalat, Hutch, and Lanka Bell), home appliances industry (Singer and Abans), office appliances industry (Metropolitan, E-Wis, Virtusa, and ABC Trade & Investments), and service providers (Geo Cycle and Green Link).

At the moment Sri Lanka’s WEEE comprises of mobile phones and their accessories, TVs, radios and their accessories and other consumer goods such as refrigerators, ovens, washing machines and bulbs. I stressed the point that developing countries are mainly looking to PPPs to manage their WEEE. In line with this argument, the partner companies with the CEA have initiated many programmes that require PPP and the voluntary participation of the consumers. While acknowledging the bril-

liant efforts by all these entities, my attempt below is to bring about two examples, just to make the point clear that Sri Lanka is ahead of the flock.

Example 1: Softlogic PLC together with Think Green, which is an exporter of WEEE approved by the CEA, has taken steps to implement environmentally friendly WEEE waste disposal mechanisms. The products under consideration here are mobile phones and their accessories, and they are being collected at the designated services centres of the Soft Logic PLC. There are 140 service points all around the country and the first batch of waste was estimated at 483kgs. In addition, these organizations are increasingly involved in community awareness campaigns which motivate the consumers to participate in the programmes effectively.

Example 2: Singer Sri Lanka together with the CEA implemented the "National Cooperate WEEE Management Initiative". Singer Sri Lanka was the first to collect WEEE waste in Sri Lanka, and now has collected over 60 tonnes since its involvement. They also conduct public awareness campaigns to attract more consumers to their activities. Singer does these mainly through its nationwide outlets.

Example 3: With initiatives to save electricity, especially through the use of energy saving bulbs, Sri Lanka recorded a high demand for CFL bulbs. As suggested by CEA, over a million of CFL bulbs are being used in Sri Lanka every month. Higher demand for consumption has resulted in a higher disposal rate. Identifying this opportunity, Orange Plc in collaboration with Nordic Recycling AB of Sweden, has established South Asia's first ever CFL and fluorescent bulb recycling plant. This plant is located in Pitipana, Rideemulla, in Homagama South. It holds the capacity to recycle up to 30million bulbs per year.

Example 4: A pioneering environmental programme is being implemented under the purview of the CEA in collaboration with a network of 5000 schools in Sri Lanka. This programme will enable access for students to actively participate in managing WEEE at a school level. This has proven to be a very effective mechanism, since it collects a lot of WEEE from households through children, while creating awareness among children and parents on the importance of managing WEEE.

Sri Lanka, as mentioned earlier, has its WEEE management policy at the draft stage. While most of the ground rules in the policy are common to other policies in developing countries, one significant aspect is the defining protocols for resource mobilization. The policy has suggested looking in to ways of applying the 'polluter pays principle' to generate revenue from efficient and effective WEEE waste management, and defining suitable financial instruments to generate revenue and promote efficient use. While these are market instruments that need to be carefully investigated and researched before implementing on a full scale, evidence suggest that some companies are already experimenting with some of these concepts.

There are commercial companies such as Singer Sri Lanka and Abans that promote 'buy-back' programmes, where customers can give away their old electrical and electronic items and get discounts to buy new ones. CEA has organized several WEEE waste drop-off events where customers can hand over their used WEEE items to the seller/producer. In addition, there are WEEE waste collectors and exporters who are registered under CEA, who go to the customer directly and buy back the WEEE waste. One of the main features of the WEEE policy that

is of interest is the identification of the significance of PPP. In public policy literature, PPP has been identified as one of the most sustainable ways of tackling social, economic, and environmental problems. Inclusion of such mechanisms in to the policy is a positive indicator that shows Sri Lanka is on the right track.

Conclusion

The activities that private organizations engage in managing WEEE waste in Sri Lanka could be largely classified under Extender Producer Responsibility (EPR) or Corporate Social Responsibility (CSR) of those particular organizations. Therefore, while market principles such as "polluter pays principle" are not implemented in Sri Lanka yet with respect to WEEE waste management, the existing mechanisms are a start. In conclusion, it can be stated that Sri Lanka is making significant progress in dealing with WEEE management, yet however, in the long run, better market mechanisms need to be established to motivate the consumers to participate in WEEE management effectively. At the moment, WEEE waste management in Sri Lanka is based on voluntary actions, and it is time to consider the establishment of compensation mechanisms to make the WEEE management process more mainstream.

On a final note, let me reflect upon the argument that I have presented up to now. WEEE is increasingly becoming a global issue. The challenge is far greater to the developing world and Sri Lanka is not an exception. Developing countries are in a crisis, in terms of their consumer demands for the used products, as well as the regulation on WEEE export and import. Therefore, Sri Lanka needs to be very proactive. A constant assessment on how we are doing is very essential. However, on a country level, Sri Lanka is far ahead than most developing countries, especially in attracting consumers to take part in voluntary WEEE management programmes, and most importantly, building public private partnerships to help tackle the issue.

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Sri Lanka's External Stability:

Foreign Debt & Export Earnings

by Dr. Dushni Weerakoon

Sri Lanka has been witnessing a persistent weakening of its export capacity, with the exports to GDP ratio falling to a low of 16.4 per cent in 2012, and a declining share of the global export market. In 2012, earnings from exports contracted by 7.4 per cent, and have continued to contract by 8.1 per cent in the first quarter of 2013.

At a time when export capacity is weakening, Sri Lanka's appetite for foreign sources of funding to bridge its resource gap has been on the rise. Since obtaining a sovereign credit rating in December 2005, Sri Lanka has so far issued five sovereign bonds to the tune of US\$ 4 billion beginning in 2007 (Table 1). This was accompanied by an incremental opening up of the government securities market to foreign investors. The threshold limit of 5 per cent of Treasury bonds outstanding introduced in 2006 was relaxed to 10 per cent in 2007. In 2008, Sri Lanka opened its Treasury bill market to foreign investors with a threshold limit of 10 per cent. In December 2011, the threshold limit was further expanded to 12.5 per cent of outstanding Treasury bills and Treas-

ury bonds stock.

Regulations governing foreign borrowing by Sri Lanka's private sector have also been eased to encourage private firms and commercial banks to tap foreign sources for funding. For example, the imposition of an 18 per cent ceiling on credit growth of Licensed Commercial Banks (LCBs) in 2012 was relaxed to 23 per cent, so long as the additional funds were borrowed from overseas. The Budget 2013 presented in November 2012, permits LCBs and corporate entities to borrow up to US\$ 50 million and US\$ 10 million, respectively, each year for three years without the approval from the Department of Exchange Control. Such moves have prompted many private LCBs to resort to foreign borrowing, including plans by the state-owned National Savings Bank (NSB) to issue a US\$ 1 billion international bond.

Enhanced volumes of foreign currency denominated borrowing raise a country's exposure to external shocks. Indeed, the associated risks to an economy from short term flows, and foreign capital accumulation by the private sector, are well known and recognized. The risks can be better managed in the presence of a buffer from an accumulated stock of official foreign reserves. As evident from a comparative perspective, Sri Lanka's ratio of external debt stock to exports is high, and compares poorly against the average for developing countries (Figure 1). Of equal concern is that the country's ratio of reserves to external debt remains low vis-a-vis the average for developing countries.

The stability and composition of Sri Lanka's official reserves have been areas of concern. Official reserves declined to a low of US\$ 1.3 billion in March/April 2009 as the Central Bank of Sri Lanka (CBSL) attempted to support the currency by selling off reserves (Figure 2). Reserves dipped to provide cover for only 1.2 months of imports, well below the international benchmark of 3 months of imports. With the end of Sri Lanka's 30 year conflict in May 2009, the country began a gradual process of rebuilding its reserves through an IMF Stand-By Arrangement, short term capital inflows to the government securities market, and the issuance of sovereign bonds at regular intervals. Reserves peaked at US\$ 8 billion in July 2011 before once again dipping to US\$ 5.5 billion in February 2012 with 3.2 months of import coverage, as the CBSL once again attempted to prop up the exchange rate. With the decision in February 2012 to allow the exchange to move freely, and issuance of a US\$ 1 billion sovereign bond in July 2012, official reserves were once more built up to US\$ 7 billion with 4.4 months of import coverage by end 2012.

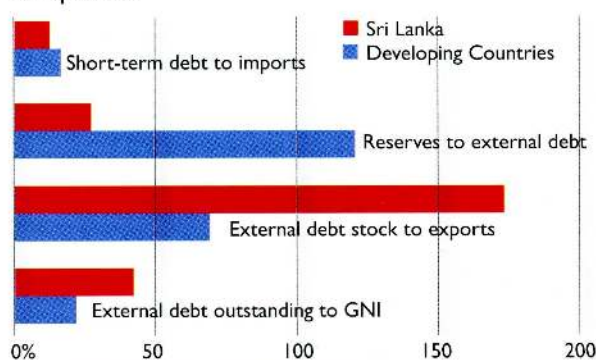
In terms of the composition of Sri Lanka's reserves, the bulk of it is made up of foreign borrowings, including funds raised through issuance of 10 year bonds. In issuing long term bonds and buying reserves, governments are likely to consider not only the current borrowing cost but also future borrowing costs. Here, by simultaneously issuing long term bonds and buying reserves, governments accumulate resources that it can use in periods of higher borrowing costs. However, a cost is entailed in that the return on purchased reserves may be considerably lower than the borrowing costs. Higher costs can be off-set, dependent on the extent to which future borrowing costs are likely to increase.

Table 1
Foreign Capital Flows

	Capital Inflows to Government & LCBs		Sovereign Bonds		
	2011 US\$ mn.	2012 US\$ mn.	Issued	Amount US\$ mn.	Tenure Yrs.
Commercial banks' long term foreign currency borrowings		973	2007	500	3
Inflows to government ^a	4,353	5,257	2009	500	5
Treasury bills and bonds	1,154	2,236	2010	1,000	10
Long term loans	3,029	2,869	2011	1,000	10
			2012	1,000	10

Notes: a: Includes capital and current transfers, inflows from Treasury bills and bonds and long term loans.
Source: CBSL, External Sector Performance, December 2012.

Figure 1
External Debt Stock 2011: Sri Lanka in a Comparative Perspective



The strategy of buying reserves carries risks, particularly when a country's capacity to accumulate resources from non-borrowed sources by raising earnings from exports of goods and services is on the wane. The purchase of government debt by non-residents and purchase of international reserves by govern-

ments are both pro-cyclical. During good times with lower default risk, governments may be tempted to borrow more. In the event of any shock to the economy, governments will be forced to cut down on borrowing and use available reserves to smooth out consumption. These conditions can result in a collapse of both the purchase of government debt by foreign investors, as well as the ability of governments to raise foreign borrowings, leading to external crises.

Despite higher foreign borrowing, viewed at aggregate, Sri Lanka's external debt dynamics appear not to have changed very significantly in terms of the external debt-to-GDP ratio. It increased slightly to 36.5 per cent in 2012 from 35.6 per cent in 2011, largely on account of the sharp depreciation of the exchange rate. However, the overall debt-to-GDP ratio masks the growing external debt service obligations on Sri Lanka, arising from changes to its composition. As more foreign resources were raised on non-concessional terms, the breakdown of external debt composition has changed swiftly, with the share of non-concessional and commercial borrowing rising to 50.5 per cent of total external debt in 2012 from a share of 7.2 per cent in 2006 (Figure 3). The ratio of debt service to exports of goods and services shot up to 21.2 per cent in 2012 on the back of higher re-payments, including settlement of the first sovereign bond for US\$ 500 million issued in 2007.

Sri Lanka's external debt has grown at an annual average of 16.4 per cent during 2006-12, while earnings from exports of goods and services have grown at only 8.7 per cent during the same period. The spike in the debt service ratio in 2012 is indicative of the pressures that big repayments can exert. While long term bonds allow for hedging rollover risk, Sri Lanka will already see a significant 'crowding-in' of its external debt repayments during 2020-22 as the Sovereign bonds issued from 2010-12 mature. Whilst there are no immediate plans to issue similar Sovereign bonds in 2013, the uptake of foreign borrowing by state-owned banks and other private entities entail continued external sector risks for the country as a whole. The build-up of external payments stress is a cumulative process, where the lines between external public debt, public-guaranteed external debt, and private sector external debt become blurred, and virtually disappear at times of external payments crises. The most prudent strategy to insulate an economy from rising exposure to foreign debt is to ensure a healthy growth in earnings from exports of goods and services, and build-up a 'war chest' of non-borrowed official reserves.

Figure 2
Official Reserves

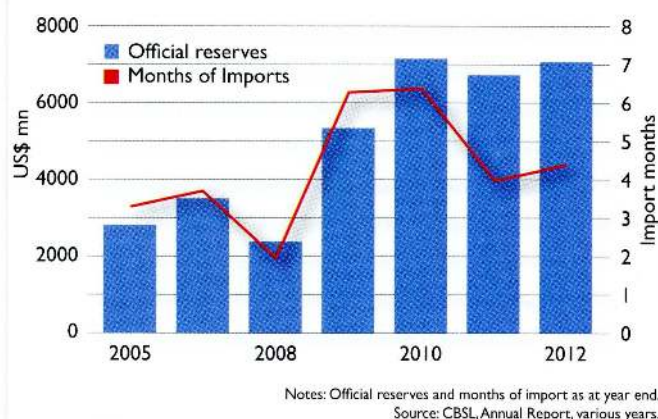
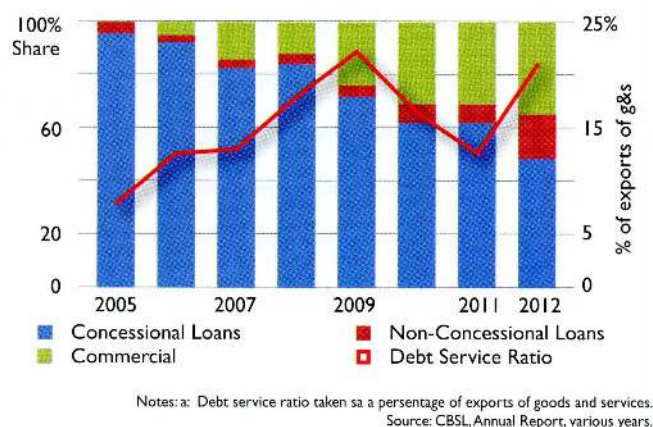


Figure 3
External Debt Composition and Debt Service Ratio^a



COMMENTS:

Kumar David

Thanks for this very useful piece. A few questions and a comment.

Q1: Do 'govt inflows' in the first part of Table 1 for 2011, 2012 include the Sovereign Bonds shown in the second part of the same table for 2011, 2012?

Q2: Why is the commercial bank borrowing for 2011 in Table 1 for 2011 left blank? Should it read NIL or has a figure been omitted?

Q3: Are the bar charts in Figures 2 and 3 annual averages or end of year values?

Comment.

Inter alia you say "... by simultaneously issuing long term bonds and buying reserves ... a cost is entailed in that the return on purchased reserves may be considerably lower

than the borrowing costs". In order to enable readers to form their own judgement on the matter can you please let us know the yield (interest rate) on the 5 sovereign bond issues shown in table 1. Also please let us know the current interest rates the government receives on the "purchased reserves" at this point in time.
Thank you and please alert me when a reply is posted.

Dushni Weerakoon

Thanks for the comments. Clarifications are:

Q1: Yes, they include sovereign bonds

Q2: Commercial banks were permitted to borrow overseas for lending purposes from 2012 only

Q3: Figures 2 & 3 depict end year values. Data on how sovereign bonds are trading and investment plan for SLs reserves are not available to answer general query.

Guillaume

Hello, You talk about a level of external debt-to-GDP ratio to 36.5% in 2012. It seems to me it's the foreign currency denominated (35.6% in 2011). The external debt reach 49.8% in 2011 and so the dynamic isn't the same with a growing to 56.7% in 2012. However, despite my research, I'm unable to find the distribution between private and public sector external debt. Have you this information?

Thank you in advance.

Source : Article IV IMF 4/16/2013



The Role of Tax Incentives in Attracting Investment to Sri Lanka:

Time for a Re-think?

by Anushka Wijesinha

This article draws from a new Research Working Paper by the Institute of Policy Studies of Sri Lanka (IPS) titled 'Incentivizing Foreign Investment in Sri Lanka and the Role of Tax Incentives' by Anushka Wijesinha, Raveen Ekanayake and Gajen Mahendra. The publication is now available at IPS and leading bookstores.

As post-war Sri Lanka gears itself towards a faster growth trajectory and reach upper-middle income status, the importance of attracting greater investment from abroad - Foreign Direct Investment (FDI) - has risen to the fore. Although Sri Lanka has seen a steady inflow of foreign investment projects into the country over time, the record has been less than impressive when compared with many emerging economies. Sri Lanka attracted an annual average FDI of US\$ 500 million (about 1.5 per cent of GDP) during the last decade while East Asian countries, for instance, attracted FDI inflows exceeding US\$ 5 billion annually - close to 5 per cent of GDP.

With a GDP growth target of 8 per cent or higher, Sri Lanka would need to raise its annual rate of investment from

Some may argue that Sri Lanka had to grant generous incentives in the past because of the poor investment climate that existed on account of the armed conflict and now that the war is over we can do away with generous incentives. However, the security situation of a country is not the only factor that would impact an investor's decision to locate.

the current level of approximately 26 per cent of GDP to at least 35 per cent. With public investment to be capped at around 6 per cent of GDP, this rise would need to come almost entirely from private investment. Within this, foreign private investment plays a critical role. In addition to helping bridge the domestic savings-investment gap, foreign investment brings other benefits as well - technology spillovers, management best practices, links to new markets, etc. Like many developing countries Sri Lanka has offered, and continues to offer, generous tax holidays and other tax-based incentives and exemptions to incentivize FDI inflows to the country. But it is widely acknowledged that they erode the government's tax revenue base significantly.

Fiscal pressures in Sri Lanka are rising and the government is keen to curb the budget deficit at 6.2 percent, amidst a declining tax-to-GDP ratio. Meanwhile, concessionary foreign aid to the country is also rapidly shrinking owing to the country's new lower-middle income status. This means that to finance Sri Lanka's development needs domestic revenue mobilization, i.e., tax revenue, needs to be strengthened. A critical part of this effort is minimizing revenue leakages in the form of tax exemptions and holidays and ensuring that these incentives are effective in their intended purpose - attracting more and quality-wise better foreign investment.

So, the government is currently faced with a policy paradox - the need to minimize the use of fiscal incentives on the grounds of revenue whilst maintaining the stance of fiscal incentives to entice FDI.

History of Tax Incentives in Sri Lanka

Sri Lanka's use of fiscal incentives to entice FDI could be traced back to the 1960s during the heights of the import substitution industrialization era. From 1963 onwards, some tax holidays were offered in the areas of "pioneering industries", export enterprises and tourism. These were granted under the Inland

Revenue Act and administered by the Ministry of Finance under the Inland Revenue Department (IRD). With the shift in industrial policy orientation from an inward-looking one to a more outward-oriented export promotion strategy in 1977, the attraction of FDI became the cornerstone of national development policy. At the outset, generous fiscal incentive packages encompassing tax holidays of 10 years or more and customs duty exemptions were offered to foreign investors engaged in export-oriented activities operating within specially designated Export Processing Zones operated by the Board of Investment (formerly known as the Greater Colombo Economic Commission). Gradually over time, successive governments increasingly recognizing the importance of FDI extended fiscal incentives to foreign-owned enterprises engaging in all forms of economic activities.

Fast forward to 2013, and Sri Lanka continues to grant tax incentives to varying degrees. Yet, in a significant streamlining move to correct the dichotomous structure that existed earlier of both the BOI and IRD offering tax incentives, all corporate income tax holidays were written in to the Inland Revenue Act in 2011.

Effectiveness of Tax Incentives is Debated

The effectiveness of tax incentives in attracting FDI is widely debated among tax professionals, treasury officials and investment promotion officers. Some tax experts argue that tax incentives are not necessary for attracting investment, as investors will generally consider other factors that improve a country's investment climate as more important. Despite insufficient evidence of their effectiveness, tax incentives are still an important part of the policy mix used by countries to increase their appeal to foreign investors.

Tax administrators as well as researchers often highlight the difficulty in measuring the effectiveness of tax incentives due to the absence of high quality firm-level datasets on investment in most countries. Sri Lanka is no different and this paper is also constrained by the same

challenge. Estimating the costs vs. benefits of tax incentives is not easy and can be contentious, as widely acknowledged in the literature. Although this was one of the items specified in the mandate of the Presidential Commission on Taxation 2009, it is learned that the Final Report of the Commission has refrained from providing such a cost-benefit outlook. However, rough estimates suggest that, for 2010 the revenue foregone from tax incentives could amount to around Rs. 6.6 billion, equivalent to around 1 percent of government revenue. This number is likely to be less from 2011 onwards following the substantial cuts in tax rates introduced in the 2011 Budget. These are not new IPS calculations, but rather draw from existing literature.

Can Sri Lanka Do Away With Tax Incentives?

Some may argue that Sri Lanka had to grant generous incentives in the past because of the poor investment climate that existed on account of the armed conflict and now that the war is over we can do away with generous incentives. However, the security situation of a country is not the only factor that would impact an investor's decision to locate. As this paper (the Research Working Paper referred to above) argues, other factors like the trade policy regime, openness to international markets, the investment policy regime, and institutional and governance set-up, are important as well.

In this post-war phase, where Sri Lanka has a new chance at attracting world-class foreign enterprises, the attractiveness of Sri Lanka as an FDI destination has to be preserved. This is important in order to keep the rate of investment high to generate faster growth, to help Sri Lanka further integrate with the global economy, and to provide more and better employment opportunities for the country's people and raise living standards. Sri Lanka is continually competing with other FDI destinations in the South and South East Asian region, especially Malaysia, Thailand, and Indonesia and increasingly also Vietnam, Cambodia,

Myanmar and Lao PDR.

Sri Lanka cannot completely do away with tax incentives for FDI just yet - not only because the country does have to try everything available in its arsenal to attract investment at this crucial stage, but also because competitor destinations are still offering a fair amount of tax incentives as well. However, many of these countries have begun moving away from blanket tax holidays towards more targeted incentives of the type that is advocated in this paper; like accelerated depreciation, investment tax relief, minimum investment thresholds, and renewable certificate schemes. For instance, Malaysia and Brazil are using investment tax relief for investment in higher technology sectors; Vietnam is using accelerated depreciation allowances for investment in 'difficult areas'; Brazil is introducing 'minimum investment thresholds' for investments in the IT sector; and Thailand is planning on introducing a 'certification scheme' to ensure better compliance.

Discussion in the Paper

The paper reviews a wide range of international empirical evidence surrounding the use of tax incentives, as a whole, as well as specific types. The paper also provides a fairly comprehensive discussion on the host of types of tax incentives available and their relative merits and demerits. The paper embodies the principle that although economists have often been skeptical about tax incentives and have instead supported broad tax bases and lower rates, there is a continued popularity of tax incentives. With this as the point of departure, the paper puts forward some ideas on how to better design and better monitor tax incentives. On the design side, the paper discusses ideas of administration, better measures to ensure incentives help a government achieve investment targets, tightening qualifying criteria, improved targeting and categorization of incentives. On the monitoring and compliance side, the paper discusses the strengthening pre-approval assessment, tax registration, compliance certification, and closer information sharing among agencies.

Meanwhile, the paper does acknowledge the valuable point that tax incentives are only part of the story - the importance of non-tax factors that determine the investment attractiveness of a FDI-host country cannot be overlooked or compensated for using incentives. Elements of this investment climate include a progressive trade policy, investment policy, and labour market regime.

Accountability of tax incentives is a

crucial part of the discussion that is often overlooked, and this paper argues for a comprehensive and formal mechanism for recording tax concessions granted and possibly an estimate of the revenue foregone as a result and for this to be tabled in Parliament.

A 'Tax Expenditure Statement' or 'Statement of Revenue Foregone' of this kind is not unusual, and in fact has been recently introduced rather successfully in India. It enhances the accountability and transparency of the incentives granted as well as the agencies involved in granting them.

Due to severe data limitations, this paper has not undertaken a comprehensive econometric analysis of costs vs. the effectiveness of tax incentives. Rather, it provides a critical overview of the use of tax incentives in incentivizing investment, reviews some of the available tools, and presents an agenda for the way forward for the country.

It draws extensively on international literature on the subject and aims to serve as a reference point for further research and policy analysis on this issue. The paper hopes to advance the knowledge that will help policy makers and administrators to develop, implement and monitor smarter tax incentives.

Conclusion

Overall, Sri Lanka must answer a key policy question and structure its incentives accordingly - 'what kind of foreign investment does the country desire to attract?'. Like Singapore did, FDI strategy must fit in to broader industrial strategy, which gives investors a credible and stable signal on the government's direction. FDI promotion cannot sit in isolation from other policies relating to trade and industry.

In concluding, while the paper does acknowledge that tax incentives are not the only factor in determining the foreign investment attractiveness of the country, that tax incentives violate the equity principle of taxation, that the evidence supporting the effectiveness of tax incentives is often contentious, and concessions and exemptions are a drain on the country's exchequer, it also acknowledges that Sri Lanka would need to maintain some form of tax incentives regime to remain competitive in attracting FDI. But this tax regime must be designed, implemented, and monitored in a smarter and more cost-effective way so that the impact on revenue is minimized while the desired economic policy objectives of higher investment are realized.



Image: Construction of the first two towers of Hawlock City, Ratnam Abhinav



“Frankenfoods”:

A Sri Lankan
Perspective
of the Inevitable

Rise of Genetically Modified Foods

By Dilani Hirimuthugodage

Sri Lanka banned the imports of Genetically Modified (GM) food in 2001, becoming the first country in the world to do so. However, in 2006, the government passed an *Extra-Ordinary Gazette to the Food Act of 1980*, allowing GM food importation and in 2011 the government passed a *National Policy on Biosafety* which covers the import of Genetically Modified Organisms (GMOs), i.e., GM food or GM crops. But do we really know what is and isn't GM? Should we be worried? How important is the GMO issue for Sri Lanka? This article attempts to answer these questions by discussing the present scenario of GMOs in Sri Lanka in the global context.

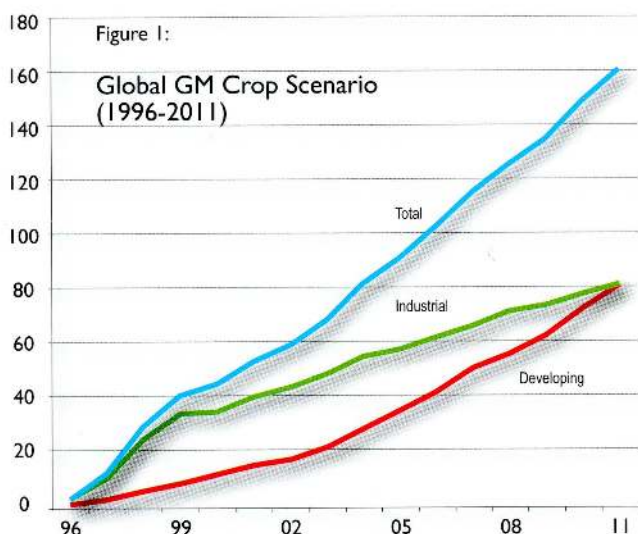
What are GMOs?

Genetically Modified food (also known as GM food, biotech food, or transgenic food) are foods derived from Genetically Modified Organisms (GMOs) through Genetically Modified crops. GMOs have had specific changes introduced into their DNA by genetic engineering techniques. These techniques include the cutting of genetic material from one species and being merged into another species in order to create a completely new animal or a plant. The process can, and often does, involve the crossing of the species barrier. Genes from humans, bacteria, viruses, plants, and animals are inserted into plants in order to give the crop qualities such as "extra protein," or allowing them to stay "fresher for longer." For example, many of these plants are engineered to produce their own pesticides so farmers won't need to add pesticides to their crops. It can also be engineered to improve taste, texture, appearance, or to provide more specific nutrients.

The first GM food crop, the Flavr Savr tomato, was developed by the Californian *Calgene* company in 1992 (later acquired by *Monstanto*) using the transgenic method to improve its quality. Attempts to improve the quality of produce, goes back much further than the GM revolution of the early 90s. Historically, farmers around the world selected the best looking plants and seeds, and saved them to plant for the next year. Plant breeding, as this is commonly called, became popular after it was revealed that crop plants could be artificially cross-pollinated to improve certain characteristics of the plant. With the development of the science of plant breeding in the 20th century, breeders found more efficient ways to create new and improved varieties of different crops to meet rising food demand.

GMOs: GLOBAL SCENARIO

Since 1996, the total area of land growing GM crops has rapidly expanded to reach nearly 158 million hectares in 2011. GM crops are mainly grown in the American region, where the USA accounts for 70 percent of the world's sowings of GM crops. Other main growers of GM crop include China, India, and Spain. The year 2011 showed a remarkable growth of 146 percent in GM crop area, compared to 2010. Thus, it is fair to say that GM crops are the fastest adopted crop technology in the history of modern agriculture. Year-on-year growth measured either in absolute hectares or by percentage, was higher in developing countries than in industrialized nations during the



Source: Pocket K No. 16: Global Status of Commercialized Biotech/GM Crops in 2011

period 2010 - 2011. Soybean (HT) is the most dominant biotech crop, occupying 75.4 million hectares or 50 percent of global biotech area, followed by HT cotton.

Countries of the world react differently to GMOs. While USA and some other developed countries encourage GMOs, many countries remain strictly against it. For instance, in 2002, Zambia returned a GM maize shipment from the US, which would have provided relief to 3 million of its citizens suffering from a deadly famine, with the then President Levy Mwanawasa famously referring to it as "poison". Several EU countries (Poland, Hungary, Austria, France, etc.) have banned GMOs as well. In addition, some countries have only banned certain identified crops, such as GM eggplant in India and GM maize in Hungary and Austria for example. Meanwhile, countries like Serbia are now revising their laws to allow GM food imports GM but under strict regulations.

GMOs: SRI LANKAN SCENARIO

How do Sri Lankans perceive GMOs?

According to the study done by S.N. Senarath and R.P. Karunagoda in 2010 on 'Consumer Attitudes towards Labeling of GM food in Sri Lanka', it was revealed that most of the Sri Lankan consumers are not aware of GM foods, and yet perceive GM foods to be risky to human health. The majority of the consumers were of the view that GM foods should be labeled. Many were interested in getting a better knowledge of GM food products. It was also found that most consumers tend to read labels on food items, especially to verify the dates of manufacture, expiry etc., but rarely to check the ingredients.

Are there GMOs in Sri Lanka?

According to available data sources, Sri Lanka currently does not produce any GMOs. There is also little concrete evidence to show that we are importing any GMOs. Some products have been identified as potentially containing GM food items, but they are still in the testing process and final reports are yet to be released. An informed government representative stated that, "It is too early to say that those identified foods contain harmful GMOs as it is still in the testing procedure".

Can we import GMOs?

According to the existing law, the importation of GM food/seed is not restricted. All importers have to make a declaration stating that their consignment does not contain any GMOs according to the Extra-Ordinary Gazette to the Food Act No. 26 of 1980. If the good does contain GM components, then it is required to be labeled as such. Hence, it becomes the consumer's choice whether or not to accept products that may contain GMOs. Yet, to date, there aren't any food items found in the Sri Lankan market with the GMO label.

How Does Sri Lanka Identify and Regulate GMOs?

Presently, GMOs in Sri Lanka are regulated by the Food Act and the National Policy on Biosafety. The Food Act is the main regulation which has been in operation so far, and the National Policy on Biosafety was introduced two years ago. While, the Food Act mainly focuses on GM food, the biosafety policy covers both GM food and GM seeds. Presently, the Ministry of Environment is drafting the National Biosafety Act, which will provide more protection to GMOs.

According to the Biosafety Policy if an importer wants to bring in a product which might contain GMOs, the request must be submitted to the Environment Ministry. Thereafter, the Ministry will send the information to, and then select, the ap-



appropriate institution to conduct a Risk Assessment (e.g. Ministry of Health, Ministry of Agriculture, Ministry of Fisheries and Aquatic Resources etc.) after taking in to consideration the type and nature of the item. The Risk Assessment report is then sent to the Biosafety Expert Consultation Committee, which is a cabinet-approved committee representing all stakeholders in the field (health, agriculture, customs, legal, and environment etc.). Once the committee approves, the importer can go ahead and import the item with the appropriate labelling. According to the Food Act the Health Ministry's Chief Food Authority will also send their reports to the Biosafety Expert Consultation Committee before they provide approvals to import GM food.

To date there have been very few risk assessment tests done in Sri Lanka. In most cases these tests are being carried out in private laboratories as government laboratories (Medical Research Institute, universities, and ministries' labs, etc.) do not have the requisite facilities to conduct testing.

Will GMOs be Good for Sri Lanka?

From an economic perspective, the answer is "yes". Despite an increasing scarcity of land and water, challenges from climate change and changing weather patterns productivity gains can be achieved with advanced technology. In fact, it could be said that these technologies are crucial for production increases. Whenever new crop technologies are adopted, the productivity increase will cause the crop's supply curve to shift downward, leading to a positive change in producer and consumer surplus. Thus, GM crops could contribute significantly to food security and sustainable agricultural development.

Further, the development of GM technologies leads to public goods that can easily be reproduced. Thus, Intellectual Property Rights (IPR) protection is needed as an incentive for private sector R&D investment. Further, income distribution and effects of new introductions will also depend on the institutional setting, including farmers' access to suitable seed varieties, credit, information, and other input and output markets. More public

and institutional support is needed to realize the benefits for the poor on a larger scale. The empirical evidence suggests that BT crops in particular, can have significant income-increasing and poverty-reducing effects. Furthermore, the economic results so far suggest that farmers in developing countries can benefit from transgenic crops. However, for the poorest of farmers in the poorest countries where institutional conditions are weak, ensuring access will remain a formidable challenge.

Being a developing country Sri Lanka does not have the advanced technology to produce GM food or GM seeds domestically. Thus, Sri Lanka needs to enter in to contractual agreements with the seed companies, albeit, in a very precautionary manner. Concerns that farmers should get clarified before the adoption of the technology includes, private contractual relations between farmers and seed companies; the environmental impacts of the technology; and the potential impacts of consumer concerns (both domestic and international) on the market for GM products.

Despite its economic potential, there is continued debate on the subject. In economic terms, new technology will increase production but, there is a good chance that there will be some negative impacts as well. Some fears includes the belief that GM seeds will create "super-weeds" or "superbugs" that, over time, become resistant to GM seeds and crops and to other herbicides and pesticides. The potential cross-pollination of GM seeds onto non-GM crops is also a concern to farmers, particularly those farmers that certify their crops as non-GM crops or organic. Another concern centering on the impacts of biotechnology is the possible harm that GM seeds and crops might pose to other, beneficial organisms (for an example, its impact on non-target arthropods in paddy fields).

Lastly, and most importantly, the effect of GM products on human health is not yet fully known. The largest threat to health could be the presence of unknown allergens.

What Needs to be Done?

Considering the benefits and the concerns raised, it is clear that neither the full-scale adoption nor the full-scale rejection of GMOs is a viable option. GM seeds are a revolutionary technology in the agricultural industry. The potential benefits of these seeds will be substantial. But, being a developing country Sri Lanka needs to strengthen its legal and institutional framework relating to GMOs before adopting the technology. There is also a growing need to improve public perceptions and enhance the social acceptance of agricultural biotechnology. Public awareness could be improved through the Ministry of Environment and the Consumers Affairs Authority. Increased awareness amongst researchers, universities, and the media etc, is essential. As GM crops are associated with several potential market failures, the technology has to be heavily regulated. For instance, GM crops may be associated with environmental and health externalities, so biosafety and food safety regulations need to be in place. For consumers, the GM characteristic of food products is a credence attribute, indicating that labeling regulations can help to reduce transaction costs and overcome information asymmetry. Since the government laboratories do not have the facilities to test GMOs, it is essential that the country improves the standard of identified laboratories. At this stage, more public research and institutional support is needed to complement private sector efforts. Since Sri Lanka doesn't have advanced technology to produce GMOs domestically, a robust intellectual property rights regime needs to be in place in order to enter into contractual agreements with GM seed companies. It is important for Sri Lanka to update its biosafety regulations and establish or revise its intellectual property legislations.



Image: Anushka Wijesinha

Broken Promises:

The Plight of Women in Sri Lanka and its Economic Costs

By Sunimalee Madurawala

On 28th of February 1909, the first ever National Women's Day was celebrated in the United States to honour female garment workers who protested against their poor working conditions in New York a year before. The United Nations celebrated the first International Women's Day on 8th of March in 1975. Since then, the International Women's Day has been celebrated each year on the 8th of March, all across the world. On this day, women are recognized and appreciated for their past struggles and achievements in the economic, political and social spheres. Most importantly, International Women's Day is an opportunity to highlight issues and problems faced by women all over the globe. "It is an occasion for looking back on past struggles and accomplishments, and more importantly, for looking ahead to the untapped potential and opportunities that await future generations of women".¹ The theme for the 2013 International Women's Day is: "A Promise is a Promise: Time for Action to End Violence against Women".

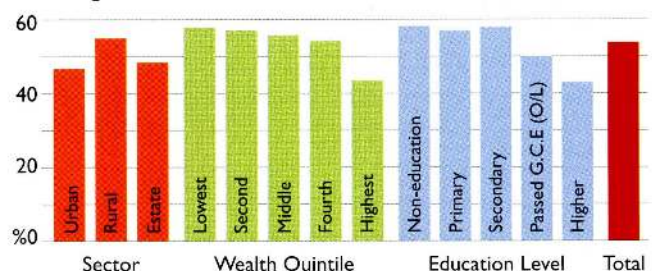
What is Violence against Women?

Article 1 of the United Nations Declaration on the Elimination of Violence against Women (DEVW), declared by the UN General Assembly in its resolution 48/104 of 20 December 1993, defines the term Violence Against Women (VAW) as: "any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life". VAW is usually categorized as being physical, emotional, verbal, sexual, economic, and digital (Information and Communication Technology).²

Sri Lanka has ratified all key international covenants on human rights. The country has ratified four major international covenants, which have relevance to rape and other forms of gender based violence [International Covenant on Civil and Political Rights-1966, Convention on the Elimination of All forms of Discrimination against Women (CEDAW)-1979, Convention on the Rights of the Child (CRC) -1989 and the Convention on Torture and other Cruel, Inhuman or Degrading Treatment or Punishment -1984]. Further, Sri Lanka has signed the Vienna Declaration on the Elimination of Violence against Women in 1993, the Prevention of Domestic Violence Act No. 34 of 2005 (PDV) was passed, and the Forum against Gender Based Violence was set up in 2005. A separate Ministry was set up to work on women's issues in 1983 (The Ministry of Women's Affairs - currently this Ministry is known as the Ministry of Child Development and Women's Affairs). Several initiatives have been taken to combat VAW by the governments and civil society organizations.

Despite the promise of more action, the promise of aligning ourselves with international statutes and conventions, the reality of the situation remains dire. According to the Gender Based Violence Forum in Sri Lanka, rape, domestic violence, sexual harassment, sexual violence, forced prostitution and trafficking are the most prevalent types of VAW in Sri Lanka. The Forum further states that these crimes are not specific to a particular region or locality, but they are reported across class, race, religion, and ethnicity.³ Prevalence of domestic violence in Sri Lanka, ranges from 27% (Perera, 1990), 32% (Samarasinghe, 1991) and 40% (Jayatilke et al., 2010) to as high as 60% (Deraniyagala, 1992).^{4, 5} In the case of VAW, obtaining reliable data is difficult mainly because victims are reluctant to reveal such incidents due to social stigma. However, Sri Lanka's Demographic and Health Survey (2006/2007) conducted by the Department of

Figure 1: Percentage of Ever Married Women Aged 15-49 Agreeing that a Husband can be Justified in Hitting or Beating his Wife * 2006-2007



*Note: Women were asked if a husband was justified under at least one of five scenarios: 1) if she goes out without telling him, 2) if she neglects the children, 3) if she argues with him, 4) if she refuses to have sex with him, or 5) if she burns the food.

Source: Department of Census and Statistics of Sri Lanka, Demographic and Health Survey 2006/07

Census and Statistics has revealed that regardless of background, women are highly susceptible to violence (see Figure 1).

This is partly because a majority of the women, regardless their level of education or income has the perception that a husband may be justified in hitting or beating his wife. Fundamentally, VAW is a violation of human rights. It affects negatively on a woman in many ways. Violence against a woman damages her health and well-being.

Table 2:
Economic Cost of Violence against Women (Cost Categories)

Cost category	Types of costs included
Pain, suffering and premature mortality	Costs of pain and suffering attributable to violence. Costs of premature mortality measured by attributing a statistical value to years of life lost.
Health costs	Includes private and public health costs associated with treating the effects of violence on the victim/survivor, perpetrator, and children.
Production-related costs	Includes costs associated with: <ul style="list-style-type: none"> lost production (wages plus profit) from: <ul style="list-style-type: none"> absenteeism; search and hiring costs; lost productivity of victim/survivor, perpetrator, management, co-worker, friends and family; lost unpaid work; retraining costs; permanent loss of labour capacity.
Consumption-related costs	Includes costs associated with: <ul style="list-style-type: none"> property replacement; settlement of bad debts.
Second generation costs	Includes private and public health costs associated with: <ul style="list-style-type: none"> childcare; changing schools; counseling; child protection services; remedial/special education; increased future use of government services; increased juvenile and adult crime.
Administrative and other costs	Includes private and public health costs associated with: <ul style="list-style-type: none"> legal/forensic services; temporary accommodation; paid care; counseling; perpetrator programs; interpreter services; funerals.
Transfer costs	Includes 'deadweight loss' to the economy associated with: <ul style="list-style-type: none"> government payments and services; victim/survivor compensation; lost taxes.

Source: Dept of Families, Housing, Community Services and Indigenous Affairs, Australia (2013)

ing, thus hindering her empowerment. Further, it also has an inter-generational affect. Violence against women damages not only the health and well-being of women, but also health and well-being of their children.

Economic Costs of VAW

The Economic costs related to VAW can be broadly classified as 'Direct Tangible Costs' (e.g. health care costs), 'Indirect Tangible Costs' (e.g. lower earnings due to lower productivity), 'Direct Intangible Costs' (e.g. pain and suffering, and the emotional impairment due to violence) and 'Indirect Intangible Costs' (e.g. negative psychological effects on children who witness violence which cannot be estimated numerically).⁶ Therefore, VAW has a significant impact on an economy. For instance, in the United States of America, the annual cost estimation of intimate partner violence amount to US\$ 5.8 billion.⁷ The economic burden of VAW and their children to the Australian economy was estimated to be US\$ 13.6 billion in 2012.⁸ As most cases related to VAW are hidden and untold, the real economic impact is likely to be much larger. The economic costs of VAW occur in different forms (see Table 2).

Almost from the very beginning, women have played an important role in the economic development of Sri Lanka. Women form the backbone of the Sri Lankan economy (associated with tea, garments, and remittances). Especially in such a backdrop, it is rather alarming to observe that 83 % of females in the estate sector are victims of gender based violence; 57 % of female garment workers experience sexual harassment at the work place, and 11% of returnee migrant women are sexually abused.⁹ Further, 62 % of female employees in the industrial sector have experienced unwanted and unwelcome sexual advances at the workplace at some point of their lives.¹⁰ Exposure to VAW at the work place hinders the productivity of the worker, while also resulting in the discontinuation of the job and eventual withdrawal from the labour force. This in turn means lower income levels on a household level and lower female labour force participation on a national level. There is no doubt that economic development will be hindered for as long as VAW persists in society.

Incidence reports appearing in newspapers, and complaints made at police stations are just the tip of the iceberg; the magnitude of the problem is much greater and most of the time hidden and unspoken of. While it is true that there have been continuous efforts made by various parties to eliminate VAW from the country, available data, literature, and anecdotal evidence prove that prevalence of VAW is still high in Sri Lanka. In this context, it is important to mobilize the community through better awareness and effecting attitudinal and behavioural changes. It is also important to fully grasp the economic implications of VAW, and to understand that the nation as a whole has to cover the cost.¹¹

The sooner we begin to implement effective policies and programmes, along with a national effort to instill an attitudinal change to end VAW, the sooner we can begin to reduce the economic costs of VAW.

Sri Lanka made a promise to its women when it became a signatory to the international conventions protecting the rights of women. However this has been left on the backburner for too long and the plight of the country's women is beginning to exert a very real economic impact on the country as a whole. Policy makers and implementers might find that it is always better to keep a promise, rather than bear the costs of a fall out.

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SPECIAL ARTICLE MARKING WORLD HEALTH DAY (7TH APRIL)

Why Public Private Partnerships Might be the Answer to Sri Lanka's Struggling Health Care Sector

By G.D. Dayaratne



In Sri Lanka Public Private Partnerships (PPPs) have existed *unofficially* for a long period. The first instance that such partnerships were seen in Sri Lanka's health sector was during the shift in government policy in the post-1977 period of economic reforms, allowing medical practitioners from the government service to practice privately outside their official working hours.

There are around 17,000 government doctors working in government hospitals today. A majority of them consult privately as General Practitioners or in private hospitals during their off-duty hours. A large number of full-time GPs from the private sector provide out-patient care at private clinics on a fee-for-service basis. Additionally, many private sector GPs also make referrals to government hospitals.

The flow of referrals occurs in both directions. In many government hospitals, doctors recommend that their patients obtain prescribed medical tests from private laboratories. The incidence of privately-conducted tests are so prevalent that most private hospitals in Colombo have set up laboratories and sample collection centres all across the country.

Despite the cost involved in obtaining such a service,

Posted in April 2013

patients are often satisfied as they have confidence in the accuracy of the results.

However, while PPPs exist in an unofficial capacity of this nature, the Sri Lankan health sector remains distinctly a two tier system. The government provides free health care through a network of government health institutions, and the private sector engages in levying fees for the provision of services, arguably aimed at enhancing profit for investment.

PPP potential

PPPs are most useful in relation to patients suffering from acute illnesses – who are primarily being treated in government hospitals. This is especially poignant in light of the fact that Sri Lanka is confronted with a demographic shift toward an ageing population – a factor that is adding further pressure to the overburdened state health sector. Table 1 summarizes the current situation of the demand for health care in the country.

Increasingly the public health sector is finding it harder to cope with the rising demand for its services. This is made evident by the fact that as at 2013, 5,000 patients are waiting heart surgery according to a recent announcement made by the government health authorities¹.

Figure 1 below, depicts the incidences of Coronary Ar-

tery Bypass Grafts (CABG) performed by public and private healthcare sector providers (data from the public sector is only available up to 2007). The Figure shows that Private Hospital has improved its capacity of CABG intervention by 2½ times from 600 CABG in 2001 to 2000 in 2012 while public sector was lagging behind from 200 CABG in 2001 to 600 CABG in 2007.

According to the Private Hospitals Association, at any given time there are approximately 50 patients admitted as in-patients awaiting surgery. This is in addition to the monthly waiting lists of scheduled patients, the numbers of which might run well over 160. A fair number of these patients belong to the high risk category.

The situation described above clearly highlights the disparities in the capacities of the state and private sectors, despite being mostly served by the same medical personnel. The increased instances of CABG performed by private providers indicates their improved capacity for intervention for a service mostly patronized by the upper and middle class segments from urban and suburban areas.

In this context the private hospitals are at an advantage because administrators have embarked on the large scale introduction of new bio-medical technologies at a high cost, with the sole purpose of increasing their market share in a competitive health care delivery atmosphere.

Public health authorities too, are taking steps to address the issues of capacity within government hospitals, with the proposed import of Bio-Medical Equipment (BME) at a cost of over Rs.2 billion². However, procurement of BME by the public hospital authorities will be subject to usual procedural delays, which will contribute to the already immense backlog of patients waiting for heart operations in government hospitals.

PPP as a solution

An often unreported fact is that the government provides certain subsidies to private hospitals for the import of high tech BME. As a direct result there is an abundance of medical equipment and technology available in metropolitan areas – particularly in Colombo city.

Therefore it is reasonable to expect the initiation of a feasible contractual arrangement with private hospitals in order to address the backlog of patients in the government system, until the proposed import of BME to government hospitals has materialized.

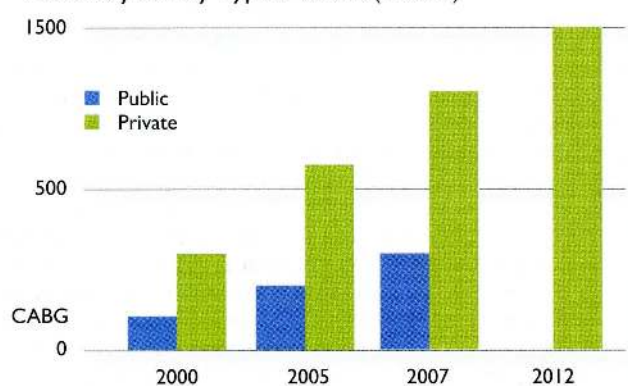
It is exceedingly important that the public dismisses the false notion that PPPs will lead to the privatization of the public health care delivery system. Public health authorities have a responsibility to reap the benefits from PPP arrangements, in order to reduce cost, share resources, provide quality assurance, and increase the efficiency of the health-care delivery system without compromising on equity and fairness. Hence, institutional changes may be required in both the public and private sectors, to better fulfill their social mandate and provide quality health services to the people of the country.

Table 1:
Summary Highlights of Health Care Demand in Sri Lanka

Main reasons for hospitalization of the Elderly	%
Acute Coronary Syndrome	18
Fever	14
Complications of Renal Failure	13
Ischemic Heart Disease	24
Diabetes Mellitus	17
Hypertension	24

Source: Adhikari, A., Rajapakse, A., Rajapakse, S., Rodrigo, C., Perera, Y.S. (2010), Characteristics of Older Patients admitted to a Tertiary Care General Medical Unit in Sri Lanka, *Indian Journal of Gerontology*, Vol. 24 (139-149)

Figure 1:
Coronary Artery Bypass Grafts (CABG)



Source: IPS Private Health Data Base (2000-2012)

COMMENTS:

Rashee

A very resourceful article. Needs more publicity

Herbert A. Aponso

Very good analysis. Have sent you my article – a proposal for a private-public Family Practitioner Service.

Ensuring Migrant Workers' Rights:

Regional Frameworks Could Hold the Key

By Roshini Jayaweera

In the wake of the execution of Sri Lankan housemaid Rizana Nafeek on 9th February 2013, accused of smothering an infant in her care in the Kingdom of Saudi Arabia, the human rights of migrant workers have come to the forefront of the policy discussion on migration. This article discusses what the next step needs to be in developing a comprehensive governing framework for migrant labour, and argues that collective action is the strongest tool in the arsenal of sending countries in protecting migrant workers.



International Human Rights Instruments - What is Available?

As migration, unlike the movement of commodities, is the movement of people, it requires that special attention be made to the social dimension, which includes human rights, dignity, and the social protection of migrants. If both countries of origin and destination want to benefit from migration, it is essential that they address the human rights aspect of migrants.

Currently, a range of human rights instruments exists at the international level promoting the human rights of female migrants, migrant children, migrant workers, refugees, and smuggled migrants. Among the treaties which concern migrants and human rights are: 1)

the International Covenant on Civil and Political Rights, 2) The International Covenant on Economic, Social, and Cultural Rights, 3) the International Convention on the Elimination of All Forms of Racial Discrimination, 4) the International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families, 5) the Protocol to Prevent, Suppress and Punish Trafficking in Persons, especially Women and Children, 6) the Convention on the Elimination of All Forms of Discrimination against Women, 7) the Convention against Torture and Other Cruel, Inhumane or Degrading Treatment and Punishment, and 8) the Convention on the Reduction of Statelessness.

Migrant workers are entitled to enjoy

the labour rights provided for in all international labour conventions, such as the four sets of rights set out in the 1998 ILO Declaration on Fundamental Principles and Rights at Work¹. In addition, there are some other international conventions which provide specific rights for migrants workers. For instance, the ILO has adopted two international conventions: the 1990 International Convention on the Rights of All Migrant Workers and Members of their Families (ICRMW), and the ILO Multilateral Framework on Labour Migration. ICRMW is a fundamental element in protecting the human rights of migrants. It applies to all aspects of the life of migrants and it regulates the full spectrum of workers' rights without being restricted to employment.

Migrant Rights - Challenges Remain

Despite these international instruments to protect migrant workers' human rights, there is a considerable incidence of reports of rights being violated. A significant number of migrant workers face undue hardships and abuse in the form of low wages, poor working conditions, denial of freedom of association, denial of workers' rights, discrimination, xenophobia, and social exclusion. For example, in 2011, out of the nearly 10,000 complaints received by the Sri Lanka Bureau of Foreign Employment (SLBFE), around 20% were about the non-payment of agreed wages and 16% were about the breach of employment contract. Physical and sexual harassments were the next highest complaint category in 2011. Around 302 deaths, including natural deaths, were recorded that year, with around 2% of these being classified as homicides.

There are practical issues related to the ratification, implementation, and enforcement of existing human rights. Many governments do not have the required capacity to implement these international human rights instruments. Moreover, human rights instruments available for migrant workers are not popular among governments, policy makers, and often among migrant workers themselves. On the other hand, even in the countries where these instruments are available, the administrative procedures are complicated.

How Can these Issues be Overcome?

There are several ways to enhance the protection of migrant workers. Countries, which still have not ratified these human rights treaties, should be encouraged to do so. Ratification itself won't be sufficient to minimize the human rights violation, therefore it should go hand in hand with a regular monitoring mechanism. The problem with most countries is the lack of capacity to implement these treaties and to monitor them. To develop this, global partnerships are important. Donor agencies in developed countries can support other countries to implement, monitor, and create awareness. In addition, a massive awareness campaign should be launched at the onset, as awareness about human rights is very poor, as mentioned earlier. This awareness should be extended not only to the governments in sending and receiving countries, but also to the migrant workers themselves. All these actions can be implemented through national level policies and regional cooperation.

At the national level, governments of sending countries need to come up with

bilateral agreements and Memorandums of Understanding (MoUs) with receiving countries. These agreements should not be limited to the number of employment contracts and wages, but should also focus on the human rights aspect of migrant workers. It will be beneficial if governments of sending countries can come up with social security agreements with the governments of destination countries.

At a recent public dialogue, the Director of the International Movements against All Forms of Discrimination and Racism (IMADR) emphasized the need for a collective South Asian approach to this rather than the current trend of competition between the countries⁽¹⁾. This highlights the need for regional cooperation in order to have better bargaining power to avoid situations like the Rizana Nafeek's execution.

Regional Collective Action is Key

Coordination between country of origin, transit, and destination, as well as non-governmental organizations (NGOs), civil society organizations, and migrant workers, is essential to ensure that international human rights of migrants are honoured. Existing Regional Consultative Processes (RCPs) can be employed to protect the human rights of migrant workers in two ways. Firstly, they provide an important platform for multi-stakeholder engagement that can influence national level policies. RCPs allow different groups such as government representatives, international organizations, and NGOs to come together for informal and non-binding dialogue and information exchange on migration-related issues. RCPs are a platform for regular meetings between these stakeholders who wouldn't normally interact, or would interact only on an ad hoc basis. Thus, RCPs can facilitate better cooperation, and co-ordination among stakeholders. The participation of such a wide range of stakeholders is essential towards the development of a comprehensive approach to protect the rights of migrant workers.

Secondly, RCPs can influence the setting and steering of national agendas. For example, participating countries can influence the focus of migration issues already incorporated in their agendas. Many countries have reviewed, created and/or amended national legislations in this way. For example, the governments of Panama and Fiji, both undertook extensive reviews of their domestic migration laws and subsequently reformed certain parts of these laws as a result of their RCP participation⁽²⁾.

In the South Asian region there are RCPs that exist like the 'Colombo Process' and the 'Abu Dhabi Dialogue'. These RCPs have touched on the human rights aspect of migrant workers. The 'Colombo Process', for instance, aims to consult on issues faced by overseas workers and propose practical solutions for the well-being of overseas workers, particularly the most vulnerable, such as women and unskilled workers. Partnership 3 of the 'Abu Dhabi Dialogue' is in place to prevent illegal recruitment practices and to promote welfare and protection measures for contractual workers; support their well-being; and prevent their exploitation at origin and destination.

The existing efforts should reach the benchmark set by the efforts of the ASEAN region. In 2007, the ASEAN region introduced the 'ASEAN Declaration on the Protection and Promotion of the Rights of Migrant Workers'. It is a unique initiative in the ASEAN region which specifically addresses the protection and the rights of migrant workers from a regional perspective and encompasses the responsibilities of origin, transit, and destination countries, to ensure an orderly migration process. A similar effort has been taken by a group of think-tanks in South Asia to form South Asia Migration Commission (SAMC) in 2009. It has conducted three meetings in Colombo but it is yet to be recognized by the SAARC official process.

A country like Sri Lanka which receives a significant amount of remittances - nearly 10% of its GDP - cannot afford to prohibit migration. However, the fact remains that another tragedy, such as that of Rizana Nafeek, must be avoided at all costs. While Rizana was Sri Lankan, she could just as easily been one of the thousands of housemaids from India, Bangladesh, or any other South Asian country. As such, collective action remains one of the strongest tools that sending countries such as Sri Lanka, India, or Bangladesh can have in their arsenal to protect their migrant workers.

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Will Sri Lanka RUN OUT OF WATER for agriculture or can it be managed?

In this special feature article to mark World Water Day today (22nd March), IPS researchers Chatura Rodrigo (Research Economist) and Athula Senaratne (Research Fellow) examine the usefulness of the 'Integrated Water Resource Management' approach as a solution to an impending water crisis.

Hydrologists and water resource economists have suggested that by 2030 one third of the world population will be based along river basins and the scarcity of water for agriculture will have a tremendous impact on their livelihoods. Overall, the world's water demand will grow from 4500 billion cubic metres to 6900 billion cubic metres by 2030 - a 40% increase from the current water supply. Not only in the developing world but also in the developed world countries such as USA, Spain, Germany, and France, are already facing water scarcity for agriculture and have a limited supply of irrigation water for agricultural use. Therefore, policy makers around the world are now confronted with the challenge of formulating alternative strategies for water management to address these issues.

There is increasing evidence to suggest that water scarcity is likely to be aggravated further by the inevitable reality of climate change. The Intergovernmental Panel on Climate Change (IPCC) suggests that climate change affects all components of freshwater systems. As a result, water quality and availability will be major issues in the future. Today, close to 70% of the water in the world is used for agricultural purposes and of that, much is utilized by developing countries. Therefore, it is fair to say that, in the future, developing countries will be more affected by water scarcity for agriculture than developed countries. Climate change affects the intensity as well as the patterns of distribution of rainfall. The Food and Agriculture Organization (FAO) suggests that climate change will affect livelihoods of the rural masses, especially in developing countries, by limiting the water availability for agriculture. FAO suggests that the increased intensity of droughts and floods can also lead to widespread crop damages, thereby further affecting the livelihood security of farmers.

Ground Realities

Sri Lanka is heavily dependent on agriculture and both rain-fed and irrigated agriculture form the backbone of rural livelihoods. Scientists have suggested that the overall rainfall received by Sri Lanka has decreased in many areas of the country. The established patterns of rainfall have changed and the distribution of rainfall in different parts of the country also appears to be undergoing changes. While the droughts cause delays in

planting seasons and are responsible for crop damages, floods have been destroying mature crops awaiting harvest.

According to current statistics, the total cultivated area in Sri Lanka is estimated at 1.86 million ha. About 632,000 ha. of this area is irrigated; the rest is rain-fed. Irrigated agriculture is mainly comprised of major irrigation schemes. In addition, there are numerous minor schemes, which can be identified as semi rain-fed systems. They include over 15,000 village tanks scattered across the dry zone areas of the country. Irrigated agriculture in Sri Lanka has received a great deal of attention from policy makers over the past several decades, which culminated in the accelerated Mahaweli Development Program in the mid 1980s. Many steps have been taken to rehabilitate and restore ancient irrigation systems.

Majority of the irrigated land in Sri Lanka is used for paddy cultivation. The demand for water is high in paddy cultivation compared to many other crops. Water is essential for the preparation of land, and the planting and maintenance of the crop throughout the planting-harvest cycle. On average, the water requirement for irrigated rice is between 900-2250 mm per day. By 2025, paddy cultivation area is projected to increase by 28%, with the annual growth in the cultivated area of paddy rising to 1077 ha, compared to 836 ha in 1991. Sri Lanka's dry zone is the main paddy producing area in the country and some parts of this area will face an absolute scarcity of water by 2025. Furthermore, research has suggested that paddy production in Sri Lanka will increase by 10% by year 2025 and that additional amount will be totally irrigation-based.

Applying the IWRM Approach

To manage these challenges, experts have stressed the importance of an Integrated Approach of Water Resource Management (IWRM) to face the rising threat of water scarcity. The concept of IWRM was first proposed about 60 years ago and was re-examined in the 1990's. IWRM calls for a holistic approach where agricultural water management is considered a part of an overall strategy of natural resource management. The way in which water is managed for agricultural purposes is a function of different management practices that are closely associated with the management of other natural resources as well.

Accordingly, management of water will depend on the actions taken by the different users of water and other natural resources. For example, the management of water for agriculture from an irrigation tank largely depends on the management of the catchment area of the tank. The actions taken by the users of the catchment area will affect the water storage of the tank; thereby determining the availability of water for agriculture.

Even though IWRM has been discussed as the most sustainable way of managing water resources, there is some criticism as well. While it is attractive on a conceptual level, the implementation of macro- and meso-scale water resource management projects has faced certain difficulties. Among the reasons for this are the heterogeneity of water users and poor institutional arrangements. Evidence shows that farmers in Sri Lanka are moving towards intensive commercial agriculture, and privately oriented land/water management strategies are rapidly being adopted. As a result, the emerging agricultural systems have ignored the traditional practices of integrated management of associated resources, such as catchment areas.

However, experts have suggested that innovative ways of IWRM can be used to meet the future demand of water in developing countries. One innovative idea is the concept of "virtual water". Virtual water refers to the hidden or unobserved flow of water when commodities are traded from one country to another. The virtual water content of a commodity is the volume of water required to produce the commodity, which is measured at the original place of the production. This contains the sum of water use for that commodity at various stages of the production process. Therefore, if a country with scarce water resources is producing a particular commodity requiring a large quantity of water, then they could potentially import that commodity from another country that has relatively less water issues, and thereby save the water needed to actually produce that commodity in the country itself. Secondly, water-scarce countries can increase the efficiency of their water management practices through new technological/institutional strategies and water conservation. Thirdly, countries can use more efficient, economical, and environmentally-friendly approaches to prevent the pollution of water. Finally, naturally unusable water, such as saline and sodic water, can be treated to use for agricultural purposes with the use of new technologies. However, the application of these strategies should be compatible with country-specific needs and development agendas. With emerging technologies and private sector involvements, agricultural water management has become increasingly complex. Countries like the USA, China, Japan and Germany appear to have placed more faith on larger investments and modern technologies, while developing countries are focusing on adopting an IWRM approach.

Breaking with Tradition

There are significant efforts by governments over the past few years to establish new infrastructure, rehabilitate or renovate existing dams, reservoirs and canals, and promote agro wells and micro-irrigation technologies to meet the rising demand for agricultural water. Despite such efforts, however, the problem of water scarcity continues grow. In order to meet the future demands of agricultural water innovative approaches are needed. The demand for agricultural water has to be balanced with the municipal and industrial water demands. In balancing these demands, the goals of public health, environmental protection, economic viability, and food security need to be carefully assessed. The development of crop varieties that demand less water is one possible strategy to manage competing demands for water. The selective adoption of technologies appropriate for small farmers is another tool. Planning and co-ordinating irrigation water is also very important to save the excess use of water. Farmer organizations, local institutions, and state agencies such as the Agrarian Development Department, Department of Agriculture, Department of irrigation, and the Department of Meteorology all have an important role to play. They must work closely and share knowledge and information so that irrigation water can be better managed through an IWRM approach.

COMMENTS:

Water – will we have enough? | Chuls Bits & Pics

[...] will have a severe impact on us, the Institute of Policy Studies (IPS) raises today the question "Will Sri Lanka run out of water for agriculture or can it be managed?" "Overall, the world's water demand will grow from 4500 billion cubic metres to 6900 [...]"

Nalaka Gunawardene

I've referred to the above essay in my Sunday column on 24 March 2013. See: <http://collidecolumn.wordpress.com/2013/03/24/when-worlds-collide-59-seeking-clarity-in-murky-waters/>

Chatura Rodrigo

Thank you Mr. Nalaka,

I believe efficient management is one of the key essentials in water management for any country. We have a rich history of managing water using construction techniques as well as participatory approach. Some times i wonder whether we have forgotten where we came from, may be its time to look back and learnt lesson form the history...

Champika Jayaweera

I would like to acknowledge all the authors about reminding such a tremendous future issue to all. As responsible people you know the weight of that. As the your follower I am interesting such kind of essential efforts. But really, who should know that? Only one answer, users should know that including rural farmers. We all together should find a clear solutions & way to do that.

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Image: Anushka Wijesinha

Biodiversity as a Cornerstone of Sustainable Development: A Sri Lankan Perspective

Marking International Day for Biodiversity on 22nd May, Dilani Hirimuthugodage (Research Officer – IPS) looks at the Sri Lankan interventions in the wake of its ratification of the International Convention on Biological Diversity 19 years ago.

There is growing recognition of the fact that biological resources and diversity are vital to humankind's economic and social development. It is accepted that diversity is a global asset of tremendous value, and that it needs to be preserved for future generations.

At the same time, the threat to species and ecosystems has never been greater than it is today. In response, the United Nations Environment Programme (UNEP) convened the Ad Hoc Working Group of Experts on Biological Diversity in November 1988 to explore the

need for an international convention on biological diversity. The Convention was opened for signature at the Earth Summit in Rio de Janeiro in 1992, and entered into force in December 1993. Sri Lanka signed the convention in 1992 and ratified it in March 1994. Presently,

192 countries and the European Union are parties to the convention. The United States of America (USA) has signed the convention in 1993 but not yet ratified it.

What is the Convention on Biological Diversity (CBD)?

The CBD is an international legally binding treaty and is the main document regarding sustainable development. Its three main goals are 1) conservation of biological diversity, 2) sustainable use of biological components, and 3) fair and equitable sharing of benefits arising from genetic resources.

The objective of the CBD was to develop national strategies for the conservation and sustainable use of biological diversity. The agreement covers all ecosystems, species, and genetic resources. It sets principles for the fair and equitable sharing of the benefits arising from the use of genetic resources, notably those intended for commercial use. It also covers the rapidly expanding field of biotechnology through the Cartagena Protocol on Bio-safety which seeks to protect biological diversity from the potential risks posed by living modified organisms, resulting from modern biotechnology.

The CBD recognized, for the first time in international law, that the conservation of biological diversity is an integral part of the development process. Importantly, it is legally binding; countries that are 'Parties' to it are obliged to implement its provisions. In line with this, Sri Lanka too has implemented its own policy framework to comply with the CBD.

Biodiversity in Sri Lanka

Sri Lanka is one of the 34 biodiversity hotspots identified in the world and has the highest biodiversity per unit area of land amongst Asian countries. The wet zone rainforests are home to nearly all of the country's woody endemic plants, and about 75% of its endemic animals. The genetic diversity of agricultural crops is also quite remarkable, with 3,000 varieties of rice having been recorded. Many of the indigenous varieties of rice are tolerant to pests, adverse climate, and soil conditions. In addition to the diversity seen in coarse grains, legumes, vegetables, spice crops, roots and tubers, there are over 170 species of ornamental plants.

Several threats to Sri Lanka's biodiversity were identified many years ago. The major threat is the ever-increasing demand for land for human habitation and related developmental activities.

Poor land use planning, indiscriminate exploitation of biological resources, weak enforcement of legislation, the absence of an integrated conservation management approach, loss of traditional crop and livestock varieties and breeds, pollution, human - wildlife conflicts, an increasing spread of unknown invasive species, and increasing human population density, are some of the other critical threats to biodiversity.

For a developing country like Sri Lanka, it is a challenge to balance both ecological and economic development targets. However, development activities should be done in a way, and at a rate, that does not lead to the long-term decline of biological diversity. Biodiversity is a measure of sustainable development which means that 'growth today will not deprive the quality of life of future generations'.

CBD and Sri Lanka

Since the ratification of the CBD 19 years ago, Sri Lanka has made some progress. In 1999, Sri Lanka prepared and published a comprehensive Biodiversity Conservation Action Plan (BCAP). The BCAP identified four broad areas of ecosystem diversity: forests, wetlands, coastal and marine systems, and agricultural systems. This was updated with the publication of an Addendum to the BCAP in 2007 to reflect several issues that had a major bearing on biodiversity conservation in Sri Lanka, since publication of the BCAP. In the year 2004, Sri Lanka also ratified the Cartagena Protocol. The Cartagena Protocol on Biosafety is a subsidiary agreement to the Convention.

During 2005 and 2006, Sri Lanka carried out extensive stakeholder consultations through the National Capacity Needs Self-Assessment (NCSA) Project in order to identify national capacity needs in implementing the Convention on Biological Diversity. Subsequently, Sri Lanka has drafted a Biosafety Regulatory Framework in 2005 and a National Policy on Bio Safety in 2011, to regulate bio technology and Genetically Modified Organisms (GMOs). These policies provide protection from the importation of GMOs, the adverse effects from bio-technology, and technology transfer issues, etc.

19 Years and Counting

Even though Sri Lanka was able to establish a policy framework for biosafety implementation, the progress

remains poor. As was highlighted at a recent IPS in-house seminar, Sri Lanka does not have suitable laboratories to conduct GMO testing, which is a critical gap in implementing the policy. Further, the national BCAP (and Addendum) have not been implemented in a holistic manner. The special mechanisms required need to be identified and operationalised, but this is delayed due to the need for funds and other support. The coordination required for implementing the BCAP is also difficult due to the complexity arising from the vast number of institutions and laws that govern biodiversity.

An area that has received less attention is Article 8(j) of CBD, which refers to traditional knowledge of a country. Sri Lanka has to give high priority to this since the country has a very rich traditional knowledge base, and has experienced several cases in the past where traditional knowledge in agriculture and medicine was lost due to the lack of rules and regulations. Indigenous knowledge and traditional crop varieties are integral features of the Sri Lankan agriculture sector, but has failed to protect this.

Even though there are nearly eighty laws to protect biodiversity, but they need revising as many of them are outdated. A proper implementation and monitoring process needs to be in place, with closer linkages between the ministries that are responsible for sustainable development. Biodiversity policies and plans have to be integrated with agriculture and fisheries policies. As Braulio De Souza Dias, the Executive Secretary of the UN's Biological Diversity Secretariat, recently said - "Biodiversity and associated ecosystem services are the cornerstones of sustainable development. It is important to ensure that both issues are not considered in isolation".

With the rapid expansion of physical infrastructure development, it is vital that biodiversity conservation is given due recognition in order to ensure that the ongoing development embodies a strong sense of sustainability.

It has been 19 years since Sri Lanka ratified the Convention on Bio Diversity but it is clear that much still remains to be done in terms of creating effective policy frameworks and strategies for their implementation. Concrete steps must be taken soon if Sri Lanka is to safeguard its rich bio diversity, in the midst of the rapid development taking place.



Image: Anurika Wijesinha

Is Sri Lanka Making Use of its Ocean Resources for Economic Take-off?

By **Kanchana Wickramasinghe**

Being an island nation, Sri Lanka is blessed with enormous ocean resources, and related opportunities, that can be utilized for the country's economic development. There is a wide array of ocean resources, which include both biological and non-biological components. A number of economic activities including tourism, fisheries, etc., are based on ocean resources and even now are contributing a considerable share to the national economy.

The possible discovery of oil and gas resources in the Mannar Basin will open new avenues for novel economic activities which can have significant impacts on Sri Lanka's economic growth. However, it has been long discussed that the ocean resources owned by Sri Lanka are not fully utilized. As the country is now geared towards its economic take-off, it is high time we make use of the full potential of vast ocean resources that the country is entitled to.

Countries in the South Asian, as well as Asia-Pacific regions have demonstrated that Ocean resources can be utilized for economic development. For instance, ocean-based tourism industry in the Maldives has been able to contribute 22% to its GDP, in 2012 according to the World Travel and Tourism Council. Although Sri Lanka possesses a comparatively high resource base, earnings from tourism still remains below potential. In addition, lessons can be learned from countries outside the region on how best ocean resources can be used; such as Fiji on tourism and canned fish industry, and from Mauritius on up-market tourism.

Sri Lanka possesses a territorial sea of 21,500 km² and an Exclusive Economic Zone (EEZ) of 517,000 km². The EEZ is more than seven times larger than the geological extent of the country. As highlighted in the ten year development policy framework for the fisheries sector (2007 – 2016), under the UN Law of the Sea, Sri

Lanka is entitled to lodge a claim for an extended area of seabed where the thickness of the sediment layer is over 1 km. The claim is being submitted and, if accepted, Sri Lanka will gain an additional seabed area which would be 23 times that of the island's land area. The extended area is also found to be rich in non-living resources, such as hydrocarbons and a variety of economically important minerals including manganese nodules.

The geo-strategic location of Sri Lanka also brings in immense economic opportunities. For nearly three decades, Sri Lanka had been largely constrained in the utilization of most of its ocean resources due to the conflict in the North/East. The dawn of peace in 2009 has now set a favorable environment for harnessing ocean resources, without major security issues. Thus, increasing the contribution from ocean resources to the economy should be one of the development priorities of the country through the creation of effective strategies with a long term vision.

Tourism

The ocean, its resources and the natural environment has been a major contributor to Sri Lanka's tourism industry over the years. The growth rates in the past few years show the enormous potential that the tourism industry possesses, as one of the major economic sectors in the country. Given the high prospects for tourism in the marine environment in Sri Lanka, it is high time to look for new forms of tourism which can ultimately lead to an increase in the economic benefits. The natural marine environment and its resources can be made use of, to offer a variety of tourism products such as snorkeling, diving, whale and dolphin watching, wind surfing, parasailing, and water sports, etc. Value additions for 'sun and sand' tourism has been slow to emerge in

the hotel sector in Sri Lanka. In terms of the development of unconventional tourism activities, Sri Lanka can learn lessons from countries such as Thailand and Malaysia.

In addition, Sri Lanka can get benefit from cruise ships to promote its tourism activities. The geo-strategic location of Sri Lanka can provide an advantage when attempting to entice cruise ships and other vessels, to include Sri Lanka as a destination or stop-over point. Attempts should also be made to create a yacht marina in the Galle harbour, or at a location close by, to attract yachts sailing in the Indian Ocean. In addition to sightseeing, a number of other avenues have to be explored, such as restaurants, and shopping malls, etc., to attract high-end tourists associated with ocean tours. Accordingly, there are a number of ways that Sri Lanka can increase its marine tourism earnings, by using appropriate strategies with the focus on the long term potential.

Fisheries

The marine fisheries sector in Sri Lanka constitutes of major sub-sectors, namely coastal fisheries and deep sea fisheries. In 2012, the total marine fish production in Sri Lanka amounted to 417, 220 MT of which 62 per cent came from the coastal sub-sector¹. Although the deep sea area possesses a huge potential for fisheries, its contribution to total marine fish supply still amounts to 32 per cent. The main constraint for the under-utilization of deep sea fishing in Sri Lanka has been the lack of technology and investments. It is a good sign that Sri Lanka is in the process of looking for collaborations with countries with high technological and investment capabilities, such as Japan and China, for harnessing the deep sea fishery resources.

According to the ten year development policy framework (2007 – 2016) for the fisheries and aquatic resources sector, by 2016 fish production is expected to increase to 461, 959 MT, and thereby increase the fisheries sector contribution to national GDP to Rs. 138,587 million. The expected increase in contribution to GDP is more than 3.7 times the level of fisheries sector earnings in 2011. It is also intended to increase export earnings to Rs. 41,147 by 2016. The deep sea fisheries sub-sector can play a pivotal role in achieving the targets set by the government.

In addition, due to lack of technology and investments, huge research gaps exist in terms of marine fisheries management in Sri Lanka. The sustainable utilization of fisheries resources requires research findings on fish stocks, maximum sustainable yield, which are not readily available in the case of Sri Lanka.

Sea Transportation

Sea transport is also a possible avenue from which the country could benefit. Although not implemented yet, there have been long discussions on the utilization of the ocean as a mode of transport. The possibilities of having an ocean transport routes to neighboring India, as well as between the Northern and Southern regions of Sri Lanka, have been looked into by policy makers. The security issues which prevailed during the conflict period greatly constrained the implementation of such programmes. However, Sri Lanka can now make use of the ocean as a low cost mode of passenger and goods transportation.

The proposed ferry service from Colombo and Tuticorin, India, is viewed as an important avenue for increasing connectivity with India, which can thereby generate economic gains for Sri Lanka through India-Sri Lanka goods and passenger transport. However, the financial viability of the initiative needs to be enhanced through appropriate strategies,² before going forward.

Ocean Energy

Sri Lanka has now called for the second round of bidding for petroleum exploration licenses. It has been an encouraging sign

that world's leading oil exploration companies have shown interest in Sri Lanka's petroleum resources. It is important that Sri Lanka look to other countries, such as Norway,³ that showcase the best practices with regard to this. Domestic capacity building has been a main policy priority in the case of Norway, which was achieved through the establishment of a national oil company, specification of licensing conditions, and where technology transfers from foreign companies to domestic institutes was often a requirement.

In addition, Sri Lanka is also blessed with other ocean-based energy resources which are not fully tapped. Sri Lanka has a good potential for ocean generated wind power. According to the Sustainable Energy Authority, nearly 5000 km² of land has good-excellent wind resource potential. As of June 2012, 6 wind power projects have been in operation, closer to the sea and another 9 projects are under construction. In addition, Sri Lanka's strategic geographical location can be used to generate wave energy as the country has been identified as retaining a huge potential for wave power⁴.

Institutional Set Up

Several institutions are involved in the management of ocean resources in Sri Lanka. Ministry of Fisheries and Aquatic Resources, National Aquatic Resources Research and Development Agency (NARA) Coastal Conservation Department (CCD), Ocean University, and also international institutions such as Indian Ocean Marine Affairs Co-operation (IOMAC). A coordination mechanism among these agencies is a must for the sustainable use of ocean resources. In addition, international collaboration also comes into play when collective decisions are to be made in utilizing the resources.

Way Forward

It is highly opportune to identify the ways and means that Sri Lanka can make the best use of the ocean resources via tourism, fisheries, sea transportation, petroleum/gas, and other resources. Investments in the appropriate technologies are a must for gaining the maximum benefits in most of the sectors. Also, there are large research gaps existing in an array of scientific and socio-economic aspects related to ocean resources. In order to increase and sustain the ocean resources' contribution to economic growth, adequate attention has to be paid to the issues which hamper the increased utilization and sustainability of the resources. As of now, there is no comprehensive database on ocean resources in Sri Lanka, which is vital for effective policy formulation. Although there are regulations in place, they are not properly enforced to handle the unsustainable activities associated with most of the ocean resources. Effective coordination among the institutions involved in managing ocean resources is also a key aspect in this regard. Those remain areas where immediate policy attention is needed.

Endnotes

1 National Aquaculture Development Authority of Sri Lanka (NAQDA) (http://www.naqda.gov.lk/fish_production.php)

2 Gunaruwan, T.L., S.K.I. Dineka (2013), India-Sri Lanka Connectivity Through a Ferry Service Between Colombo and Tuticorin: An Assessment of Operational Viability, Risks and Prospective Strategies, *South Asia Economic Journal*, 14, 1(2013): 83-108

3 Ediriweera, K. (2013), Off-shore Exploration of Gas and Oil in Sri Lanka Development of Petroleum Reserves in Sri Lanka with the Experience from the North Sea, a paper presented at the Competency Building and Capacity Enhancement of the Emerging Off-shore Gas and Oil Industry in Sri Lanka, 7-8 January, 2013, Negombo, Sri Lanka.

4 Abeygunawardena, A. (undated) 'Vision for the Future Vs Power Generation Plan' (<http://www.efsl.lk/publications/28%20%20Power%20generation%20plan.pdf>)

What a Waste!

The Municipal Solid Waste (MSW) issue in the Western Province of Sri Lanka has been hotly debated in media currently and the government seemingly has no solution at sight. We catch up with Mr. Chinthaka Abeysekera who is an emerging specialist in waste management, and is keenly interested in identifying and implementing a holistic solution that not only treats MSW but also highlights waste minimization and segregation.



How did you get involved in waste?

I returned to Sri Lanka about two and a half years ago, and the parent company I work for required me to visit a certain National Hospital frequently in 2011. During these visits, I observed that medical waste was being deposited outside the hospital premises in 'sili sili' bags as they had no other way to dispose of it.

Naturally I was perturbed so I dived in to find a solution, and somewhere down that line I realized I am quite passionate about it. Also, I am an electrical engineer so understanding the various technologies and methodologies was also a natural progression.

Based on your two years of ground ex-

perience, what can you conclude about the current MSW situation in Sri Lanka?

It is as expected actually. We cannot forget Sri Lanka is a developing country and we have to give ourselves time to evolve in the way we manage and dispose waste. As Sri Lankans, we may think that what we are going through is unique but actually even the developed countries had to go through the exact situation we are going through now. It's part of the learning cycle – and there is no way around it either.

If we were to compare central Colombo with some of its counterparts such as Mumbai or even New York, it's very easy to see that Colombo is indeed cleaner and

No longer can we afford such concentrated emissions of pollutants as we are already seeing the negative impacts of continued environmental damage.

greener, and we should give ourselves a pat on the back for that.

which one is best suited to the needs of the country.

What solution do you see as best for Sri Lanka?

Personally, I am a big fan of an industrial biogas facility in Sri Lanka. There are no air pollutants emitted – and only requires an accelerated biological process to produce biogas can be used to generate electricity and heat. Additionally, there is also the much valued recovery of secondary materials that in turn can be recycled and salvaged.

A biogas facility also produces compost which is something extremely important to our country. Did you know our farmers use the most chemical additives (insecticides, pesticides and fertilizer) per square meter in the South Asian region? This is the reason why many toxic substances such as Arsenic and Cadmium are finding its way into our bodies, and as a result it's not really surprising that there is an alarming increase in kidney and liver related diseases in Sri Lanka. Therefore, the promotion of naturally occurring compost to local farmers would provide a greener way of farming which in turn would also lead to healthier citizens.

Would you say however incineration is an easier technology to implement over biogas?

Honestly, yes it is. It's a technology that has been existent since ancient Egypt but the world has changed drastically since. No longer can we afford such concentrated emissions of pollutants as we are already seeing the negative impacts of continued environmental damage. Think about the unpredictable monsoons in Sri Lanka, the unusually cool summer in Europe, and the bizarre winter in North America. Whether you realize it or not, these are not unrelated events directly linked to global warming. Therefore, why would you want to make a conscious decision that would support such disastrous climate change?

So if it were up to you there would absolutely be no incineration as a solution in Sri Lanka?

I am not saying there is no place for incineration in Sri Lanka. In fact, for spe-

cialized waste such as industrial waste, hazardous and toxic waste; incineration is the only solution that should be adopted – especially in Sri Lanka, where there are no sanitary landfills. However, in such cases, the relevant authorities must ensure the appropriate emission cleaning systems in order to reduce and control air pollutants.

I am happy to note that the Central Environmental Authority (CEA) has adopted stringent standards that are comparable to those adopted in developed countries. However, they must enhance their independent ability to verify the continued adherence to these standards. Only then, will the CEA be able to reign in both the private and public sector accordingly.

Do you think the current initiatives taken by the government are in the right strategic direction you were stressing upon?

The Government has made several decisions that indicate the right direction in terms of waste management, collection and disposal. For eg. The Waste Management Authority (WMA) of the Western Province has recently launched a 'Volume Based Fee System' in several local councils. This program promotes the segregation of household waste and a consequent penalty for those who don't segregate. The Central Environmental Authority (CEA) has the 'Pilisar Project' that promotes composting as the small/medium scale waste disposal solution. Similarly the Colombo Municipal Council (CMC) has similar programs as well. Sadly, the impact of these programs is severely limited due to redundant structures and often short-sighted implementations.

For example, you cannot implement a segregated collection system and expect the citizens to adhere to such a system if collection only happens once a week. The ability to collect in a timely manner must be developed first before launching such programs. Also, commitment to the cause will only be as strong as the collectors – therefore, provide a value addition by educating them about the importance of their role, and you will see a stark difference in results. You don't need to look further than the Wattala Pradheshiya Saba region to see the positive results of

So then are you stating that the Western Province doesn't have an MSW issue?

No that is definitely not what I am saying. We do have a rather big issue and Sri Lanka has come to

a crossroad in how we deal with waste. Existent landfills, which are not sanitary or controlled, are near exhaustion.

New lands are hard to find and is a precious resource that should not be wasted for land-filling. Therefore, not only do we need new technologies to treat and dispose waste but we also require source segregation assisted with timely and scheduled collection routes.

How does a country move away from landfills?

Landfills are an economic burden to the government, so the government must invest in a technology that can process the waste. Selecting the technology is easier said than done but we have the histories and experiences of countries such as Germany, Korea and even India to study and learn from.

We do not need to make the same mistakes they made. In that sense, we definitely hold the advantage towards making the right decision.

There are several solutions such as Plasma Gasification, Thermal Treatment (or Incineration) and Industrial Biogas. However one cannot simply implement one particular solution because he/she saw a working model in country X or Y. There has to be sound reasoning behind the choice. For example, Should we choose incineration as the primary disposal methodology when the damage caused through air pollution is greater? You only need to look into the air quality issues that China faces due to the smog caused by all its industrial emissions to realize the potential damage it could cause in Sri Lanka.

Similarly each technology has its pros and cons – and there has to be an unbiased review of each before deciding

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Towards a Greener Globe

A look at recent green initiatives taking place around the world

The city of Beijing plans to have 50,000 electric or hybrid vehicles on its streets by 2015. This will include at least 8000 public buses and 10,000 taxis.

In an agreement with Greenpeace, the Asia Pulp and Paper Group announced a new Forest Conservation Policy that puts an immediate end to all natural forest clearing in Indonesia.

Australia will start construction in January 2014 on the largest solar power station in the Southern Hemisphere, which will meet the electricity needs of over 50,000 average Australian homes.

General Motors was the first automaker among 40 U.S. corporations to sign a new climate declaration, asserting that responding to climate change is good business. Originally launched in April 2013 with the endorsement of 33 corporations, the Climate Declaration has now been signed by 40 businesses.

E-Waste Systems, Inc., an electronic waste management services, technology and reverse logistics company, announced the launch of its first project for the Caribbean, starting with Jamaica, to ensure full recycling and zero landfill of E-waste.

The world's largest offshore wind farm, the London Array, a 630 megawatt wind farm, which first started to generate power in October 2012, is expected to produce enough green electricity to power nearly half a million homes a year.

Britain has challenged Europe to sign up to an ambitious target of cutting carbon emissions by 50% by 2030. Ed Davey, the Climate Change Secretary, called on fellow EU governments to sign up to the target as part of a global climate agreement in 2015.

South Africa began its Green Car project as part of the government's effort to build a green economy and create jobs. Nissan is to introduce a 100% electric vehicle into the country; the Green Car Project is part of the government's pledge to reduce South Africa's greenhouse gas emissions by 34 percent by 2020.

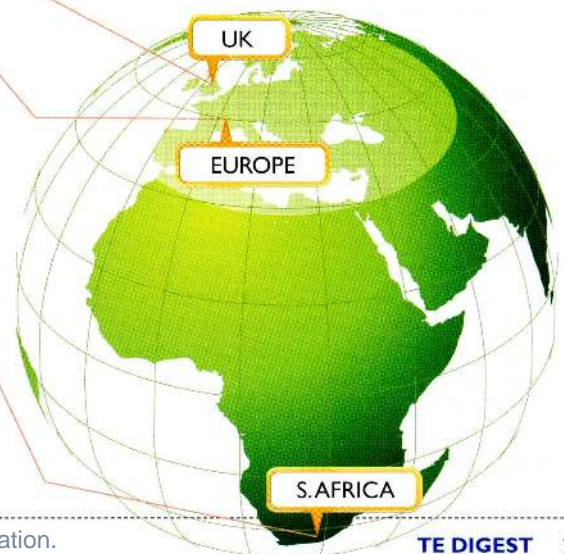




Image © Anuradha Wijesuriya (2012)

Organic Markets: Good Food & Good Economics

By Shynnen Sriranjana

The Global Outlook

Organic produce has become increasingly popular in the last few years and has rapidly expanded into a US\$62.9 billion industry worldwide¹. From 2002-2011, the industry grew by 170%². This surge has been brought about due to an increased demand by consumers who either consider it an important, healthier option or those who

are seeking environmentally-friendly products. This demand has helped both local and international markets for organic produce to flourish.

Organic farming is essentially 'green' agriculture that relies on natural techniques such as crop rotation, biological manure, compost, and biological pest control. It uses fertilizers and pesticides that are not manufactured

artificially but are all-natural. The International Federation of Organic Agriculture Movements (IFOAM) has established international standards for organic produce which many countries, including Sri Lanka, adopt. The IFOAM international standards are used to ensure that exported organic products meet the globally required criteria.

Sri Lankan producers and consumers are now progressively embracing the concept of organic farming. This has given rise to our very own organic market, a one-of-a-kind initiative in Sri Lanka called The Good Market, Colombo. It is a 'natural foods' market that specifically aims to provide a platform for producers and consumers of organic products, fair-trade handicrafts, natural health and beauty products, non-toxic home and garden products, handmade original art and specialty food and snacks.

This 'green' produce has become sought after due to its long- and short-term environmental benefits. The use of sustainable farming methods ensure that harmful waste arising from synthetic fertilizers and pesticides is avoided. This also means that organic farming is far less aggressive in polluting lakes, rivers and other water bodies. Avoiding chemical use not only makes crops safer for farmers and animals but also helps to enrich the soil. Due to the growing concerns related to the environmental impact of agriculture many consumers are beginning to choose organic produce. Global consumer sales of organic goods have increased by 7.9% from 2008 to 2009 and this grew by a further 9.2% in 2010³.

Another contributing factor to the vast expansion in demand is due to the positive health aspects of organic produce. According to a study by Newcastle University in the UK (2007) organic produce contained 40% higher levels of nutrients such as vitamin C, zinc and iron⁴. More consumers are now opting for organic produce due to its health benefits.

Meeting the demand

The expanding demand, especially in the Western economies, has paved the path for an increase in the export of organically produced food. The organic food market in the US alone is set to grow at 12.2% on average between 2010-2014⁵. The fruits and vegetables segment is said to account for 38% of the total organic food market.

Currently, approximately 80% of the total number of organic farms in the world is located in developing countries⁶. The countries having the most amounts of organic producers are India (547,591), Uganda (188,625), Mexico (169,570) and Tanzania (145,430)⁷.

Several of these countries also have large organic export bases. For instance,

India exported 115,000 metric tons of organic products valued at \$360 million in 2011-12⁸. In Uganda, where there is no significant domestic market for organic goods, the target export market is Europe and North America. Its export potential has thrived further due to organizations such as Export Promotion of Organic Products from Africa (EPOPA) which has projects in Uganda, Tanzania and Zambia. The main aim of EPOPA is to give African farmers a better livelihood by developing local and international organic markets. The spread of this global industry brings to light the growing demand for 'green' produce and the attempts of different countries to cater to the burgeoning demand. The export of organic products is considered particularly beneficial as it exploits the country's export potential while having a positive impact on the environment.

Constraints

Meanwhile, there are some unique challenges to the costs and logistics of moving locally- or regionally-produced organic food to the global market. Since organic produce is grown without the aid of pesticides and other chemical preservatives, it means their shelf-life is shorter. This makes it difficult for countries in the South Asian region to export to major markets in the West. Therefore, countries like USA, Germany, Canada and France prefer to reach out to their respective local organic farming communities first, before importing from other countries.

Another concern from the perspective of developed countries is that produce from small farmers in developing countries may not be created under true 'sustainable' conditions which are hard to monitor effectively, as they may be hard to effectively monitor. Most small-scale farmers in developing countries choose organic produce as the minor

produce, as it is insufficient to bring in a lot of revenue; many farmers also grow crops using traditional methods in the same area without effective measures of separation. This automatically eliminates them from having 'export quality' organic produce as they are unable to adhere to the strict global criteria. In addition to this, USA and Japan also have their own standards when importing organic produce. These barriers mean that the number of small-scale farmers that can access global markets is limited.

The organic industry in Sri Lanka

Sri Lanka is yet to establish itself as a key exporter of organic produce globally - currently only 0.75% (19,469 hectares) of our agricultural land has been committed to organic agricultural practices so far⁹. Sri Lanka currently exports organic products such as tea, coconut products, spices, fruits, kithul treacle and bee's honey-based products. Sri Lanka however has a strong reputation as one of the leading sources of organic tea and other spices for over 20 years - a platform on which to build on.

The main destinations for Sri Lankan organic exports are USA, UK, Germany, Italy, France, Japan, and Canada. A UNESCAP report (2006), stated that Sri Lanka is considered one of the major organic producers in Asia. According to IFOAM and the Research Institute of Organic Agriculture (FiBL) statistics, Sri Lanka produced 41,129 metric tons of organic produce in 2010¹⁰. This is 5.1%, a minute fraction, of the total agricultural produce that year of 800,000 metric tons. Nevertheless, the Ministry of Agriculture has provided funds for starting projects to promote organic farming further, with an ultimate goal of exporting them with the necessary certifications.

Sri Lankan producers and consumers are now progressively embracing



the concept of organic farming. This has given rise to our very own organic market, a one-of-a-kind initiative in Sri Lanka called The Good Market, Colombo. It is a 'natural foods' market that specifically aims to provide a platform for producers and consumers of organic products, fair-trade handicrafts, natural health and beauty products, non-toxic home and garden products, handmade original art and specialty food and snacks. The Good Market, which takes place every Thursday at the Diyatha Uyana Market Stalls in Battaramulla, initially consisted of just 15 vendors in December 2012, but has rapidly grown to over 70 since then.

Organic foods are yet to receive very high demand in Sri Lanka. Right now, consumers place price over 'goodness'. However, the number of consumers at the organic stalls certainly promises a more positive outlook. The demand for

organic produce in the Good Market is very impressive, highlighted by the fact that most of the organic produce is sold out by 2 o'clock.

The Good Market has a few stalls like Three Star Farms, Islander, Sunmark, Ceylon Spice and Saaraketha that provide 100% organically produced fruits and vegetables. Of these only two organic stalls in the Good Market export: Saaraketha and Ceylon Spice. Currently, these vendors are unable to meet the increasing demand for organic food in Colombo so exporting on a large scale is difficult. However, with some financial and institutional support, this could be made impossible.

Sri Lanka is already at an advantage as it has diverse climatic conditions within the country. This enables the country to cultivate a range of organic products from tropical to temperate. In addition to this, due to our rich agricul-

tural heritage, Sri Lanka has a traditional agricultural knowledge that is very much in line with organic farming practices.

Ventures such as The Good Market have begun to provide impetus to local individual farmers, but Sri Lanka's full potential to support and expand its organic industry is yet to be realized. There is a growing interest in organic produce around the world and Sri Lanka should take advantage of this. The country's climate, natural environment and traditional farming knowledge can help tap into this global market.

Endnotes

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Inside IPS

A recent addition to the IPS team, Chatura Rodrigo, worked previously at the UN and is now a Research Economist at IPS. Shynnen Sri Ranjan (Project Intern) interviews Chatura to find out what compelled him to make the switch and what his experience has been like so far.



How long have you been at IPS? Where were you before you came to IPS?

I joined IPS in January 2013. I graduated from the University of Peradeniya with a BSc in Agriculture Economics. Soon after my graduation I joined United Nations (UN-FAO) as a Programme Officer. I was with the UN since late 2007. During my time there I also completed my MSc in Environment Economics at the University of Peradeniya. From 2008 to 2010 I worked as a Graduate Research Assistant with the University of Guelph, Canada. I completed my second masters in Food Agriculture and Resource Economics from University of Guelph in Canada. When I returned in 2011, I joined the UN again as a Research Specialist till I started working at IPS.

What made you make the switch?

As a Researcher, I wanted to do publications. But with the UN I only had limited opportunities to publish independently. Even though I was part of many research projects they were mostly internal so the opportunity to emerge as a researcher was limited. IPS is the opposite, where researchers have much more opportunities to be published either through core research or independent research.

How has your experience at IPS been so far?

The experience has been wonderful. I had the opportunity to be a part of a brilliant research family and there is so much to share and learn. I had several opportunities to contribute to larger research projects. I also had the chance to write several significant articles to local newspapers on some of the hot topics, such as climate change and E-waste management. I was fortunate to take part in several training programs and many conferences. I think I have been given many opportunities to develop an identity for myself as an economist and I believe I have been successful in capitalizing those.

How would you describe yourself in 3 words?

Professional, competitive, responsible

If you could stop one contributing factor to climate change what would it be and why?

I drive a lot. I consume close to 40-50 liters of petrol per week. That's close to 200 liters of petrol per month and I believe that is a lot of greenhouse gases. I would definitely like to shift to a hybrid car. If you drive slow, say below 70 Km/hour, you can easily cut down your petrol consumption by more than 80%, which I think is a significant contribution to climate change. At the moment, I drive a petrol car, but I am planning to shift to a hybrid in the near future, so I can offset my carbon footprints. At the moment, some simple initiatives are that I have installed CFL bulbs in my household, which are again cutting down my energy usage significantly and I have also invested in planting trees.

What one book would you recommend to someone interested in finding out about environmental economics?

Natural Resource and Environmental Economics by R. Perman, Y. Ma, J. McGilvray and M. Common. The book is great since it is one of the most cited books and the explanations are easy to understand. It explains all the environment and natural resource economics concepts and you can find plenty of examples. It is also a combined effort of four well respected natural resource economists so the writing is well focused and well explained. This book is recommended for BSc, MSc and even for PhD students.

In what ways do you personally try to minimize your carbon footprint?

I think I have told you some significant steps I am already taking. But there are many more and the question is what is affordable with our busy lives and income constraints. One is the 3R concept which is to reduce, reuse and recycle. Also, simple things such as switching off lights when you leave a room, taking advantage of natural lights as much as possible, making compost, using recyclable bags for shopping and maybe also buying food items which are produced through organic initiatives. I have tried all of these to a large extent, but buying organically produced vegetables is not always possible. The rest is quite manageable.

IPS NEWS

Launch of the IPS latest publication 'Climate Change Issues in Sri Lanka'



Launch of the IPS latest publication 'Climate Change Issues in Sri Lanka', took place at the IPS Auditorium, on 14th February, 2013. The newly appointed Minister of Environment and Renewable Energy, Susil Premajayantha was Chief Guest at the occasion. Executive Director of the IPS, made the opening address. A review of the report was done by former Deputy Governor of the Central Bank, Mr. W. A. Wijewardena. Dr. Athula Senarathne, Head of the Environment Economics Policy Unit of the IPS, and Chatura Rodrigo, Research Economist at the IPS, made presentations on the potential offered by the CLIMATEnet blog in terms of networking, communicating, and disseminating information related to climate change impacts in Sri Lanka, its development efforts, and its effect on policy.



Launch of the Report 'Migration Profile: Sri Lanka'

IPS together with the Ministry of Foreign Employment Promotion and Welfare launched the Report 'Migration Profile: Sri Lanka' on 7th March 2013, at the IPS Auditorium, under the patronage of Hon. Dilan Perera, Minister of Foreign Employment Promotion and Welfare. The opening address was given by Dr. Saman Kelegama, Executive Director IPS where he highlighted the importance of migration for the Sri Lankan economy and the need for a Migration Profile to develop better policies to govern migration in Sri Lanka. The Minister in his speech stated that he would like to see the Migration Profile providing the foundation for the preparation of an Annual Migration Report of Sri Lanka to be released every year on the 18th of December – International Migrants Day.

World Consumer Rights Day Forum

The World Consumer Rights Day Forum took place on the 15th March at the IPS Auditorium. The Forum was jointly organized by the IPS and Federation of Chamber of Commerce & Industry of Sri Lanka (FCCI) and was sponsored by "Socio-Economic Development for Conflict Affected Communities of North and East Sri Lanka" Project funded by EU and Implemented by Oxfam GB.



Southern Voices on Post-MDGs, Dhaka Expert Group Meeting – Setting the Agenda

An Expert Group Meeting was held to discuss post-MDG agenda and identify a set of activities to be undertaken by the Southern Voice of Post-MDG in 2013 and 2014. The meeting was organized by CPD Bangladesh with the participation of experts from several Southern Think Tanks under the Think Tank Initiative (TTI). The three day event, from 11-13 January, took place at the BRAC Inn, Dhaka, Bangladesh.

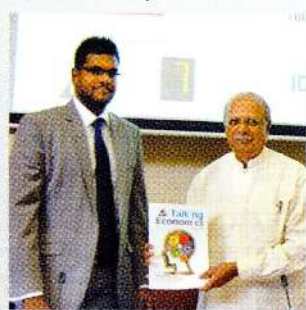
The 3rd Regional Meeting of the Think Tank Initiative (TTI) and Resource Mobilization Workshop

The IPS -- a Think Tank Initiative (TTI) grantee of the International Development Research Centre (IDRC), Canada hosted the 3rd TTI Regional Meeting and Resource Mobilization Workshop, from 13th to 17th March 2013 at the Club Palm Bay, Marawila, Sri Lanka. Representatives from the 16 TTI grantee institutions in South Asia, donor agencies, and IDRC officials were in attendance.



Igniting the Power of Innovation in Sri Lanka

A seminar and panel discussion on 'Igniting the power of innovation in Sri Lanka' was organized by the IPS in collaboration with the National Science Foundation (NSF) on the 12th March 2013. The Keynote address was delivered by Chief of Research and Innovation at Sri Lanka Institute of Nanotechnology, Prof. Gehan Amaratunga, while the discussion was presided over by chief guest, Hon. Senior Minister for Scientific Affairs Prof. Tissa Vitharana. Welcome remarks were made by Dr. Saman Kelegama Executive Director of the IPS and Prof. Sirimali Fernando, Chairperson of the NSF.



Lecture on 'New Directions for Sri Lankan Foreign Employment'

A lecture on 'New Directions for Sri Lankan Foreign Employment', by Prof. Hisashi Nakamura, Professor of Economics, Ryukoku University, Japan, took place at the IPS Auditorium on 3rd April 2013. Prof. W. D. Lakshman, Chairman, IPS, made the introductory remarks. Dr. Lalithasiri Gunaruwan, Board Member, IPS and Dr. Saman Kelegama, Executive Director, IPS, were present at the lecture. Many distinguished personalities related to foreign employment and research staff of IPS were also present.

Workshop and the Launch of the 'South Asia Research Network on Employment for Inclusive Growth' (SARNEIG)

The workshop on 'South Asia Research Network on Employment for Inclusive Growth' jointly organized by the Institute for Human Development (IHD), UN-ESCAP, International Labor Organization (ILO) and the International Development Research Center (IDRC) was held at the India International Center, New Delhi on 21-22 May 2013.

South Asian Regional Conference on 'Participatory Approach to Address Non-Tariff Barriers in Regional Trade'

The South Asian Regional Conference on 'Participatory Approach to Address Non-Tariff Barriers in Regional Trade', took place during 11- 12th April in New Delhi India. The conference was organized by CUTS, Jaipur in collaboration with Asia Foundation in New Delhi, India. IPS was the Sri Lankan partner for both the Phase I and Phase II of the COECOSA Project.



6th South Asia Economic Summit to be Sri Lanka's first CarbonNeutral® Conference

IPS obtained global CarbonNeutral® certification for the 6th South Asia Economic Summit that it is hosting in September this year. The press briefing in this regard took place on 30th April 2013, at the IPS Executive Lounge. The IPS worked in partnership with the Carbon Consulting Company (CCC) to obtain the 'CarbonNeutral®event' certification from The CarbonNeutral Company, UK. The Summit will be held at the Cinnamon Grand Hotel from 2nd – 4th September 2013. More details are available on the website: www.ips.lk/saes2013.



Launch of the UN-ESCAP Economic and Social Survey of the Asia and the Pacific – 2013

The United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP) organized several global launches for the Survey Report on the 18th of April 2013, with the Sri Lankan launch taking place in partnership with the IPS and the United Nations Information Centre (UNIC). Chief Guest at the event was Chairman of the IPS, Professor W.D. Lakshman, commended the UN-ESCAP report for continuing to press for inclusive and sustainable growth. Reiterating these sentiments, Executive Director of the IPS, Dr. Saman Kelegama, went on to make a presentation of the Sri Lankan outlook, as derived from the UN-ESCAP report.

Regional Conference on "South Asian Economic Integration- A Strategic and Economic Appraisal"

The conference was organised by the Regional Centre for Strategic Studies in partnership with the IPS and the Konrad Adenauer Stiftung during 11-12th June 2013.



Training Programme on Transformation of Supply and Use Tables (SUT) to Symmetric Input-Output Tables (SIOTs): Miloda Institute

Executive Director, IPS, addressed the inaugural session of the Training Programme on Transformation of Supply and Use Table to Symmetric Input-Output Tables at the Miloda Institute on 3rd April 2012. The Director Generals of the Department of Census and Statistics (DCS) and the Department of National Planning (DNP) and the Chief Economist of the ADB in Sri Lanka also addressed the gathering. The IPS played a key role in preparing the Input-Output Tables based on the year 2000 and these Tables were published in 2005. Subsequently, IPS has been making attempts to update the Tables with the support of Prof. Jayathilake Bandara of the University of Griffith, who was the principle researcher for the 2005 publication. With the technical support of the ADB this became a possibility and together with the other institutions – DCS, NPD and Miloda Institute -- the training workshop was organized during 3-5 April 2013. Chandana Karunaratne and Raveen Ekanayake from the IPS participated in the programme.

Anushka Wijesinha, Research Economist, IPS, Highlighted in in Echelon Magazine's '40 Under 40'

Echelon – A monthly magazine which covers in depth, Sri Lanka's most successful businesses examines their winning strategies and profiles their leaders in immersive stories. In its '40 UNDER 40' Feature, Echelon highlights young innovators, disruptors, thought leaders and builders of businesses who touched the lives of people all over the world by creating jobs, influencing actions and developing new ways of doing things. IPS staff member, Research Economist, Anushka Wijesinha has been selected as one among the forty.

International Conference on 'Mainstreaming Migration to the Development Agenda: The South Asian Experience'

International Conference on 'Mainstreaming Migration to the Development Agenda: The South Asian Experience' was organized by IPS together with FES (Friedrich Ebert Stiftung), during 13-14 June, 2013. Following the launch of the Sri Lanka Migration Profile earlier this year, this international conference was organized to explore the feasibility of mainstreaming migration policies in to the broader development agendas of the region.

Improving Women's Labour Force Participation in Sri Lanka

Despite being a middle income country, and having exemplary social development levels when compared to its regional peers, Sri Lanka has one of the lowest rates of female participation in the workforce in the world. In a recently concluded study by the World Bank, this fact was further explored and recommendations were made based on the findings of the study. The presentation of the findings of this study was done at a forum discussion organized by the World Bank and the IPS.



GDN 14th Annual Global Development Conference on 'Inequality, Social Protection and Inclusive Growth' – Manila, The Philippines (19-21 June 2013)

The IPS organized a session on 'Social Protection for Inclusive Growth: Issues and Challenges' at the 14th Annual Global Development Conference on 'Inequality, Social Protection and Inclusive Growth' organized by the Global Development Network (GDN) in partnership with the Asian Development Bank, the East Asian Development Network and the Philippine Institute for Development Studies, held at the Asian Development Bank headquarters in Manila, Philippines from 19-21 June 2013.

Launch of the "Handbook on the India-Sri Lanka Free Trade Agreement" in Sri Lanka

In an event jointly organized by the Indian High Commission and the IPS on the 15th of May, the 'Handbook on the India-Sri Lanka Free Trade Agreement', was launched in an effort to increase awareness of, and reduce misconceptions regarding the Free Trade Agreement signed between the two countries in 1998 (and came in to force in 2000). Handing over the first copy of the publication to Chief Guest at the event, Minister of Industry and Commerce, Hon. Rishad Bathiudeen, H.E. the High Commissioner of India, Ashok K.



STATE OF THE ECONOMY 2013

SNEAK PREVIEW

What is the State of the Economy (SOE) Report and how does it differ from other annual reports that also look at Sri Lanka's economic performance?

The Sri Lanka: State of the Economy is the IPS' annual flagship report that provides a rigorous analysis of Sri Lanka's economic performance and outlook in the short term, and explores emerging medium to long term socio-economic development challenges and the policy options to address them.

It is very distinctive from other reports. A majority of reports that take up economic issues on Sri Lanka focus either on analyzing only one specific issue, or are descriptive statistical compilations. The IPS' report on the other hand takes a broad view of the gamut of socio-economic policy issues and frames the analysis around a different thematic area each year. In recent years, for example, the report has discussed the policies that need to be implemented if Sri Lanka's post-conflict economic growth and development drive is to be inclusive and sustainable. The IPS is able to take this broad view because of the breadth and depth of its research programme and its in-house research expertise. Importantly, the report is well recognized as being objective and independent in its analysis.

Give us a sneak preview of some of the key areas the SOE 2013 touches on?

As in the past, this year's report analyses Sri Lanka macroeconomic performance and stability of its growth prospects in the short term, in the context of global economic developments – particularly in relation to the outlook for international trade.

Linked to the above, the thematic focus of the report is on the medium term policy challenges for Sri Lanka as it aims towards a transition

from a lower-middle income economy to an upper-middle income economy. This will require Sri Lanka to accelerate and sustain a higher rate of economic growth than in the past. When countries are growing fast, there is a significant absolute upward economic mobility that can bring about structural social changes. The report, therefore, looks at Sri Lanka's emerging 'global middle class' and some select areas for policy attention in detailed chapters – enhancing the economic role of youth, providing better social protection to the needy, reducing vulnerabilities from climate change impacts, etc. – that will allow the country to take advantage of the opportunities as well as mitigate existing drawbacks. Related issues – such as the role of women in the workforce, emerging health challenges, financing social investment spending, etc. – are also explored through a series of policy briefs. The report will, therefore, touch on many economic policy issues that are critical for the country to successfully make the additional leap to become an upper-middle income economy.

The 2013 edition of the annual flagship publication of the IPS, *Sri Lanka: State of the Economy*, will be launched in October.



Interview with Dr. Dushni Weerakoon
Deputy Director

Can we say "YES/NO" to GM Food?

Following the article *Fran-ken foods: A Sri Lankan Perspective of the Inevitable Rise of Genetically Modified Foods* posted on IPS blog in February 2013, IPS also hosted a Round Table Discussion on the 9th of May on the subject of GM Food at the IPS Conference Room. The Discussion included four experts in the field and IPS research staff. The five discussants were: Ms. Dilani Hirimuthugodage (Research Officer, IPS), Dr. Ananda Jayalal (Director, Environmental Occupational Health and Food Safety, Ministry of Health), Ms. P. Abeykoon (Director, Biodiversity Division, Ministry of Environment and Renewable Energy), Dr. Amanda Kiessel (Programme Director, Sewalanka Foundation) and Mr. Hemantha Withanage (Executive Director, Centre for Environmental Justice).

Dr. Ananda Jayalal spoke about the health impact of GM food. He highlighted that the Sri Lankan government doesn't have properly built laboratories with

advanced technology to conduct GMO testing. As a result, Sri Lanka does not have the facilities to provide evidence to indicate that local markets in Sri Lanka contain GMOs. He also highlighted the present legal procedure of GMOs. The Extra Ordinary Gazette to the Food Act No: 26 of 1980 require that all importers give a declaration stating that their consignment does not contain any GMOs. But beyond this there is no present course of action to ensure that GM food brought into the country are regulated.

"We don't have any proven facts to say that the Sri Lankan markets have GM food."

Mrs. P. Abeykoon discussed the environmental impact of GM food and the Biosafety Act. She broadly explained the impact of GMOs to the prevailing environmental system. "GMOs could be positive or negative", however, we are not yet sure of how cross-pollination with pollens from GM plants will change non-GM plants. She stated that "it is too early to give a concrete answer on whether GMOs are good or bad for the environment".

"It is too early to give a concrete answer whether GMOs are good or bad for the environment."

Dr. Amanda Kiessel's perception was that Sri Lankan markets do in fact, have food containing GMOs with no labeling. She stated that "most of the imported processed food from America includes GM ingredients" like modified food starch, high fructose corn syrup, soy lecithin, isolate, isoflavone and canola oil. Responding to Dr. Jayalal's comment on lab facilities in Sri Lanka she argued that "in most cases, we shouldn't need lab testing to determine what products have GM ingredients. Lab testing of end products isn't necessary if the supply chain is clear".

"Lab testing of end products isn't necessary if the supply chain is clear."

Mr. Hemantha Withanage referred to one of his own surveys done in the early 2000s which also "found that we have GM food in the market". He pointed out that it is the consumer's choice to select GM food but the most important factor to consider is that proper labeling of

these products is carried out. This is not done in Sri Lanka and this leaves the consumer with very little knowledge of the products they consume. Mr. Withanage highlighted several failed attempts made by him to take the issue of labeling GMOs to the legal sphere.

"It is consumer's choice to select GM food or not."

Dilani Hirimuthugodage explained the importance of GM food from an economic perspective. "In pure economics terms GM food is good for Sri Lanka as it increases the available food stock". However, she further stated that "despite these economic gains there is continued debate on the subject. GM technology will definitely increase production but there are externalities to consider. GM food could be positive or negative but it is important to find a balance between production needs and the negative externalities.

"In pure economics terms GM food is good for Sri Lanka as it increases the available food stock."

FAST FACTS

FROM JANUARY TO JUNE 2013

512,281 21

Sri Lanka crossed 512,281 tourist arrivals in the first half of 2013 (1H13) edging closer to the targeted 1.25 million arrivals by the end of this year.

Rs 850 m

In the backdrop of winning the '2012 National Quality Award' for Healthcare in the Large Scale category, Lanka Hospitals CEO LakithPeiris revealed that the hospital has invested Rs. 850 million on new labs around Sri Lanka and new tests as part of its plan to further improve the standard of healthcare provided at Lanka Hospitals.

Around 21 high-rise projects in Colombo with a total estimated investment of US\$ 4,284 million are at various stages of planning and development, a research report showed. Among these projects is the US\$ 400 million Shangri-La hotel, the country's first seven-star establishment.

8.8% 14 million

Inflation, as measured by the Colombo Consumers' Price Index (CCPI) (2006/07=100) and computed by the Department of Census and Statistics, increased to 7.3% on a year-on-year basis in May 2013 from 6.4% in the previous month. The inflation rate on an annual average basis remained unchanged at 8.8% in May 2013 as recorded in the previous two months.

Close to 14 million meals were served at the 2012 Olympic Games in London, where an Olympic village consisting of 10,500 athletes residing in 2800 apartments were catered with breakfast, lunch and dinner. Officials state that the athletes had consumed nearly 330 tonnes of fruit and vegetables throughout the duration of the games.

Rs 507 m

954,521 US\$ 2.5 million

BMW Group achieved its highest sales for the first six months of the year, with a total of 954,521 vehicles delivered worldwide, an increase of 6% over the same period last year. Sales in June also reached an all-time high with 184,489 vehicles sold worldwide last month, an increase of 6.9% over the previous year.

Oceanpick is set to embark on Sri Lanka's first ever oceanic farm for finfish this August with an investment of approximately US\$ 2.5 million. The project aims to focus on "responsible farming" of high quality marine fish, providing a platform to cater to a growing appetite for quality seafood without overly pressurizing wild stocks.

Aitken Spence-managed Elpitiya Plantations recorded Rs. 507 million as net profit before management fees for the 2012/13 financial year, its highest ever recorded. Profits soared by 194% from the previous year's figure of Rs. 172 million while revenue grew by 13% to Rs. 2.83 billion. The company's earnings per share rose by 201% to Rs. 6.20 and net assets per share recorded a growth of 23% to Rs. 33.51 from the previous year.

37,000 21.89 trillion yen US\$ 75mn

IFC, a member of the World Bank Group, is working with Sri Lanka's Credit Information Bureau (CRIB) to make it easier for up to 37,000 micro and small businesses to access loans and other forms of financing using movable assets as collateral.

Toyota has accelerated past South Korea's Samsung Electronics to become Asia's biggest company by market value, after the Japanese automaker's shares doubled in the past year. On morning of May 16, Toyota's market capitalization stood at 21.89 trillion yen (\$214 billion), beating out Samsung, which was worth the equivalent of 20.26 trillion yen.

Nepal's first Forbes billionaire, Binod Chaudhary has submitted a proposal worth of US \$ 75 million to the Sri Lankan government to set up a state-of-the-art cement plant in the Jaffna Peninsula, a statement issued by Chaudhary's office said. In Sri Lanka, Chaudhary has an estimated US \$ 200 million investment, including projects underway and proposed.

20% 144 million 17%

New green power initiatives could reduce Sri Lanka's greenhouse gas emissions by almost 20 percent by 2020, Sri Lanka's Industry and Commerce Minister stated, referring to the Asian Development Bank's (ADB) latest assessment on carbon footprint.

Following the heavy rains caused by the Indian Ocean cyclone, Sri Lanka's hydro power storage system received the highest inflows of water in a single day. The electricity that can be generated is said to be around 144 million units worth Rs. 3.2 billion.

Domestic savings in Sri Lanka are reported to be low at only 17% while the government has been borrowing excessively for consumption and mega infrastructure projects.

14,000 14%

HSBC could cut another 14,000 jobs as part of the next phase of its plan to cut up to \$3 billion more in annual costs and slim down. The bank said that its employee number could fall to 240,000 to 250,000 between 2014 and 2016, from 261,000 at the end of 2012.

Ceylon Tobacco Company reported a decrease in cigarette sales up to 14% this March quarter compared with last year due to challenging economic conditions. CTC further stated that Cigarette consumption in the country is witnessing a long term decline.

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Bank of Ceylon (BOC) launched its second US \$ 500 billion, 5-year Bond issue within a space of 12 months, drawing subscriptions exceeding US \$ 2 billion and close to seven times the amount targeted, official sources said.



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