

PEOPLE, SPACE AND RESOURCES

PERSPECTIVES ON
DEVELOPMENT ISSUES IN RURAL SRI LANKA

Edited by

M.M.Karunanayake

Department of Geography
University of Sri Jayewardenepura
Sida/SAREC Research Cooperation Project

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PREFACE

This is a revised edition of the publication titled "People, Space and Resources: Perspectives on Development Issues in Sri Lanka" first published in 2001. As stated in the preface to the first edition the publication includes revised and updated versions of three papers that have been presented at the *Geografdagana* Conference held at the University of Stockholm, Sweden in April 1999. The papers have been prepared under the aegis of the USJ-Sida/SAREC Research cooperation Project.

In developing the papers the authors have benefited from the exchange of ideas and sharing of experiences with the counterpart researchers of the Research Cooperation Project from Sweden, namely, Prof. Sune Berger (University of Karlstad) and Dr. Clas Lindberg (University of Uppsala). They have also benefited from discussions held with Prof. Anders Narman (University of Gothenburg) from time to time. In revising the papers the authors have duly incorporated the ideas generated at the discussions that followed the conference presentations. An ultimate goal of the Research Cooperation Project is to influence State policy relating to regional development and poverty alleviation to better meet the challenges of growth and equity facing Sri Lanka at the present juncture. It is hoped that this publication is a step in this direction.

I gratefully acknowledge the assistance provided by the University administration and colleagues in the Department of Geography to bring out this publication. The assistance provided in the implementation of the Research Cooperation Project by Mr. Thomas Kjellqvist, Dr. Per-Einar Troften and at its inception by Dr. Afzal Sher of the Sida Head Office in Stockholm is also gratefully acknowledged.

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INTRODUCTION

This publication includes three papers that provide perspectives on some development issues that have a bearing on rural Sri Lanka. The papers are the outcome of the on-going Research Cooperation Project between the University of Sri Jayewardenepura, Sri Lanka and the Universities of Uppsala and Karlstad, Sweden. The Research Cooperation Project has been launched with funding from Sida-SAREC. All three papers were presented in their original form at the *geografdagarna* held at the University of Stockholm, Sweden in April 1999. They have since been revised and rewritten for the purpose of this publication. In this chapter an attempt is made to provide a framework to place the issues raised in the three papers in context.

Rural Poverty, Marginalization and People Focused Development

The majority of the people in Sri Lanka are rural. They are also poor. According to official figures out of an estimated mid-year population of 18.3 million in 1996 the rural population (inclusive of the estate sector population) constituted 78.5 percent (Central Bank of Sri Lanka, 1997). But according to the Urban Development Authority (UDA) the urban population of Sri Lanka is in the region of 34 percent (UDA, 1998). Likewise the figures on poverty vary, depending on the criteria adopted to measure poverty. If one were to go by the number of families benefiting from the *Samurdhi* Program (State implemented income support program for the poor) as much as 50 percent of the households would fall below the poverty line.

It has been established that Sri Lanka has achieved considerable progress in the alleviation of human poverty (MPI&PA, 1998). This has been the outcome of the implementation of the Integrated Rural Development Program (IRDPs) in Sri Lanka since 1979. But the alleviation of income poverty has been more problematic and the strategies adopted under the IRDPs have not been capable of generating income or livelihood opportunities for the poor in order to make a significant impact on their situation. The failure to make a significant dent in the alleviation of income poverty is well evident in the high rates of unemployment in rural Sri Lanka. It is important to realize that even those 'employed' in the rural sector may be subject to seasonal unemployment with dire consequences for rural households. Seasonal unemployment is also a reflection of the inability of rural households to diversify their economies. In the case of the asset-less and the asset poor seasonal impacts also contribute to the so-called 'derived poverty syndrome' (Sen, 1981).

It is also evident that the various development strategies adopted by the State including the introduction of the 'green revolution technology' have contributed to marginalize segments of the rural population not only economically but also socially and politically. In fact they are interrelated and mutually reinforcing processes. What is significant is that they have impacted even the major irrigation and land settlement schemes that had been formed with the interests of the peasantry at heart. Thus the process of recreating poverty has been going on unabated even in the Mahaweli Development Scheme, the largest ever development scheme in Sri Lanka. Wanigaratne (1998) taking note of the situation in the major irrigated settlements in Sri Lanka comments that,

The principal surplus paddy producing area of the Island and where major irrigated settlements are concentrated suffer from acute malnutrition conditions, recorded the lowest PQLI scores and a high concentration of households in the lowest quartile of expenditure.

The above processes affecting the rural population have been further compounded by the structural adjustments made in the economy of Sri Lanka in the wake of the open economic policy adopted by the government in 1977 and continued thereafter. It was thought that market led economic growth would contribute to reduce poverty and improve the living conditions of the poor mainly through the trickle down process. Indeed some commentators have attempted to prove that the liberalization process has been supportive of equity objectives (Bhalla and Glewwe, 1986). But there are also studies that point to the contrary (Lakshman, 1994). There is also evidence to substantiate that structural adjustments have made inroads into the quality of life of the people. It is suggested that the extension of poverty^aalleviation programs to the major irrigated settlement schemes poses both a contradiction and an indication of realities on the ground (Wanigaratne, 1998).

Successive governments in Sri Lanka have been quite sensitive to the issue of alleviating poverty of the mass of the population. Indeed in post-independence Sri Lanka three main approaches viz. social welfare, livelihood generation and a combination of both have been adopted for poverty alleviation. But the early social welfare programs, such as the food subsidy scheme, did not specifically target the poor. It is also evident that often poverty alleviation programs have been concerned with

alleviating symptomatic rather than structural poverty. While some of the measures for poverty alleviation had been supportive of structural changes (e.g. land reform) they did not go far enough. Land settlement schemes that were concerned with asset transfer to the poor had to function within given political-economic structures and therefore constrained by internal contradictions inherent in them.

In more recent times there has been more focused attention on targeting the poor through the Food Subsidy Scheme, and the Janasaviya and the *Samurdhi* Program. These programs have done much to cushion poverty among the urban and the rural poor. However, there are problems of social exclusion and asset creation for the poor. There is over politicization of poverty programs resulting in an over-spilling of benefits to the non-poor. Poverty alleviation programs have been implemented in isolation and not much has been done to link them to mainstream development. There has also been a failure to recognize the longer-term impacts of macro-economic policies on the poor. However such problems are not unique to Sri Lanka. Taking note of the African context Wekwete (1998) comments:

Meaningful poverty reduction has to be linked to the on-going planning and management cycles. It should be seen both as a goal and as an inherent part of the governing process. At national levels, the budgetary process has to be shaped by the primary goal of increasing opportunities for the majority, which is the main poverty reduction objective.

It would seem that while there is a concern for poverty alleviation in Sri Lanka, implementation of strategies for the same has been attempted without a deeper understanding of issues relating to poverty such as poverty derived destabilization (or anomie) of households, seasonal impacts of poverty, poverty thresholds, feminization of poverty, transfer of poverty related stress from men to women, cultural attributes of poverty and in particular the manner in which it shapes the world view of the poor etc. In this regard we may take note of Amartya Sen's (1999) more recent thesis on 'expansion of capabilities' or 'enhancement of social opportunities' of the poor.

The point has been made by Wekwete (1998) that,

A new approach to poverty alleviation is emerging, which is more focused on households and communities, and seeks to articulate their survival strategies and also tries to tap their potentials in addressing poverty. The new emphasis is more on creating enabling environments at national, regional and local levels, which increase the opportunities for sustainable livelihoods. The approach emphasizes participation and good governance. There is also a shift away from the state as the 'provider' to the state as a 'facilitator', and tapping on the energies of other stakeholders. A consensus seems to be emerging that the central focus of development should be people both as agents and beneficiaries.

Sri Lanka has been committed to participatory processes of development from around the 1980s. The early initiatives go back to the mid 1970s and have taken the form of the Change Agent Program started by the government. By the mid 1980s 'social mobilization' and 'empowerment' of the poor was firmly entrenched as an approach to grassroots development by both the NGOs and the IRDP initiated local level development programs. But many of these participatory processes were rather narrowly conceived and concerned with specific activities such as credit mobilization. It is also evident that participatory initiatives have been promoted as 'projects' rather than 'processes'. Therefore, there has been a failure to generalize participatory processes that provide space for people participation in decision-making, planning, implementation, monitoring and evaluation of local level development projects. A basic drawback has been that there has been no inclination to link participatory processes to political and administrative structures. This situation sits oddly with Sri Lanka's political commitment to devolved governance. Silva and Athukorala (1996) commenting on the participatory approach to poverty alleviation assert:

Although achieving a level of success in promoting community participation, the ability of the model to alter fundamental structures in society and to promote growth and equity simultaneously is yet to be demonstrated in South Asia.

A related issue is the lack of viable institutions to form the basis for participatory action at the grassroots. In general the grassroots institutions have not had the capacity to (a) internalize external processes and (b)

externalize internal processes particularly in relation to the State and the bureaucracy. They have also not been sustained over the long-term. As with participatory processes there has also been a failure to effectively link rural institutions to political and administrative structures. Some initiatives were taken in this direction by the setting-up of Gramodaya Mandalayas in terms of the provisions of the Gramodaya Mandalaya Act No 28 of 1982. However the Gramodaya Mandalayas have died a natural death and do not function any longer as grassroots institutions. One reason that can be attributed for their failure to take root at the local level is over politicization. Similarly the plethora of institutions (some of them 'mushroom') that were brought under the umbrella of the Gramodaya Mandalayas was unable to formulate and give effect to coherent development agendas.

Spatial Imbalances in Rural-Regional Development

It is well evident that considerable spatial imbalances exist in rural and regional development in Sri Lanka. The more developed and highly urbanized Colombo Metropolitan Region (CMR) that approximates to the Western Province of the Island has emerged as the centre of gravity in the national economy. This region had a population of over 4.5 million in 1993 (25.8 percent of the total population of the country) concentrated in 5.0 percent of the land area. The CMRs total of the GDP in 1995 amounted to 43.9 percent. Its share in the manufacturing sector has increased from 56.8 percent in 1981 to 72.4 percent in 1995. The polarization of Colombo as the core area has become one of the major regional development issues in the country. However it may be noted that there are intra-spatial variations in development in the metropolitan core itself.

Similarly while we speak in terms of the 'core' and the 'periphery' it is important to realize that the periphery is by no means uniform. In 1995 the Central Province contributed 11.1 percent to the GDP where as the proportion contributed by the Uva and the North Central Province were 5.1 and 6.4 percent respectively. Inter-regional differences can also be observed when analyzing the Provincial contribution of the manufacturing sector to the GDP. With the exception of the Southern Province, all the remaining regions have contributed less than 6.0 percent each. It is striking that the contribution of the Uva, Sabaragamuwa and the North Central Province to the GDP taken together amounted to only 3.6 percent. Indicators reveal that in terms of infrastructure development the Southern, Central and the North Western Province are more developed than other regions in the periphery.

We may also note that in addition to inter-regional differences there are also intra regional differences within the periphery that have been the outcome of historical, geo-economic and ecological processes. In recent times these differences have been accentuated by the on-going war in the North and the East. No data are available to assess the way in which the war has been disruptive of regional development in the areas that constitute these two provinces. But there is no doubt that the war has extracted a heavy price in terms of disrupting social and physical infrastructure development and lowering the quality of life of the people. However it is equally true that the war has been similarly disruptive of regional development efforts in areas bordering the war afflicted Provinces owing to their vulnerability to guerilla incursions as well as by a need to respond to the problems caused by the internal displacement of people from the war affected areas.

The problem of regional imbalances in development is also the outcome of the lack of a regional development policy for Sri Lanka. This has led to omissions and commissions in regional development strategies. Thus the growth and equity issues in regional development have not been of focal interest in the 'planning' effort. This is well illustrated by the Mahaweli Development Scheme. As earlier mentioned the unintended negative impacts of the Mahaweli Development Scheme have not been given due consideration. There is evidence to show that a process of growth without equity leading to a marginalization of some segments of the settler population has been underway in the Mahaweli Development Scheme. As a consequence of unintended negative impacts there are also clear iniquities in social and physical infrastructure development, for example, in the Anuradhapura District. Furthermore it has led to patterns of labour mobility that have exerted negative impacts on the agricultural activities of the settlements bordering the Mahaweli Development Scheme. Leakage of produce without value addition has also emerged as a major problem. These comments should not be taken as an indictment on the Mahaweli Development Scheme as such. What it does imply is that the objectives of the Mahaweli Development Scheme could have been better realized had these issues been of central concern to project implementation.

There are other problems that beset regional development in Sri Lanka. While there has been a political process that has been concerned with the devolution of power to the periphery, it has not been effectively integrated with the regional development process. It has, therefore,

resulted in the failure to make use of sub-national and local authorities for regional development in an effective manner. As pointed out in the preceding section there is a singular lack of grassroots institutions capable of internalizing external processes. Similarly it has not been possible to externalize internal processes linked to people's initiatives. The failure to integrate the political and the regional planning process has prevented regional development being made an effective instrument of national integration.

The regional planning process in Sri Lanka has also tended to overlook the need for 'planning regions' *vis-à-vis* 'administrative regions.' (Gooneratne, 2000). It is important that planning regions be superimposed on administrative regions to realize comparative and competitive advantages, a *sine qua non* of regional development.

It is also important to realize that regional development strategies will have to take note of externalities introduced through processes of regional associations as well as globalization. A vital concern of regional development would be to ensure the resilience of regions in the face of such developments. There is also the related issue of glocalization of local regional economies and its impact on growth with equity objectives. It is therefore clear that there is a need to rethink and redefine regional development strategies in Sri Lanka (Gooneratne, 2000; Karunanayake and Abhayaratna 2000).

Having noted the deficiencies in the regional planning process as discussed above it is pertinent to look more closely at IRDPs that had been the mainstay of the rural/regional development strategy in Sri Lanka since the late 1970s. The IRDPs were originally conceived as programs for the development of areas that did not benefit from the 'lead' development projects of the government. But soon they took the form of a general strategy for district based rural development with funding from the World Bank or donor agencies such as SIDA, NORAD, GTZ and IFAD.

Among the major achievements of the IRDPs is their contribution to develop planning capacities at the district level, while contributing to alleviate human poverty through social and physical infrastructure development. They were also responsible for introducing target group based development strategies with reference to both the poorer areas and the poorer people. IRDPs also popularized the ideology of a participatory approach to grassroots development.

But many shortcomings have also been noted. The IRDPs were district-based programs. In effect they were not based on 'planning regions'. The development activities (that mainly constituted the bringing together of area based sectoral programs) were conceived with the district as a closed system (Gooneratne et al 1999). Rural development was attempted without reference to urban development. Hence the complementary nature of rural and urban development was not taken into account (Wanasinghe and Karunanayake, 1998). While the IRDPs contributed to alleviate human poverty, they were much less successful in alleviating income poverty (MPI&PA 1998). Because the IRDPs were preoccupied with the targeting of benefits to the poor, the link between general economic growth and poverty reduction was overlooked (Hewavitharana, 1989).

The weaknesses identified in the IRDPs in relation to employment and income generation have resulted in a shift in the approach to rural development. As a result the Rural Economic Advancement Program (REAP) has replaced the IRDPs. The objective of REAP is to achieve rural economic advancement through private sector participation. This is to be achieved by linking the private sector to the grassroots through the medium of NGOs and Community Based Organizations (CBOs)(MPI&PA, 1998). But at the same time there are issues that need greater clarity of interpretation (Gooneratne et al, 1999; Karunanayake and Abhayaratne, 1999). Thus the private sector needs to assume the role of facilitator in place of its hitherto accustomed role of implementer. How will this be achieved in practice? Similarly the private sector will be required to assume a partnership role with the public sector. It is possible that the capacity of the private sector will be severely stretched in taking up a lead role in rural/regional development. Another area that needs resolution is the package of incentives that will be required to motivate the private sector to give effect to State policy. Since the private sector is primarily profit motivated the wider issues of regional development such as growth with equity and a balanced spatial spread of development may take a back seat, unless adequate measures are in place to counter such tendencies. In regard to the equity issue provision of adequate social safety nets to the poor within the REAP framework is called for.

Rural People and Ecological Poverty

Another issue of importance that relates to rural development is that of the sustainable use of natural resources. This is a matter of singular importance as most rural people are dependent on a biomass economy (Agawam, 1999). It is well known that ecological poverty that results from the pressure exerted on a dwindling resource base by an ever increasing rural population has negative consequences on the livelihood opportunities and the quality of life of the poor. Ecological poverty is further exacerbated by the fact that the asset-less and the asset poor are pushed into exploiting the environmentally vulnerable and fragile areas.

It is also evident that dependence on natural resources also makes rural people highly vulnerable to natural calamities such as droughts, floods, landslides, cyclones etc. Rural livelihoods are also articulated by seasonal differences. But often the manner in which seasons impact rural livelihoods and household economies is missed by those responsible for rural development. It is also a reflection of the lack of involvement of the people in the development process to which reference has been made earlier. Hence the need to season-proof the poorer rural households is a matter of vital concern for rural development. As pointed out by Longhurst et al (1986)

seasonal analyses and counter seasonal measures have to be more sensitive and more differentiated- in timing, within seasons, in response to previous bad years, in helping vulnerable groups, and in slowing and countering impoverishment.

What is also of significance is that the resource poor in rural areas are the victims not only of ecological processes (leading to ecological poverty) but also political processes (leading to their marginalization from mainstream development). In fact the two processes are mutually reinforcing. Thus the marginalization of the poor from the development process compels them to utilize the more fragile environments (steep slopes, catchment areas, stream and irrigation reservations). They may also be compelled to encroach on protected natural areas. This in turn accentuates ecological poverty with dire long-term consequences on rural areas and the poor.

In regard to the use of natural resources the role of protected areas (or natural areas) becomes an issue of vital importance. Could these areas be conserved without any reference to the eco-political economy of the areas in which they are located? The experience is that often there are pressures to deregulate parts of protected areas to meet the needs of local people as well as for other development activities (from which the poor may benefit only marginally). It is also evident that often authorities responsible for protected area management resist such pressures. In some situations it leads to a confrontational attitude between local communities and the bureaucracies responsible for protected area management. One solution to the problem is seen in making the protected areas contribute to the local economy. While it is true that gate fees collected from national parks for example do generate income, their visible effect on the local economy is almost negligible owing to financial procedures that compel funds to flow back to the general treasury. It is important that provision be made to retain some funds by the local authorities for the development of areas within their jurisdiction. The capacity of protected areas to generate income has to be increased by the development of activities that give pride of place to eco and culture tourism. Unfortunately in Sri Lanka not much attention has been paid to develop such aspects of tourism. It is also evident that establishing a link between eco-cultural tourism and protected areas management would help generalize the benefits of development (particularly in terms of income and livelihood generation) among a wider section of the rural population including the poor. It would be a means of developing the capacity of the tourist industry itself by reorienting it from one that is primarily concerned with coastal sites of tourism and recreation to one concerned with both coastal and inland sites of tourism, the last noted for their ecological, cultural and heritage values.

There is also the notion that protected areas should be managed in such a way as to provide benefits to proximate local communities. This is to be achieved through the zoning of protected areas to permit their multiple use to enable local communities to access controlled use of resources within them, in return for sharing responsibility for their management. However in practice it has been found that access to and use of resources are not politically neutral and are defined by realities of the political economy within which such activities do in fact take place.

An Overview of the Three Papers

Wanasinghe's paper on "Regional Imbalances in Sri Lanka: A Critique of Regional Development Policies and Strategies" examines the process of polarization in Sri Lanka and discusses the main factors responsible for the gradual widening of the gap between the 'core' and the 'periphery'. The paper focuses on the policies and strategies undertaken by the State to ameliorate the backwash effects of polarization. It is argued that numerous aspatial and spatial policies have contributed to the development of the periphery as well as its people. But shortcomings in the policies and in their implementation as well as the agglomeration economies and multiplier effects in the core itself have contributed to and sustained the polarization process.

It is pointed out that the major policies instrumental in developing the periphery have been those relating to capital and technology transfer, transfer of public investments, opening up of unused land for agriculture and settlement schemes, decentralization of industries and devolution of power to sub-national governments. These policies have exerted a favourable impact on the periphery as reflected in the improved physical quality of life of the people, enhancement of infrastructure facilities, productivity in agriculture, absorption of city-ward migrants and the emergence of small towns as service centers in certain areas.

It is contended that development programs such as the IRDPs, the Mahaweli Development Project and the industrial decentralization program have suffered from drawbacks and shortcomings in the planning and operational stages that have constrained their achieving desired objectives in full. The author claims that the IRDPs and the REAP cannot be considered as comprehensive development strategies for the districts concerned. It is further claimed that the Mahaweli Development Project did not have the desired spread effects but led to the creation of developed enclaves that intensified intra-regional inequalities within provinces. Furthermore, there have been limitations in the planning process itself. The absence of the commitment to participatory processes in local level planning is seen as a major weakness in the State's regional development effort.

The paper also draws attention to several issues that have a bearing on regional inequities such as the inability of the periphery to retain the capital generated within regions for development activities due to

leakages through banks and movement of unprocessed goods, its lack of success in attracting entrepreneurs or preventing 'brain drain', and the failure to appreciate that the problems of the periphery are multi-faceted.

The paper on "Agricultural Innovation and Marginalization of the Rural Poor" by Abhayaratna starts with a discussion on technological change in agriculture in the developed as well as developing countries. The paper draws attention in particular to the empirical evidence from the Asian countries for the purpose of comparing it with the Sri Lankan experience in innovating agriculture. It is argued based on empirical evidence from three rural settings (viz., the Mahaweli areas, other major irrigation schemes and the village tank systems in the Dry Zone of Sri Lanka) that rural poverty has a strong bearing on the adoption of innovations. Failure to adopt innovations and increase productivity in agriculture often leads to a process of marginalization of the rural poor.

The plight of the resource-poor farmers and the tendency for them to be marginalized have been analyzed with reference to information on the nature and types of innovation in the Sri Lankan agriculture in general and adoption of agricultural innovations in the three settings cited above in particular. Although innovations have led to overall production gains in agriculture on a national scale, their impact on small farmers in the selected rural settings have been negative. With reference to the paddy sector of Sri Lanka, the paper establishes that the poor farmers have been marginalized owing to the failure to comply with the resource demands of the new technology. It is argued that the nature and pace of adoption of innovations is not only a function of time as envisaged by theory (Rogers, 1962) but also a function of a number of other factors such as the social standing of the farmer, his resource endowment and attitude towards innovations. Hence even among those who have adopted innovations, the majority has been selective in opting for innovations from the very beginning.

It is pointed out that innovations have also been instrumental in changing gender relations associated with traditional agriculture. However, evidence from Sri Lanka suggests that innovative farming has not led to mass displacement of labour as witnessed in some Asian countries. Instead new cropping patterns have increased the demand for labour.

The paper also makes an attempt to explain why the new technology has bypassed the most vulnerable, while providing substantial benefits to the farmers possessing adequate resources in terms of land and capital.

The argument is made that it is important to introduce innovations with a view to alleviating poverty among the farming community and contributing to rural development rather than to advocate them as a scale neutral process. It is further stated that innovations cannot be considered as independent of the spatial and resource factors. Therefore, it is imperative for the State and those who are responsible for rural and agricultural development to provide a framework and a mechanism that are sensitive to space and resource factors in innovating agriculture.

In the third paper Karunanayake attempts to provide some preliminary remarks on the manner in which political forces (meaning unequal power relations) acting on ecological processes contribute to create and perpetuate poverty in rural Sri Lanka. The relationship between political ecology and rural poverty is explored with reference to Forest Management and the Management of Wildlife Reserves in Sri Lanka. The State, resource managers, local power groups and the rural poor are identified as the actors who on their own or in synergy determine the political ecological context of Protected Area Management.

The point is made that in looking at the political ecology of Protected Area Management there is a need to be conscious of the eco-political-economic processes at work. Despite a concern for decentralization and devolution of power from the 'centre' to the 'periphery' too much power has continued to remain with the 'centre'. This has been so particularly in relation to the management of natural resources. At the same time it is also true that Protected Area Management policies have in some ways moved ahead of the capacity to implement them. It is noted that there is growing consensus among conservationists that the management of Protected Areas should not be planned in isolation but in conjunction with surrounding areas to avoid conflict with local communities. This requires a shift from the more conventional concept of being exclusively concerned with the protection of Nature to one, which recognizes the basic needs of rural communities. Such concepts are reflected in the Forestry Sector Master Plan as well as in the Wild Life (Amended) Act of 1990.

Despite initiatives for a more pro-people approach to resource management at the local level, power relations and decision-making that relates to control and use of natural resources, as exemplified by Protected Area Management, are heavily biased in favour of the State, bureaucracy and the local power groups. As such the rural poor themselves can exert

very little impact on decisions pertaining to resource management within the established institutional framework. Therefore the point is made that the attitude of the bureaucracy has been one of intransigence that has shown very little sensitivity to the needs of the rural poor.

Moreover the view is presented that development concepts such as participation, social mobilization, empowerment and partnership remain at best political rhetoric with no real attempt being made to realize the potential inherent in them to generate grassroots activism for the assertion of the rights of the rural poor. In particular participatory ideologies have not been effectively linked to mainstream political processes. There will not be much change in the situation without firm political commitment to give effect to participatory ideology.

It is claimed that the above situation is the outcome of the convergence of several political processes. The colonial legacy has stifled the sense of self-reliance that was a characterizing feature of the traditional rural society and supplanted it with an overt sense of dependence from which the rural people have not been able to free themselves. Since independence such tendencies have been perpetuated in the form of the so-called 'interior colonization' resulting in the polarization of the centre vis-à-vis the periphery. The highly centralized form of government that had characterized Sri Lanka until quite recently has further strengthened these tendencies.

It has therefore left little space for 'people' and 'place' focused development that would have been a means of realizing the potential of people, who are rural and who are poor. In relation to management of natural resources the relationship between the people and the State remains distant and officials are often cast in the mould of 'outsiders'. Indeed there is a hiatus between the ideology of participatory resource management that is both implicit and explicit in State policy (as represented for example by the Forestry Sector Master Plan (1995) and the draft Wildlife (Amended) Act of (1990) and practice. The system as yet does not provide choices and opportunities for the rural poor to sustain livelihoods. Hence, the political ecology of Protected Area Management and the way it impacts the rural poor are ultimately tied-up with the larger issues that concern the Sri Lankan polity.

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REGIONAL IMBALANCES IN SRI LANKA : A CRITIQUE OF REGIONAL DEVELOPMENT POLICIES AND STRATEGIES

Y.A.D.S. Wanasinghe

INTRODUCTION

Polarization of the Colombo Metropolitan Region, the persistence of the core-periphery dichotomy as well as the gradual widening of the gap between the core and the periphery have exacerbated Sri Lanka's current socio-economic and political problems. Unless prompt action is taken to reduce imbalances, the impact of globalization and the open economy would accentuate polarization which would lead to civil protests that threaten the social and political stability of the country.

This paper examines the process of polarization in the country, highlights the development issues created by regional imbalances at the macro- and micro-regional level and attempts to analyze the regional development policies and strategies undertaken by the Sri Lankan Government to solve these problems. It is argued that despite State interventions to promote or facilitate development in the periphery, expected results have not been achieved. Secondly, multiplier effects and agglomeration economies in the core continue to attract entrepreneurs, capital, labour and raw materials from the periphery thus accentuating the core-periphery differential.

The core or the Colombo Metropolitan Region (CMR) encompasses three districts in the Western Province viz., Colombo, Gampaha and Kalutara. The remaining eight administrative provinces that are sub divided into 22 administrative districts constitute the periphery. These sub national regions that are recognized by the State for planning purposes are geo-political rather than geo-economic regions.

This study is based on secondary data such as published and unpublished research papers and evaluation reports on individual projects prepared by academics and Government departments but it is constrained by the inadequacy of recent data especially for the Northern and Eastern Provinces.

POLARIZATION OF THE COLOMBO METROPOLITAN REGION

The polarization of the Metropolitan Region can be traced back to the initial impetus received when the city of Colombo was selected as a 'gateway' port which linked the country with Great Britain and other parts of the British Empire. Colombo was also connected to the interior of the country by road and railway. The city thus became the chief port as well as the commercial, industrial, financial and the administrative centre of the country. Prior to the advent of the British in 1776, the city had been occupied in the 16th Century by the Portuguese and later by the Dutch who had developed it as a military and naval port and commercial and administrative centre.

Owing to the centralization of functions and population growth, Colombo developed rapidly during the 20th Century and its demographic and functional primacy could not be challenged by any other city in Sri Lanka (Wanasinghe, 1995). By 1948 when the country gained Independence, a crescent-shaped area of residential suburbs had formed outside the city limits when city-ward migrants were diverted to the suburbs. This suburbanization of residential functions was followed by a spontaneous decentralization of industrial, commercial, financial and other functions due to the availability of cheaper land, transport facilities, a pool of labour and markets in the suburbs which transformed some residential suburbs into 'employing' suburbs.

A second crescent of suburbs and a zone of transition with mixed rural and urban characteristics (rural-urban fringe or rurbanized area) had emerged beyond the first (older) crescent by 1971 thus creating a vast functional urban region or an extended metropolitan region which had attracted entrepreneurs, capital, raw materials, food and labour from other parts of the Island (Wanasinghe, 1985). Hence instead of the primacy of the city of Colombo, the urban system and the country itself is now being dominated demographically and functionally, by the primacy of the Colombo Metropolitan Region (CMR).

The growth and expansion of suburbs can also be ascribed to the selection of suburban and rurban sites in the CMR for Government sponsored industrial Corporations such as Tyre, Oils and Fats, Hardware, Steel, Porcelain and Petroleum factories. Furthermore, the Ekala Industrial Estate as well as the major Investment Promotion Zones (IPZs) of Katunayake and Biyagama have been located in the CMR (in the

Gampaha District) which has brought in more foreign and local investors and capital to the core. As a result nearly 88 per cent of manufacturing employment and 80 per cent of industries are concentrated in the core area.

A further fillip to suburbanization was given when administration functions in Colombo were relocated in a suburban area comprising parts of the old and new suburbs and rurban areas. The new administrative capital- Sri Jayewardenepura (in the Colombo District), is provided with infrastructure and serviced land so that not only administrative functions but more residential, commercial, financial, industrial, cultural and social activities have also been attracted to the new capital and neighbouring areas. Today this functional urban region which is confined to the Gampaha and Colombo districts and to the Northern and Western parts of Kalutara District has become the centre of gravity of the national economy. However, for planning purposes the area stretching across all three districts in the Western Province has been designated the Colombo Metropolitan Region by the Urban Development Authority and this sub-national region is now recognized as the core area of the country.

The CMR comprises the central city of Colombo, old and new suburbs, the rural-urban (rurban) fringe and numerous small towns located within the fringe as well as parts of Kalutara District that are primarily agricultural-rural in character. Therefore the core cannot be considered as a homogenous region. Colombo and Gampaha Districts are more urbanized and better served by infrastructure facilities than the Kalutara District. The road network is poorly developed in the Kalutara District since the length of paved roads per square kilo metre was only 1.45 km in 1995 whereas in the Colombo and Gampaha Districts there were 3.67 km and 3.14 km of paved roads respectively (World Bank, 1995). There is a greater concentration of health and education facilities in Colombo District than in the other two districts. For instance, the number of hospital beds and doctors per 100,000 population was 660 and 68 respectively in the Colombo District in contrast to 260 hospital beds and 17 doctors per 100,000 in the Gampaha District and 210 hospital beds and 22 doctors per 100,000 in the Kalutara District. Similarly residential density per hectare in 1996 was 117 in the Colombo District while in the other 2 districts the density ranged between 33 and 35. On the other hand, Colombo and Gampaha Districts accounted for 80.6 per cent of value added in manufacturing in the country and of the total manufacturing employment in the core, Gampaha and Colombo Districts con-

tributed to 47 and 40 per cent respectively. Nevertheless, the entire province or the CMR is recognized as a major sub-national region for planning purposes. It has emerged as the highly developed and densely populated core area in the Island. It is confined to only 5.6 per cent of the land while the remaining area, which had in the past (from the 6th century BC up to 13th century AD) contained some of the most developed parts of the country, constitutes the periphery.

The core possesses all the advantages that enables it to attract natural, human and capital resources. It is the financial, commercial, industrial and administrative centre and is at the hub of the rail and road transport system hence accessible from all parts of the country. Further, the modernized port in Colombo handles as much as 90 per cent of the external trade. At present the core has a concentration of 37 foreign banks (94.8 per cent of the total) and a greater percentage of higher grades of domestic banks, a pool of experienced professionals, technicians and other types of skilled labour, a modern and sophisticated communication system, a modern air port and it also provides higher order goods and services such as health and education facilities. Agglomeration economies and multiplier effects continue to attract industries, trade and commerce, labour and capital because returns are higher and more secure in the core.

These processes are similar to the processes described in the Centre-Dominant model postulated by Myrdal (1957) who suggests that, due to agglomeration economies and the operation of multiplier effects and circular and cumulative causation, the core or the most developed and favoured area in a country would attract skilled labour, capital and raw materials which would induce unfavourable "backwash effects" such as selective migration of skilled labour and transfer of capital through the outward flow of savings from the periphery. Hirschman (1958) has also pointed out that such a process would lead to polarization. When backwash or polarization effects outweigh the beneficial spread effects (Myrdal) or trickle down effects (Hirschman), regional inequalities between the core and the periphery will be amplified. Currently in Sri Lanka multiplier effects and agglomeration economies in the core have resulted in the selective migration of young and qualified people and transfer of capital and other resources.

Myrdal supported state intervention to overcome the backwash effects that inhibit development of the periphery but he warned that sometimes state intervention may even tend to accentuate regional economic and

social differences as for example, the decentralization of banks in Sri Lanka which has encouraged more people in the periphery to save but at the same time contributed to the draining of capital to the core. Hirschman advocates strategies such as decentralization of industries, provision of incentives such as infrastructure facilities and services or tax holidays by central governments to develop the periphery and reduce polarization effects.

The processes acting in the core area in Sri Lanka are also similar to those described in Stage 2 of Friedmann's Centre-periphery model (1966, 1972). He suggests that the core would develop as a result of initial advantages such as location in a resource-rich area with better accessibility to local and foreign markets. The core is strengthened by the transfer of natural, human and capital resources from the periphery. It becomes a centre of innovative change and is able to dominate the periphery through

- the dominance effect or the weakening of the periphery through the net transfer of physical, human and capital resources to the core;
- the information effect or the increased innovation and interaction within the core;
- the psychological effect or the ability of the core to provide more favourable conditions for higher rates of innovations;
- the modernization effect or the social, behavioral and institutional change within the core which enables it to accept innovations.

Since backwash effects are stronger than spread effects during the early stages in the development of a country, the gap between the core and the periphery tends to widen. Cumulative causation

favours 'core' locations at the expense of the relatively less attractive 'peripheral' areas. As a result, core region institutions are increasingly organized to control the peripheral economies for their own benefit, reducing them to a state of relative dependency on central or exogenous decision while tending to increase the development gap between them in favour of the core (Friedmann, 1972).

During Stage 2 incipient industrialization can occur in the periphery. Stage 3 in Friedmann's model is characterized by the formation of secondary or minor core areas around major urban centres that have developed in the periphery. During this period of industrial maturity, innovation is diffused to the periphery, spread effects outweigh backwash effects and the national periphery is reduced to smaller inter-metropolitan peripheries. Growth is then spatially concentrated within sub national regions. During Stage 4, there is a balance between backwash and spread effects between the centre and the periphery.

To counter polarization effects and encourage industrial growth in the periphery, some developed and developing countries have adopted top-down strategies such as Growth Pole Policies. Development in the periphery was to be achieved through multiplier effects of propulsive or leading industries located in the growth poles or large industrial towns. The growth pole strategies adopted by less developed countries have, however met with little success. As commented by Stohr and Todtling (1978) multiplier effects have been 'upward and outward rather than downward and inward' and have not been strong enough to have an impact on the surrounding region.

Furthermore, they highlighted a major weakness that

even when growth centers policies have increased the average growth rate of peripheral regions (and thereby reduced interregional disparities) intra regional disparities of living levels usually have increased. This means that growth centers have essentially led to a shift of the focus of development from the interregional to the intraregional level, but rarely seem to have led to an overall reduction of spatial disparities in living levels. In part this may be due to the lack of explicit incentives for the utilization of regional resources and labor, which are predominantly located in hinterlands. The second reason may be the lack of explicit sectoral specification (Stohr and Todtling, 1978)

Although Sri Lanka did not adopt the Growth Pole Concept and established large industrial complexes, she considers the IPZs and Industrial Estates as Growth Centres that could induce multiplier effects.

As an alternative to the above mentioned center-down or top-down strategies for developing the periphery, Johnson (1970), Rondinelli and Ruddle (1976), Friedmann and Douglass (1978), Mathur (1982), Knesl (1982) and Douglass (1990) have advocated what is collectively known as bottom-up and periphery-inward strategies. These strategies aim at the creation of dynamic development impulses within the less developed periphery to control the backwash effects of polarization. The objectives of development from below are to develop fully the natural and human resources in the region, satisfy the basic needs of the poor, emphasize rural development, develop small and medium towns and small and medium industries and reduce external and internal leakages. A greater part of the surplus generated in the less developed regions is to be invested within the region itself in order to diversify the regional economy. For this purpose Stohr and Todtling (1978) recommended a certain degree of 'selective spatial closure'.

Among the 'bottom up' strategies special emphasis should be placed on Rural-Urban Area Development which integrates rural with urban development (Douglass, 1990). In 1997 he introduced the Regional Network approach which also rests on the integration of rural with urban development at local level in the periphery as an alternative to the Growth Pole Concept. He envisages a cluster of rural and urban settlements rather than a single Growth Pole "to act as an antipode to the growing of core metropolitan areas" (1998).

THE CORE PERIPHERY DIFFERENTIALS IN SRI LANKA

As explained in the above section, the core or the CMR is the most economically developed and highly urbanized region in the country. Recent trends reveal that the gap between the core and the periphery has widened during the past 3 decades. For example, the contribution of the CMR to the Gross Domestic Product (GDP) in 1981 amounted to 39.1 per cent but by 1997 its share had increased to 44.1 per cent. Figure 2.1 illustrates the imbalance in the provincial contribution to the total GDP in 1995 between the core and the periphery. The core region's share of trade and banking sector to the GDP was 52.8 per cent and 47.7 per cent respectively.

The Provincial Contribution to Total GDP in 1995

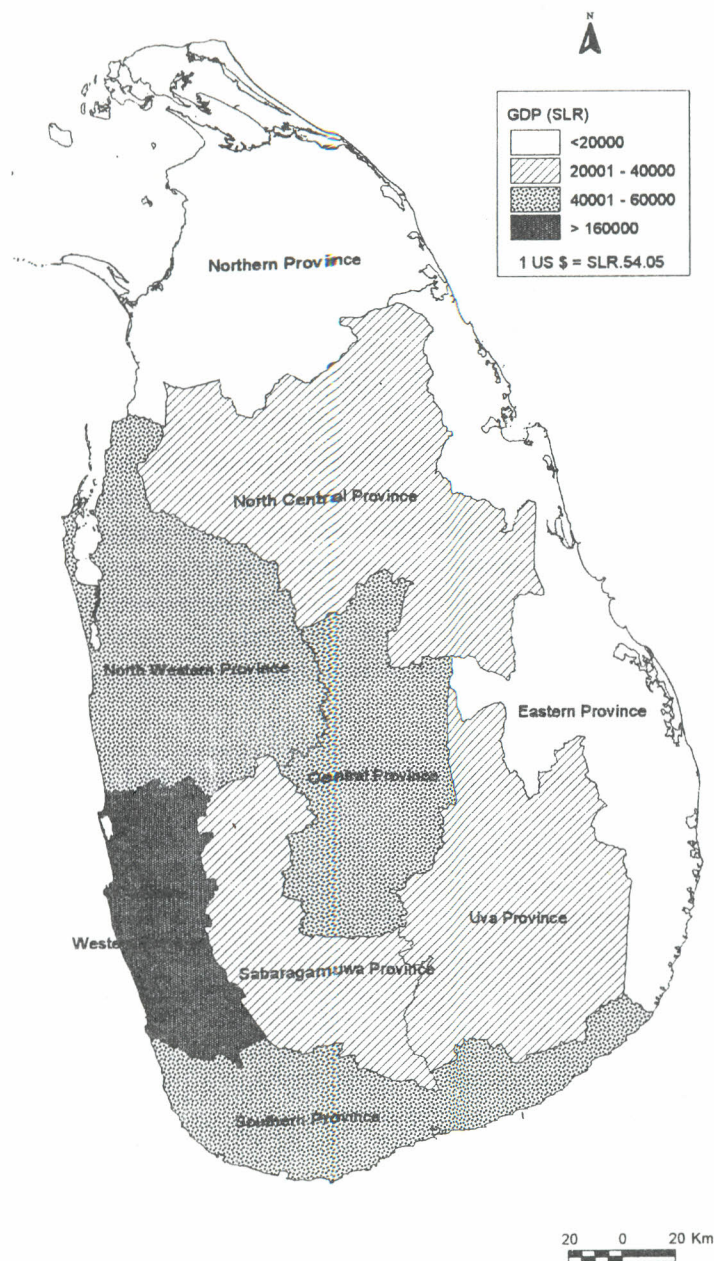


Fig : 2.1

Similarly, the rate of change of the per capita Gross Regional Product of 55.1 per cent between 1981 and 1990, was the highest for the country (Table 2.1).

TABLE 2.1
Gross Regional Product Per Capita, 1981 - 1991
(Constant 1993 SLR)

Region	1981	1991	Change (%)
Core			
Western Province	28,823	44,710	55.1
Periphery			
Central Province	13,001	16,551	27.3
Southern Province	14,124	20,039	41.9
North Western Province	18,066	20,802	15.1
North Central Province	19,202	18,177	-5.3
Uva Province	20,097	16,849	-16.2
Sabaragamuwa Province	17,142	18,238	6.4
Eastern Province	22,856	23,474	2.7
Northern Province	20,119	12,635	-37.1
Sri Lanka	20,661	25,617	24.0

Source: Guild and Richardson, 1995

TABLE 2.2
Contribution to GDP by Manufacturing Sector (SLR)

Region	Manufacture	%
Core		
Western Province	60,043	72.4
Periphery		
Central Province	7,109	8.6
Southern Province	3,893	4.7
North Western Province	2,380	2.9
North Central Province	792	1.0
Uva Province	1,165	1.4
Sabaragamuwa Province	970	1.2
Eastern Province	2,111	2.5
Northern Province	4,516	5.4

Source: National Planning Department, Sri Lanka.

Differences among Provinces in the contribution of the total manufacturing sector to the GDP is another criterion that can be used to measure the core-periphery differential. The contribution to the GDP by the manufacturing sector in the core was as high as 72.4 per cent as revealed in Table 2.2.

Further, as much as 88.0 per cent of the manufacturing employment and more than 80.0 per cent of the industries are concentrated in the core while the value added per industrial worker (Rs.161,609/=) is the highest for the country. When compared to regions in the periphery such as Uva, North Western and Central provinces where the value added per manufacturing employee ranged from Rs.80,000/= to Rs.92,000/=, the significant role played by the core in attracting larger and more capital intensive industries is clearly indicated.

The Aggregated Infrastructure Index computed in 1995 (World Bank) reveals that the core is well endowed with electricity, paved roads, telephones, pipe borne water and adequate sanitation facilities. The core has an Index of 10.55 whereas the second ranking Central Province has achieved only 4.995. The North Central and Uva Provinces had the lowest indices below 3.4. This characteristic is substantiated by the Human Poverty Index for Sri Lanka (UNDP, 1998). It provides an indication of survival deprivation, deprivation in knowledge, access to safe drinking water, safe sanitation and electricity and to adequate basic health care (Table 2.3). Similarly the core area has recorded the highest average in Human Development according to the Human Development Index too although on a district basis Kurunegala in the North Western Province and Anuradhapura and Polonnaruwa in the North Central Province have surpassed Colombo and Gampaha Districts in the core (Table 2.3). With reference to income levels too, the per capita GDP in two districts in the core is relatively higher when compared to those in the periphery (Table 2.4). A notable trend is that per capita incomes in Nuwara Eliya, Anuradhapura and Polonnaruwa have increased at a faster rate.

An analysis of spatial variations in the provision of health care facilities by Wanasinghe (1995) showed that there is a heavy concentration of facilities in the core. As many as 7 out of 11 largest and best equipped General and Teaching hospitals, all the specialist hospitals, 79 other hospitals that provide Western treatment as well as 57.0 per cent of medical specialists are concentrated in the core. Outside the core, Kandy District in the Central Province has the second highest number of hospitals and medical specialists while Galle District in the Southern Province and Jaffna District in the Northern Province rank third and fourth, respectively, in terms of the number of specialist doctors.

CHARACTERISTICS OF THE PERIPHERY

The periphery is a heterogeneous region, its diversity reflected in the different physical endowments and varied physical constraints that have to a great extent influenced the socio-economic development of the region. Panabokke's (1996) classification of Sri Lanka on the basis of amount and distribution of rainfall, elevation and soils indicate the different types of agro-ecological regions in the periphery. A major part of the periphery belongs to the Dry Zone Lowlands (DL1 to DL5), to the Intermediate Zone-Low, Mid and UP Country areas (IL1 to IL3, IM1 to IM3 and IU1 to IU3) and to Wet Zone-Mid and UP Country areas (WM1 to WM3 and WU1 to WU3).

TABLE 2.3
Regional Patterns of Human Poverty, 1994

Region	Human Poverty Index
CORE	
Western Province	13.98
Colombo	13.02
Gampaha	12.40
Kalutara	16.21
PERIPHERY	
Central Province	23.08
Kandy	17.39
Matale	21.50
Nuwara Eliya	30.54
Southern Province	20.38
Galle	18.61
Matara	19.32
Hambantota	23.33
North Western Province	21.45
Kurunegala	22.21
Puttalam	19.05
North Central Province	24.10
Anuradhapura	21.31
Polonnaruwa	27.69
Uva Province	27.46
Badulla	27.05
Moneragala	28.73
Sabaragamuwa Province	23.34
Ratnapura	25.30
Kegalle	24.08
Northern & Eastern Provinces	N.a.
Sri Lanka	17.76

Source : UNDP, National Human Development Report 1998

TABLE 2.4
The Regional Pattern of Human Development, 1994

Region (Province/District)	Life Expec. Index	Education Index	GDP Index	H.D.* Index
CORE				
Western Province	0.833	0.759	0.998	0.864
Colombo	0.783	0.758	0.999	0.847
Gampaha	0.783	0.768	1.000	0.851
Kalutara	0.933	0.751	0.996	0.893
PERIPHERY				
Central Province	0.772	0.711	0.697	0.727
Kandy	0.767	0.741	0.438	0.649
Matale	0.800	0.724	0.657	0.727
Nuwara Eliya	0.750	0.669	0.997	0.806
Southern Province	0.928	0.736	0.519	0.728
Galle	0.917	0.745	0.547	0.736
Matara	0.917	0.731	0.466	0.705
Hambantota	0.950	0.730	0.545	0.742
North Western Province	0.875	0.760	0.778	0.804
Kurunegala	0.933	0.750	0.965	0.883
Puttalam	0.817	0.770	0.591	0.726
North Central Province	0.842	0.759	0.977	0.859
Anuradhapura	0.817	0.760	0.984	0.854
Polonnaruwa	0.867	0.758	0.969	0.865
Uva Province	0.842	0.708	0.565	0.705
Badulla	0.767	0.694	0.692	0.717
Moneragala	0.917	0.722	0.437	0.692
Sabaragamuwa Province	0.942	0.734	0.562	0.746
Ratnapura	0.933	0.727	0.592	0.751
Kegalle	0.95	0.740	0.532	0.741
Northern Province	Na	Na	Na	Na
Eastern Province	Na	Na	Na	Na
Sri Lanka	0.859	0.670	0.730	0.753

*HD Index-Variables used are Life expectancy at birth, Adult literacy rates, combined primary, secondary and tertiary enrolment ratio and Real GDP per capita.

Source : UNDP(1998), National Human Development Report

The periphery is beset with numerous physical environmental problems such as drought (Domros,1974, Tennekoon,1986), floods (Peiris,1996), cyclones and land slides (Kulatunga et al, 1998), land degradation, soil erosion and pollution (NARSEA,1991) and economic problems such as unemployment, under employment, landlessness, poverty, inaccessibility and inadequacy of water, sanitation and transport facilities, inadequacy of higher grades of schools (IAB and IC) and qualified teachers and well-equipped hospitals and qualified doctors. As a result there is a continuous transfer of human, capital and physical resources to the core.

Not only does each province possess a unique combination of physical endowments and physical constraints but each has economic, social, cultural and historical features that set it apart from others. The diversity and complexity that exist within the periphery is illustrated by the economic and social indicators provided in Tables 2.1 to 2.4. In terms of the GDP contribution for example, the three sub national regions of Southern, Central and North Western Provinces had contributed a significant proportion of the total (31.1%). On the other hand, the Average Annual Growth Rates of the Gross Domestic Product (GDP) between 1990 and 1995 point out the fact that the North Central Province had experienced the highest growth rate of 9.9% surpassing the rates of the Southern, Central and North Western regions. With regard to the quality and quantity of infrastructure provision too, considerable inter regional variations among provinces in the periphery can be observed. For example districts in the Central and Southern Provinces (with the exception of Hambantota) are better served than those in the North Central, North Western, Uva and Sabaragamuwa Provinces.

A striking feature is the higher rates of growth of income in the relatively less developed districts in the North Central Province with Anuradhapura and Polonnaruwa recording 15.1% and 11.0% respectively in contrast to the growth rates for the districts in the core which had grown at a slower rate with per capita growth rates that ranged between 3.4% to 6.4% (Table 2.5). The relatively higher average incomes between Rs: 9,000/= and Rs:10,800/= and higher rates of growth in these 2 districts in the periphery are a reflection of recent developments in agriculture but these figures do not however, portray the widening of the rich-poor gap in income distribution and variations that exist within each district.

The level of social development in the North Western and North Central Provinces, according to the Human Development Index (HDI) shown in Table 2.4 is also higher than that in the more economically developed Central and Southern Provinces in the periphery. One reason for this anomalous situation is the relatively higher level of resource allocation for health to the North Central Province in 1995 (Rs:439/=per capita) to cater to the needs of service personnel in contrast to the lower per capita allocation of Rs: 199/= and Rs:217/= for the Southern and Central Provinces respectively (Attanayake,1997).

Based on multiple criteria such as the Average Annual Growth Rate of GDP, per capita GDP, trends in the per capita Gross Regional Product, the contribution of each province to the GDP and to the manufacturing sector, Aggregate Infrastructure Index and the HDI discussed above, regions in the periphery can be categorized into the following groups:

1. Relatively fast developing and more active periphery- Southern and Central Provinces
2. Moderately fast developing periphery- North Central and North Western Provinces
3. Slow growing periphery-
 - a) Sabaragamuwa and Uva Provinces.
 - b) Northern and Eastern Province and sections of the North Central Province where the on-going war has affected the socio-economic development and which requires considerable investment.

Within each of these provinces however, significant intra-regional variations can be observed. The level of human development (measured by the HDI), achieved by individual districts can be employed to illustrate the nature of intra regional differences (Table 2.4). Significant variations within the Central Province are displayed by the HDI, in which the Nuwara Eliya District had a HDI of 0.8 (ranking 7th among the districts in the island) while the adjoining district of Kandy which ranked 17th had a HDI of only 0.649 (UNDP,1998). In the North Western Province too Kurunegala District ranked 2nd in the order of importance with a HDI of 0.88 in contrast to 0.72 in the Puttalam District which had ranked 13th. The diversity of development levels in the periphery is also re-

flected in the intra-regional growth trends in the per capita GDP. Within the Central Province, Nuwara Eliya District had experienced the highest growth rate of 13.9% between 1990 and 1994 with an average income of SLR 13,987/= when compared to the Matale district which had recorded the lowest rate of 2.5% with an income of Rs: 7,592/= (Table 2.5).

Gender disparities range from 0.358 in the Puttalam District to 0.558 in the Anuradhapura District as indicated by the Gender Development Index (GDI) which reflects gender differences in life expectancy, education attainment and income levels (Table 2.6). Inter-district variation in income level between men and women appears to be greater than that for other indices since the Income Index ranges from 0.288 in Puttalam to 0.886 in Anuradhapura (UNDP,1998). The higher figures for agricultural districts of Anuradhapura and Polonnaruwa in the North Central Province and Nuwara Eliya in the Central Province can be attributed to the comparatively higher percentage of income earned by females in these 3 districts. In other parts of the periphery the income earned by women ranged from 29 per cent of male incomes in Puttalam to 67 per cent in Kurunegala.

TABLE 2.5
Trends in Per Capita GDP: Regional Patterns (SLR.)

Region Capita	GDP Per Capita 1990	GDP Per 1994	Per Capita Growth Rate 1990 - 94 (%)
CORE			
Western Province			
Colombo	12,610	14,545	3.8
Gampaha	11,862	14,880	6.4
Kalutara	11,849	13,480	3.4
PERIPHERY			
Central Province			
Kandy	5,692	6,664	4.3
Matale	6,902	7,592	2.5
Nuwara-Eliya	8,985	13,987	13.9
Southern Province			
Galle	5,747	7,125	6.0
Matara	4,812	6,780	10.2
Hambantota	6,244	7,119	3.5
North Western Province			
Kurunegala	7,436	8,905	4.9
Puttalam	6,092	7,314	5.0
North Central Province			
Anuradhapura	6,757	10,832	15.1
Polonnaruwa	6,265	9,047	11.1
Uva Province			
Badulla	7,180	7,742	2.0
Moneragala	6,425	6,659	0.9
Sabaragamuwa Province			
Ratnapura	6,117	7,315	4.9
Kegalle	5,780	7,062	5.5
Nothern Province	Na	Na	Na
Eastern Province	Na	Na	Na

Source : UNDP, National Human Development Report 1998.

TABLE 2.6
Inter and Intra Regional Variations in Gender Development, 1994

Province	Life Expectancy Index	Education Index	Income Index	G.D.I*	Rank
Core					
Western Province	0.816	0.770	0.710	0.493	2
Colombo	0.755	0.778	0.693	0.49	5
Gampaha	0.766	0.781	0.738	0.506	4
Kalutara	0.908	0.750	0.699	0.483	6
Central Province	0.755	0.753	0.648	0.467	3
Kandy	0.741	0.765	0.442	0.402	16
Matale	0.755	0.769	0.617	0.462	10
Nuwara Eliya	0.748	0.726	0.885	0.537	3
Southern Province	0.905	0.764	0.554	0.439	5
Galle	0.875	0.775	0.500	0.425	12
Matara	0.900	0.754	0.503	0.419	13
Hambantota	0.942	0.764	0.659	0.474	9
North Western Province	0.854	0.782	0.479	0.420	7
Kurunegala	0.900	0.777	0.670	0.482	7
Puttalam	0.808	0.787	0.288	0.358	17
North Central Province	0.816	0.793	0.875	0.557	1
Anuradhapura	0.792	0.788	0.886	0.558	1
Polonnaruwa	0.841	0.799	0.871	0.557	2
Uva Province	0.817	0.769	0.566	0.445	4
Badulla	0.742	0.766	0.671	0.479	8
Moneragala	0.892	0.773	0.461	0.411	14
Sabaragamuwa Province	0.917	0.745	0.537	0.427	6
Ratnapura	0.908	0.741	0.601	0.447	11
Kegalle	0.925	0.748	0.472	0.407	15
Nothern Province	Na	Na	Na	Na	Na
Eastern Province	Na	Na	Na	Na	Na
Sri Lanka	0.838	0.767	0.627	0.465	

Source : UNDP, National Human Development Report 1998, Regional Dimensions of Human Development, Sri Lanka, Colombo. - 1998

*The GDI is calculated on the same variables in the HDI but is differentiated by gender.

The average figures that denote inequalities prevalent among districts mentioned above, in reality mask numerous intra-district variations that exist as illustrated by the distribution of poor families in the smaller administrative divisions or Divisional Secretariat (DS) Divisions in the Central Province. Laggala-Pallegama, Wilgamuwa, Pasbage Korale and Tumpane DS Divisions are recognized as relatively poor areas since as many as 70 per cent of families receive Government benefits. Similar variations occur among the DS Divisions in the North Central Province as well.

The periphery is the major agricultural producer in the country. Approximately 94 per cent of paddy lands are concentrated in the periphery and about 90 - 95 per cent of the paddy produced in the country is obtained from the peripheral districts. As much as 60 percent of the acreage under paddy lie in the North Central (inclusive of the Mahaweli Development Project area), Eastern and North Western Provinces. All the major high value field crops such as chillies, onions and potatoes and others such as cow pea and green gram as well as a significant proportion of vegetables and fruits that are consumed in the densely populated core area are grown in different parts of the periphery. The bulk of the major and minor export crops such as tea (98.3 %), rubber (63.6%), coconut (79.4 %), cocoa, pepper, cinnamon, cloves and nutmeg is also produced in the periphery. These provinces are also rich in minerals such as precious and semi-precious stones, graphite and ilmenite that earn a considerable amount of foreign exchange. However, most of the produce leave the periphery as unprocessed goods and do not contribute to capital accumulation in the region,

The recent unemployment rates for the provinces based on the Labour Force Survey conducted by the Department of Census and Statistics in 1997 indicate that the North Western, North Central and Uva Provinces have relatively lower unemployment rates ranging from 6.7 per cent to 8.5 per cent in contrast to the average rate of 10.5 per cent for the country as a whole. The Southern and Central Provinces on the other hand had relatively higher rates of 13.6 and 12.3 per cent respectively.

Another feature that needs to be highlighted is the urban-rural and rural-rural disparities in the distribution of services and facilities in the periphery. The provision of health services can be used as an illustration. All the teaching and specialized hospitals, provincial and base hospitals as well as many of the district hospitals in the periphery are urban-based.

As a result, people residing in larger districts such as Moneragala, Ampara and Anuradhapura or those living in hilly and rolling terrain in Kandy and Nuwara Eliya districts in which towns are few and villages are scattered, do not have easy access to higher order health care institutions. The situation is exacerbated by inadequate transport facilities. In the Central Province the density of intra-regional C,D and E Grade roads is 0.4 kilo metres per square km. Certain DS Divisions such as Minipe, Laggala and Pasbage Korale record densities as low as 0.04-0.08 km/sq.km.

In certain areas rural-rural disparities have decreased- especially in the health sector. In the past there were considerable variations in the health sector between the estate population and people in the remaining rural areas but significant improvements that have occurred after 1980 have reduced inequities. In the Matara District for example, during the years 1980 and 1988 there was a dramatic decline in the Mortality Rates of estate population from 11.4/1000 to 6.8/1000 (Sri Lanka State Plantation Corporation, 1991). As a result of the expansion in immunization, provision of cadres of para-medical workers, improvements in maternal and child care as well as in nutrition, housing and sanitation there has been a drastic reduction in the Still Birth Rate, the Infant Mortality Rate, the Peri Natal Mortality Rate and the Neo Natal Mortality Rate. The Infant Mortality Rate in the Galle/ Matara Estate Region according to the above source declined from 45.7/1000 to 23.5/1000 within a span of three years(1987-1990). The decline in Neo Natal Mortality Rate during this period from 31.7- 12.7 is a reflection of improvements in 'endogenous' factors such as pre natal care, maternal health and care taken at delivery.

On the other hand, disparities in the health situation within rural areas in the North Central, Eastern and Northern Provinces have widened in recent years due to the on going separatist war. For example, a study of health issues in 13 welfare centres in the Anuradhapura District, which has one of the largest contingents of displaced persons revealed that they do not have easy access to preventive and curative health care facilities that are available to many other people in rural areas (Wanasinghe and Deheragoda, 1994).

A CRITICAL EVALUATION OF POLICY INITIATIVES TO DEVELOP THE PERIPHERY IN SRI LANKA

The State has adopted numerous measures to improve the incomes and raise the quality of life of people in the country, although very few of these measures can be described as regional development strategies per se. Most of the State policies were not initiated exclusively to reduce the inter-regional inequalities although they have had beneficial spatial impacts on the periphery.

Policy instruments include capital and technology transfers and transfer of public investment for education, health and infrastructure, for expansion of the area under agriculture and for enhancing agricultural productivity, for promotion of regional industries and for the stimulation of growth of small and medium towns in rural areas. Attempts made to formulate and execute regional development plans for geo-political or for geo-economic regions in the periphery include the Integrated Rural Development Programs (IRDPs), the Mahaweli Development Project (MDP) and the proposed programme for the South by the Southern Development Authority (SDA). In the following section a critical assessment of selected policies and strategies adopted in Sri Lanka to reduce regional disparities will be undertaken.

Transfer of Public Funds

A substantial transfer of funds has been made to the periphery through capital outlays on infrastructure-for the construction of roads, schools, hospitals, irrigation systems and rural electrification. As a result, the road mileage increased in the hitherto neglected less developed parts of the periphery during the period 1939 to 1990. The North Central Province experienced a 281 per cent growth, followed by Uva (209%) and Southern Provinces (200%) (Peiris, 1996). Yet the road density remained relatively high only in the core area and in districts such as Jaffna, Galle, Matara and Nuwara Eliya. Within each district considerable disparities are prevalent in the provision of transport facilities as exemplified by the Central Province. Although the Central Province has a total of 1656 km of A and B Grade roads and 2397 km of C,D and E Grade roads, the density in individual DS Divisions varies considerably. As mentioned above, while the average density of C,D and E Grade roads is 0.4 km per sq.km., in Divisions such as Minipe, Pasbage Korale and Laggala the density is below 0.1. A notable shortcoming is that public investment on

roads in the peripheral areas has not succeeded in creating essential inter- and intra regional linkages that maximize access within peripheral regions instead of which it has continued to support the outward-looking dendritic transport system.

Public funds have also been transferred to the periphery for the restoration of ancient irrigation works and for the construction of new dams, reservoirs and canals in the Dry Zone. The massive multi-purpose Mahaweli Development Project involved the largest amount of investment of over Rs. 66,000 million for the construction and restoration of reservoirs, provision of physical, economic and social infrastructure, land preparation for agriculture and settlement and the generation of hydro-electricity. The rural electrification programme launched in 1962 also enabled some rural areas in the periphery to have access to electricity through public funds.

Improvements in the Physical Quality of Life

Although not directly targeted at the poor, numerous welfare measures adopted by the State have contributed to the improvement in health and education standards in the periphery. These programmes included free health care and free education, Food Subsidy Schemes, the Food Stamp Scheme, provision of free mid-day meals, free uniforms and free text books to school children and nutritional interventions for mothers and infants (Ratnayake, 1998). These programmes contributed to raising the Life Expectancy level of districts in the periphery such as Galle, Matara, Hambantota, Kurunegala, Polonnaruwa, Monaragala, Ratnapura and Kegalle in 1994 to a level above the national average of 77 years.

A fact that should be noted is that although there is a reasonable dispersal of Western health care facilities in the country the quality of service provided is not uniformly distributed. The majority of hospitals in the periphery are small in size, and poorly equipped and are characterized by an inadequacy of specialized medical staff. Therefore public confidence in the lower levels of health care is poor and the smaller rural hospitals are under-utilized with a low bed occupancy rate.

Measures to improve the level of education included the establishment of Central schools in towns in the periphery modeled on urban schools in the core and National schools in the periphery and the maintenance of a teacher-pupil ratio of 1:22. Owing to these notable improvements 10

districts in the periphery have achieved relatively higher literacy levels and surpassed the national average of 90.10 (UNDP, 1998) but higher grades of schools with well-equipped science laboratories are not yet available in most areas in the periphery. The introduction of a district quota system for the selection of University entrants from under-privileged areas is an attempt by the State at providing equality of educational opportunities to pupils in the periphery.

Such significant advances in social development that have taken place in the periphery are portrayed in the changes in the Physical Quality of Life Index (PQLI) during the inter censal period of 1971 and 1981. The average PQLI in the country which was 78.9 in 1971 had increased to 84.2 in 1981. The highest rate of change in the PQLI occurred in the district of Nuwara Eliya followed by Trincomalee, Mannar, Anuradhapura and Kegalle but as discussed above, the figures given on a district basis do not disclose the intra-district and intra-divisional variations in the level of social development.

Poverty Alleviation Programmes

The State has always supported the poorer segments of the population through income transfers in cash or kind. The most recent pro-poor national programme - *Samurdhi* has benefited nearly 1,973,200 families in 1998, which is approximately 51.0 per cent of the total. This proportion is estimated to be considerably higher than the percentage of deserving low income families which amounted to only 30-40 per cent (Central Bank Annual Report, 1998). In addition to income transfers, opportunities are being provided by *Samurdhi* to promote savings and to obtain credit for the establishment of enterprises or other income generating activities as well as to assist the recipients to meet their social obligations. The ultimate objective is to promote self-reliance.

Prior to the launching of *Samurdhi*, a similar pro-poor programme called *Janasaviya* had been in operation since 1989. *Janasaviya* assisted nearly 420,000 families who lived below the Poverty Line of Rs. 700/= monthly family income. There was a total income transfer of Rs. 2500/= for each family, of which Rs 1458/= was for consumption and saving while the remainder was for saving only. The objective was to promote self-reliant development of the poor and to up grade their Quality of Life.

The proportion of 'deserving' poor has been over estimated as reported by the Central Bank. Today, the percentage of *Samurdhi/Janasaviya* recipients exceed 70.0 per cent in the DS Divisions of Medawachchiya, Horowpathana, Tirappane and Weli Oya in the North Central Province. Further, it was discovered that the percentage of beneficiaries who exit from the 'poverty trap' and earning incomes above the poverty line was singularly low and that the majority continue to depend on State assistance (Karunatilake, 2001)

Land Development and Settlement in the Periphery

Alienation of land in the periphery for agriculture and settlement has been another type of State intervention that aided in ameliorating excessive polarization. In the more densely populated Wet Zone where there was a considerable number of landless families during the early decades of the 20th Century land was provided from within the region itself under Village Extension (VE) Schemes and Highland Colonization Schemes. By 1948, and 65,000 ha of Crown land or land purchased from the private sector had been subdivided under VE Schemes, among 125,000 rural families. By 1973, the total land area redistributed under VE Schemes amounted to 315,000 ha. Highland Colonization Schemes involved the subdivision of plantations into larger allotments of 2.5 to 5.0 acres. Although these two schemes benefited poorer landless families in the Wet Zone, a critical analysis by Peiris (1996) revealed that the land was of poor quality and that the majority of families did not have access to basic education, health and other facilities.

In the Dry Zone Lowlands too a similar attempt was made in the early decades of the 20th Century to open up the hitherto neglected undeveloped areas by restoring ancient irrigation canals and reservoirs and constructing new ones. Prior to the 13th Century the Dry Zone Lowlands had flourished as the cradle of the ancient Sinhala civilization while the core and other parts of the Southwest quadrant of the country was under developed. After 1235 AD due to various physical, political and other factors there commenced a period of settlement desertion in the Dry Zone and a gradual drift of population towards the Southwest. In spite of the efforts of the State at the turn of the 20th Century, people could not be induced to migrate to the Dry zone. It was only when the land policy changed after 1939 to State-aided colonization that the Dry Zone became attractive to settlers. The State constructed new roads and provided other infrastructure facilities, land, houses, educational and health services and financial assistance and eradicated malaria in order to en-

courage people to settle down in the colonization schemes. The region also attracted 'pioneering entrepreneurs', contractors, labourers, service workers and encroachers from many parts of the country.

Among the Dry Zone settlement schemes the Gal Oya river basin project in the Eastern Province stands out as the first integrated multi-purpose project which aimed at developing the whole catchment area of a river. This scheme provided water from a new reservoir to existing and new lands under paddy, sugar cane and other crops, generated hydro power and established sugar, tile and brick factories in the region.

Irrigation and land alienation in the low country Dry Zone brought about a considerable expansion of area under agriculture. Within a decade (1952/53 to 1962/63) there was a 212 per cent increase of agricultural land in the North Central province from 29,770 ha. to 110,990 ha. In addition to the extension of area under paddy and other crops yields have increased in the areas served by the major colonization schemes due to the extensive use of high yielding seed varieties, fertilizers, pesticides and weedicides. In the Eastern and North Central Provinces the average annual paddy production increased by 1696 per cent and 917 per cent respectively between 1944/45 and 1946/47 to 1987/88 and 1989/90 (Peiris, 1996).

Colonization schemes also promoted rural to rural migration, helped to reduce the rate of city-ward migration and retained the landless in the Dry Zone. Prior to the opening up of the Dry Zone there was a major one-way destination for internal migrants i.e. to the core area. Colonization schemes led to the emergence of a new migration stream which transferred 128,000 persons to the low country Dry Zone between 1946 and 1953. Thus two main destinations of migrants could be observed in the country after 1946 viz., a rural to urban migration to the core (to the Colombo District) and a rural to rural migration to the Dry Zone especially to the North Central and North Western Provinces in the periphery. During the inter-censal decade of 1953-1963 and between the inter-censal period of 1963 and 1971 internal migration followed the same pattern. At the Census of 1981 too, two areas that had major net gains of over 200,000 migrants were Colombo and Gampaha districts in the core (203,000) and the North Central Province (228,720).

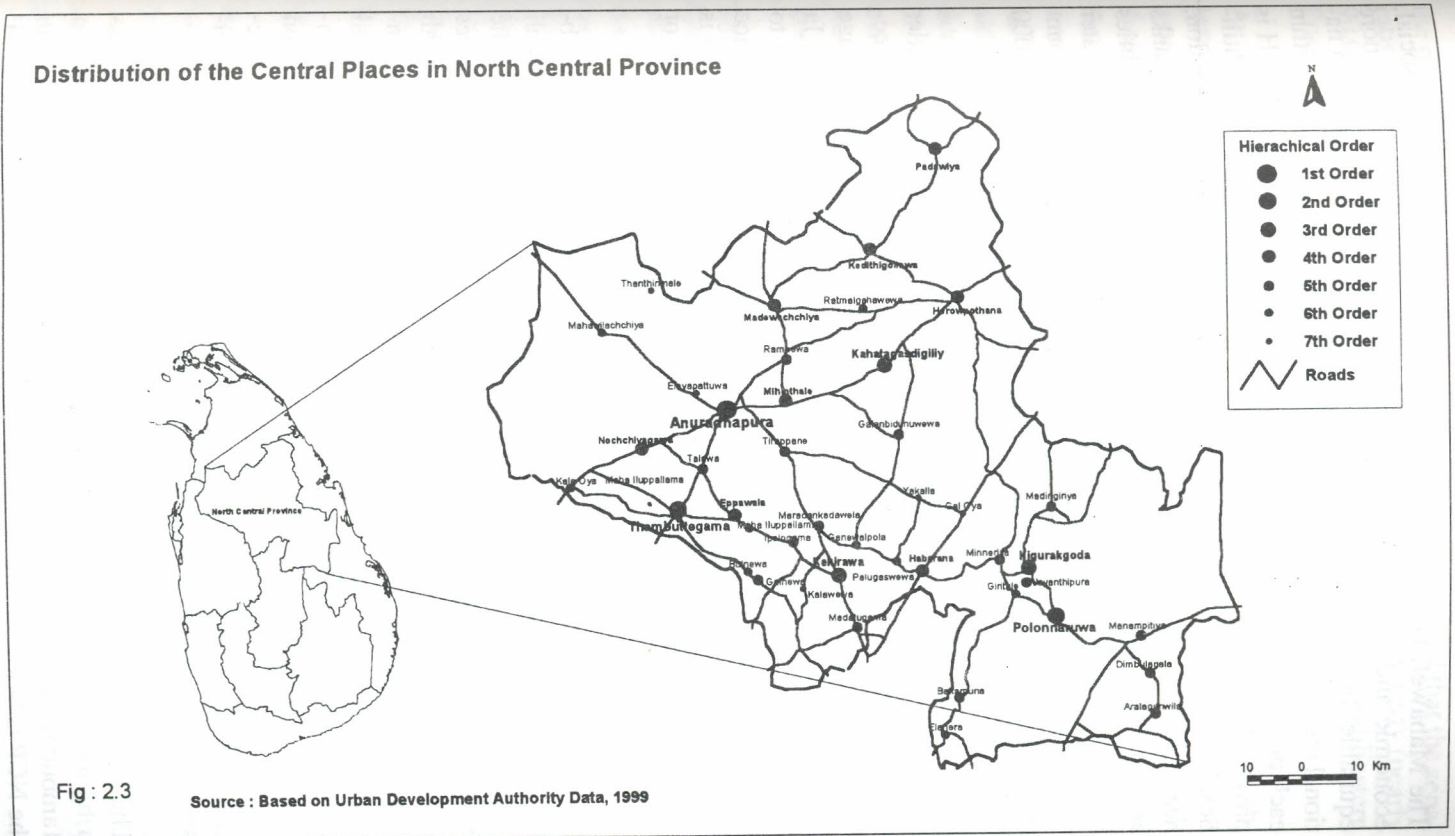
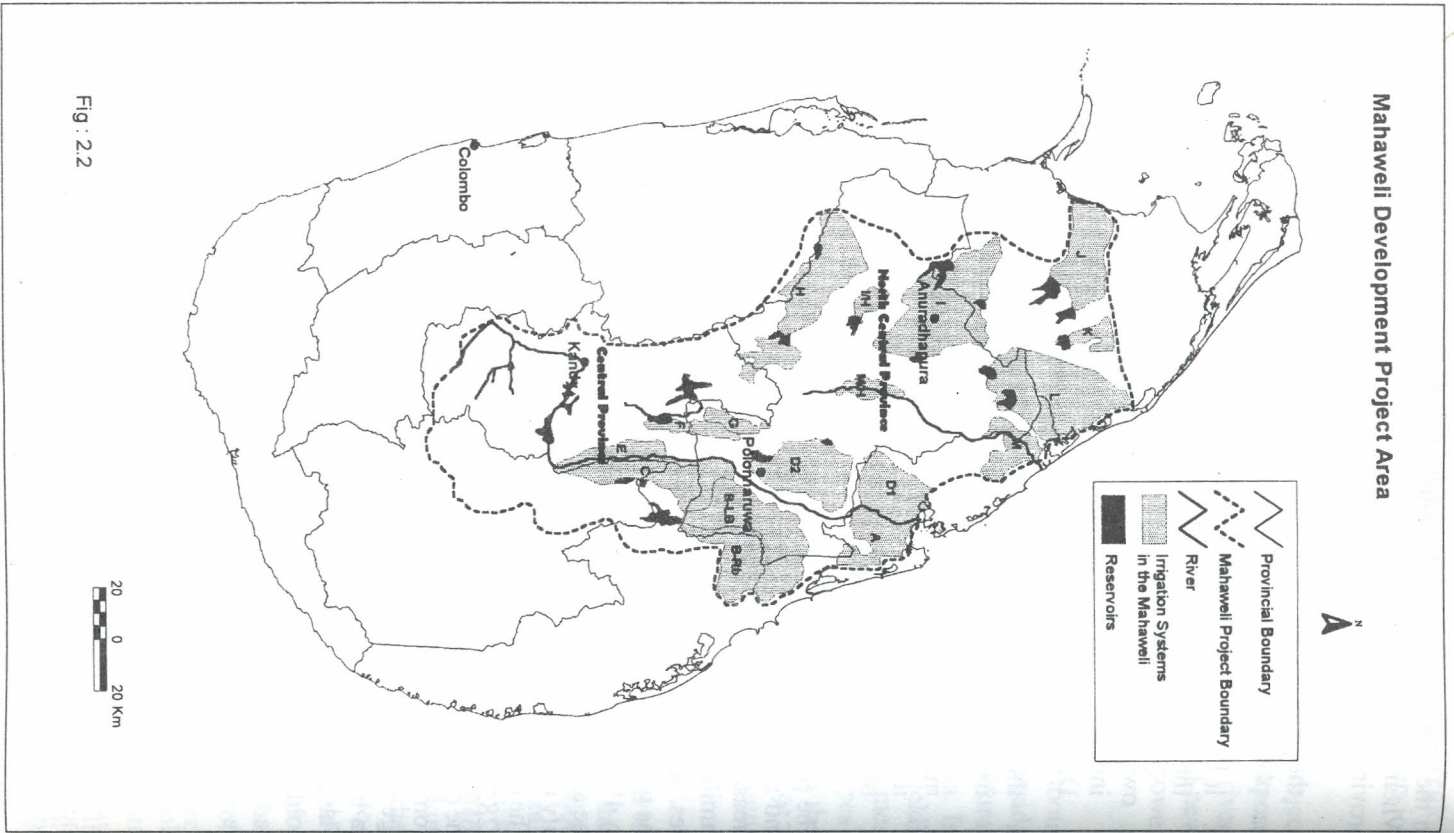
Unlike the smaller colonization schemes, the multi-purpose Mahaweli Development Project (MDP) covers a larger percentage (40 per cent) of non-contiguous land area under a number of irrigation systems mainly

in the North Central and Central Provinces in the periphery (Fig.2.2). When assessing the role of the project on the development of these two provinces the following salient facts emerge viz;

- a. the project has contributed to the social and economic development of the people within the area under the project
- b. it has also contributed to the social and economic development of the country
- c. owing to the absence of an integrated development plan for the provinces only those areas that have been developed under the Mahaweli Development Project have emerged as prosperous enclaves
- d. this has resulted in the widening of disparities between the Mahaweli irrigation systems and the remaining areas in each Province
- e. numerous problems have arisen within the Mahaweli project area itself during the past 25 years which has prevented the area from being transformed into an 'upward transition' zone

The project aimed to supply irrigation water to new lands (260,000 ha) and augment the water supply of existing croplands (400,000 ha), increase agricultural production, provide land to farmer and non-farmer families, generate hydro power and create new employment opportunities. Apart from generating 56 per cent of the power requirements for the whole country, it has settled 193,120 farmer and non farmer families by 1995; provided physical and social infrastructure for settlers; increased the area devoted to paddy and other field crops and attempted to diversify the economy through livestock farming and enterprise development. The extent of land under paddy in the region increased by approximately 128,250 ha which amounted to 16.0 per cent of the total paddy land in the country. The Mahaweli lands yielded 20.9 per cent of paddy production and had a marketable surplus of 85.3 per cent of the total. The average yield of paddy surpassed the national average of 3.5 metric tons per ha by 20.9 per cent (Mahaweli Statistical Handbook, 1995 and 1996). The area under other field crops as well as their share in the total household income had increased thus reducing the excessive dependency on paddy. Between 95 -100 per cent of the production of the field crops are being marketed outside the Mahaweli areas. (Wanigaratne, 2000).

Not only has the average household incomes of farmers increased but an analysis of the distribution of income according to the above source, revealed that the income share gap between the lowest 60 per cent and the highest 30 per cent had declined from 23.7 per cent in 1991 to 15.6 per cent in 1997.



The Mahaweli lands have a greater concentration of physical, social, economic and institutional infrastructure, higher incomes and a more equitable distribution of land than in other areas within each sub national region, resulting in the polarization of the irrigation systems within each province. In the North Central Province for instance, System H is provided with physical infrastructure such as roads, canals, public utilities, houses and other buildings; social infrastructure such as education, health, postal and other services; institutional infrastructure such as banks and government offices and economic infrastructure such as facilities for the modernization of agriculture as well as land and irrigation water while the remaining areas have been ignored. On the average the amount spent per settler family in System H is estimated to be Rs.112,000 (Peiris, 1996).

In order to facilitate the provision of services and facilities to the settler population and to provide off-farm employment opportunities, a three-tier hierarchy of service centers or central places viz., hamlets, village centres and townships have been introduced to irrigation systems. In System 8 townships and 20 Village Centres have been established to serve 31,000 settler families. On the other hand the number of service centres for people in the other parts of the North Central Province is grossly inadequate and essential rural-urban linkages are either weak or absent as illustrated in Fig 2.3 (Wanasinghe, 1987).

Another shortcoming rightly pointed out by Scudder in 1985 is the absence of an inter-system relationship in regard to the different Mahaweli irrigation systems and also the lack of a close relationship between the Mahaweli systems on the one hand and the other Colonization schemes such as Minipe and Minneriya on the other. Commenting on the growth of small towns outside the irrigation systems he further stated that 'unless they lie within Mahaweli system boundaries, existing commercial centres like Kekirawa, Mahiyangana continue to be ignored'. The colonization schemes established prior to the Mahaweli project had also been treated as closed systems with little attention paid to functional interrelationships between colonization schemes and the adjoining less developed areas.

The differential distribution of benefits has manifested itself in the distribution of poverty regions. While the percentage of poor families in Tambuttegama and Talawa located within the Mahaweli System H in the NCP is below 40, in the majority of DS Divisions outside the MDP

the proportion exceeded 60 per cent. It should be stressed that the separatist war has also contributed to the higher incidence of poverty (nearly 90.0 per cent) in the DS Divisions bordering the Northern and Eastern Provinces.

As mentioned above, within the Mahaweli project itself certain problems have arisen in recent years that tend to prevent the Mahaweli project area from playing a more significant role in regional development. Although there was an equitable distribution of land at the inception and that the average income of farmers has increased in the different irrigation systems there has been a wide variation in income levels as highlighted by Siriwardene (1981) and Wanigaratne (1987, 1997). Further, although 85%-87% of the paddy and 90%-96% of other food crops produced in the Mahaweli is sold outside, Wanigaratne (1997) noted that distress sales amounted to over 60% of the marketed surplus. He added that finding employment opportunities in the non-farm sector for the second and third generation of farmer families would become a major issue in the near future.

Other issues identified by Siriwardene (1981), Wanigaratne (2000), Gooneratne (2000) and others that need to be addressed if the Mahaweli project area is to contribute to regional development are land fragmentation and illegal land transactions; absence of a dynamic non-farm sector to absorb second and third generation of settler families; declining farm profits; crops being 'artificially propped up' by subsidies for water, land, fertilizers etc.; 60 per cent of surplus disposal as 'distress sales'; high incidence of malnutrition among children (32 per cent) and acute malnutrition (42 per cent); high relative poverty (richest 25 per cent receive 37 per cent of total income); poor performance of some planned townships.

The Integrated Rural Development Programme

The Integrated Rural Development Programme (IRDP) was launched in 1979 with donor assistance to develop areas not covered by the three lead projects undertaken by the State viz., the rural based Mahaweli Project in the periphery, the urban based Urban Development and Housing Programme and the Free Trade Zones (Export Promotion Zones) located in the core which focussed on industries.

The objectives of IRDPs in Sri Lanka were to bring about a balanced regional development and to

- widen economic opportunities and enhance general living standards in rural areas;
- focus development efforts specifically to meet local needs and to encourage local initiatives;
- reduce inter-district and intra-district disparities and hence promote more balanced growth;
- encourage quick responsive, mutually supportive, low cost productive investments along with necessary institutional improvements;
- assist in the removal of bottlenecks and constraints, thereby contributing to the better utilization of the districts' resources and
- improve the planning process in the districts (Ramakrishnan, 1987).

By 1999 the cumulative expenditure for IRDPs and projects in former IRDP areas such as the Matale Regional Economic Advancement Project (REAP), North Central Province Participatory Rural Development Project (PRDP) and Batticaloa Development and Rehabilitation Project was as high as Rs. 11,680 million (Ministry of Plan Implementation and Parliamentary Affairs). The foreign aid commitment is approximately 83 per cent of the total. The major achievements have been in social mobilization and in the delivery of social and economic infrastructure to the districts concerned (Lindhal et al 1991, Dahlen, 1992, Moore, 1996, Amarasinghe, 1996, Senaratne, 1996) but as explained below the IRDPs have not made a positive impact on the overall development of each district.

The main thrust of the IRDPs in other developing countries too was on agricultural change while little consideration was given either to industrial growth or to the vital role service centres can play in the rural economy as pointed out by Baker and Pedersen (1992). The IRDPs in Africa according to Baker and Pedersen, attempted to change the rural-urban balance by by-passing the small towns which led to an even greater centralization of decision-making. A similar situation has arisen in Sri Lanka too.

As early as 1980, Perera noted that 'the IRDPs have jettisoned the principle of people's participation and are largely bureaucratic undertakings with foreign assistance. This aspect of removal from the people is further accentuated through the enlistment of private sector firms of consultants to speed up project preparation'. When evaluating the Matale IRDP, Lindhal et al (1991) commented on the inherent conflict between rural development as '*regional development versus development focussing on the poor*' and that '....the project simultaneously has become marginal to the overall development problems of the district'. Similarly in 1992, Dahlen in his comparative evaluation of IRDPs concluded that 'in Sri Lanka IRD Program has not been developed as a coherent program but stands out today as a number of individual projects (IRDPs) which differ in objectives, approaches, strategies, priorities and procedures'.

Shortcomings such as the highly centralized system of governance, direct State intervention through line organizations and the absence of any active participation of institutions at local level which prevented the successful implementation of this programme have also been highlighted by Lakshman and Chandrasiri (1997). They state that

'although the attempt has consciously been made to involve people at grass roots level rural organizations and NGOs, the IRDPs and Janasaviya and Samurdhi programmes have been essentially central government initiatives.....Although lip service is paid to planning and implementation through grass root level communities and organizations, the basic strategies under all three programmes have been worked out for, and activities designed and handed down to the people in under developed regions by central organizations'.

The need to shift away from welfare and infrastructure based development strategy of the IRDP and to focus on economic growth and income generation in the different districts has been felt for some time. Hence in 1997, a new concept-Regional Economic Advancement Programme or REAP was initiated with the objective of generating economic growth and creating employment opportunities in rural areas. The redirection of the approach is from an essentially rural to integrated rural/urban development; poor rural area focus to area based growth promotion; poor oriented focus to entrepreneur focus; primary subsistence to market oriented production and value addition and government dominated programmes to private sector led programmes. (Karunanayake, 2000)

In order to achieve these objectives REAP concentrates on market based farm enterprise development and specialization; rural non-farm enterprise development; integrated village development and the regional development plans. Unlike the IRDPs, REAP expects to focus more on balanced regional development but in the absence of comprehensive regional plans for districts or provinces, the question arises whether REAP can make a worthwhile contribution to regional development. Another major issue highlighted by Karunanayake and Abhayaratna (2000) is the 'manner in which the REAP strategy relates to the poorest segments of rural society who have hitherto been supported by social welfare oriented programmes of the IRDP'.

Decentralization of Industries

The distribution pattern of industries in Sri Lanka exhibits a marked concentration in the core. This region has attracted the majority of private sector entrepreneurs with the exception of raw material-oriented industries such as processing of tea and other agro-based products and the manufacturing of porcelain and chinaware, pottery, bricks, wood crafts and market-oriented industries such as the preparation of food items for a localized market. Other enterprises located in the periphery include traditional handicrafts based on skilled labour and service industries. In the Central Province for example, the majority of industries are medium, small or micro-enterprises 52 per cent of which are agro-based while others are either mineral-based, wood-based or metal-based industries (Ministry of Industries, 1996). In system H of the Mahaweli Development Project too, the most common are small and micro-scale rice mills, followed by food processing and light engineering industries. A significant proportion of large-scale industries of the public sector itself has been established in the core. In 1978 and 1982 two Investment Promotion Zones (IPZs) were launched by the State at Katunayake and Biyagama respectively to attract foreign and local investment. Both IPZs are located in the core. A third IPZ- Koggala, is situated in the Southern Province. In 1996 93.0 per cent of all the firms and 91.0 per cent of the total employed in the three IPZs were concentrated in Katunayake and Biyagama IPZs. Due to the over concentration of public and private sector industries in the core, the contribution to the GDP by the manufacturing sector by regions in the periphery was less than 30.0 per cent.

In recent years the State has attempted to decentralize industries through the Industrial Estate (IE) and the 200-Garment Factory programmes. Industrial Estates are considered as a strategic tool to promote balanced

regional development. The main objectives of the IE programme were to generate employment, upgrade skills and raise the standard of living of the people in the periphery. Land, infrastructure facilities, capital and other incentives were provided in the periphery in order to encourage entrepreneurs to set up industries. The majority of industrial estates however have not yet succeeded in attracting entrepreneurs with the result that the objectives have not yet been achieved. In the North Central Province only three Industrial Estates with a few small and micro-industries are functioning at present.

By 1990 the garment industry in Sri Lanka had expanded rapidly. It was highly labour intensive (providing employment to over 150,000) but was mainly concentrated in the core area. In order to decentralize industries and to create direct employment opportunities for 100,000 persons the State launched the 200 Garment Factory Programme (200 GFP) in 1992. Two hundred *Pradeshiya Sabha* areas (local government divisions) classified as most-difficult, difficult and non-difficult, were identified as suitable for locating the new garment factories. Of the sites selected, about 40 per cent belonged to the most-difficult areas while another 40 per cent were in difficult areas. A number of attractive incentives were offered to entrepreneurs. It was expected that each factory would employ at least 500 persons who were to be recruited from *Janasaviya* recipients in the *Pradeshiya Sabha* areas in which each factory was to be located. By 1994, out of 762 garment factories in Sri Lanka 174 had been established under the 200 GFP (although the exact number in operation was not certain) and provided employment to 77,000 or 33 per cent of the total). By 1998 however, the Central Bank reported that only 160 factories opened under the 200GFP were functioning (Fig.2.4). Of this number 128 were located in the periphery which provided employment to nearly 67,000 persons. In the North Central Province, only 19 garment factories had been established with a total investment of Rs.686 million. These factories provided direct employment to 8561 persons in the area. The average number employed per project amounted to 420 in the Anuradhapura District and 537 in the Polonnaruwa District.

Distribution of Factories under the 200 Garment Factory Programme

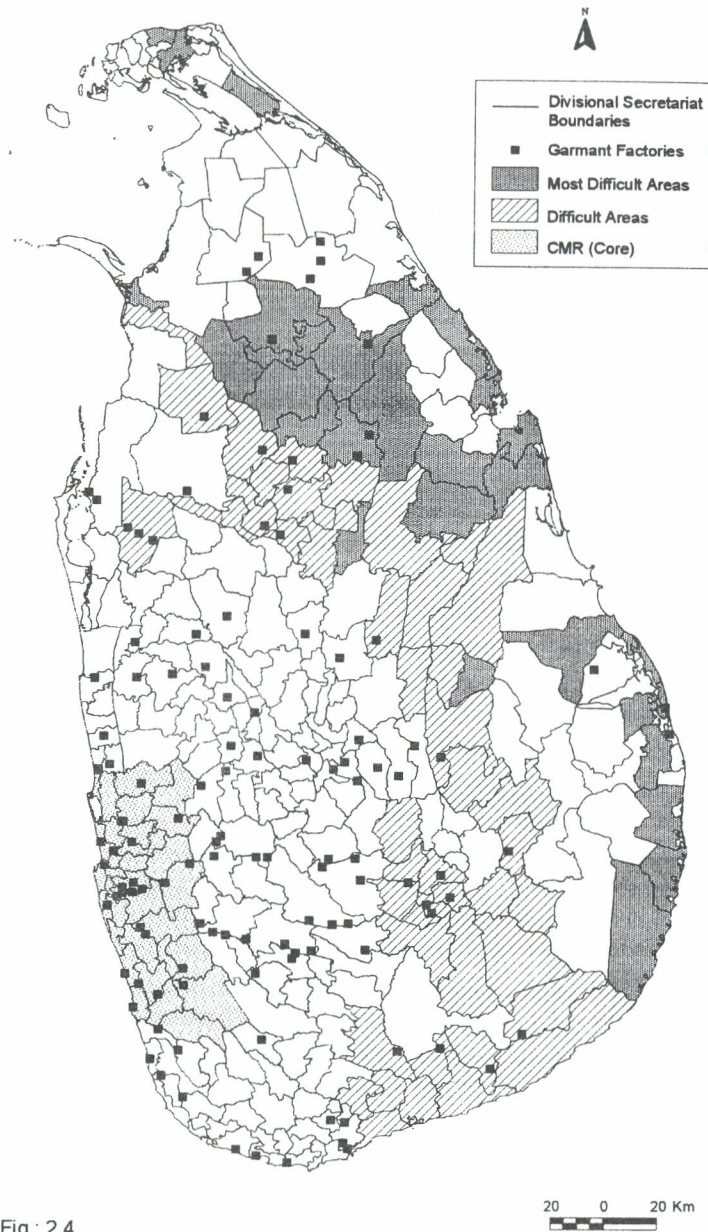


Fig: 2.4

Source : G.H. Peiris, 1996, *Development and Change in Sri Lanka: Geographical Perspectives*

An analysis of the 200 GFP by the Ceylon Chamber of Commerce (CCC) in 1994 revealed certain shortcomings in the programme. The study concluded that 'striving to introduce 200 additional units of production into a quota controlled industry without jeopardizing the existing industry was extremely optimistic'. Hence although the parent companies were interested in the extended tax holidays for existing investments and other incentives for locating factories in the periphery, they had 'confessed to making a political rather than an economic decision'.

Secondly, during the early stages, the entrepreneurs complained that the labour obtained from households of Janasaviya recipients did not have 'the discipline that a regimented factory situation requires. As a result managers were faced with problems of frequent absenteeism and high drop-out rates which had adverse consequences on productivity and planning' (The Ceylon Chamber of Commerce, 1994). This problem has been resolved from the point of view of the manufacturers because the Board of Investment (BOI) has relaxed the employment criteria. However from the regional development perspective the changed policy would impact adversely on the objective of generating employment opportunities in the periphery.

Under the Industrial Promotion Act No.46 of 1990 and the new Industrialization Strategy for Sri Lanka announced in 1995 too special emphasis was placed on regional industrial development. Yet in spite of the incentives and benefits offered, entrepreneurs are more attracted to Industrial Estates, Industrial Parks and mini Export Processing Zones that have been opened in the core area such as Seethawaka, Matugama, Watupitiwala, Mirigama, Homagama, Minuangoda and Kalutara rather than to locations in the periphery.

Thus the inability of the periphery to attract propulsive industries is a major drawback since the periphery depends primarily on agriculture which does not provide sufficient opportunities for income generation. Unless attempts are made to attract processing, manufacturing, service or tourist industries there is a danger that selective out-migration to the core will intensify in the near future. The experience of the industrial estate and other decentralizing policies shows that the provision of infrastructure facilities or fiscal incentives have not been adequate to attract entrepreneurs to the periphery. The reasons advanced by the Ceylon Chamber of Commerce and the Sri Lanka Business Development Centre (1997) for the private sector's reluctance to invest in the periphery

should be taken into account when formulating policies for the periphery's industrial growth. They include issues such as excessive centralizing of policy formulation and implementation; the inability of local officials to respond to requirements of local entrepreneurs; inadequacy of telecommunication facilities; absence of banking and financial services necessary for international business transactions; excessive politicization of decision making on economic issues; over regulation which gives administrative personnel excessive and discretionary powers over economically sensitive subjects; absence of regional distribution centres and networks; lack of trained personnel in the region and credible data.

Promotion of Small and Medium Towns

The inadequacy of central places such as towns and rural service centres and weak rural-urban linkages in the periphery can become a major constraint to regional development (Johnson, 1970, Rondinelli and Ruddle, 1978, Mathur, 1982). They can foster regional development by stimulating agricultural productivity, enabling farmers to market the produce and purchase inputs at competitive prices. These towns can also generate employment opportunities in the non-farm sector and provide basic health, education and other services.

Contrary to the ideas expressed by Southall (1979, 1988) and Lipton (1977) that towns are centres of exploitation and that they play a negative role in rural and regional development, Sri Lanka has considered towns to be catalysts that are essential for the development of colonization schemes and the Mahaweli Development Project area in the periphery. In colonization schemes such as Parakrama Samudra and Uda Walawe, a 2 tier hierarchy of service centres known as Civic Centres and Townships were established to serve the settlers. However, the quality and quantity of services available in these centres at the time they were established had not been adequate to serve the rural hinterland. Several decades later, planned townships and spontaneously-developed centres such as Kantale, Minneriya, Kekirawa, Hingurakgoda, Ambalantota, and Tissamaharama located either within or adjacent to colonization schemes had experienced rapid growth in population and enterprises and developed as important service centers. (Fig: 2.3)

In the Mahaweli Project too, a hierarchy of Village/ Block Centres and Townships was introduced to perform the above-mentioned services. A critical analysis of the role of Townships in the development of System H revealed that the presence of too many townships located close to each other inhibited small town growth (Wanasinghe, 1982). A recent

study by Indrasiri (2000) revealed that a number of these Townships have emerged as important service centers since their Centrality Values are considerably higher than the values prevailing in small centres such as Kebitigollewa, Rambewa, Nikaweve located in other parts of the North Central Province.

At the time IRDPs were introduced to Sri Lanka however, economists and planners had been arguing that small towns were centres of exploitation and that benefits of development do not accrue to the poorest groups in rural areas because of small towns. Therefore the IRDPs in developing countries including Sri Lanka paid scant attention to small and medium towns and failed to perceive the catalytic role small towns and rural service centres can play in the development of each district. The IRDPs were in fact conceived as 'rural' development projects and concentrated on developing rural areas without giving due consideration to the symbiotic relationship that exists between urban and rural areas. In all the IRDP areas in Sri Lanka donor assistance was not provided for the development of service centers or for strengthening essential rural-urban linkages.

The contribution of small towns to the development of the periphery in Sri Lanka has been assessed by Mendis (1973), Silva (1979), Wanasinghe (1982, 1987), Panditharatna and Nelson (1991), Wanasinghe and Indrasiri (1996) and recently by Chandrasiri et al (1999). These studies on the functional diversity and the current spatial distribution of lower order central places (including periodic markets) point out that their geographical coverage especially in the IRDP areas is inadequate. Secondly, the analysis of the functional diversity brought out the fact that the ability of existing centres to generate employment opportunities in the industrial sector for the non-farm population is low. Industrial activities are confined to a few small scale agro-processing enterprises or others that fabricate household items for a limited local market and service industries such as repair and maintenance of agricultural equipment, motor vehicles and bicycles as illustrated by research conducted by the UDA (1992), Wanasinghe and Indrasiri (1996) and Chandrasiri et al (1999). These towns in fact perform commercial and service functions operated primarily by small businessmen or by the informal sector.

Recognizing the need for a balanced distribution of towns for regional development a new strategy was initiated in the early 1990's that focussed on providing the necessary infrastructure to selected small and medium

towns in the periphery. The majority of the selected towns perform commercial and administrative functions but do not possess adequate serviced sites, a regular water supply, sanitation and garbage and sillage disposal facilities, wide roads and bridges, an efficient communication system, infrastructure management facilities, three-phase electricity to enable them to attract a large number of entrepreneurs. The objectives of the strategy are to strengthen urban institutions, improve resource mobilization, maximize access of people in the periphery to urban services, facilitate investment by the private sector and also address environmental problems. Sixteen small and medium sized towns, of which 11 are Provincial and District capitals have been selected for development. This is an on-going programme and more small and medium towns have been added recently for development assistance. It should be stressed that in the absence of an overall national urbanization policy for Sri Lanka, the selection of a few towns for investment is not likely to have the desired effect.

Decentralization of Banking

Prior to 1950 the majority of banks in Sri Lanka were confined to Colombo or other main cities and catered to the export and import trade the rural sector had to depend primarily on the informal and unorganized sector. In order to mobilize rural savings and to enable rural farmers to have access to credit, the State encouraged the opening of branches of existing banks and the establishment of new banks such as the People's Bank in rural areas. The number of banks expanded rapidly particularly between 1970 and 1977. By 1996 the country had a banking density of 1.39/10,000 people while the core had a density of 1.6/10,000. The number of bank branches in the periphery exceeded 1500 in 1999.

The key features of the rural credit policy of the State according to the Central Bank's Annual Report of 1999 are to encourage the establishment of widespread rural banking network at grassroots levels to make credit more accessible to rural people; to promote the setting up of people-based organizations to establish cost-effective credit delivery systems and to provide credit plus services to rural population for income generating self employment activities. Accordingly, the number of people-based organizations in the periphery such as *Samurdhi* Bank Societies and *Isuru* Development Societies and Regional Development Banks has increased to cover a wider area. The New Comprehensive Rural Credit Scheme to fund small farmers and '*Surathura*' - the self employment oriented micro-credit scheme are some of the rural credit schemes inaugurated in the 1990's to benefit the people in the periphery.

Despite the fact that the number of banks in the periphery and consequently the amount saved has increased, the tendency is for the larger banks in the periphery to utilize the savings mobilized in rural areas to develop industry, trade and services in the core. Such a transfer of capital from the periphery to the core is undoubtedly a major constraint to regional development. An analysis of the net capital outflow from Commercial and Development banks in the Central Province in 1999 revealed that there was a drain of about Rs. 14,000 million which is 2.6 times higher than the total budget of the Central Provincial Council (Chandraratne, 2000). The main reason for this practice is said to be the high profit motivation of the banks that prefer to lend money to investors in the core who can provide collateral and higher rates of interest.

In 1986, Fonseka when discussing about the mandate of the Peoples Bank warned about the danger of the out flow of rural resources. He stated that

the commercial banking system extracts a considerable surplus from the rural districts through the difference between district deposit mobilization and district loan deployment. This considerable surplus is diverted to the much more profitable or bankable metropolis through the two Banks' 'International Divisions' to finance import, export and service transactions and other urban oriented banking activities.

Fonseka cites the role of the Reserve Bank of India in regional and rural development which has introduced a number of corrective institutions and policies such as 'positive discrimination' in favour of the weaker sectors of the rural community in each district and district wise and branch wise differential rates of interest on deposits and loans. Commenting on this continuing trend Siriwardene (2000) stated recently that

the new credit culture developed in response to financial reforms and fierce competition for profit, rejected the small sector on the ground that there is not much scope to finance small enterprises. This strategy was adopted to divert financial resources to finance speculative business ventures in the metropolitan centres and to promote share trading and investment on securities etc. This has resulted in activating the flow of revenue away from rural regions to urban centres.

An analysis of the saving and lending pattern of rural sector banking institutions in Sri Lanka such as the Cooperative Rural Bank (CRB) for example reveals that out of a total saving of Rs.5,196,746/= on 30th Sep-

tember, 1993 only 13.0 per cent was given as loans. By 1998, the amount obtained as loans had increased to 37.0 per cent of Rs. 10,518,000/= but only 36.0 per cent of the loans in 1993 and 28.0 per cent in 1998 had been utilized for agriculture, small industries, animal husbandry and commerce (Central Bank Reports). In the Bank of Ceylon sub offices at Agrarian Services Centres and in the Regional Rural Development Banks and Thrift and Credit Co-operative Societies however, loans have been utilized mainly for agricultural activities.

Devolution of Power and Regional Development

Devolution involves the transfer of decision making authority from central government to sub-national governments. The State has for a long time been aware of the need to decentralize responsibility of formulating and implementing regional development programmes. In the early 1970's Divisional Development Council (DDC) system was introduced to facilitate regional development through local level institutions which can be regarded as a turning point in the history of regional development in the country. The functions of DDC's included the formulation of development projects for the region. Several shortcomings had been noted including the highly centralized system of governance which did not leave adequate room for the adoption of the principle in practice (Fernando and Perera, 1980, Cheema and Rondenelli, 1983, Lakshman and Chandrasiri, 1997). The system was also criticized because of the absence of active participation of local level institutions.

After 1977, the selection of administrative districts as regional planning units and the appointment of district ministers; the establishment of the Regional Development Division in the Ministry of Plan Implementation to formulate Integrated Rural Development Projects for districts; the launching of lead projects such as the Accelerated Mahaweli Development Programme and the creation of institutions like the Mahaweli Authority were some of the steps taken by the new Government to enhance the administrative capability for regional development.

It was in 1987 that a major attempt was made under the 13th Amendment to the Constitution and the Provincial Council Act No.42 of 1987 to transfer the main responsibility for planning and implementation of development programmes from the national to sub national Provincial Councils. Each province had a number of devolved powers and functions. According to the Amendment, every Provincial Council may, subject to the provisions of the Constitution, make statues applicable to the Province for which it is established with respect to matters laid down in List I of the Ninth Schedule. Among the responsibilities of the Provin-

cial Councils are the implementation of provincial economic plans. The Provincial Councils are not empowered enact statues on matters set out in List II but they can pass statues applicable to the province subject to the provisions of the Constitution, with respect to any matter on List III which is the concurrent list. The powers include the formulation and appraisal of plan implementation strategies at the provincial level.

Although Provincial Councils can play a crucial role in formulating sub-national (provincial) development plans Leitan (1997) noted that instead of a coordinated regional plan, a set of fragmented and uncoordinated projects that have been conceived at different levels had been put forward by most of the provinces. Mendis (1996) also reiterates that effective planning at provincial level has been slow to build up because of weak provincial planning capacity, institutions and procedures; absence of a broad clear policy and guidelines; lack of sound information systems and data for planning and lack of trained personnel. Abeywickrama (2000) outlined a similar set of constraints that prevented the North Central Provincial Council (NPC) from performing a dynamic role in regional development. These included the heavy dependence on external financial resources whose priorities would not coincide with those of the NPC; imbalance in the allocation of financial resources between social and physical infrastructure; inability to attract qualified and skilled man power and the absence of a comprehensive data base.

Attanayake's (1997) discussion of decentralization and administration of health services 10 years after devolution can also be used to illustrate some of the problems faced by sub-national regions. He remarked that even though the provinces have shown some improvements in upgrading their capacities particularly in planning and management, (with assistance from the centre), they still have a long way to go in successfully carrying out their devolved functions. This situation according to Attanayake, is due to lack of motivation of central level administrations and politicians to accelerate the decentralization process. He also remarks that there is a tendency for centralization at the provincial level due to lack of capacity at divisional and secondary hospital levels.

A major complaint of the Provincial Councils in the periphery as mentioned above is the inadequacy of locally derived funds for development activities and the persistence and overwhelming dependence on Central Government funds. Development projects in the provinces receive financial resources from the decentralized budget, sectoral ministries, special projects, Provincial Councils, Local Authorities, and Statutory bodies such as the Mahaweli Authority. Central Government allocations are made through Block Grants, Criteria Based Grants and Matching Grants. When allocating funds, weightage was given to population; per capita

income; the need progressively, to reduce social and economic disparities; and the need, progressively, to reduce the difference between the per capita income of each Province and the highest per capita income among the Provinces. The criteria has been amended recently to include two important aspects viz. extent of land area and development needs (Abeywickrama, 2000) The core receives more funds because of its relative importance in population size and its higher per capita income and its greater contribution to GDP. The core received approximately 35.0 per cent of the total in 1998 but 1999 the proportion had increased to 43.9 per cent of the total budgetary allocation. Although the total amount of funds allocated to the Central and North Central Provinces in the periphery had increased, the proportion allocated had declined from 9.6 and 4.0 per cent to 7.2 and 6.0 per cent respectively (Table 2.7).

In order to cover the budget deficit, the Central Government had in 1998, contributed to the Central and North Central Provincial Councils, a sum of Rs.3758 million and Rs. 2196 million respectively which was as high as 89.0 and 93.1 percent of the total expenditure in each Provincial Council.

Unintended Impacts of Aspatial and Spatial Policies of the State on the Periphery

The State's industrial, urban or fiscal policies that favour the core can directly or indirectly impact adversely on the periphery. In many countries, as explained by Simon (1992)

the implicit effect of many existing aspatial government policies relating to the economy and pricing agricultural and basic commodities, tax structures, sectoral investment priorities and centralized political control at the expense of local authorities, continue to favour metropolitan core regions....

Some of the recent decisions of the State that have had an unfavourable impact on the periphery by accentuating polarization such as

- the concentration of a number of State-controlled industrial corporations in the core area;
- the establishment of two major Investment Promotion Zones and Industrial Estates close to Colombo;
- the modernization of the port and air port of Colombo;
- the relocation of administrative functions in a suburban area of Colombo viz., Sri Jayewardenepura.

TABLE 2.7
District Capital Investment, 1998 and 1999

Provinces	Annual Budgetary Allocation Rs. Million			
	1998		1999	
		Total %		Total %
Western Province				
Colombo	7,901	19.8	15,422	28.5
Gampaha	4,692	11.7	6,497	12.0
Kalutara	1,331	3.3	1,834	3.4
Central Province				
Kandy	2,241	5.6	2,264	4.2
Matale	1,137	2.9	918	1.7
Nuwara Eliya	443	1.1	722	1.3
Southern Province				
Galle	2,797	7.0	3,516	6.5
Matara	1,726	4.3	2,881	5.3
Hambantota	1,796	4.5	1,342	2.5
North Western Province				
Puttalam	7652.0	1,443	2.7	
Kurunegala	3,051	7.5	2,093	3.9
Uva Province				
Badulla	1,312	3.3	2,187	4.0
Moneragala	671	1.7	916	1.7
Sabaragamuwa Province				
Ratnapura	2,889	7.2	2,110	3.9
Kegalle	2,037	5.1	1,520	2.8
Northern Province				
Vavuniya	336	0.9	771	1.4
Kilinoachchi	44	0.2	54	0.1
Jaffna	1,343	3.4	1,755	3.2
Mulativu	44	0.2	60	0.1
Mannar	117	0.3	307	0.6
Eastern Province				
Ampara	700	1.8	955	1.8
Batticaloa	471	1.1	531	1.8
Trincomalee	558	1.4	766	1.4
North Central Province				
Anuradhapura	1,188	3.0	2,170	4.0
Polonnaruwa	420	1.0	1,114	2.0
Total	40,010	100	54,148	100

Source: Ministry of Plan Implementation and Parliamentary Affairs, District Capital Investment Programme, 1998 and 1999

Sri Lanka while promoting interventionist policies has also adopted the accommodationist perspective by fostering the development of the CMR. The strategy advocated in the Colombo Metropolitan Structure Plan to provide opportunities for increased economic development, employment generation and improved living standards; to attract new industrial investments and reinforce the core functions of the metropolitan area would undoubtedly lead to a further strengthening of the core. Under its regional and economic strategy, the plan envisages the polycentric development of 6 Growth Centers outside the perimeter of the economic and administrative capital cities of Colombo and Sri Jayewardenepura (the newly defined core area in the CMR). Attention will be focused on the provision of incentives and other facilities to attract foreign investment; encourage public-private partnerships; establish new industrial estates and make available soft-loans for projects in the growth centres. Thus a further concentration of industries and population is likely to occur in these proposed growth centres in Homagama, Negombo, Gampaha, Biyagama, Horana and Matugama since the objective is to provide direct employment to 305,000 and indirect employment to 610,000. Other proposals include setting up of Science Parks, High Tech industries and Cyber Cities in the region. Since two of the growth centers are to be located in the less developed Kalutara District the existing intra-regional inequalities within the core would be minimized.

CONCLUSIONS

The above analysis highlighted the factors contributing to polarization of Colombo and the policies and strategies formulated and implemented by the State during the past five decades which contributed either directly or indirectly to the development of the periphery.

The major policies instrumental in developing the periphery included capital and technology transfers, transfer of public investments, opening up of unused land for agriculture and settlement schemes, decentralization of industries and devolution of power to sub national governments. These policies had a favourable impact as reflected in the improvements in the Physical Quality of Life of the people, enhancement of infrastructure facilities, increases in crop production, diversion of cityward migrants to rural areas and the emergence of small towns as service centers in certain areas. The analysis of selected development programmes such as the IRDPs, the Mahaweli Project and the industrial decentralization programme proved beyond doubt that drawbacks and

shortcomings in the planning and operational stages had prevented the projects from achieving their objectives. In fact projects such as the IRDP and REAP cannot be considered as comprehensive regional development strategies for the districts concerned. Even the Mahaweli project did not have the expected spread effects but created more developed enclaves which intensified intra-regional inequalities within provinces. The industrial decentralization strategies too did not have the expected results.

Moreover, the strategies for the development of the periphery have mainly been 'top down' approaches planned by the Centre. The absence of the commitment to participatory processes in local level planning is a major criticism leveled against the State's development efforts.

Problems in the periphery are multi-faceted. Some are related to the physical environment such as landslides, low and variable rainfall, drought, cyclones and floods, land degradation, soil erosion, water pollution, while others are associated with poverty, unemployment, landlessness and separatist wars. The inability of the periphery to retain the capital generated in the region for development activities due to the absence of corrective institutions and policies as well as the movement of unprocessed goods out of the region, its lack of success in attracting entrepreneurs or in preventing 'brain drain' are other major issues.

The issues related to regional imbalances lie not only with the periphery's failure to control the backwash effects of polarization but also with the dynamic nature of the core. As mentioned above the core has distinct advantages over the periphery aided by a number of aspatial and spatial policies of the State that have had direct and indirect beneficial effects on the core area.

Hence despite negative externalities in the core region such as spiraling cost of land, urban sprawl, traffic congestion and environmental deterioration, agglomeration economies and the proposed urban structure plan, the core will continue to attract more industries and other economic activities to the region. Further, due to the inability of the periphery to attract industries or to formulate plans to utilize untapped resources for cultural tourism or eco-tourism that will provide non-farm employment opportunities, migration will once again be directed to the core area on a larger scale in the near future. The absence of comprehensive development plans for sub-national regions in the periphery to enable

them to narrow the gap between the core and the periphery on the one hand and the gap between the developed and less developed areas within each region is a major drawback. The separatist war is likely to exacerbate the regional problem. Instead of a 'polarization reversal' it is possible to predict a further widening of the gap.

Regional development is an integral part of the overall national development. Each sub-national region has a special regional identity. Regions such as Central and the North Central Provinces have a rich and unique cultural heritage and untapped resources that could enable them to develop and be resilient in the face of globalization. Due to the regional development issues that exist today the solution for Sri Lanka is to rethink her regional development strategies in order to realize each region's development potential and enhance its comparative advantage.

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AGRICULTURAL INNOVATION AND MARGINALIZATION OF THE RURAL POOR IN SRI LANKA

M.D.C.Abhayaratna

INTRODUCTION

The predominant position of the agricultural sector in Sri Lanka has undergone considerable change during recent years. Contribution of agriculture to the GNP declined from 29 percent in 1978 to 18 percent in 1997. A similar downward trend is noted in agricultural employment as well. According to the Census of Agriculture 1953, agriculture provided 53 percent of all employment in the country. This share declined to 37 percent in 1996, yet it ranks as the most important single sector in providing employment.

Presently, the number of families engaged in small farm agriculture amounts to 1.8 million. Of these families the majority (64 percent) own/operate holdings below 2 acres (0.8 ha.) (Ranaweera, 1998). From historical times peasant agriculture with its associated small farms was devoted to the food production of the country. However, owing to the subsistence nature of the peasant economy surplus production for the market was limited. With the rapid increase of population in Sri Lanka during the last few decades the gap between local food production and demand for food widened and the government was compelled to import, particularly rice and wheat flour, to meet the increasing demand for food. With a view to reducing the expenditure on food imports and conserving foreign exchange, the government of Sri Lanka (GOSL) made a concerted effort to increase the local production of rice.

Agricultural policy, particularly since Independence, was geared to meet the need to increase food production. A two pronged approach was followed for the purpose. First, the government focussed on increasing the area under paddy cultivation through large investments on irrigation development and land settlement in the Dry Zone of Sri Lanka. Secondly, intensification of agriculture was pursued to achieve enhanced productivity. The latter approach was linked to agricultural innovation. Innovating agriculture was often hailed for its positive outcomes specially

the increase of agricultural productivity. However, the studies that highlight the negative aspects of technological innovations in Sri Lanka particularly their impact on resource-poor farmers, are very few in number. This study attempts to fill the lacunae to some extent.

It is evident that almost all the available studies focus on System H of the Mahaweli Scheme and marginalization of the resource-poor farmers has not been pivotal to these studies. The emphasis has been on social and income inequalities in selected hamlets. None of the available studies provide an in-depth analysis of the marginalization process experienced by the farming community. Thilakasiri (1979) with reference to the empirical evidence from Thoranagama – a hamlet in System H of the Mahaweli Scheme – has highlighted that differential access to water had direct effects on production levels thus leading to income inequalities among farmers. Based on field evidence from a hamlet in system H - Midellewa - resettled by the farmers of a *purana* (traditional) village from the same locality, Siriwardena (1981) has shown that income disparities and a marked social stratification have emerged marginalizing the majority of the farmers. Krimmel's study (1986) on a Mahaweli hamlet settled by Kotmale evacuees - Aluthgama (a pseudonym) - emphasizes on social differentiation in the context of the new rice production technology.

The point of departure of the present study is that it deals with marginalization as a process related to innovation in the context of three different rural settings. The evidence is drawn from the Mahaweli systems, other major irrigation schemes and the tank villages of the Dry Zone of Sri Lanka. Further, it makes an attempt to explain why the new technology which is essential to raise productivity, has by-passed the resource-poor farmers. The study also focuses on changing gender relations and the need for introducing innovations with a view to alleviating poverty and contributing to rural development, an aspect not dealt with in the other studies. The discussion is based on secondary data as well as the author's field experience in both the *purana* villages and the major irrigation schemes in the Dry Zone of Sri Lanka.

CONCEPTUALIZATION

Innovations are common to many spheres of production. Adams (1982) has defined agricultural innovations as "new ideas, methods, practices or techniques which provide the means of achieving sustained increases

in farm productivity and income". An innovation involves a process which incorporates the conception of a new idea, transforming that idea into an invention and the subsequent translation of the invention into practice. Systematic innovations in agriculture seek to achieve purposeful and organized changes which lead to enhanced productivity.

Although farmer induced innovation through indigenous knowledge systems have been common in many developing countries their contribution to catalyze a growth in production at national level has not been very significant. Hence respective governments have intervened in the recent past to introduce science-based innovations into agriculture with a view to expediting agricultural production, particularly the production of food using bio-chemical and mechanical technologies. The present study highlights the innovations in small farm agriculture and makes an in-depth analysis of the resulting marginalizing process relating to resource-poor farmers.

There is evidence from the developed world to suggest that the rate and the direction of technical change in agriculture has been influenced by (a) land and labour endowments of an economy (b) non-agricultural demand for labour and (c) conditions of demand for final agricultural products (Pingali et.al., 1988). Hence, the constraints imposed on agricultural development by an inelastic supply of labour may be offset by advances in mechanical technologies while constraints relating to an inelastic supply of land may be offset by bio-chemical technology. The responsiveness to economy-wide factors, in general, has led to a process of science-based induced innovations (Hayami and Ruttan, 1971).

Influence of land and labour on the direction of technical change in agriculture is amply illustrated by the examples of Japan and USA which took different paths to achieve the desired output goals in agriculture. Japan took the path of bio-chemical yield-increasing technology characterized by heavy investments on irrigation, use of hybrid seeds, intensive application of fertilizer and chemical inputs (Hayami, 1975). In contrast, the agriculture in USA depended mainly on mechanical technology until about 1970s.

The experience in many developing countries suggests that until the end of 1950s growth in agricultural output could be mainly attributed to the expansion of the cultivated area in response to the increased world demand for export crops and domestic demand for food crops (Pingali

et.al., 1988). With the progressive exhaustion of unexploited land resources in the developing countries and the decline of the cultivated area per agricultural worker as a result of the population increase, more emphasis was placed on raising land productivity through expansion of irrigation, introduction of high yielding varieties, use of chemical fertilizer and other chemical inputs. With reference to East and Southeast Asia, many writers have documented the transition from the traditional growth pattern associated with area expansion to a modern pattern based on increased land productivity (Hayami and Ruttan, 1979; Lee and Chen, 1979; Huan Ban, 1979). Similar innovations in biological technology to increase land productivity have been observed in South Asia, particularly in the context of the rapid diffusion of the 'Green Revolution' technology (Bingswanger and Ruttan, 1978).

In Thailand and the Philippines as well as in the Indian Punjab more emphasis was placed on the biological and chemical technologies in innovating agriculture. Under low wage conditions only partial mechanization of power intensive operations such as tillage, transport and processing has occurred in these cases (Pingali et.al., 1988). In Sri Lanka, despite the low wage conditions farmers in the colonization schemes of the Dry Zone are driven into full scale mechanization of tillage operations. The major factors explaining this situation are the shortage of labour within the period of peak demand, need to complete land preparation for paddy cultivation during the restricted period of continuous water issues and the inadequacy of the available animal power.

On the whole, nature and extent of the adoption of innovations in agriculture largely depends on the economic standing of the farmer. Hence, poverty continues to be a major constraining factor to the adoption of innovations.

The extent and depth of rural poverty have often been established with reference to 'poverty lines' which provide only a one-sided view of rural poverty. Many social and environmental considerations associated with rural poverty are not incorporated in deciding official poverty lines. Hence, a number of writers (Bernstine, 1979; Sen, 1981; Chambers, 1983; Blaikie, 1985) have attempted to identify rural poverty in terms of varied characteristics relating to the political economy and environment or a combination of both.

The various analyses have viewed poverty as a multi-faceted phenomenon. Bernstein has explained poverty with reference to increasing cost of production and decreasing returns to labour, a process termed by the author as a "simple reproduction squeeze". According to Bernstein (as quoted in Lindberg, 1996) degradation of soil owing to intensification of production, technological innovations leading to increasing costs of production and deteriorating terms of trade at household level are the major causes leading to poverty. Bernstein has been criticized for not considering regular remittances or presents from relatives as sources of income for the household economy. As Lindberg (1996) has observed with reference to the Tanzanian villages he had studied, these remittances play an important role in the household production system. A similar trend has been observed in Sri Lanka with increasing number of males from rural areas joining defense forces and females seeking employment in garment industries and securing unskilled jobs abroad.

Sen's theory of 'entitlement' provides another explanation of poverty with reference to the wider political economy. According to Sen (1981) entitlement of an individual to food depends on the ability to exchange productive resources and goods for food. Despite the entitlement enjoyed by the poor, a person/family can be reduced to starvation either because of a fall in endowment (by factors such as loss of land through mortgage, loss of labour power owing to ill health) or because of changes in exchange relations such as unexpected hikes in food prices, sharp drop in prices of the surplus agricultural commodities produced for sale or by reductions in social security provisions. Sen's theory denotes poverty stems from the poor access to and inability to control resources rather than from the restricted availability of resources. In the Sri Lankan rural context, especially with reference to agriculture, unequal access to land and water determines the levels of poverty. However, it is pertinent to note that the people have not been reduced to starvation because of the State sponsored welfare measures and social mechanisms that provide resilience during adversity.

Yet another analysis of poverty based on socio-political considerations has been put forward by Chambers (1983). He emphasizes that the poor have little access to political power and possess limited bargaining power. Chambers' analysis points to the fact that poverty is a strong determinant of four additional characteristics viz., isolation, vulnerability, powerlessness and physical weakness which in turn cause malnutrition

and ill-health. The inter-linked nature of these factors explains the deprivation experienced by the poor. This explanation holds true for the tank villages in the Dry Zone of Sri Lanka where the agricultural production is mainly for subsistence. The situation in the major irrigation schemes, especially where effective farmer organizations are in place shows that the worst features of the 'deprivation syndrome' may be modified to some extent. Yet the marginalization of the farmers continues to be a persistent feature in the major irrigation schemes in Sri Lanka including the Mahaweli Systems.

Blaikie's (1985) explanation is also significant in analyzing rural poverty in the agricultural societies. Blaikie contends that the process of incorporation in the capitalist market economy and extraction of farm surpluses from the rural areas place more and more demands on the environment without due consideration to conservation. The net result is soil erosion and environmental degradation. Citing empirical evidence from Nepal, Blaikie and Brookfield (1987) have concluded that poverty is the basic cause of poor land management and the consequence of poor management is deepening of poverty. It should be noted that this is not universally true in the case of all land users. For instance, in Sri Lanka land owned by absentee landlords and some large land holdings in the possession of resident wealthy landlords exhibit poor management.

Rural poverty often leads to marginalization. Marginalization in its different forms is visible in rural agricultural production systems. For instance, economic marginalization occurs with the fragmentation of small holdings into micro holdings which are not capable of ensuring the required level of production for subsistence let alone securing a surplus for sale.

With the increase of population land fragmentation in the tank villages of the Dry Zone of Sri Lanka has reached the level that holdings in the *purana wela* (traditional fields) have become uneconomical. The net result is the adoption of the *Tattumaru* System - a tenurial arrangement where each joint owner gets a chance to crop the land after a few cultivation seasons. Length of the rotation period depends on the number of joint cultivators. Despite the legal restrictions on sub-division of holdings in the major irrigation schemes, land fragmentation among the children of the allottees continued unabated. This illegal sub-division is very common in the irrigation schemes such as Parakrama Samudraya, Minneriya, Giritala and Kavdulla in the Polonnaruwa district where the original settler families have expanded up to three or four generations.

The same pattern is now emerging in the Mahaweli settlements of the late 1970s. The above situation in both the tank villages and the major irrigation schemes has led to the economic marginalization of especially the resource-poor farmers who cannot afford the costs of innovative farming systems.

Even without a change in holding size a farmer could be marginalized economically when his profit from farming is reduced to a bare minimum vis-à-vis the increased cost of production. Field evidence from Kavdulla and Minneriya schemes points to the fact that the cost of production has escalated while the yield level remains static thus leading to economic marginalization of particularly the resource-poor farmers. Table 3.7 (in the Section on Marginalization of the Resource Poor Farmers) gives an indication of the increased cost of production in the Polonnaruwa district. Different factors have contributed to the economic marginalization of the farmers in the tank villages where a tripartite agricultural land use system, viz. irrigated paddy farming, non-irrigated highland cropping in *chenas* and home gardens, is still in evidence. Reduced fallow periods resulting from increased pressure on land in the context of *chena* (shifting) cultivation practiced by the Dry Zone tank villagers has caused considerable land degradation. This has led to a vicious circle of increasing impoverishment and further marginalization of land and land users in similar fashion to other developing countries discussed by Blaikie and Brookfield (1987).

INNOVATING SRI LANKAN AGRICULTURE

Attempts at innovating agriculture in Sri Lanka display considerable crop-wise and spatial-wise variations. The prime concern of agricultural innovations has pivoted on paddy since 1950s when the biological technology gained prominence as a yield-increasing technique. There were varied reasons for this emphasis. In early 1950s nearly three-fourths of the rice requirement of the country and the total requirement of wheat flour (about 150 MT) had to be imported at a heavy foreign exchange cost to the nation. Price fluctuations relating to these commodities in the world market affected the Sri Lankan economy on one hand and had adverse repercussions on the food security of the country on the other. Nevertheless, a substantial increase in the local production of rice was not possible owing to the limited yield potential of the indigenous varieties of paddy. Hence, introduction of improved varieties was an urgent need. The National Rice Breeding Programme was launched to meet this demand.

The programme was pursued with much enthusiasm since the introduction of hybrid 'H' varieties, and other Old Improved Varieties (OIVs) in 1958. This was facilitated by an increase of the research capacity of the Department of Agriculture. Subsequently, New Improved Varieties (NIVs) were bred to suit the different agro-ecological conditions of the country. The rice breeding programme in Sri Lanka was highly commended by the International Rice Research Institute (IRRI) scientists for its recognition of the environmental conditions and some of the varieties bred in Sri Lanka have been introduced into other Asian countries (Anderson et.al.1991). In conformity with the adoption theory outlined by Rogers (1962), despite the success of the breeding programme adoption rates were poor at the inception. However, the adoption rates improved with the introduction of NIVs in 1970s. Gradual decline of the traditional and OIVs and the increase of the NIVs are shown in Table 3.1.

TABLE 3.1

Adoption of Old and New Improved Varieties (Percent of total paddy lands)

Type	1955	1960	1965	1970	1975	1980	1985
1.NIV	0	0	0	12	49	69	93
2.OIV	0	15	42	54	32	15	6

Source: Aluwihare and Kikuchi, 1991, Irrigation Investment Trends in Sri Lanka

Table 1 indicates that the adoption rates were low in the case of OIVs. However, after 1975 adoption rates of the NIVs improved very rapidly to reach 93 percent in 1985. There is field evidence to indicate that the position is further improving. Operation of a successful agricultural extension network and in particular the working of the Training and Visit (T&V) System in the 1970s is mainly responsible for the high adoption rate.

Production increasing effects of the HYVs were further enhanced by the Green Revolution technology which has been restricted to paddy farming. Use of chemical fertilizer for paddy cultivation increased rapidly with the introduction of HYVs during late 50s (Table 3.2).

TABLE 3.2

Total Fertilizer Consumption (Nutrients MT) 1950 - 1995

Crop	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995
1. Paddy	0.3	3	5.5	11.4	31.9	22.7	84.9	94.6	75.7	118.5
2. All crops	31	53	70	87	105	72	169	195	171	207

Source: Central Bank of Sri Lanka and Department of Census and Statistics

However, with the sharp increase of the price of fertilizer during early 70s (nearly trebling within a few years) fertilizer use recorded a marked recession. Nevertheless, because of the government subsidy a rising trend in use continued until 1989 during which year the nutrient content of the fertilizer used for paddy amounted to 111 MT (Central Bank of Sri Lanka, 1997a). As shown in Table 2 fertilizer consumption recorded a sharp drop in 1990 with the complete withdrawal of the subsidy in the previous year. This clearly shows that the adoption of innovations is not merely a function of time as postulated by Roger's theory of innovation diffusion. Considerations such as the farmer's background and his economic standing also play a significant role in either adopting or rejecting innovations. Withdrawal of the subsidy imposed an unbearable burden on the small holder and a notable reduction in the use of chemical fertilizer was evident. Subsequently, with the government decision to re-introduce the subsidy in 1990 the level of fertilizer use has taken an upward turn.

Data are not available to make an in-depth analysis of the chemical fertilizer use in paddy cultivation under different irrigation systems. Nevertheless, the author's field experience in a number of Dry Zone tank villages indicates that reasons such as deficiencies in the fertilizer distribution system, lack of finance in the hands of the farmers to purchase fertilizer, difficulty of obtaining institutional credit and water scarcities have compelled the majority of the farmers to use fertilizer in quantities below the prescription. It has also been noted that the quantities used by the farmers in tank villages are lower when compared with their counterparts in the major irrigation schemes. This is to some extent reflected in the yield levels as discussed in a subsequent section of this paper.

Although other purchased inputs such as weedicides, insecticides and pesticides too are of considerable importance in the innovation package, their use cannot be quantified owing to the paucity of data. The sale of agro-chemicals is in the hands of the private sector. There is evidence to suggest that the use of agro-chemicals has increased over the years. Presently farmer organizations in many major irrigation schemes have embarked on distributing these items to the cultivators at minimum profit margins. This gesture has led to the reduction of sale prices fixed by private retail outlets in the rural areas. The use of agro-chemicals has become commonplace among the paddy cultivators in the tank villages as well. However, the deficiencies in the extension network, often experienced water shortages and financial hardships have constrained the effective use of agro-chemicals by the small holders. Fertilizer and other agro-chemicals are not usually used for *chena* crops by the poor tank villagers.

In addition to agro-chemicals water is considered an important input in innovating agriculture as the new technology demands better water management. Expansion of irrigation facilities has also been strongly pursued during the last few decades thus increasing the *asweddumized* area, actual extent of paddy fields exclusive of double cropping. Provision of irrigation has also enhanced the gross cropped area through increased cropping intensities.

Table 3.3 shows the increase of the *asweddumized* area since Independence with reference to the source of water supply.

TABLE 3.3

Distribution of Paddy Lands in Sri Lanka by Type of Water Supply 1950 -1995

Type	1950	1955	1960	1965	1970	1975	1980	1985	1990	1995
1. Major	88.2	120	136	158	194	253	269	296	352	473
2. Minor	163.7	168	171	175	190	177	188	190	168	200
3. Rainfed	159.2	168	169	183	200	211	224	219	270	242

Source: Department of Census and Statistics

It is evident that the increase in new land brought under cultivation is comparatively less significant in the case of minor irrigation schemes. Rainfed lands under paddy cultivation also expanded at a slow rate when compared with the expansion of the cropped area under major irrigation schemes particularly since 1970s. Innovations were adopted with much enthusiasm in areas with reliable water supplies and where appropriate water management practices were possible. Hence, major irrigation schemes performed better when compared with the small tank irrigation systems that have to contend with unreliable supplies of water. The rainfed paddy lands lagged behind the other two categories in agricultural innovations. This is clearly reflected in the yield levels. For instance, during Maha 1996/97 average yield levels of 4.29 and 3.37 MT/Ha. were recorded for the paddy lands under major and minor irrigation schemes respectively while the figure for the rainfed areas remained at 2.84 MT/Ha (Central Bank, 1997b). The difference in the yield levels can be attributed mainly to the adoption of innovations and improved water management.

Both the expansion of the cultivated area and agricultural innovations leading to intensification have contributed to increase the paddy production in Sri Lanka. However, there are noteworthy district-wise variations in the weightage given to each production-increasing method. Recent situation in the North Central Province (NCP) in Sri Lanka

(Fig. 3.1) where in-depth studies are carried out under the USJ-Sida/SAREC Research Cooperation Project is documented below.

The NCP comprises two districts, viz. Anuradhapura and Polonnaruwa. In the Anuradhapura district more than 50 percent of the paddy lands are under minor irrigation schemes (village tanks) with command areas below 80 Ha. while in Polonnaruwa land under minor irrigation schemes is insignificant. It is pertinent to note that in the Anuradhapura district water supply under minor irrigation schemes and rainfed conditions is unreliable leading to restricted adoption of innovations by cultivators owing to risks involved in farming. Hence, their yield levels remain low vis-à-vis the other areas with assured water supplies (Table 3.4). Majority of the farmers with low levels of production is trapped in a vicious circle of

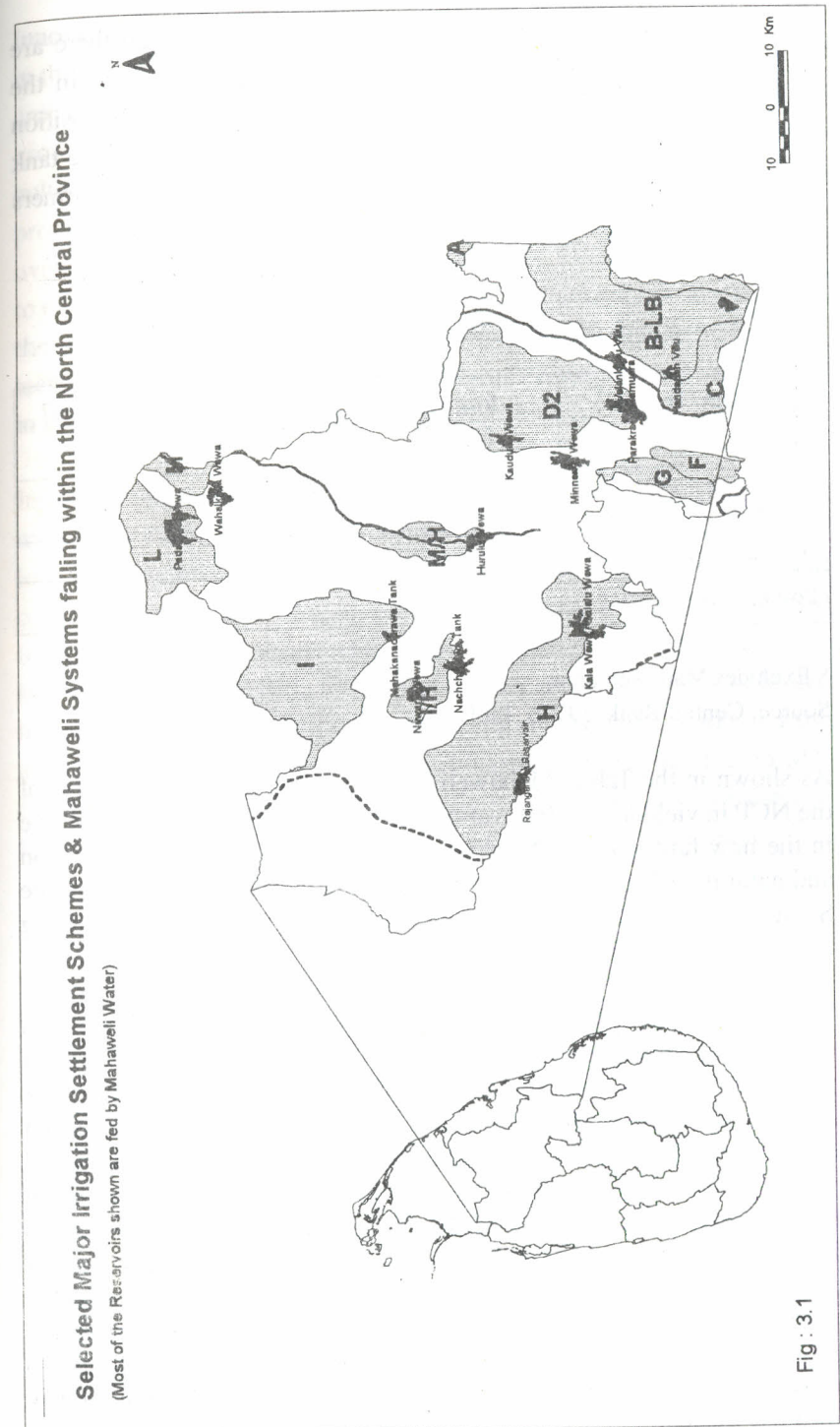


Fig : 3.1

poverty and remains economically marginalized. Although there are visible signs of marginalization such as mortgaging of land in the Mahaweli Systems, even the marginalized are in a better off position when compared with the resource-poor farmers in the Dry Zone tank villages. The latter are deprived of many services available to the farmers in the major irrigation schemes.

TABLE 3.4
Yields of Paddy Maha 1996/97 and Yala 1997

System / District	Irrigation Type	Maha 1996/97 MT/Ha	Yala 1997 MT/Ha
Mahaweli System H	Major only	5.14	4.32
Anuradhapura district *	Largely minor	3.99	3.45
Polonnaruwa district	Largely major	4.92	4.41

* Excludes Mahaweli areas

Source: Central Bank, 1997b, Table 14

As shown in the Table, Mahaweli System surpasses the other areas of the NCP in yield levels. Innovations in paddy cultivation were in vogue in the new farmlands of Mahaweli System H from the very inception and natural fertility of the virgin lands that covered a large extent of the System coupled with the innovations were capable of producing comparatively higher yields.

The expansion of irrigation facilities has increased the inclination towards mechanical technologies, particularly the use of tractors for land preparation. With the development of irrigation and the expansion of the cultivated extent in the Dry Zone, farmers had to adhere to strict cultivation calendars that required land preparation to be accomplished within a given time period. Many cultivators had to resort to the use of hired farm power for the purpose. This innovation contributed to increase the cost of production of paddy and subsidiary food crops grown under irrigated conditions. During recent years land preparation for paddy cultivation in the tank villages has also witnessed increasing use of tractors. While the yield levels have remained low, cost of tractor hires has escalated leading to a marked increase in the cost of production. This in turn has resulted in the economic marginalization of the farmers.

Innovative farming practices associated with paddy have not been adopted in the case of the other food crops. For instance, two other major cereal crops in the Dry Zone, viz. *kurakkan* (finger millet) and maize mainly grown under rain-fed conditions in the *chenas* (plots under shifting cultivation) never received the attention due to these crops. Research programmes of the State institutions clearly show that these crops were overshadowed by the emphasis given to paddy. However, it is pertinent to note that both *kurakkan* and maize are important subsistence crops of the poor. Negligence of these crops is also one aspect of the new technology by-passing the poor, majority of whom cultivate these crops in addition to the small holdings of paddy.

Inputs relating to the bio-chemical and mechanical technologies are rarely used in the cultivation of these crops and their production levels remain low. For instance, the yield of *kurakkan* in the Anuradhapura district, one of the major producing areas in the country for this crop, has been 0.5 to 1.0 MT/Ha on the average while the yield of maize has stagnated between 1.0 to 2.0 MT/Ha for the last two decades. Production of Maize has recorded considerable fluctuations during the last decade and the annual production between 1986 – 1996 averaged to about 47,355 MT. Production of *kurakkan* which is mainly for the purpose of subsistence has shown a downward trend during the same period (Table 3.5).

TABLE 3.5
Production of Maize and *Kurakkan* 1986 - 1996 ('000 MT)

Crop	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1. Maize	40.6	45.3	70.6	36.4	63.9	48.5	46.9	69.3	31.6	34.8	33
2. Kurakkan	6.5	6.8	7.9	3.6	4.5	5.0	4.8	4.6	6.7	4.9	3.9

Source: Central Bank of Sri Lanka, 1997a

Other food crops produced by the farmers on a small scale comprise chillies, red onions, big onions, gingelly, cow pea, green gram and groundnuts. All these crops are distributed in the Intermediate Zone and the Dry Zone of Sri Lanka. Crop improvements or innovative methods

of cultivation are insignificant in the case of crops such as gingelly, cow pea, green gram, black gram and groundnuts which are grown mainly in the *chenas* by the poor farmers in the tank villages. These crops fetch low cash returns as well. On the contrary, chillies which give high cash returns are grown both as a rainfed crop in the *chenas* and as an irrigated crop in the paddy fields during Yala, the dry season. According to the computations of the Department of Agriculture, this crop yields an average of 1.5 MT/Ha. in the Anuradhapura district under irrigated conditions and about 50 percent of this yield level under rainfed conditions. In order to boost production levels new varieties of chillies have been introduced by the Dry Zone Research Station at Maha Illuppallama in the Anuradhapura district.

Big onions constitute another less water consuming high value crop introduced by the government into the irrigated farming systems during the Yala season. Nevertheless, farmer acceptance of these crops in many major irrigation schemes has been low. A favourable situation pertaining to chillies and big onions is observed in Mahaweli System H where some farmers have increasingly used purchased farm inputs during recent years to cultivate these two crops in the paddy fields during Yala. As the costs involved in cultivating them are three times higher than those incurred for paddy under irrigated conditions, the poor farmers find it difficult to invest on these crops. Adoption of these innovative cropping systems by a few has led to widen the income disparities among the farming community.

On the whole, it is pertinent to note that the agricultural innovations had not been introduced essentially with a view to alleviating poverty and promoting rural development. The net result has been that the large land owners who had access to both land and financial resources were able to reap higher benefits from the innovations, which by-passed the resource-constrained small farmers. Allottees in the major irrigation schemes where water is made available for two crops of paddy a year are in an advantageous position as far as innovations are concerned. In the Mahaweli System H many farmers cultivate paddy in Maha and grow Other Field Crops (OFCs) in Yala. On the contrary, farmers in the tank villages often experience water shortages and more risks in paddy farming even during Maha, while cropping during Yala is very rare as most of the small tanks dry up during the season. Further, the poor man's crops such as *kurakkan*, maize, cowpea etc. which are grown mainly under rainfed conditions in the *chenas* and home gardens in the tank villages

of the Dry Zone, are not subject to bio-chemical and mechanical innovations which are commonly used in paddy farming. Government interventions relating to these crops are minimal. The ground situation clearly points to the fact that the technological innovations are not pro-poor.

For effective rural development it is imperative that agricultural innovations be promoted to benefit the majority of the farmers and to enhance their livelihood opportunities on a sustained basis. In this regard a number of factors merit attention. First, innovations are vital to increase agricultural production. However the impact of innovations on the farming community depends on the manner in which they are introduced. The past experience shows that agricultural innovations are introduced merely as a scale neutral process imposing undesirable consequences on the resource-poor farmers. What is required through innovations is to look beyond innovations at equity considerations. Hence, it should be the responsibility of the State and the other agencies committed to rural development to provide a framework and a mechanism conducive for effective adoption of innovations to achieve the same.

Secondly, the innovations introduced by the government have been largely restricted to paddy. There is a need to expand innovations in order to include a number of other crops commonly grown by the poor farmers, particularly under non-irrigated conditions. Some of these crops such as *karakkan* that are grown in the *chenas* for subsistence purposes, have a substantial market potential which can be effectively tapped to increase the earnings of the poor farmers.

Thirdly, as shown earlier paddy crop-specific innovations introduced during the last few decades have proved to be very costly vis-à-vis the production gains obtained by the poor farmers. It is imperative that research should be undertaken to seek ways to make innovations cost effective. Innovations should not only be affordable but also acceptable to the farmers.

Fourthly, there is a dire need to understand the constraints to the adoption of innovations and to find solutions with a view to promoting innovative farming systems that would enhance the incomes of the small farmers. In this context research on crops as well as on socio-economic conditions of the adopters of innovations are of paramount importance.

Fifthly, innovative farming should be accompanied with a number of supportive services such as timely supply of inputs and provision of marketing facilities to achieve poverty alleviation through enhanced incomes.

INNOVATIONS AND CHANGING GENDER RELATIONS

Although paucity of data does not warrant a quantification of labour contribution in agriculture from a gender perspective, there is evidence to suggest that a significant proportion of labour in small farm agriculture in Sri Lanka is of female origin. Division of labour between males and females in agricultural activities differ from country to country and from one community to the other. Under the traditional agricultural systems of Sri Lanka ploughing, driving draft animals, building of bunds in paddy fields, puddling of paddy lands and fertilizing as well as clearing of land for *chenas* and protecting *chenas* at nights from the wild animals are exclusively in the hands of the males. Activities such as transplanting of paddy, manual weed control and post-harvest tasks, mainly winnowing and storage, are female dominated. Other tasks in agriculture are jointly performed by men and women. However, in the case of the female-headed households, most of the agricultural activities including irrigation are handled by women with the assistance of the male children and other relations. A recent study (Zwarteveen, 1995a) has indicated that in the selected Dry Zone irrigation systems as much as 20 - 30 percent of the irrigated farms are controlled by widows.

Further, women's role in agriculture has undergone changes vis-à-vis the recent developments in small farm agriculture, particularly with the mechanical and bio-chemical innovations. A conspicuous change is the notable reduction of hand weeding of the paddy fields by the female labour. This practice is replaced by the heavy use of agro-chemicals to control weeds. Because of this change use of female labour has been replaced by spraying of weedicides, an activity completely in the hands of the males. However, there are other activities such as transplanting of paddy which continues to be the prerogative of the females.

Gender relations in agriculture have witnessed further changes with the expansion of irrigation and land settlement in the Dry Zone of Sri Lanka. In irrigated areas especially when Yala is cropped with OFCs, a new

demand has been created for more labour inputs. Dry season cropping introduced into System H of the Mahaweli Scheme can be cited as an example. In this context innovative cropping patterns mainly with high value crops such as chillies and onions is introduced with a view to adjusting to limited irrigation water supplies and enhancing farmer incomes. Except in the case of well-to-do farm households, the high labour requirements of these crops are met with increased labour inputs of female members of the household (Zwarteveen, 1995b). Higher opportunity cost of male labour is also instrumental in making the female members of the household to work longer hours. When the labourers are hired for agricultural work by the rich households females have to spend more time on cooking and supervising the work of the labourers.

Despite the functions performed by them women rarely derive individual incomes from the cultivation of the family farm. It has been observed that particularly in the poorer households women face numerous financial hardships when they find it difficult to secure a part of the proceeds from the sale of the agricultural produce, in spite of their labour contribution to production. The major reason attributed is that their husbands spend most of the income derived from agriculture on liquor. The situation has caused much stress on women who often bear the responsibility for children's education and day-to-day expenses of the households. There is reason to believe that the net outcome is the 'feminization of poverty'. In the circumstance, some women prefer to work as labourers on others' fields in order to secure an income for themselves. Although farm wages have increased over the years, gender inequalities in income of those who are engaged in agriculture persist to the disadvantage of women. They are paid less even for the same type of work.

In some countries, with the advent of the Green Revolution technology, more employment opportunities were created for women, for instance, in India there were more hired female labour on farms cultivating new varieties of paddy mainly because of the increased demand for weeding and harvesting (Agrawal, 1984). Contrary evidence has been presented from the Philippines and Indonesia where mechanical direct seeders, multi-row transplanters and rotary weeders have led to replace both male and female labour engaged in respective farm activities relating to paddy cultivation (Conway, 1997). There is no evidence from Sri Lanka to

TABLE 3.6

Paddy Production, Yield and Sown Area in Sri Lanka 1950 - 1995

	1955	1965	1975	1985	1995	
1. Production MT '000		745	757	1154	2661	2810
2. Yield MT/Ha.		1.548	1.768	2.269	3.460	3.535
3. Sown area Ha. '000		545	589	687	881	915

Source: Central Bank of Sri Lanka and Department of Census and Statistics

On the whole, performance of the paddy crop contributed to a substantial reduction in imports. Per capita import of rice declined from 43 kg in 1970 to 03 kg by 1994 (Central Bank, 1998). According to the Central Bank sources, around 75 percent of the rice requirement of the country had been locally produced in 1997. However, this proportion varies from year to year depending on the fluctuations in supply. It should be noted that despite the gains to the economy, plight of the majority of the producers has not changed for the better.

Numerous factors such as high risks associated with paddy farming, legal arrangements that prevent the emergence of an active land market and the existence of pre-capitalist production relations (e.g. share-cropping, patron-client bonds) and continuing importance of merchant and usury capital have hindered the development of capitalist production relations within the small farm sector (de Silva, 1982, as quoted by Nakamura et.al. 1997). The policy measures initiated by the government to benefit small farm agriculture have not reached the most vulnerable engaged in agriculture. The groups who are excluded lack, inter alia, control over resources such as financial assets, land, water and social connections and are constrained by various structural and institutional characteristics of their social existence (Lakshman, 1997). Those who could not cope with the innovations lagged far behind in production levels while the well-to-do farmers both in terms of land and capital realized substantial

suggest that mechanization has progressed to the extent of mass displacement of labour in agriculture. The selective mechanization for land preparation has not affected the female labour at all. As pointed out earlier the only notable area where females are affected is hand weeding. Instead, the expansion of cultivation into the new lands under the major irrigation schemes has outweighed these losses and created more jobs for females by way of transplanting, harvesting and post-harvest activities. However, with the high level of education among the young females there is a growing tendency for them to be away from traditional farming activities. Hence, labour shortage in agriculture is not uncommon in the rural areas.

In many Asian countries, with innovative water management practices and participation of water user groups in operation and management (O&M) of the systems, women have resorted to irrigate their own fields (Zwarteveen, 1995a). However, the experience in Sri Lanka shows that female involvement in irrigation is minimal. The females cannot afford the time taken for irrigation especially when rotational irrigation is practiced. Their active participation in water user organizations/farmer organizations is not evident either. The females rarely hold positions in farmer organizations that take an active part in water distribution. The bargaining strength demanded by this activity, time taken to distribute water and involvement in household activities and child-caring keep the females away from water distribution and other forms of active participation in organizations. There are still other reasons attributed to lack of women's participation in farmer organizations relating to agriculture.

MARGINALIZATION OF THE RESOURCE-POOR FARMERS

It is clear that innovations in paddy farming introduced since late 1950s led to significant production gains in the agricultural sector of the national economy. For instance, the production of paddy in Sri Lanka increased from 745 thousand MT in 1955 to 2810 thousand MT in 1995, indicating nearly a fourfold increase while the productivity also increased from about 1.5 MT/Ha. in 1955 to 3.5 MT/Ha. in 1995 (Table 3.6). The sown area also increased, particularly since late 1970s, because of the addition of new land through the Accelerated Mahaweli Programme.

production gains. Hence, as Wickramasekara (1986) has observed there has been an increased impoverishment among those at the bottom of the rural society.

Innovating agriculture was often coupled with a marked increase of farm inputs that had to be purchased at a heavy cost to the producer. The process essentially led to an increase of costs to the farmer. Table 3.7 summarizes the cost of production figures for paddy cultivation under major irrigation schemes in the Polonnaruwa district of the North Central Province.

TABLE 3.7

Cost of Production of Paddy - Polonnaruwa District 1980 - 1998 (Rs./Ha.)

Year*	Labour		Power		Material		Total Rs.
	Rs.	Percent	Rs.	Percent	Rs.	Percent	
1980	2435	58	1068	26	683	16	4186
1990	9378	50	4610	24	4958	26	18946
1998	17048	49	8230	23	9689	28	34867

*Relates to the Maha season ending in the year indicated.

Source: Ranaweera, 1998 and Department of Agriculture, 1999

Table 7 indicates that there has been a large increase in the costs pertaining to all major items over the years. Proportion of material costs has shown a sharp increase while the share of labour has decreased in relative terms. This is because of the use of tractors for land preparation and threshing and increased material costs incurred for fertilizer and other agro-chemicals.

It is possible to assume that the conditions depicted in the Polonnaruwa district are common to many paddy producing areas of the Dry Zone of Sri Lanka. In the case of paddy cultivation, the extent to which costs could be borne by the farmer depends largely on the size of the operational holding, tenorial conditions and the resources at the cultivator's command. Hence, the situation between the irrigated land in major schemes and the paddy lands coming under minor irrigation and rainfed conditions show

considerable variations. Even when the tenorial problems are not in evidence, inadequacy of working capital has been a constraining factor for the poor farmers in applying recommended quantities of fertilizer. In the circumstance, one of the major causes for impoverishment and marginalization of resource-poor farmers has been the increased cost of production. According to the statistics compiled by the Provincial Department of Agriculture, Anuradhapura, average cost of production of paddy has escalated from Rs.3.21 per kg. in Maha 1990/91 to Rs.6.56 per kg. in Maha 1997/98. The cost of production per unit for the latter season is even higher in the Polonnaruwa district (Rs.8.17). Cost of production vis-à-vis the returns from paddy cultivation for the two districts of the NCP for Yala 1997 and Maha 1997/98 are given in Table 3.8.

TABLE 3.8

Cost of Production and Returns from Paddy Cultivation - NCP

Costs and returns from paddy cultivation	Anuradhapura		Polonnaruwa	
	Yala	Maha	Yala	Maha
Average yield (kg./ha)	97	97/98	97	97/98
Price of produce (Rs./kg)	4200	4545	4604	4230
Gross income (Rs.)	11.11	10.14	11.22	9.29
Total cost of cultivation (Rs.)*	47,225	46,086	52,288	39,774
Profit including imputed costs (Rs.)	33,796	29800	34,335	34,968
Unit cost including imputed costs (Rs.)	13,430	16,286	17,793	4,807
	7.95	6.56	7.37	8.17

* Includes imputed costs of farmer owned inputs

Source: Department of Agriculture, 1999

Conversion rate : One US \$ = Sri Lankan Rs. 61.29 (1997)

The Table shows that the cost of production and cash returns vary from one season to the other. On the average the gross return from paddy cultivation for a one hectare farm under major irrigation schemes in the NCP is around Rs.46,000/= per season. Although the profit margin varies seasonally depending on variable costs, an average of Rs.14,850/= had been obtained through paddy cultivation in the major irrigation schemes of the Anuradhapura district during Yala 1997 and Maha 1997/98. This amount includes the imputed costs of farmer inputs as well. The figure for Polonnaruwa stood at Rs.11,380/= for the same period as the profit margin recorded during Maha 1997/98 had been very low when compared

with the other seasons in the same district. As Table 3.8 indicates the higher cost of production and the lower selling price during the season have contributed to the low profit margin of the farmers in the Polonnaruwa district. Given the present conditions, monthly income of the cultivators at current prices would be in the range of Rs. 1900/= to Rs. 2400/= in the major irrigation schemes of the NCP where double cropping is practiced.

The situation is quite different in the rainfed areas and paddy lands coming under minor irrigation schemes which together comprise more than 50 percent of the total paddy lands of the Anuradhapura district. Further, the operational holdings relating to these lands are often less than one acre (0.4 ha.) in extent. Increasing cost of production owing to innovations has not only caused tremendous economic hardships to the resource-poor farmers who operate these paddy lands but also contributed to marginalize them. The net result is the perpetuation of poverty and in some cases worsening of the economic plight of the poor farmers.

It has been observed that the marginalization process has occurred in the major irrigation schemes as well (Wanigaratne, 1997). Based on the evidence from studies which point to the dramatic increase of income disparities, low living conditions, low PQLI and high levels of malnutrition in the major paddy producing settlements of the Dry Zone, Wanigaratne concludes that the strong "paddy bias" has locked these schemes into a subsistence poverty. It is noted that although 75 percent of the paddy crop and 90 – 96 percent of the produce of the OFCs are sold, distress sales account for as much as 60 percent of the marketed surplus. It is also observed that with the increasing cost of production paddy farming is fast becoming an enterprise of high labour drudgery and one which receives low and diminishing incomes leading to the phenomenon of seasonal "rolling indebtedness". Field evidence from major irrigation schemes including Mahaweli, the largest major irrigation scheme with a number of sub-systems, indicate that there are hidden tenurial conditions and unauthorized sub-division of allotments which have disturbed the production potential of the farmlands. In the event, some settlers have been forced to mortgage their farms to outsiders and to work as labourers for a daily pay, sometimes in their own farms.

As mono-cropping of paddy leads to low income, it has often been emphasized that farmers should adopt alternative cropping patterns with OFCs. Ranaweera (1998) has shown on the basis of the statistics compiled

by the Department of Agriculture that crop combinations such as paddy-OFC, especially with crops such as onions, and paddy-vegetables have proved to be profitable. However, data from Cost of Cultivation Surveys of the Department of Agriculture for successive cultivation seasons reveal declining net incomes per unit of land for crops such as maize and green gram. Incomes from red onions seem to be high, but variable. As a recent study (Dunham and Edwards, 1997) has noted that the overall picture with regard to the OFCs is one of relative stagnation with a mixed performance for individual crops, but not widespread gain. It is pertinent to note that the ordinary farmer cannot be expected to adopt the new cropping patterns with OFCs owing to high costs involved in their production process. Further, family labour in many cases is insufficient to meet the labour demands of such crop combinations. Although a few enterprising farmers who command resources have resorted to more profitable cropping systems with substantial investment, the poor farmers have become marginalized in the process of innovating with new cropping systems.

A significant step to assist resource-poor farmers is the disbursement of credit through formal channels. It has often been emphasized that inadequacy of co-laterals to guarantee loans, the inability to obtain loans at the required time and non-availability of credit in required amounts during critical times of cropping activities, are the major constraints with the institutional credit mechanisms. Hence, all the credit schemes viz. The New Agricultural Credit Scheme (1967), The Comprehensive Rural Credit Scheme (1973) and The New Comprehensive Rural Credit Scheme (1986) introduced particularly to popularize innovations among food producing small holders have not yielded the expected results mainly because of the high incidence of defaults as reported by some authors (Gunadasa, 1978, Wijayapala, 1985). Defaulting in turn has led to writing off of the non-recovered debts. As Wijayapala (1985) has noted the increase in loan defaults is largely due to the economic stagnation of the rural sector. The loan defaulters (unless their loans are written off) do not have access to institutional credit and are forced to depend on the informal sector for their credit needs. A recent Central Bank publication (Central Bank of Sri Lanka, 1998) has confirmed that even at present the majority of the farmers mainly depend on the informal sector for their credit needs. With the increasing cost of production relating to paddy and high value OFCs and heavy interest rates of the informal sector, the credit plight of the small farmer has worsened vis-à-vis the adoption of innovations.

Another area in which resource-poor farmers are constrained is the increasing cost of land preparation for cultivation. Owing to the dwindling buffalo population and the strict time schedules imposed on land preparation in the irrigation schemes farmers are compelled to hire agricultural machinery at a high cost to prepare their farmlands. Similarly, many poor cultivators have no option but to hire equipment such as sprayers for the application of weedicides and insecticides demanded by the new technology. In the circumstance, owners of tractors and other farm equipment as well as the suppliers of informal credit in the rural sector have expanded their earning capacities and opportunities resulting in the marginalization of resource-poor farmers.

CONCLUSIONS

In innovating agriculture introduction of improved paddy varieties, use of chemical fertilizer and other agro-chemicals and expansion of irrigation facilities have been commonplace in Sri Lanka. However, innovations have largely been restricted to paddy cultivation while OFCs have received scanty attention. As a consequence, there have been noteworthy production impacts within the paddy sector vis-à-vis the other crops in the smallholder sector. Another striking feature is the association of production gains with areas where assured water supplies and better water management are found to be effective. In the long run, agricultural innovations have contributed to increase the costs of production and reduce the profit margin of the farmers. Hence, it is clear that this situation has led to the marginalization of resource-poor farmers. The marginalization process has been in evidence even in the major irrigation schemes including Mahaweli where double cropping of paddy has been possible. Innovations have also led to changes in gender relations in agriculture with implications for feminization of poverty.

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POLITICAL ECOLOGY OF PROTECTED AREA MANAGEMENT AND ITS IMPACT ON THE RURAL POOR IN SRI LANKA

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INTRODUCTION

Sri Lanka is still predominantly rural. Hence the proper management and utilization of natural resources becomes a matter of vital importance for rural development. It is also a truism that poverty is a deep-seated problem in rural Sri Lanka. Poverty implies economic, social, cultural and even psychological deprivation. These several dimensions of poverty acting in synergy lead to the development of the so-called culture of poverty that makes people powerless, weak, marginalized and vulnerable (Chambers, 1983). Poverty has also to be understood in its various dimensions such as absolute, relative, seasonal and the spatial. Sen (1981) has noted that seasonal poverty may subject the rural poor and those without assets to the derived poverty syndrome. Such manifestations of poverty have their undoubted relevance to the Sri Lankan situation as well.

The attempts made by successive governments in Sri Lanka to alleviate poverty have to a great extent been concerned with the elimination of symptomatic rather than the structural causes poverty. It is now realized that dealing with the structural causes of poverty is of strategic importance to poverty alleviation. However, dealing with the structural causes of rural poverty necessitates an understanding of both the political economic and political ecological forces that tend to create and perpetuate poverty.

This paper attempts to provide some preliminary remarks on the manner in which political forces (used in the sense of unequal power relations) acting on ecological processes contribute to create and perpetuate poverty in rural Sri Lanka. It explores the relationship between political ecology and rural poverty with reference to (a) Forest Management, and (b) Management of Wildlife Reserves, which exemplify the Management of Protected Areas in Sri Lanka.

CONCEPTUALIZATION

Political ecology evolved from cultural ecology that viewed society as "a system adapting to exigencies of the local environment" (Knight, 1992). It was clear by the mid-1970s that cultural ecology was too restricted in scope as it viewed society as an entity isolated from the ambient political and economic forces. Hence an alternative was found in political ecology. Viewed broadly political ecology is concerned with the influence of political forces (power relations, control and access to resources, social inequities etc.) on ecological processes. There have been notable studies utilizing the political ecological approach as evident from the contributions of Souza and Porter, 1974; Porter, 1979; Yapa, 1979; Blaikie, 1985; Basset, 1988 and Bryant and Bailey, 1997. However it appears that no resource use studies have been undertaken in Sri Lanka utilizing a political ecological approach.

A parallel concern of social scientists has been to study society as a political economy. Massey (1989) has observed that at times the political economy approach has tended to show a bent towards an economic bias. A consequence has been that economists have often interpreted poverty as economic poverty to the exclusion of ecological poverty that is of crucial importance to the world's rural poor most of whom depend for sustenance on a biomass based economy (Agarwal, 1999). While there is thus a distinction between the two approaches there are also issues that are at the interface of political ecology and political economy. Indeed the term eco-political economy has been suggested to bridge the division between political economy and political ecology (Yapa, 1979). The present study is undertaken more from the political ecological perspective.

In Sri Lanka the term Protected Area is used to refer to Natural Areas administered either under the Fauna and Flora Ordinance No 2 of 1937 or the Forest Ordinance No 16 of 1907. Wildlife Reserves declared under the Fauna and Flora Protection Ordinance (last amended in 1970) and administered by the Department of Wildlife Conservation (DWLC) can be considered under two major categories viz. National Reserves and Sanctuaries. National Reserves are one of five status namely, Strict Natural Reserve; National Park; Nature Reserve; Jungle Corridor and Intermediate Zone. The last category has been left out of the revised legislation. Sanctuaries too are declared for the purpose of protecting Fauna and Flora but unlike National Parks the latter includes private land. Moreover in sanctuaries traditional uses are allowed on a limited

scale e.g. grazing. People may enter a sanctuary without a permit. However there is total habitat protection in those parts of a sanctuary, which are State land.

The Forest Ordinance recognizes four types of forestland viz. Reserved Forests, Proposed Forest Reserves, Village Forests and Other State Forests. The first two categories come under the jurisdiction of the Conservator of Forests. However the law does not apply as rigorously to the Proposed Reserves as they do to the Reserved Forests. Village Forests come under the authority of District Secretaries in terms of section 12 of the Forest Ordinance. However at present this category is of declining importance because of the gradual erosion of 'common property rights.' Other State Forests do not fall into any of the above categories and are administered either by the District Secretary or the Conservator of Forests. Usually forests that are less than 500 ha. in extent come under the purview of the District Secretary.

In addition to the above categories there are several other types of Reserve in Sri Lanka such as Man and Biosphere Reserves, National Wilderness Areas (declared under the National Heritage and Wilderness Act No 3 of 1988) and Archaeological Reserves. The spatial distribution of National Parks and Sanctuaries in Sri Lanka is shown in Fig. 4.1.

It is now relevant to identify the 'actors' who play a role in Protected Area Management. They may be categorized as (a) the State (b) Resource Managers (c) Local Power Groups and (d) the Rural Poor themselves. These 'actor' groups, on their own or in synergy determine the political ecological context of Protected Area Management.

What has been the role of the State in Protected Area Management? The antecedents of the present land policy by which a large part of the forest area in the country was vested in the State is the outcome of the Crown Lands Ordinance of 1848 and the Waste Lands Ordinance of 1897 promulgated by the colonial government. In relation to the management of 'State lands' including Protected Areas the State has been called upon to play different and at times conflicting roles. Its most important role has been that of protecting State lands. As already mentioned this has led to the creation of 'Protected Areas'. It has also been the responsibility of the State to provide land for development

National Parks and Selected Sanctuaries in Sri Lanka

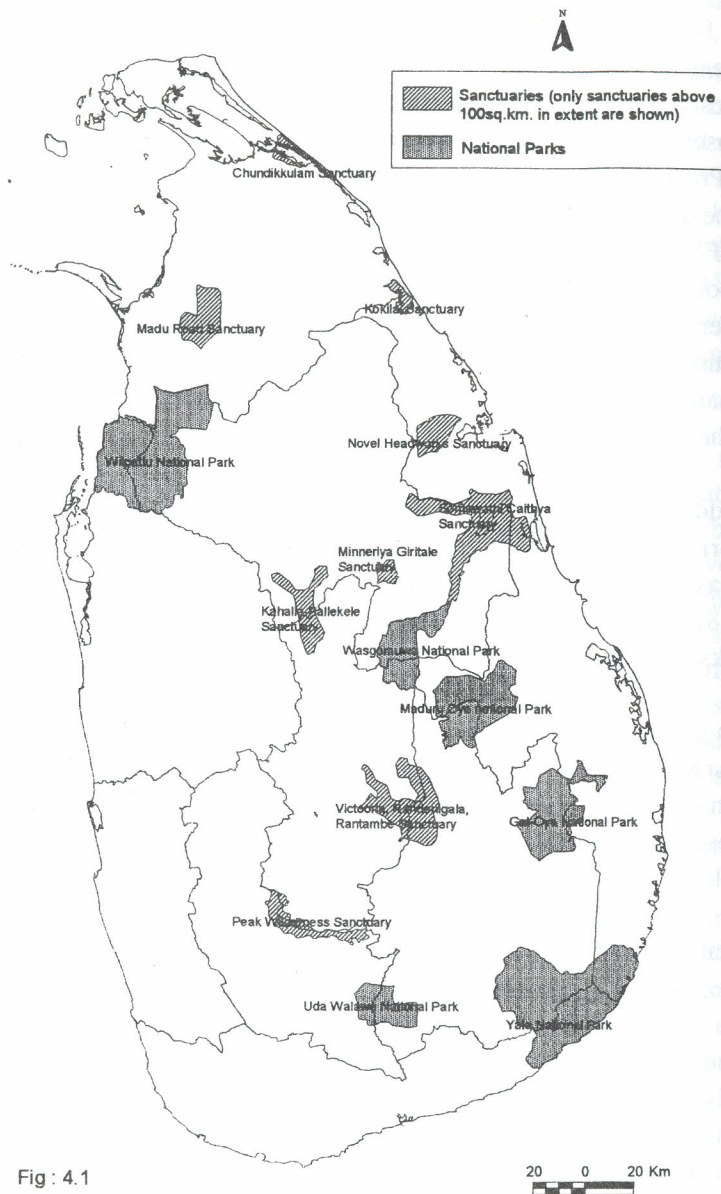


Fig : 4.1

(Adapted from the map showing National Parks and Sanctuaries (2000)
Prepared by the Department of Wildlife Conservation)

purposes. Some of these decisions pertaining to development have also been political and have been in conflict with the aims and objectives of Protected Area Management. At the same time the State has also not been in a position to enforce legislation governing Protected Areas efficaciously for a multiplicity of reasons that include the political. For example the category of 'proposed reserves' mentioned in the Forest Ordinance has become meaningless in the present context (Karunanayake, 1994). It is also seen that in relation to shifting agriculture, prevention of encroachments on State lands and the conservation of Natural Areas, State action has been determined by political expediency.

Resource Managers (meaning not only the implementers but also the middle-level and frontline officials) have been trained and assigned the responsibility to 'protect' natural areas rather than to 'manage' them. At one stage the Forest Department expected the resource managers to protect forest reserves while also providing extension services to the communities. As the two roles were in conflict with one another the need for separate cadres for these two types of activity was soon realized. While the importance of a participatory approach to resource management is increasingly being realized at the policy level there has been no commensurate change in attitude of frontline officials many of whom have not been able to overcome the 'culture shock' that accompanies the breakaway from accustomed notions and practices. Often the frontline officials are not adequately compensated for the risks that they have to undergo in the performance of official duties. The administrative structures that have to do with the management of Protected Areas (and natural resources) are far too authoritarian and leave little initiative of thought and action to the frontline managers who have to work with the local communities. The loopholes in the law as well as political pressure brought to bear on the performance of their duties also negatively affect the role performance by the resource managers. They may also not be adequately supported by law enforcement officers in dealing with the violators of the law (more specifically the organized anti-social elements referred to below).

The local power groups particularly in view of the anti-social attitude of some of its members to natural resource conservation play an important role in the political ecology of Protected Area Management. Such individuals are powerful, have influential social and political networks, have the financial resources to back anti-social and extra-legal activities

and are motivated by a desire for personal gain. They achieve their goals of personal aggrandizement by countermining Protected Area Management (and natural resource conservation) by lobbying decision-makers and politicians, pressurizing law enforcement officers and resource managers and at times resorting to open violence against them and whomsoever might stand in their way. Often the resource managers and law enforcement officers find it less cumbersome to leave them alone or turn a blind eye to their illegal activities. It is equally true that the corrupt elements within the ranks of law enforcement officials are in the habit of providing overt or covert support for the anti-social activities of the local power groups. It has been pointed out that the implications of this situation are much wider and raise a host of issues concerning salaries, rewards, motivation and work ethics of specially the frontline officials (Karunanayake, 1992).

The rural poor also play a central role both as the 'victims' and also the 'perpetrators' of offences against Protected Area Management- a situation that can be attributed to the social processes that have pushed them into the fringe of society articulated by the 'deprivation trap' (Chambers, 1983). As offenders they have caused problems for Protected Area Management by encroaching on various types of reservations and natural areas under the jurisdiction of the State and also by carrying out activities not permitted in them by law (such as shifting cultivation, illicit felling, hunting and gathering, grazing of herds) to sustain livelihoods. At times they also become pawns in the hands of the rich and powerful. They have become victims of Protected Area Management, as they are powerless and vulnerable and act as atomized individuals. They are voiceless and are not empowered to place their demands before the resource managers who represent the State. This situation is further compounded by the lackadaisical attitude of the State and of the resource managers to the rural poor that has varied between one of hostility (concerned with the protection of resources) to accommodation (not enforcing the law). The latter is conditioned by the fact that the rural poor constitute a popular vote base that has to be 'cultivated' by those in power and authority.

In looking at the political ecology of Protected Area Management it is important to take note of the eco-political-economic processes at work. In recent times there has been a concern for decentralization and devolution of power from the 'centre' to the 'periphery' facilitated by

the provisions of the 13th Amendment to the Constitution. Yet too much power has continued to remain with the 'centre.' This has been particularly evident in the management of natural resources. At the same time it is also evident that Protected Area Management policies have in some ways moved ahead of the capacity to implement them. There is growing consensus among conservationists that the conservation of Protected Areas should be planned not in isolation but in conjunction with surrounding areas to avoid conflict with local communities (Lusigi, 1984). This involves a shift from the more conventional concept of being exclusively concerned with the protection of nature to one, which recognizes the basic needs of rural communities. Implicit in this is the idea that the natural areas should contribute to the social and economic development of the areas in which they are located.

PROTECTED AREA MANAGEMENT POLICIES AND LEGISLATION

It is now pertinent to take a closer look at the management policies and legislation relating to Protected Area Management as a backdrop to the discussion on the political ecology of forest and wildlife management that follows.

It is evident that the Forestry Policy (as spelt out in the Forestry Sector Master Plan, 1995)

acknowledges concern for safeguarding the remaining natural forests for posterity so as to conserve bio-diversity, soil and water resources. It emphasizes the importance of retaining the present natural forest cover and increasing the overall cover. A large part of the forests are to be completely protected for the conservation of bio-diversity, soil and water. Multiple-use forestry is to be promoted. The remaining natural forests outside the Protected Area system are to be used sustainably to provide for the growing demand for bio-energy, wood and non-wood forest products, and various services, especially for the benefit of the rural population, without ignoring environmental objectives.

It has also been suggested that an Act, which embodies the draft National Wildlife Policy (1990), should be formulated as to,

serve the real and potential interests of the people. It must, therefore, be an Act that advocates strong punitive measures against those who willfully exploit or destroy national wildlife resources through personal greed or prompted solely by thoughts of personal gain. At the same time, it must be flexible enough to permit the many varied forms of conservation practices recommended.

It may be noted the draft National Wildlife Policy never took off the ground and in 1997 the Government of Sri Lanka had invited ADB assistance to formulate a new policy that would be more comprehensive than the draft policy of 1990. It is intended to further strengthen the directions given in the earlier draft policy.

Hence, the newly enunciated Protected Area policies are intended to move away from the earlier stance that was mainly concerned with protection, to one that advocates a linkage between conservation and the rational human use of resources. The National Wildlife Policy calls for the reassessment of the objectives for Protected Areas with reference to multiple-use and access of local communities to resources. As already mentioned the National Wildlife Policy underlines the need to zone Protected Areas based on use intensity. It may be noted that the National Forest Policy too advocates the multiple use of forests as one of its cardinal principles.

The main legislative enactments that have a bearing on Protected Area Management are (a) Fauna and Flora Protection Ordinance No 2 of 1937 and its amendments (the most recent being in 1993) and (b) Forest Ordinance No 16 of 1907 which underscores the present law which has been amended several times.

Another piece of legislation of relevance to natural area conservation is the National Heritage and Wilderness Areas Act No 3 of 1988 that aims to protect State lands having unique eco-systems, genetic resources or outstanding natural features. The Act was made necessary by the fact that the Forest Ordinance is not fully conservation oriented. Land legislation enacted from time to time such as the Land Development Ordinance (1935), Crown Lands Ordinance No 8 of 1947 and the Land Settlement Ordinance (1931) have implications for the management and allocation of forestland. The Soil Conservation Act No 25 of 1951 (with amendments introduced in 1953 and 1983) provides for the conservation of soil resources and the protection of the land from drought effects and flood damage.

The legislation cited above, in particular the Fauna and the Forest Ordinance, is not effective enough to implement the more recently enunciated Protected Area policies found either in the National Wildlife Policy (1990) or the National Forestry Policy (1995). In regard to forest legislation the Forestry Sector Master Plan (1995) observes:

A common characteristic of the laws is that they are of an ad hoc nature. They have been introduced over the years to meet various situations and needs of the time, and are based on rationales, which are relevant to the past but have partly lost their significance and justification in the present environment. When the laws were enacted, priority was given to forest exploitation and revenue collection by the State, while conservation and people's participation have now emerged as priority issues.

The same holds true for the Fauna and Flora Protection Ordinance No 2 of 1937 amended in 1970. It is stated in the Forestry Sector Master Plan (1995) that the law,

With all its amendments is quite comprehensive but it does not provide a framework for efficient conservation of Protected Areas and does not directly support the National Policy for Wildlife Conservation approved in 1990. Terms such as 'management', 'bio-diversity', 'genetic resources' or 'community participation' are not found in the law. Perhaps the biggest problem is that it is concerned with conservation only within the areas under the control of the DWLC, which makes coordination of conservation efforts between the FD and the DWLC difficult, and results in a duplication of effort and the inefficient use of some resources.

The Forestry Sector Master Plan recommends the amalgamation of the Forest Ordinance and the Fauna and Flora Ordinance into a Forest and Wildlife Act or Code to overcome the deficiencies referred to above. This remains a pious hope in an institutional context where the two subjects come under the purview of separate Ministries. The political will to amalgamate the two departments has been lacking. There is no doubt that the tug-of-war between the two ministries too influences the political ecology of Protected Area Management.

POLITICAL ECOLOGY OF FOREST MANAGEMENT

According to the Forestry Sector Master Plan (1995) until the turn of the century around 80 percent of the land area in Sri Lanka was covered by natural forest cover. Since then there had been a rapid dwindling of the forest cover in the Island. In 1992 it was estimated at 24 percent of the land area. The per capita forest area has dwindled from about 1.3 ha in 1990 to less than 0.1 ha in 1992. The antecedents of deforestation can be traced back to colonial times. Consequent on the legislative enactments, to which reference has already been made, forestland came to be vested in the State. This process facilitated the establishment of the plantation economy by the British in the wetter and hillier parts of the Island (mainly in the hill country and in parts of the southwestern region of the Island). It not only led to rapid opening up of forestland but also led to the rigorous confinement of villages inhabited by the peasantry to valley bottoms. Herein lies the genesis of the land question in Sri Lanka. It is important to note that the colonial government initially made little use of the forestland in the Dry Zone that was vested in the State. However, it was the availability of these lands with the State that subsequently enabled the colonial government to embark on ambitious peasant colonization schemes in the Dry Zone of Sri Lanka from the 1930's onwards. Large-scale land settlement in Sri Lanka continued into the post independence period reaching a climax with the Mahaweli Settlement Scheme.

The enactment of the Forest Ordinance (No 16 of 1907) by the colonial government and the declaration of forest reserves led to inevitable conflict between the State (in the form of the Forest Department) and the rural communities. Traditionally there was a very close dependence of the local communities on nearby forests for their subsistence (edible fruits and plants, wild-foods, game meat) and other needs (e.g. timber, poles, vines etc. for housing). Edible foods and plants not only supplemented the available food supply but also lent resilience to household economies during 'lean seasons'. Community dependence on forests was respected by the early colonial administration that allowed the villagers' free collection rights to firewood and non-timber forest products provided they were resident within a radius of 5 km. from a Forest Reservation. However this concession was allowed to lapse towards the latter part of the colonial administration and had not figured in the post independence forest policy. It is therefore evident that to 'command' and 'control' were the basic tenets of the forest policy until recent times. The policy had failed to adopt a pro-people stance to forest management.

The conflict between the State and the rural communities was cushioned for a time by the availability of 'Village Forests' that were utilized to meet the needs of the rural communities. But the rapid growth of population and the consequent pressure on arable and other land, infiltration of the market economy into villages, commoditization of production, and the creation of a land market have resulted in the gradual erosion of 'common property rights' that were built in the traditional system of resource management. Hence the pressure brought to bear on the different types of Forest Reservation.

An important process violating the best intentions of Protected Area Management is the encroachment of Protected Areas by the rural poor. It is the outcome of the absence of social justice on the one hand and of distributive justice on the other, for the rural poor, that stem from historical and socio-political processes. Encroachment of Protected Areas may be for the purpose of setting-up dwellings or more importantly for generating livelihoods or both. It is found that encroachments often cause damage to forest reservations, natural areas (parks and sanctuaries) and environmentally sensitive areas (watersheds, tank and canal reservations etc.). According to the Interim Report of the Land Commission (1986) the forest cover in the watershed areas of the hill country was only nine percent or so. At the same time one has to be mindful of the fact that encroachments may also be a process of land aggrandizement by anti-social elements that may also be rich and politically powerful. We will return to this point later.

It is evident that for reasons of political ecology State policy regarding encroachments by the rural poor has been lackadaisical. On the one hand the policy has been to evict encroachers and also to prevent future encroachments. On the other hand there has also been a commitment to regularize encroachments. How do we explain this paradox?

In reality encroachment on Protected Areas has often received the tacit and at times even open support of local level politicians committed to strengthening their vote base. This makes the State bureaucracy powerless to enforce legislation. In fact the position is that the governments in power at different times have adhered to a policy of regularizing encroachments as a means of gaining popular support. Thus the rural poor continue to encroach on Protected Areas in their conviction that regularization will be effected eventually. It is found that the 'Proposed Forest Reserves' have been the most affected by this process. While

encroachments provide short-term advantages to the rural poor in the long-term it contributes to their impoverishment in the absence of secure title to land. Given this situation there is little incentive or motivation to develop the land that they have encroached upon. Moreover the regularization of encroachments is a long drawn out process that further contributes to the impoverishment process. While the eviction and resettlement of encroachers in environmentally critical areas such as watersheds was adopted as government policy in 1979 it has not been possible to effectively implement it owing to practical difficulties relating to the release of State land for the purpose. The process of environmental degradation continues as the State, bureaucracy, politicians and the rural poor work according to their own agendas.

The anti-social elements to which reference has been made earlier too contribute to acquire State land through encroachments while also carrying out other hostile and rapacious activities (e.g. forest felling) against Protected Area Management. Forest encroachment by socially and politically powerful individuals is for personal gain and enrichment and also includes attempts at land speculation. What is interesting to note is that in this process these individuals also manipulate the rural poor to their advantage? Thus the rural poor may be utilized to provide a facade to their activities. The organized forest felling by the rich and the powerful is for immediate personal gain. Owing to deficiencies in the law and the fact that the responsibility for law enforcement is diffused among several agencies enforcement has become extremely difficult. Violators of the law also benefit by the fact they often have access to the best legal advice to get them out of the clutches of the law. The fact that the legal process itself is slow moving works to the advantage of the rich and powerful. It has been observed by Karunanayake (1992) that the,

legal procedure relating to environmental protection is slow and cumbersome and discourages many officials from taking effective action against offenders. Court procedure relating to forest offences was especially singled out by most AGAs. Fines are too low and the procedure time consuming and protracted. Furthermore, when illicit felling is detected, the officers have to make arrangements to transport the seized timber to be produced in court, sometimes at own expense. They are also responsible for the safe custody of timber pending legal action. In view of these difficulties, at times, the officials find it prudent to turn a 'blind-eye' to these activities.

Another process with political ecological implications for Protected Area Management is the opening up of State land ('protected' or left unprotected) by the State itself. Many of these activities have been undertaken for the betterment the rural people. Indeed many of these development activities have had the desired effect. But a basic weakness has been that these activities have been implemented as 'political decisions' with scant regard for environmental considerations and on the premise that land resources are expendable. A recent development illustrates this point well (Karunanayake et al., 1995). The Saddhatissa Tank Rehabilitation Project in the Moneragala District was expected to irrigate an extent of 800 ha. to benefit the rural poor. But later studies had revealed that only an extent of 80 ha. could be irrigated given the expected storage capacity of the tank. In the meantime the forest cover had been cleared to accord with the originally targeted irrigable extent.

It is also worth noting that there are also indirect consequences of development activities with political ecological implications. On the one hand it takes place through a process that attracts outsiders to land settlement schemes. On the other hand the problem has to do with the lack of economic opportunities for the second and third generation settlers. In both circumstances the easy way out has been to encroach on environmentally critical tank, canal and catchment reservations. These developments undoubtedly influence the long-term viability of irrigation settlement schemes and the perpetuation of poverty itself. Here again these processes are sustained through the nexus of relationships involving politicians, officials, local power groups and the rural poor.

The manner in which the resource managers influence the political ecology of Protected Area Management has been touched upon at various points in the preceding discussion. However the issue is worth looking at in more detail. The resource managers, particularly those in the frontline, influence the political ecology of resource use in several ways. As government officials they are committed to implement State policy. As such their primary role has been to prevent encroachments and other activities in Forest Reservations. As referred to earlier it is evident that they have not been totally successful in doing this owing to a multiplicity of reasons. But it is also a fact that given the social and political framework within which they operate, their actions, even if not deliberate, may have a negative impact on the poor than on the rich and the powerful. This is a situation that leads to inevitable conflict between the frontline officials and the rural poor. The mistrust placed on frontline officials responsible for resource management, by the rural poor, has been alluded to in recent writings (Karunanayake, 1992; Karunanayake, 1994).

Consequently there is the likelihood of a contradiction between the new forestry policy that is more people focused, and its practice. The following sections that specify policy are illustrative of the pro-people approach adopted by the Forestry Sector Master Plan (1995):

Section 1.3 Enhance the contribution of forestry to the welfare of the rural population, and strengthen the national economy, with special attention paid to equity in economic development;

Section 2.2 The traditional rights, cultural values and religious beliefs of people living within or adjacent to forest areas will be recognized and respected;

Section 2.3 The natural forests will be allocated first to conservation, and secondly for regulated multiple use production forestry;

Section 2.4 For the management and protection of the natural forest plantations, the state will, where appropriate form partnerships with local people, rural communities and other stakeholders, and introduce appropriate tenure adjustments;

Section 2.6 Degraded forestland will be rehabilitated as forest for conservation and multiple use production, where it is technically and economically feasible, mainly for the benefit of local people;

Section 5.2 Legislation will be amended or revised, as necessary, to support the implementation of policy;

Section 5.6 NGOs and community-based organizations will be supported in their forest based rural development activities.

In keeping with the above objectives the Forestry Sector Master Plan has proposed a fourfold reclassification of forests. According to this classification Class I forests are meant for strict conservation while non extractive uses as well as controlled collection of non-timber products are permitted in Class II forests. The zoning of these forests to facilitate

different uses will be undertaken. Class III forests provide for multiple uses based on the utilization of wood and non-wood products. Class IV forests consist of forest plantation and agro-forestry systems in State lands. It is noteworthy that Class II and III forests permit the regulated use of forests by local communities.

Forestry Sector Master Plan is committed to amend and revise legislation to give effect to its policy initiatives. This would be a means of achieving the objectives stipulated in section 2.4 of the Forestry Sector Master Plan, referred to above, namely, forming partnerships and introducing appropriate tenure arrangements. Moreover it would be facilitative of implementing new conservation strategies such as buffer zones. Nonetheless one has to take cognizance of the socio-political realities within which the new policy initiatives are to be implemented.

There is, for example, the reluctance of many Protected Area managers and field level officials to be facilitative of participatory initiatives and regulated use of forests by local communities. Another constraint that would be a hindrance to policy implementation is the hostile attitude of local communities to frontline officials of the forest department for reasons that have been discussed above. Hence there is a need to create space for better and closer interaction between the resource managers at the different levels and local communities in implementing the policy enunciated in the Forestry Sector Master Plan.

In achieving wider involvement of local communities in Protected Area Management the approach of the Forest Department appears to be to work through existing grassroots organizations rather than opting for new ones. This approach may have both strengths and weaknesses. Among strengths an important one would be that they are already in place and have experience in mobilizing local communities for collective action. One obvious difficulty is to identify specific institutions that would best serve the needs of Protected Area Management. It is also well known that sustainability and effectiveness have not been the hallmark of rural institutions in Sri Lanka except perhaps the Death Donation Societies. Furthermore, local level institutions with an environmental bent have been the exception rather than the rule in rural Sri Lanka.

The question of ensuring the representation of the poor as stakeholders in such local level organizations is also an issue of concern from a political ecological point of view. It is well known that there is a tendency for the

more powerful and the influential to control such organizations through devious means for their own advantage. If such were the case it would nullify the good intentions of the new forest policy. Hence, there will have to be adequate safeguards to ensure that such institutions in fact adequately represent the views of the poor. But this again requires the political will and commitment at the highest levels.

POLITICAL ECOLOGY OF WILDLIFE MANAGEMENT

It is now relevant to consider the manner in which political ecology influences wildlife management. What is immediately evident is that there are many parallels to be drawn between the management of forests and wildlife management in so far as the political ecological processes are concerned.

The customary role of the Department of Wildlife Conservation (DWLC) has been no different to that of the Forest Department with 'protection' being the primary concern. The DWLC has attempted to do this with a somewhat rigid enforcement of the Fauna and Flora Ordinance. There has been little concern to integrate the management of wildlife areas with that of the surrounding areas to avoid likely conflicts with local communities. Such concerns are now well established elsewhere (Lusigi, 1984). Unlike in the case of forest reservations, the problem of ill-defined boundaries is not a major issue in wildlife sanctuaries and parks, although there are problems in some areas such as the western sector of the Uda Walawe National Park. As will be shown later Protected Areas under the DWLC too are vulnerable to encroachments and illegal activities. However such encroachments are of a transient nature with the encroachers leaving the Protected Areas after sometime for fear of raids by officials or once they have done with their activities e.g. gemming. The encroachers for the most part engage in activities that are primarily of an 'extractive nature'. Nonetheless these activities have serious implications for resource management. Furthermore as the situation in Uda Walawe and Lunugamvehera National Parks points out there is the likelihood of transient encroachments taking a more permanent form in the future? In these two National Parks some encroachments have been for residential purposes.

Despite the pressure exerted on Protected Areas by local communities who are landless and poor the State has been slow to adopt a rational approach to wildlife management. Thus Laurie and Miththapala (1994)

have pointed out that the declaration of Lunugamvehera, as a National Park was rather premature. There has also been a sense of urgency in raising the status of Bundala to that of a National Park. This was done in 1992 in view of its recognition as a wetland of international significance in 1990. However Bundala had been a sanctuary since 1969 thus permitting some human activities (including residence) within its boundaries. The upgraded status of the sanctuary resulted in a conflict of interest between the officials and the communities affected. It was reported that in 1992 some 800 families were living within the newly proclaimed 'park' boundaries.

At the same time there has been reluctance on the part of the State to rationalize Protected Area boundaries. The case of the Uda Walawe National Park is a case in point. It is evident that the DWLC has had no effective control of the western sector of the park for many years. There is continuing friction between local communities and park officials over user rights and reports of violent incidents have not been uncommon. In view of the prevailing situation the development of the western sector of the Park for purposes of wildlife management has been severely affected. The situation of the local communities who have encroached on these lands is no better as they have no legal right to develop these lands. Given this situation there is a clear need for State policy to be more responsive to the ground situation. A pragmatic approach to the problem would be to de-gazette this area while taking action to incorporate an area lying to the northwest of the Uda Walawe National Park by shifting its boundaries so as to include the Kaltota escarpment and its surroundings (Karunanayake, et al, 1995). Such adjustments have to do with political decisions.

Wildlife management is also complicated by State policy that has been determined by reasons of political expediency. State approval for the establishment of the Pelwatta Sugar Corporation Complex has had adverse consequences not only on wildlife but also on the poor. The establishment of the plantation has disturbed the traditional migratory paths of the wild elephants that enabled them to seasonally move between the Ruhuna and the Udawalawe National Parks. Consequently there has also been a loss of feeding habitats for the elephants as well. It is also evident that the establishment of the sugar plantation has had an impact on the lives of the poor? The poor of the area were shifting agriculturists who gained access to State lands for the purpose of cultivation. Thus a large extent of these lands over which they exerted 'traditional rights'

were lost to the sugar plantation. The State rationalized its decision on the grounds that the establishment of the plantation would provide better and secure employment to the local communities who were generally poor. Further it was reasoned that they could find contractual work while also assuming a role as 'out-growers'. Some of these expectations were met to a degree. But problems were also evident in other ways. For example there was a loss in food security because of the over dependence on sugarcane as a cash crop. Furthermore sugarcane was found to be a crop that was particularly attractive to the wild elephants that had suffered habitat loss because of the plantation. It has exacerbated the human-elephant conflict in the area. At the same time the Pelwatta Sugar Corporation has not been spared the effects of this conflict either.

The construction of the Lunugamvehera irrigation settlement scheme too had the effect of truncating the elephant migratory routes between the Udawalawe and the Lunugamvehera National Parks that has been a factor responsible for the human elephant conflict in this area. The planned corridor linking the two parks never materialized, as the political commitment to evict encroachers was not forthcoming.

State policies have also been quite oblivious to the fact that the Protected Areas should perform both conservation and an economic function. It is true that the National Parks generate income through gate fees charged from the visitors to the parks. But revenue generated through this source is limited. Hence much of the income generated by the National Parks takes an indirect form such as that derived through the provision of services and facilities to tourists (both foreign and local) by the private sector. Moreover the direct income generated by the parks flows back to the treasury, as required by government financial regulations, for purposes of general disbursement. Thus the Protected Areas do not make a direct and visible contribution for the development of the regions wherein they are located. One way in which the parks could be made to perform a development function is by creating an effective link between wildlife management and eco-tourism. It is imperative that eco-tourism be so developed as to generate livelihoods to local communities. It is also vital that a part of the income generated by the Protected Areas be utilized for social and physical infrastructure development of the areas in which they are located for the benefit of local communities. Such developments in the end would depend on political decisions impinging on regional autonomy and local governance.

While the thinking on State policy relating to wildlife management has undergone significant change in recent times, this has not been so at the level of implementation.

As in the case of forest management local power groups also have a stake in wildlife management. There is evidence that they promote illegal activities in the Protected Areas such as cutting down of forests. In many sanctuaries and national parks in the Southeast Dry Zone powerful persons have promoted gem mining and poaching. Another blatant violation of Protected Areas is seen in the driving-in of large herds of cattle for grazing within parks. This has further constrained the fodder and water available to wildlife within Protected Areas. The human-elephant conflict to which reference has been made earlier has also been influenced by the grazing problem. Power relations sustained by local social and political networks help perpetuate these activities to the detriment of Protected Area Management. In this process the poor (or at least some of them) may be seen as both winners and losers. As winners they are in a position to generate livelihoods in the short-term by helping the anti-social elements in these activities. In the long term they contribute to ecological poverty with dire long-term consequences to themselves and to the community. Many local politicians tend to think that natural areas are expendable. Therefore one way of placating the vote base is to make constant demands on Protected Areas for 'development purposes'.

In an assessment of the political ecology of wildlife management it is also relevant to take note of the manner in which the bureaucracy of the DWLC operates. The style of management of the DWLC is highly authoritarian with very little or no initiative left to the rank and file. If the DWLC were to adopt a more community focused approach to Protected Area Management it is necessary that the style of management be changed to give frontline officials reasonable freedom to use their discretion.

It is also evident that there is much more to be done to train and re-train officials to give effect to projected policy changes. At present there is a hiatus between the projected policies and the capacity of specially the lower rung officials to implement them. One problem here is their inability to grasp the content and the intentions of new directions in policy. The same may hold true for some senior managers as well. Indeed several studies (LAMSCO, 1993; Laurie and Miththapala, 1994 and Panwar, 1994) have highlighted the training requirements of DWLC

officials to accord with the modern approach to Protected Area Management. But training in itself would be inadequate unless the opportunity is made available in particular to lower rung officials to make use of their newly acquired skills in their day-to-day functions.

The lack of understanding between the Forest Department and the DWLC also creates problems for Protected Area Management. It is seen that in some instances declaration of National Parks by the DWLC has been done unilaterally without consulting the Forest Department. An outcome of this is that both Uda Walawe and the Lunugamvehera National Parks have forest plantations within park boundaries. As such these plantations cannot serve a production function. But it is not the DWLC alone that is at fault. The release of drainage water from the right bank channel of the Kirindi Oya Irrigation Settlement Project into the Embilikele and Malala Lagoon has led to a decline in salinity thus modifying an important habitat of wading birds with long-term implications for the Bundala National Park. One consequence of the failure of the Forest Department and the DWLC to coordinate their activities is the inability to prevail on decision makers and development planners to give thought to conservation needs. There is no doubt that inter-departmental rivalry plays a role here. LAMSCO (1993) observes that,

The DWLC has not been influential in building a framework for wildlife conservation with other government agencies. The DWLC does not appear to have been effective in ensuring that policies and approaches regarding land alienation, distribution and settlement were developed to reflect conservation requirements.

As seen in the human-elephant conflict such lapses on the part of the establishment have dire long-term consequences for the poor.

In considering the political ecology of Protected Area Management it is important to look at the manner in which the poor are involved as stakeholders. It is immediately evident that the communities living adjacent to Protected Areas are alienated from the process of managing such areas. In fact the 'policing' function of DWLC officials has led to constant friction and conflict. The problem is complicated by the fact that the local communities may not be fully aware of the legal status of Protected Areas lying in the vicinity or adjacent to their settlements. This is amply demonstrated by the findings of a study undertaken with reference to the Protected Areas of Southeastern Dry Zone (Karunanayake et al, 1995).

As earlier pointed out while there is recognition of managing Protected Areas with a concern for communities in surrounding areas it has not been realized in practice. One outcome of this situation is that the poor have become illegal users of Protected Areas. Thus in the Uda Walawe National Park the poor are found to engage in activities such as gem mining, forest felling, poaching, driving in herds for grazing and fishing. Often they also set fire to grassland for the dual purpose of facilitating poaching and helping succulent grass to grow for their cattle or buffaloes to graze on. In the Bundala National Park in addition to many of the activities noted above shell mining is found to be an important activity. In the Ruhuna National Park too many of the above activities have been identified. In addition cultivation of Cannabis sativa (ganja) has been reported. Fishing activities on a seasonal basis has been permitted e.g. at Patanagala, but it has also facilitated the undercover operations of illegal activities such as poaching. In regard to these unlawful activities one has to make a distinction between activities that are undertaken by the poor because they are poor, and those activities perpetrated by the poor as pawns in the hands of the rich and the powerful. Given the social and the political processes at work in the rural situation the hands of the law fall more heavily on the poor who have no outside links or 'patrons' to support them.

The more recent thinking on park management calls for the formulation and implementation of park management plans. This necessarily entails the zonation of parks for different purposes including the controlled use of resources by proximate local communities. Thus the CEA/ Euroconsult (1993) proposed a management plan for Bundala that has three zones viz. (a) strict conservation zone, (b) controlled use zone, and (c) buffer zone. Guidelines had also been drawn up to prepare management plans for Block I and II of the Ruhuna National Park. But it may be necessary to consider the Park en bloc for the purpose. Hence it is imperative that proper management plans be developed for all National Parks. However what is even more important is to implement such plans. It is rather disconcerting that the DWLC has shown little or no initiative in this regard. This may be due to lack of trained personnel for plan formulation and also implementation. But more importantly it is a reflection of the inability of the DWLC to bring about an attitudinal change among its cadres and to 'modernize' itself. Certainly the implementation of management plans would also necessitate changes in the law governing the Fauna and Flora Protection Ordinance. The issue worth noting is that the implementation of management plans that also concede limited

use of park resources by neighbouring communities would make them stakeholders in park management ready to take up shared responsibilities.

A corollary of the above is that the role of 'buffer zones' as an instrument of park management has not been given due consideration. A buffer zone is defined as

A zone peripheral to a national park or reserve, where restrictions placed upon resource use or special development measures are undertaken to enhance the conservation value of the area (Sayer, 1991).

It may be noted that there is provision in the Fauna and Flora (Amendment) Act No 49 of 1993 to create buffer zones. They provide the means to minimize conflict between Protected Areas and local communities. However the establishment of buffer zones in already settled areas is not easy as it would affect existing land use systems of local communities. It is a matter that could very easily be politicized. The political sensitivity of establishing buffer zones in settled areas may also be a factor that has contributed to the present impasse in their establishment. As reported by Wells and Brandon (1993) in the context of biosphere reserves world wide there are also other factors that complicate the management of buffer zones. They assert that,

Most Protected Area Management authorities lack the legal authority, jurisdiction and mandate to establish or manage buffer zones. In many countries they also lack the capability, resources and inclination to adopt a constructive approach to local people-park issues.

While the proposed policy directions point to the need to adopt a participatory approach to wildlife management, institutionalizing such an approach has not been considered with any seriousness of purpose. One difficulty is the lack of grassroots environmental NGOs and community based organizations with which the DWLC could interact. At present whatever interaction with local communities is on an ad hoc basis and may be necessitated by exigencies of circumstances. Thus when the human-elephant conflict intensifies during particular times and in certain areas, there is interaction between local communities and DWLC officials to deal with the situation, for which the initiative comes from both sides. There has been little capacity to sustain such initiatives.

However instances have been found of community initiatives to deal with wildlife management issues. Thus a community organization had been formed to deal with human-elephant conflict in the Kahalla-Pallakele area of the Northwestern Province. In this instance the community organization has been able to take the initiative to the DWLC.

The sustainable management of wildlife reserves also calls for awareness creation among rural communities. This has to be accomplished through a systemic approach to environmental education of local communities, a task that could best be undertaken with support from grassroots environmental organizations when available. However there is a dearth of such grassroots organizations at present and the DWLC will have to adopt a more direct approach through its Education and Publicity Division. Newmark and Leonard (1993) have pointed out that environmental education programs should not solely focus on educating the people on the value of wildlife. They should also aim at eliminating mistrust of Protected Areas employees by local communities. At the same time extension programs should open up lines of dialogue with park managers and, in the final analysis provide tangible benefits to local people and especially the poor.

The conflicts and contradictions seen in the political ecology of Protected Area Management are well indicated by the human-elephant conflict and the response of different actors. In this regard the State has a dual responsibility. On the one hand the State is committed to protect the dwindling elephant population and on the other see to the welfare of local communities affected by the conflict. In keeping with the State policy of protecting the elephant the Five Year Investment Programme (1991-1995) of the DWLC identified the human-elephant component as an important aspect of the proposed development strategy. But as pointed out earlier the genesis of the human-elephant conflict is to be seen in the scant attention paid by the State to provide for link forests to ensure free movement of elephants between feeding habitats. Seidensticker (1990) has shown the importance of building measures into projects to avoid human-elephant conflicts on a large scale. Unfortunately this has been ignored in the execution of development projects.

Often the local politicians stand at odds with the State policy to protect the elephant. In their minds elephant conservation is for the long term. What is more important in the short-term is to safeguard the interests of their constituents. There is constant pressure brought to bear on the officials of the DWLC by the politicians for short-term solutions to the human-elephant conflict.

The local communities find themselves deeply affected by the conflict. It may take various forms. The most obvious is the damage to crops. House and property too are vulnerable to attack. Elephant attacks on humans cause physical injury and even death. The mental trauma caused by elephant attacks is often left unperceived by outsiders. In a study of the human-elephant conflict in the Southeast Dry Zone of Sri Lanka it was found that what was uppermost in the minds of local communities is the trauma that they have to ever so often undergo. This in turn evoked a sense of self-pity in some, while in others feelings of aggression were directed towards both the elephants as well as the officers of the DWLC (Karunanayake et al, 1995).

The officials find themselves in a very difficult situation. On one hand they have to be accountable to the State and on the other to the local communities. The difficulties are further compounded by the politically sensitive nature of the human-elephant conflict. The institutional response of the DWLC to the 'conflict' has been three-fold namely; (a) preventive measures (b) restitution measures and (c) pre-emptive measures.

Among the preventive measures is the erection of power fences, digging of trenches, chasing away of elephants from the vicinity of farmland, and night patrolling of vulnerable areas assisted by local groups. But the regular upkeep of these activities is not easy in view of the costs involved. Power fences are expensive to construct costing around Rs. 150,000/- per km. Operational costs are low because they are solar powered. Funds are also needed for the maintenance of power-fences, as at times elephants are capable of damaging them. Similarly the success of activities such as chasing away of elephants and night patrolling of affected areas depend on the availability of funds to implement them. Hence the failure to implement these measures in full may also result from extraneous circumstances over which the regional staff of the DWLC has no control. Yet often the problem is not seen in this light.

The restitution measures are aimed at providing relief to local communities who have been affected by the human-elephant conflict. The primary instrument used by the DWLC is the compensation scheme drawn-up in conjunction with the Sri Lanka Insurance Corporation. The scheme does not cover crop losses but only death and damage to house and property. The procedure of paying compensation is a rather tedious and protracted and beneficiaries have been critical of the manner in which the scheme has been implemented. The scheme is being implemented

under considerable financial stress. The DWLC pays an annual premium of Rs. 400,000/- whereas the annual claims have been in the region of Rs. 10,000,000/-. The Sri Insurance Corporation has asked for the payment of a higher premium or doing away with the scheme altogether. The losers in this case would be the poor. The State has to have a clear commitment to the poor who are the victims of the human-elephant conflict. More recently the premium paid by DWLC has been raised to Rs. 450,000.

Among the possible pre-emptive measures are (a) trans-locating rouge elephants (b) elephant drives (c) habitat enrichment (d) provision of jungle corridors and (e) establishment of buffer zones. Even though (a) and (b) have been undertaken as pre-emptive measures from time to time there are serious practical difficulties in their implementation (Fernando, 1983). The experience is that the setting-up of jungle corridors and buffer zones has to contend with local political pressure as they override short-term political gains.

Habitat enrichment of Protected Areas is another pre-emptive measure that merits serious consideration. However habitat enrichment has not been attempted on a systematic basis so far although some experimental work has been undertaken in Yala Block IV. Attempts at restoring water holes and *kemas* too have been problematic. The whole question has to be approached from a more holistic perspective. According to Laurie and Miththapala (1994),

Block III/IV tank and kema restoration projects need study now, to examine whether they are being used by large mammals, whether there is any evidence that provision of more water holes would change the movement pattern of elephants, and how this might affect biodiversity of Yala in other ways.

It is evident that owing to the political ecological processes at work the approach of the DWLC to the human-elephant conflict has been one of expediency. Being reactive rather than pro-active has been the rule of the game. The poor no less than the elephants continue to suffer in the meantime.

CONCLUDING REMARKS

It is evident from the preceding discussion that despite recent initiatives towards a more pro-people approach to resource management at the local level, the power relations and decision-making that relate to control and allocation of resources, exemplified by Protected Area Management, are heavily biased in favour of the State, bureaucracy and the local power groups. As such the rural poor themselves can exert very little impact on issues pertaining to resource management within the established institutional framework. It would appear that the attitude of the bureaucracy has been one of intransigence that has shown very little sensitivity to the needs of the rural poor.

Moreover it is equally evident that development concepts such as participation, social mobilization, empowerment and partnership remain at best political rhetoric with no real attempt being made to realize the potential inherent in them to generate grassroots activism for the assertion of the rights of the rural poor. In particular participatory ideologies have not been effectively linked to mainstream political processes. While there has been a recent trend towards institutionalizing community participation as evidenced by the draft Wildlife (Amended) Act of 1990 and the Forestry Sector Master Plan of 1995, there has been some reluctance on the part of the bureaucracy to achieve this in practice. There will not be much change in the situation without firm political commitment to give effect to participatory ideology.

The above situation appears to be the outcome of the convergence of several political processes. The colonial legacy has stifled the sense of self-reliance that was a characterizing feature of the traditional rural society and supplanted it with an overt sense of dependence from which the rural people have not been able to free themselves. Since independence such tendencies have been perpetuated in the form of the so-called interior colonization (Khan, 1998) resulting in the polarization of the centre vis-à-vis the periphery. The highly centralized form of government that had characterized Sri Lanka until quite recently has further strengthened these tendencies.

While an attempt was made to devolve power to the provinces under the provisions of the 13th Amendment to the Constitution and the Provincial Council Act No 42 of 1987 their effectiveness as devolved units to promote development in the regions has been questioned. A point of

particular significance is that despite devolution too much power has been retained at the centre and this has been particularly so in relation to the management of natural resources. It has therefore left little space for 'people' and 'place' focussed development that would have been a means of realizing the potential of people who are rural and who are poor. In relation to management of natural resources the relationship between the people and the State remains distant and officials are often cast in the mould of 'outsiders'. Indeed there is a hiatus between the ideology of participatory resource management that is both implicit and explicit in State policy (as represented for example by the Forestry Sector Master Plan (1995) and the draft Wildlife (Amended) Act of (1990) and practice. The system as yet does not provide choices and opportunities for the rural poor to sustain livelihoods. Hence, the political ecology of Protected Area Management and the way it impacts the rural poor are ultimately tied-up with the larger issues that concern the Sri Lankan polity.

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Sida/SAREC Research Cooperation Project
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Sida/SAREC Research Cooperation Project that commenced in January 1999 deals with policy relevant studies on regional development and poverty alleviation.

The rationale for studies in regional development is derived by the need to rethink the regional development policy in Sri Lanka for the purpose of (a) establishing the relevance of a regional development approach to development; (b) refocusing attention on the development of the periphery to complement the present and future development of the 'core' region; (c) determining the ways in which the political and economic processes at the regional level have to converge for better spatial distribution of the benefits of social and economic development; (d) making regional development 'people' and 'place' focussed; and (e) utilizing regional planning as a tool for national integration.

Similarly, while there has been a concern for poverty alleviation, implementation strategies in Sri Lanka have often overlooked the deeper issues relating to poverty such as poverty derived destabilization of households, seasonal impacts of poverty, poverty thresholds, feminization of poverty, transfer of poverty related stress from men to women, poverty and its impact on environmental degradation and the cultural attributes of poverty as they shape the world view of the poor. The Project aims at investigating these issues at the micro level to help fine tune poverty alleviation strategies.

It is proposed to bring out a series of publications covering the above issues during the project period (first phase due to end in December 2002) to disseminate the findings of research among as wide an audience as possible, with interest in development issues.