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FOOD SECURITY, AGRICULTURAL SUBSIDIES, ENERGY, AND THE ENVIRONMENT: A PROCESS OF 'GLOCALIZATION' IN SRI LANKA

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ABSTRACT

This paper analyzes the interplay of policy dilemma in the areas of food security, agricultural subsidies, energy consumption, and the environment in the "glocalization" process of Sri Lanka. It demonstrates that the domestic agricultural and food sector is intricately interconnected with the global economy and world market forces. While this paper gives a primary focus on domestic rice production and wheat import policies, it further examines the environmental consequences and public health issues that are associated with the process of "glocalization" as part of globalization. This "glocalization" has led to a series of intended and unintended externalities for Sri Lanka whose economic integration is irreversibly linked to agricultural and subsidy policies of other food exporting and producing countries of Asia and the United States.

SRI LANKA IN THE GLOBAL ECONOMY

For millennia, Sri Lanka has been an active partner in world trade. During the time span of over 400 years of Portuguese, Dutch, and British colonialism which ended in 1948, the economy of Sri Lanka emerged into a distinct dual economy: the subsistence domestic agriculture fulfils most of the indigenous consumption needs while the export-led plantation economy earned the needed foreign exchange to import other necessary consumer and capital goods. With its strategic location, this island nation of nearly 19 million people in the Indian Ocean, which now serves as a trade transit port

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between East Asia and Western Europe, also enjoyed comparative advantage in international trade by maintaining the dual agricultural economy. At the time of political independence from the British in 1948, more than 80 percent of Sri Lanka's GDP consisted of domestic rice grown extensively in the Dry Zone of the north and northeast regions while the other crop production and the commercial plantation sector of tea, rubber, and coconut is intensively limited to the Wet Zone of the southwest quadrant of the island. In the ensuing decades, it is widely believed that the traditional sector is inefficient and backward while the export sector is perceived as a modern and efficient operation that has forward and backward linkages to other industries and services domestically and internationally. Thus, the commercial export-led agriculture (i.e., estate sector) is in favour among policymakers not only because it generates foreign exchange, employs a significant portion of the work force, and contributes to economic growth but is also an elitist form of agriculture (in association with British planters who prefer the mild climate in the mountainous areas of the southwest) compared to smallholder rice and other indigenous crop production in the Dry Zone.

Over the past 50 years, the dominant development paradigm also advocated that economic growth could be achieved by increasing the rate of growth of GNP and by promoting export-led development strategies. With these strategies, it is assumed that the problems of development and modernization can be overcome by transforming traditional subsistence societies into modern economies. Among development economists, Walter Rostow (1960) proved this empirically by demonstrating the stages of economic growth of the Western development path while Arthur Lewis (1954 and 1955) explored it by absorption of excessive rural labour supply into modern economic activities in order to achieve a higher rate of growth. Other economists, including Gustav Ranis and John Fei (1964), also viewed the concept of rural labour surplus as an inherent problem of unemployment and economic growth. Ragnar Nurkse (1953) described that the "vicious circles" are an inhibited factor in traditionally rigid societies like Sri Lanka and prescribed that they must be broken by a "big push" from foreign investment and technology to achieve a higher level of economic growth.

In the 1950s and 1960s, economic growth was defined by the rate of GNP, not by the GNP per capita change. It was much later the variant of per capita was captured as an economic indicator. The notions of poverty and income distribution were not part of this economic thinking at all. The Britton Woods Institutions (i.e., the World Bank and the International Monetary Fund) for these years widely shared the economic growth paradigm and advocated free market economics as a mechanism for economic development. With the highly emphasized success of the East Asian countries, Sri Lanka was then convinced to adopt such open market policies and to liberalize trade and foreign exchange regimes in 1977. Sri Lanka was the first country to adopt such policies among other SMRC (South Asian Association for Regional Cooperation) countries of Bangladesh, India, Maldives Islands, Nepal, and Pakistan. It was a marked departure from the previous policies of an inward-looking, self-sufficient, stateled import substitution approach to development in the South Asian region.

During the 1970-77 period, the explicit goal of the socialist government was to achieve economic equity and social justice. The Land Reform Laws of 1972 enforced a ceiling on private rice land holding at 25 acres (10 hectares) and mixed holding at 50 acres (20 hectares) where rice-paddy and other crops were grown. As a result of this legislation, the Land Reform Commission acquired 560,000 acres. In the second round of the land reform policy in 1975, the government nationalized all estates (tea, rubber, and coconut) from large private companies and kept a maximum ownership at a 50-acre ceiling. From 1972 to 1975, more than 60 percent of perennial tree croplands were transferred to public ownership. While the government owned and managed the nationalized estates exclusively by two large public corporations (the Janatha Estates Development Board, JEBD and the Sri Lanka State Plantation Corporation, SLSPC), about 115,000 acres of acquired lands (about 12 percent) were distributed in small plots to about 350,000 families who were landless or poor. The multi-purpose massive Mahaveli River Development Program (similar to the Tennessee Valley Authority, TVA, in the United States) was then planned to generate electricity, to irrigate paddy lands, and to achieve self-sufficiency in rice production. To protect local small farmers, rice import restrictions were enforced. A dual foreign exchange system was also introduced to discourage import with an over-valued exchange rate and to encourage export with an under-valued foreign exchange rate. An aggressive government involvement in economic and trade affairs was the norm during this period. The annual GDP per capita during 1970-77 grew only by 2.4 percent compared to 5.3 percent during the relatively open economic regime in 1965-70.

With the introduction of the 1977 open market policies and trade liberalization, it was assumed that economic growth would be accelerated and the level of unemployment would be reduced The new economic policy was designed to develop an entrepreneurial class and to revitalize the stagnated economy with a free market economic engine and the private sector involvement in economic activities in pricing, foreign trade, direct investment, and exchange rate regimes. With these policies, the annual GDP growth rate increased up to six percent during 1978-80 and remained closer to five percent until 1985. Since then, the annual average growth rate calibrated between five and six percent. With internal shocks from the civil war in the Northern and Eastern provinces and other political conflicts with extremist groups in the Southern provinces, the national defence expenditure grew while the macroeconomic imbalance emerged to reflect negatively in foreign exchange reserves, debt service, and the balance of payment. Yet, it was expected that poverty would be alleviated, a better income distribution would be fostered, and unemployment would be reduced like other East Asian countries. Though the liberalized economy was able to withstand external and domestic shocks better than the previous regime, the intended policies seemed to be biased in favour of the affluent class and foreign investment. The annual average GDP growth still continued at 4.2 percent during the 1980-90 period and 5.4 percent during 1990-94. The growth rate remains around five percent during the 1990-98 period. This economic growth encompassed in the increase of industrial output from 4.6 percent in 1980-90 to 7.5 percent in 1990-94 while the agricultural sector declined from 2.2 percent in 198090 to 2.0 percent in 1990-94 (*World Development Report*, 1996: Table 11 on p. 208). Correspondingly, the domestic energy consumption also shifted: the sources of electricity, for example, in terms of imported oil consumption of 11.3 percent in 1980 changed to 33 percent in 1997 in the industrial sector while the percentage of hydropower decreased from 88.7 percent in 1980 to 67 percent in 1997 to accommodate the growing industrial output for export (World Development Indicators, 2000: p. 148).

With this background, the paper highlights the interlocutory dynamics of deliberate global policies of the World Bank and the IMF and unintended market forces of multinational corporations that led to this powerful globalization process in Section II. Section III provides an analysis of food security policies of Sri Lanka and the influence of global market forces and the policies of the West, especially by the United States. Section IV examines the impact of agricultural subsidies and poverty alleviation in Sri Lanka. The article concludes by advocating the importance of well functioning statecraft in the midst of the "glocalization" process in Section V.

II. THREE PILLARS OF GLOBALIZATION

Sri Lanka's open and industrial economic policies were infused by the irreversible process of globalization. This globalization has been accelerating since early 1980s due largely to three global processes:

- The World Bank and IMF have consistently pushed for structural adjustment programs to remove economic and trade barriers among nations and to stabilize the increasing free exchange of monetary flows for a global financial equilibrium among countries in order to better facilitate world trade and capital transfers.
- The democratization of Eastern European countries and the former Soviet Republics has opened new economic opportunities for those new nations to engage in the global economy.
- The marriage between telephones and computers gave rise to accelerate the Information Revolution and to share information freely within and among sectors and countries around the world.

From the interplay of these primary global forces, the private sector (i.e., multinational corporations, MNCs) and the civil society (i.e., the NGOs community) gained an unprecedented prominence over the state sector as the engine of economic development and global information technology. The emerged role of governments is to facilitate the private sector development by reforming economic policies and trading regimes such as NAFTA and the proposed SAFTA (South Asian Free Trade Area) under SAARC. Sri Lanka has actively engaged in this process over the years and it has been the pioneer in South Asia.

III. ANALYSIS OF FOOD SECURITY POLICIES AND THE ENVIRONMENT

In Sri Lanka, as it was in the past, the labour-intensive agricultural sector is still the most prominent sector in the economy. It employed 48 percent of the labour force in 1990 (52 percent in 1980) and contributed to 24 percent to GDP in 1994 and 21 percent in 1998 (28 percent in 1980).[1] The decline in labour force and GDP does not necessarily suggest a transfer of rural surplus labour to the urban industrialized sector

[1]*World Development Report* (World Bank) and *Human Development Report* (UN Development Programme).Various Issues, 1990-2000.

with the introduction of the open market policies and the establishment of free trade zones in Colombo and its vicinity. The urban population remained relatively unchanged at 22 percent for several decades. This is a salient feature of Sri Lanka compared to other East Asian economies. In the industrialized East Asia, the composition of agricultural and industrial sectors in the GDP has changed rapidly as the urban population increased (Mendis, 1995: Figure 3 on p. 15). For over two decades of industrialization push, Sri Lanka's rural population structurally remained at the same rate as it was 50 years ago.

The land use area in cropland has, however, increased from 10 percent in 1980 to 29 percent in 1993.[2] The distribution of cropland by the tree crops plantation sector of tea, rubber, and coconut was 54 percent and the nonplantation sector, which primarily includes rice-paddy cultivation, was 25 percent in 1989-91. The plantation sector is primarily export-oriented. Other crops such as sugarcane, onion, potatoes, chilies, and maize for which Sri Lanka is a net importer was six percent while the minor tree crops (like cinnamon and cardamom) for export was 12 percent. The other remaining crops for domestic consumption was four percent. Due in part to a series of Land Reform Legislation, Sri Lankan agriculture can be characterized as smallholding. There is no land over 50 acres (20 hectare) owned by a family. According to 1982 Agricultural Census, about 94 percent of holdings were less than five acres and they occupied 73 percent of the total paddy lands.[3] Other lands over 50 acres were owned by the government. The land ownership and property rights are still major issues in agriculture.[4] Under the accelerated Mahaveli River Development Program, the government has begun to distribute lands to farmers. By 1992, over 144,000 families had been settled in 105 schemes under this Program. Every family was entitled to have an irrigatable land for rice cultivation and highland for other crops (Gunatilleke, 1992). The government has also introduced schemes to lease out land to private farmers and private entrepreneurs.

As emphasized earlier, it must be reminded that Sri Lanka had a long-standing policy in pursuing a rice self-sufficiency strategy. The consecutive post-colonial governments have encouraged farmers to devote irrigated land for rice cultivation. In ancient Sri Lanka, the rice cultivation was the model of indigenous development where the Tank (reservoir for irrigation) and the Dagaba (Buddhist temple for moral and spiritual development) were considered the other two pillars of human development.[5] For many decades, the government provided land for landless farmers under the 1935 Land Development Ordinance. Other legislation was later added to govern the distribution of smallholdings to landless farmers. The Agrarian Act of 1979, which made it illegal for farmers to grow other than rice in paddy land, was

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[2]*World Development Report 1996*, (World Bank), Table 9 on p. 204.

[3]This is the most recent census on agriculture in Sri Lanka.

[4]It is estimated that the government owns about 82 percent of all land and about 45 percent of the total cropland in the country.

[5]The ancient irrigation technology in Sri Lanka is well noted. To recognize this, the International Irrigation Management Institute (IIMI), a global institution as part of the Consultative Group on International Agricultural Research (CGIAR), headquarters in Sri Lanka.

amended at the recommendation of the World Bank in 1991 in order to make it competitive to use the land for other profitable crops such as vegetables and fruits for export and domestic markets.

With these guided strategies, Sri Lanka has arrived at nearer self-sufficiency in rice and has imported only about 10 percent of total domestic consumption. The prices of imported rice at free trade import parity prices in the world market, are generally lower than the domestic prices at wholesale and retail levels. It is, therefore, argued by the World Bank that the rice self-sufficiency policy with import restrictions "benefits paddy producers" and "hurts rice consumers" (*Sri Lanka Poverty Assessment*, 1995: p. 47). The dominant free trade theory of comparative advantage advocated by the World Bank has laid the foundation that the global market forces should be allowed to operate in order to maximize the consumer welfare (not necessarily small producers). One way to achieve this is to remove the "restrictions on rice imports (which) tend to raise domestic prices of rice." The Bank's *Sri Lanka Poverty Assessment* (1995: pp. 47-48) report hence argues that the effects of import protection are "quite damaging to those among the poor who are not paddy producers" and "more poor households are being 'taxed' by the protection. Only about 5 percent of poor households would be negatively affected by a reduction of rice protection." Under this proposed World Bank free agricultural trade regime, it is recommended that "all quantitative import restrictions and the minimum wholesale price should be eliminated" (p. 48). It further recommends that "these reforms should be accompanied by government assistance to rice producers to help them increase their productivity in rice production and to assist them in diversifying into other crops and livestock products" (p. 48). In facilitating this domestic economic alignment with global market forces, there seems to be potential negative impact directly on local producers and consumers and indirectly on the environment from two fronts:

1) The domestic rice production, which has been subsidized by inputs such as seed, irrigation, and fertilizer, is not efficient enough to compete with low cost imported rice; therefore, it is advantageous for Sri Lanka to divert rice land into other export crops. If they were to increase the productivity of rice, farmers have to use more fertilizer, chemicals, high yielding varieties (HYVs), and other inputs which are costly.
2) The government involvement in rice marketing (and import as well) through the Food Commissioners Department (FCD) and the Cooperative Wholesales Establishment (CWE) prevent market forces to operate; therefore, these importing and distributing institutions should be eliminated and allow private companies to engage in these economic activities.

While the privatization strategy may create a more economic efficiency through private competition than the government monopoly, the rice diversification strategy for value-added export crops may lead to a greater economic, social, political, environmental, and cultural fallout than the anticipated comparative economic gains. Structurally, Sri Lanka's rural farming communities are still traditionally and ecologically linked to rice lands and to the indigenous farming culture. The millenniaold, multi-faceted integrated rice sector is an environmentally-tested sustainable system as it is the case for the centuries-old export-led plantation sector which is considered as the life-blood of the foreign exchange earner and the linkage to the global economy. The exposure to international competition and privatization effort of the plantation sector is a sensible strategy.

As far as the indigenous rice sector is concerned however, an operative framework for market economics to work domestically would enhance efficiency and productivity. The element of subsidies to domestic agriculture and its interplay with the international rice economy is further discussed below to address the policy dilemma for Sri Lanka within the globalized and subsidized rice economy.

Along with rice, other food import restrictions in quota have recently been eliminated for several important food commodities. It is recommended that quantitative import restrictions in addition to rice should be eliminated for wheat (and wheat flour), sugar, and milk. The importation of wheat and wheat flour is different from rice because Sri Lanka does not produce wheat but a monopolistic private firm (called PRIMA, located in the eastern coastal town of Trincomalee) processes imported wheat into flour which is distributed by CWE. Unlike rice, the import of wheat does not hurt domestic farmers directly. But any restrictions on wheat import would increase demand for rice consumption and thus its prices. As a net importer of rice, however, the impact on the increase in rice price may not occur as long as the restrictions on rice are removed or relaxed as well as wheat. Since there prevails a range of economic and political pressures derived from relatively low import prices of rice at the world market level and the increasing domestic demand for wheat and other food commodities, Sri Lanka has to deal with a dilemma as to whether domestic rice production should be protected (absolutely or selectively) or allow the free market mechanism to find its way in order to take benefits from the comparative advantage for the welfare of consumers.

In the past, the consecutive governments have explicitly been driven by achieving the rice self-sufficiency objective with heavy public investment in the Mahaveli River diversification and irrigation schemes as well as new farmer colonization projects. The Mahaveli River multipurpose program also generates hydroelectric energy for rural and urban sectors. Symbolically, Sri Lanka has exported shipments of rice to East Africa and to other countries. It seems unwise for Sri Lanka to change the potential of being a net exporter of rice in a foreseeable future. Recently, the International Rice Research Institute (IRRI) in the Philippines introduced a newer HYV of rice to further enhance the rice productivity in the southern part of the country.[6] Yet, Sri Lanka's food security is closely linked to global markets and to the American PL 480 program for wheat. Therefore, the pressure from the global market forces to open up the domestic

[6]It should be noted, however, that the Green Revolution was accompanied by negative externalities to small rice farmers with high input intensity at higher prices and environmental degradation and public health concerns. Many farmer organizations are being encouraged to cultivate rice organically. Some evidence suggests that organic rice cultivators could produce yield as same level as the non-organic farming with low cost. Furthermore, the IRRI laboratory experiments in the Philippines show that rice productivity of HYV is on decline or stagnated in the long run. Therefore, a push for a second Green Revolution should be advanced with caution given the environmental and public health issues related to high input intensity.

agricultural market seems to be inevitable. But, diverting rice land to other export crops to benefit short-term comparative advantage (unlike industrial goods) may not be the long-term solution to the food security situation in Sri Lanka.

Another World Bank report, *Sri Lanka Non Plantation Crop Sector Policy Alternatives* (1996: p. i), concludes that:

> Overall, Sri Lanka currently shows no comparative advantage in production in rice or OFC (Other Food Commodities) in either major or minor, irrigated or rainfed agriculture. Domestic production is much more costly than imports. Obviously, with appropriate amendment in the incentive structure for farmers and improvement in productivity, this will change. While not all rice production is non-competitive with imports, a large amount is.

The main argument here indicates that large subsidies to irrigation and rice-paddy would cost the taxpayers and the government in transfer of funds to benefit rice farmers at the expense of consumers. Rice farmers are in fact, according the Bank's analysis, "low-value crop" producers and rice consumers have to pay 30 percent more than world market prices of rice costing about $125 million per year for the national treasury. In sum, the Bank report concludes that the cost of supporting non-competitive domestic rice production is close to five percent of GDP; therefore, the removal of subsidies and the reduction in import of tariff on rice and other OFCs should be established for a free market to operate in order to benefit consumers, not rice producers. According to the *World Bank's Sri Lanka Nonplantation Crop Sector Policy Alternatives* (1996:p. ii), this provides rice farmers:

> The opportunity to phase into production of higher valued export crops. With a decline in rice prices, consumers will benefit, as will most small farmers because they consume more rice than they produce.

This consumer-driven supply-side economics may achieve the desired policy goals by the increase in rice import to meet the local demand at low world market prices. In Figure 1, Chart A illustrates this point that the global market price of rice at Pg which is lower than the Sri Lanka's domestic price at Ps in Chart B. With a lower price, the quantity of domestic consumption would increase from Qs to Qs2 by raising consumer welfare. At the same time, this would be a disincentive to domestic rice farmers and the quantity of domestic rice production would decrease to the level at Qs3 from Qs. Such a strategy of shifting of farming from "low-value rice" to "high-value export crops" would work under this linear economic theory. Yet, the anticipated danger in this policy prescription comes from two sides:

1) The already debtor nation of Sri Lanka with an increasingly high debt service ratio may run into foreign exchange difficulties if it continues to import while abandoning small farmers. This also derails the potential benefit of the massive public investment in irrigation infrastructure dedicated to rice farming. On the other hand, if domestic high prices of rice (at Ps in Chart B, for example) are to

be maintained, it would serve as an incentive for farmers to increase production in the short-run and to employ more people in the already surplus rural labour market. In the long-run, as domestic rice production increases, the competitive domestic market emerges to benefit consumers as well.

2) The low price imported rice may discourage farmers, as anticipated, and force them to find off-farm income avenues to sustain their rural livelihoods. Such displacement may be costlier than subsidies (toward this end, some reflections can be more useful as we associate with youth unrest and simmering violence in rural areas). It also raises the question: how and where will these poor farmers find competitive high-value crops? How long will that take? How long can they maintain that comparative advantage? And, are they ecologically sustainable in Sri Lanka?

In a policy blue-print titled *Sri Lanka in the Year 2000: An Agenda for Action* (1996: p. 19), the World Bank strongly recommends to diversify those rice lands into "higher value-added crops, in particular fruits and vegetables." To facilitate this scheme, it further recommends an agricultural land market reform whereby farmers are given property rights so that they could buy and sell their lands in an open market. Since the government owns closer to 50 percent of agricultural lands, the transfer of land to private ownership under the 1991 Agrarian Services Act would foster a fair land market system and would unleash the individual entrepreneurship. The underlying purpose of this scheme is, however, not to alleviate poverty among landless and marginalized small farmers, but rather to facilitate for private companies and large businesses to operate for export-led agricultural crops when the land markets emerge from the complex and complicated land tenure and ownership system. This will especially be true in the Mahaveli resettlement areas in the dry zone. Although the individual property and market system of land ownership are better served for small farmers than the government ownership, there still exists the same questions related to the comparative advantage of these crops over rice cultivation which need to be resolved. The validity of this policy recommendation may fade away if Sri Lanka begins to import low priced fruits and vegetables from neighbouring Asian countries whose government intervention in a form of subsidies and other incentives is more favourable to their export-oriented agricultural sector. The earlier strategies for self-sufficiency which were implemented in rice production with massive public investment in irrigation networks and hydroelectric power plants by the World Bank and other donor agencies may resonate the similar argument made here. Yet, the changing nature of globalized market needs presents Sri Lanka a policy challenge ahead.

One may still ponder as to whether a small agricultural nation like Sri Lanka would in absolute terms benefit from the agricultural globalization as opposed to the comparative advantage shown in industrial and technological globalization. A policy driven by global economics in agricultural crops compared to industrial goods seems to be illusive, especially when Sri Lanka is closer to self-sufficiency in rice and providing energy sources through the massive Mahaveli River project. More importantly, when protectionist policies and subsidized agriculture prevail in exporting countries with oligopolistic world agricultural system (with subsidy, price fixing, and other market manipulations), how could Sri Lanka expect to benefit from comparative advantage in the process of globalization? Under the Uruguay Rounds and GATT negotiations, agriculture has been widely debated with its complexities in US agriculture and the Europe's Common Agricultural Policy (CAP) with subsidies. Yet, an aggressive shift from rice farming to higher value crops appeared to be an attractive alternative based on neo-classical economics reasoning and logic but such a policy option should be considered within a larger framework of national interest and the nature of subsidies and protectionist agricultural policies of rice (and wheat) in exporting countries. When and if those countries' rice producers are subsidized, the market prices at the world market have already been distorted. The global rice market price, shown in Chart A in Figure 1 for example, is not necessarily the free market price. a various form of subsidies and other indirect assistance is provided to American and Thai rice farmers for political and economic reasons. When Sri Lanka attempts to formulate a domestic agricultural policy based purely on free market economics and the world market rice prices which are inherently distorted, could the anticipated result be beneficial to domestic small farmers as well as to consumers in Sri Lanka? In the midst of rapid globalization, any strategic changes related to the land-based agricultural system, which is immobile relative to other forms of Industrial economic activities and the factors of production, should carefully be considered only if and when the world market prices are completely free of any intervention and distortion in a form of subsidies or other quantitative and qualitative restrictions such as quota and tariff.

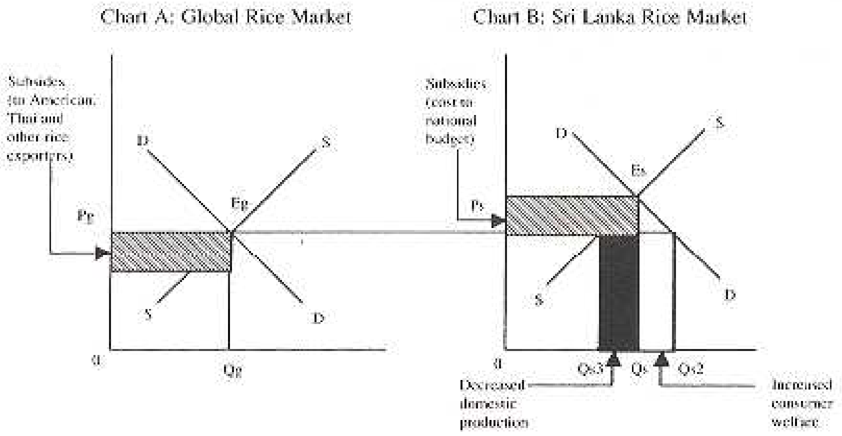

Figure 1. A Framework for the Rice Economy in Partial Equilibrum Analysis

With the reduction of domestic subsidies and increasing input prices, like fertilizer, seeds, chemicals, and energy, the poor farmers could not afford to sustain their farming livelihoods. A very important finding in the World Bank's *Nonplantation Crop Sector Policy Alternatives* (1996) is that sectoral output is stagnant in the rice sector because farmers choose to work off-farm activities. The increasing input prices and imported rice and wheat may be associated with this change.[7] The Bank report asserts that farmers made a "choice" to engage in outside activities. Yet, the government provides, the report argues, extension services, free water, other input subsidies (seeds and fertilizer), and protect the rice sector from imports. Still farmers spend one-third of their time in off-agriculture. The question raised here is why? One argument suggests that imported wheat and rice are cheaper than producing locally. This is related to the global food security problem where the US and the EU are involved with the agricultural subsidy issue. The US and Japan trade war on rice, for example, raises the similar questions that Japan should open its rice market to American competition whereby counterpoints are made on the farm subsidies in the US agriculture which reduce the cost of their exports to other countries. The net food importing nations, like Sri Lanka, could not afford to compete with the subsidized farm commodities at the dominant world market prices which are in fact subsidized; and, therefore, are lower than domestic price. As highlighted at the Ps price level in Chart B in Figure 1, the high cost associated with inputs, farmers find it disincentive to engage in rice farming. More and more poorer small farmers could not afford to do so. Their production level would decline to Qs3 level. Relatively larger farmers consolidate the lands which are more economically viable than those individual small farmers to operate. Thus, it is a forced "choice" for a growing number of farmers to find other income alternatives. Should a policy continue to reserve this trend? Or, economically unaffordable farms should be neglected for the sake of illusive efficiency and competition? The low cost rice import at the world market prices is a rational and economically sensible alternative. Could it be sustained when there exists a growing number of unemployed rural farmers who could not even afford import with their off-farm income? With the structural nature of trade relations between Sri Lanka and the US and other global food exporters, it is a policy dilemma for Sri Lanka. The forces of economic globalization, which are accepted and implemented without considering the national security needs at the perceived benefits of global economics, have not thus far created a market environment to achieve the desired goal: to alleviate poverty and reduce unemployment.

IV. FOOD SUBSIDIES AND POVERTY ALLEVIATION STRATEGIES

The national food assistance programs, which are financed by domestic and external sources, are used as important means of alleviating poverty among the poor. During the early years of the post independent Sri Lanka, the consecutive governments maintained subsidies. After the trade liberalization, governments took steps to reduce the share of the national expenditure on subsidies to reduce hunger, malnutrition, and poverty simultaneously. A host of other safety nets in a form of the Janasaviya Poverty Alleviation Program, the Food Stamp Program for the Poor, the Mid-Day Meal Program for School Children, and other public assistance programs including the

[7]The government restored the fertilizer subsidy which was removed in 1990. But this subsidy was again replaced in April 1995 with a scheme which puts a ceiling on the budgetary cost and limits its application to four basic fertilizers urea, ammonium sulfate, muriate of potash, and triple super phosphate. The cost of import of fertilizer to the national budget varies according to world prices. With the decreasing government monopoly of fertilizer import, there are more than 15 registered private import companies in the fertilizer market and is considered to be relatively competitive.

assistance to displaced and refugee population in the civil conflict is a potion of national budget. In 1992, the fiscal cost of such transfers consisted of about two percent of GDP.[8] A reduction in all programs is recommended by the World Bank. The 1994 elected government attempted to improve the targeting of these programs to the poor and consolidated the food stamp, mid-day meal, and the Janasaviya program into a more effective program called Samurdhi or Prosperity.

Table 1. Incidence of the Wheat Flour Subsidy in 1995

Richest (in income Deciles)	Rs. in million
10th (richest)	893
9th	722
8th	659
7th	580
6th	515
5th	458
4th	389
3rd	346
2nd	264
1 st (poorest)	174

Source: World Bank, *Sri Lanka in the Year 2000: An Agenda for Action.* (1996), Report No. 15455, Joint Sri Lankan and World Bank Study, March 14, p. 35. This is based on the Household Expenditure Survey Census in Sri Lanka.

The public transfer of money in a form of Samurdhi programs or agricultural subsidies to the poor and rural farmers has two intrinsic problems: targeting and efficiency. While targeting demands an effective administrative mechanism to deliver them efficiently, the subsidies tend to distort the free market mechanism. Both are evident in Sri Lanka. Under the Janasaviya Program, non-poor and politically-favoured recipients have benefited (Mendis, 1992). The Samurdhi Program is targeted into about 1.2 million households (about 30 percent) compared to about 1.5 million households who had received food stamps and mid-day meal coupons. The subsidies on wheat and wheat flour as well as fertilizer seem to favour the rich who could afford them in the open market. The incident of the wheat flour subsidy demonstrates this pattern (Table 1).

Within the South Asian region, Sri Lanka has the highest per capita expenditure on food subsidies in 1985 (Table 2). Among other countries, Sri Lanka's expenditure on subsidies is relatively low. Egypt, as one of the largest recipients of international food aid from the United States, has the highest per capita expenditure on subsidies. Mexico ranks relatively high as well (Table 2). In terms of the share of the total government expenditure, the cost of subsidies varies from one country to another (Table 3). Despite its budgetary constraints, Sri Lanka has still maintained relatively high outlays of subsidy expenditure

[8]The safety nets and other transfer programs including wheat flour and fertilizer subsidies come to 3.5 percent of GDP.

at 1.16 percent of GDP compared to its South Asian neighbours of India (0.36 percent), Bangladesh (0.63 percent), and Pakistan (0.48 percent) in 1985 (Table 3).

Table 2. Government Expenditures on Explicit Food Subsidies in Selected Countries

		Expenditure	
Country	Year	Total US$ million	Per capita (US$)
Bangladesh	1985	89.30	0.91
Brazil	1985	323.19	2.38
Colombia[a]	1982	2.41	0.09
Egypt[b]	1985	2,933.51	60.48
Egypt[c]	1985	1,337.80	27.58
India	985	691.24	0.92
Mexico	1984	1,110.50	14.46
Morocco	1985	277.48	11.75
Pakistan	1985	145.53	1.51
SRI LANKA	1985	68.44	4.32
Zambia	1982	17.01	2.82

Notes: Subsidies include both targeted and general subsidies. [a]Subsidies discontinued in 1982. [b]Using official exchange rate. [c]Using free market exchange rate.

Source: Cornia, A. G., Richard Jolly, and F. Stewart, eds., (1987). *Adjustment With a Human Face*, Volumes 1 and 2. (Oxford: Clarendon Press).

Table 3. Government Expenditures on Explicit Food Subsidies as Percentage of Total Government Expenditure and Gross Domestic Product (GDP)

		Expenditure	
Country	Year	% of Total Gov. Exp.	% of GDP
Bangladesh	1985	3.78	0.63
Brazil	1985	1.65	0.16
Colombia	1982	0.04	0.01
Egypt	1985	15.58	6.64
India	1985	2.19	0.36
Mexico	1984	2.59	0.63
Morocco	1985	7.91	2.33
Pakistan	1985	4.11	0.48
SRI LANKA	1985	2.77	1.16
Zambia	1982	1.21	0.44

Notes: Subsidies include both targeted and general subsidies.

Source: Cornia, A. G., Richard Jolly, and F. Stewart, eds., (1987). *Adjustment With a Human Face*, Volumes 1 and 2. (Oxford: Clarendon Press).

With the policies associated with the Structural Adjustment Program of the World Bank and the Macroeconomic Stabilization Program of the IMF, Sri Lanka as well as other countries attempt to reduce national resources devoted to social welfare. The direct beneficiaries, who are the poor and hungry, are impacted the most. A study by Edirisinghe (1987) at the Institute for Food Policy Research Institute (IFPRI) surveys the reduction on the food subsidies scheme in Sri Lanka. It illustrates that elimination or reduction of subsidies has directly impacted more on the lowest percentile of income earners, especially on the daily nutrient and calorie intake aspects among the poor. While the government policies are being pressured to realignment with the open market strategies and globalization, the higher food prices have consequently affected the poorer consumers. Cornia, Jolly, and Steward (1987) observed that Sri Lanka by 1985 reduced its food subsidy expenditure to 42 percent from the 1980 level. The United Nations' Food and Agricultural Organization (FAO) Report, *Technical Background Documents* (Vol. 3, 1996: p. 30), prepared for the 1996 World Food Summit, highlights the consequences of Structural Adjustment Programs:

> Cuts in social expenditure and service have affected the poor, who are the most dependent on public support, and economic adjustments have resulted in increases in unemployment and in a decline in incomes for many; this is bad news for the hungry, given the close relationship between poverty and hunger.

In Sri Lanka, while the decline in subsidies on food commodities directly impacts the poor, there also exists no food shortage due to import liberalization policies. Yet, higher open market prices hurt rural and urban consumers but help farmers to produce more food in a free market mechanism. The cost of energy sources, both domestic hydroelectric and imported oil, would however put higher prices on other agricultural inputs and transportation cost. Overall, it is expected that rural farmers are being stressed out due to a confluence of domestic and global forces.

V. "GLOCALIZATION:" A POLICY DILEMMA FOR SRI LANKA

The development issues and food security problems in Sri Lanka, however, are more complex and complicated than they appeared to outside observers. Sri Lanka represents a mix of a first wave (agricultural), second wave (industrialized), and third wave (information) nation that is attempting to adapt into the rapidly changing global economy. Policy-elites, who live on the virtual realities of "informatized" world, worked with the industrialized framework of East Asia, yet the beneficiaries of these policies are still living in the first wave of agricultural rural society which is structurally rigid for cultural and socio-ethnic reasons for centuries. The policy gap between policy implementation and impacted assessment on recipients is enormous. Income between rich and poor is also widening, environmental degradation is rising especially in urban centres, and political stabilization is costing both in financial and human terms.

The rapid globalization of world trade and open market policies is being painfully interfaced with local economy while creating a set of moral, human, social, and ecological externalities. This interplay of global forces at local communities is called "glocalization," not globalization. The introduction of liberalized trade policies of 1977 with corrective measures of poverty alleviation programs – Janasaviya and Samurthi – that followed to narrow the gap between the rich and the poor apparently have not taken effect to validate the Kuznets U-curve (Kuznets, 1955, 1963, and 1966). The liberalized policies have in fact accelerated the economic growth and have somewhat deterred the internal and external shocks from the ethnic war and the vagaries of the international economy. The paradox of policy alternatives prescribed by the World Bank and other donor agencies is that the very objectives they seek to maximize have seemingly been overshadowed by the expected result of reducing poverty and promoting sustainable development at the "glocalization" process. In terms of food security and nutrition, the daily per capita supply of calories remains more or less the same from 2,266 calories in 1970 to 2,302 in 1997. The per capita Intake of protein changed only 11.6 percent during the 1970-97 period (*Human Development Report*, 2000: p. 238). The annual average commercial energy use per capita changed merely 0.9 percent from 1980 to 1997 (*World Development Indicators*, 2000: Table 3.7 on p. 146).

Overall, however, the experience suggests that free market economics could sustain better development objective for the majority of people than the nationalistic inward-looking policies pursued by the government prior to 1977. The land reforms, the nationalization efforts of plantation sector, and the government intervention in market have also had detrimental impact on the poor even though the ideological arguments on the surface convinced policymakers in favour of the poor. The post-1977 policies were formulated with the shift of paradigm in development thinking and the influence of economic growth strategies of the four East Asian Tigers of Hong Kong, Singapore, South Korea, and Taiwan. Without a careful analysis of historical linkages and unique cultural framework of these Four Tigers and Baby Tigers of Indonesia, Malaysia, Philippines, and Thailand, Sri Lankan policymakers have indiscriminately replicated several sets of macroeconomic policy instruments which fully integrated the local economy into the global trading system. The liberalized economy has created new opportunities for some people but alienated many. The process of globalization is not fully compatible with the structural rigidities which are intrinsically interwoven with cultural, religious, and traditional values of the rural economy where more than 75 percent of the people live and work. Any attempt to disrupt the rural socio-cultural infrastructure and the agro-ecological farming system would be counterproductive and would displace many people and their sustainable livelihoods. The expected social costs and ecological externalities associated with drastic economic transformation by policy intervention without a battery of sensitivity analysis based on social and ecological accounting would be dangerous. The root causes of ethnic war in the North and East provinces as well as youth uprisings in the South and elsewhere in the country may be associated with the single-minded economic policy-drive without considering the impact on the poor and the unemployed. The fragile' ecological system on the island would also react to the consequences of policy imperatives.

Sri Lanka has, for example, recently been singled out as having the world's highest suicide rate among farmers (who take chemical, fertilizer, and pesticides as poison) due to a host of economic and social reasons. It is reported that the total number of deaths by suicide is higher than the total number of human lives lost in the ethnic civil war between the 1983-96 period which is roughly estimated to be more than 55,000 people. This does not imply that the process of glocalization is responsible directly for the suicidal rate. But, we should not exclude this externality in the economic analysis. An analysis of sociological and psychological impact on the poor is an important element in economics because of the way economic livelihoods of the poor and the disadvantaged are closely related to public health, social, and environmental issues. The impact on such issues should, therefore, be fully integrated in economic analysis and policy formulation. Therefore, public policy intended for an expected economic growth objective should not underscore the potential costs resulting from social unrest and ecological disasters as we witness among Tigers of East and Southeast Asia where employee rights and human freedom are violated and environmental degradation has made urban living uninhabitable in population clusters of major cities, especially Seoul and Taipei, in East Asia.

The lessons are becoming dearer for Sri Lanka to emulate the best of market economics and statecraft like some other Asian Tiger economies (similar to that of Singapore) did in order to maximize its national interest in a system of multi-ethnic democratic governance while preserving the cultural identity and minimizing negative externalities related to the environment, labour standard, social cost, and public health issues. These linkages are becoming increasingly important in analytical framework of neoclassical economic theory which drives the cult-like economic growth objective as a fashionable solution these days. Economic growth is indeed a key element of the irreversible globalization process which transforms our individual, family, and community lives with "glocalization." Yet, the deficiencies of economic theory must be recognized by recurring negative evidence of "glocalization" and thus complemented with an analysis of non-economic factors which are intricately associated with the quality of life and human security at the individual level. Most often, the best things in economic life come paradoxically with non-economic factors. Descriptive and predictive failures in economic theory should, therefore, be improved with a sensitivity analysis of evidence and impact assessment in policy analysis and formulation. Market economics has shown that it does not itself take care of negative externalities of economic growth. A well functioning statecraft is indeed essential as guidance for Sri Lanka as it was the case for Four Tigers of East Asia, especially Japan and Singapore.

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