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SRI LANKA'S FOOD DRIVE IN PERSPECTIVE

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Abstract

This paper attempts to place the new food production and agricultural development effort of Sri Lanka in the correct perspective in relation to the past experiences as well as the scientific, technological and socio - institutional realities of Sri Lanka's agricultural - situation. This effort is symbolically designated "Waga Lanka" and is based on the Agricultural Development Programme of the Ministry of Agriculture, Lands and Forestry planned and implemented over the last two and half years through a "continuous experiential learning planning process ".

The "New Agriculture" envisaged to emerge out of this planning process, would be an economic activity, with diversification, market oriented modernization and profitable agro-industries established in rural areas. Its essential elements would be rational land use/tenure strategies, specialization and zoning of crops and agricultural activities and the promotion of Farmer Companies among enterprising small producers.

In the meantime with the FAO's signal of a wide global adverse food situation by the year 2000 AD and consequently mass -scale starvation, malnutrition and hunger there after, the above innovative planning process assumed an acceleration parameter and therefore was converted to a "Waga Lanka Waga Sangramaya" meaning cultivation effort on a war footing.

Historical Perspective of Agricultural Development Planning and Administration in Sri Lanka

"*Waga Lanka*" is the symbolic designation assigned to the Agricultural Development Programme of the Ministry of Agriculture, Lands and Forestry designed through a continuous experiential learning planning process undertaken by it over a period of approximately one and half years. In this planning process, attempts made in the past including those instituted during the ancient period of this country, were used as guideline experiences in designing the new programme. Unlike most previous plans and programmes, the present programme is supported by an implementation strategy designed under "AMA", offering an "integrated approach" to planning and plan implementation in the rural agricultural sector. Under this strategy, food production and overall agricultural production are treated as synonymous activities needing consciously planned and efficiently implemented continuous strategies in terms of urgency, flexibility and expediency required in waging a war.

Ancient Kings firmly believed and were strongly inspired by the words of Lord Buddha "all beings depend on food" (*Sabbe Saththä Ahärattithikä*). Accordingly, an extensive and efficient irrigation infrastructure was built by them over a period of nearly ten centuries beginning from the 2nd century A.D. and lasting up to the 12th century A.D. (Brohier 1987). Even the colonial rulers, particularly during times of war realized the need of increasing food production and therefore, attempted to restore this ancient agricultural/ irrigation infrastructure in order to facilitate food production.

Since independence, all Governments which came to power periodically have invested substantial amounts of resources on the agricultural/irrigation infrastructure as well as to facilitate agricultural production and particularly food production associated with the rural agricultural economy. In the Sri Lanka's rural agricultural economy the use of poor seed, adherence to age old cultural practices, insufficient use of fertilizer, agro - chemicals etc., and lack of production - credits., all of which added up to a low rate of productivity; characterized the small-holder and his subsistence - level farming. The lack of sources of fair-priced production inputs, as well as the insufficiency and the inadequacy of well-organized producer-oriented marketing facilities, aggravated the problem. The question of finding an escape from this situation assumed an urgency for the country due to the fact that agriculture still accounts for the major share of the immediate employment potential in the country and the imbalance in the foreign exchange situation. Any increase of agricultural production would contribute significantly both to increasing the employment potential and to raising the income levels in the rural areas. At the same time, with rice and other subsidiary food stuffs accounting for a major slice of the import bill, any reduction thereof could not only help in redressing the foreign exchange imbalance, but could also release foreign exchange resources for import of capital goods for much needed development projects. Therefore, the question of increasing production in the domestic agricultural sector has been a major problem for the decision-makers of the country since independence.

With self-sufficiency as the goal, a series of attempts were made to tackle this problem through programmes aimed both at increasing the "production - acreage" and the "productivity of the acreage" These attempts can be enumerated as follows:

1. Restoration of ancient Agriculture/Irrigation Systems and Construction of New Ones, 1935-1956;
2. Agriculture Plan of 1958;
3. Accelerated Food Production Programme - 1963;
4. Food Drive 1965 - 1970; Agriculture Development Proposals.
5. Five Year Plan 1971 and Land Reforms Programme;
6. Mahaweli Development Programme 1971 and Accelerated Mahaweli Development Programme 1978;
7. Irrigation Programme Review and Programme for Integrated Management of Agricultural Settlements: 1984 (INMAS and MANIS);
8. Integrated Watershed Management - Shared Control of Natural Resources Project 1994 (SCOR);

Mr. D.S. Senanayake, the first Prime Minister of independent Sri Lanka continued with his colonization policy which he began through the Executive Committee System of the State Council period. After becoming Prime Minister, he did not attempt to change the British Administrative System, but proceeded to utilize it to rehabilitating the traditional rural agrarian economy. Firstly, by rehabilitating the ancient irrigation schemes and later by establishing new ones, he expected to expand the area under agriculture and also to facilitate the creation of a prosperous, self-sufficient and self-respecting village peasantry and also a class of rural gentry that assumed leadership in all village affairs as during ancient times (Senanayake 1935). These objectives are clearly stated in a report submitted by the Executive Committee on Agriculture and Lands of which, Mr. D.S. Senanayake was the Chairman. This policy upto about 1958 emphasized the development of rural-infrastructure such as irrigation works, roads and highways, schools, hospitals, etc., consisting of the physical apparatus required for the development of the rural economy. In addition there was also a very successful attempt to build a network of agricultural institutional infrastructure including research and training facilities through state managed agricultural farms and schools. This infrastructure building effort was highly significant and it functions efficiently even today with periodical repair and rehabilitation. It appears that building a proper development strategy to achieve a qualitative structural advancement in agriculture on the physical foundation built by Mr. D.S. Senanayake was left to the leaders to follow.

Late Mr. S.W.R.D. Bandaranaike who became Prime Minister after the 1956 socio-political revolution, who realized the need to build such a strategy for the development of the domestic agricultural sector, along with upgrading of the human resources therein appointed Mr. Philip Gunawardena who was capable and ready to attempt such structural reforms as the Minister of Agriculture in the 1956 Cabinet. As was expected of him, Mr. Philip Gunawardena wasted no time in drafting new laws and designing new strategies required for this purpose and pushed them through the legislative process in double quick time.

Agriculture Plan of 1958 prepared under the direction of Mr. Philip Gunawardena has to be regarded as the earliest significant attempt in scientific agricultural development planning in Sri Lankan agriculture. This plan is highly significant as the first of its kind to attempt agricultural development on an integrated and planned basis, taking into consideration both the tangible aspects and the human resources, and sociological aspects of rural agricultural development. It can be described in a word as optimum exploitation of already available cultivable land. The cornerstone of the Plan was the Paddy Lands Act which sought to break the shackles, hitherto imposed on land-cultivation by the feudal relationships between ande-cultivator and the land lord. The incentives of permanent and heritable land-tenure and limitation of landlords' rent envisaged in the Act were expected not only to stimulate production but also to raise the human stature of the cultivator. The Cultivation Committees under the Act were expected to promote collective effort in cultivation, inculcate self-government and act as the liaison between the cultivator and the administrator.

The third programme was not so much a plan but an attempt to effect certain organizational changes within the existing administrative machinery to bring about co-ordination and enhance the efficiency of the different government agencies responsible for food production.

The continuing imbalance in the foreign exchange situation, coupled with the increase in the world market price for rice, generated a crisis situation in 1965 which highlighted the urgency of making a more determined effort at achieving self sufficiency in rice and other principal subsidiary food crops. The new Government set about the task correctly from the beginning and directed its attention straightaway towards formulation of a programme to promote agricultural production especially in the rural sector. The strengthening of the co-ordinating machinery at the District Level and the Center and creating co-ordinating mechanism at Divisional as well as village levels received careful consideration. An attempt was made for the first time, to decide production targets and plan goals on a regional basis and this resulted in more weightage been given to the implementation aspects of the programmes. Therefore the emphasis in the Agricultural Development Proposals 1966-70 was mainly on the importance of weaving together the different factors of agricultural production to facilitate the successful implementation of the programme. Accordingly, after a survey of the current situation a Five Year Programme for increase of productivity with a break-up of production targets by Districts, Divisions and Villages was prepared covering the period 1966-1970.

The target in the Five Year Programme (1966 - 1970) was 70% self sufficiency by the end of the period. The increase in production for the period up to the end of the second year of the programme exceeded the target and generated a feeling that there would be no problem in achieving the planned goals. But this was not so much due to the efficiency of the administrative changes effected, but due to the support received from several external factors of which three were quite significant.

(i) the increase in the guaranteed price for paddy;
(ii) the reduction in the quantum of the subsidized rice ration which led to an increase in the free-market price;
(iii) the sense of national urgency which was highlighted in the propaganda drive led by the Prime Minister and the Minister of Agriculture.

Actually, it is the changes in the price-structure that made the major contribution to productivity. In the short run, it provided an extra-ordinary strong motivation for the peasant farmer which helped him to ignore any impeding forces in the administrative and institutional organization. It would, therefore, be unrealistic to accept the current administrative organization as one which could provide a firm base for a development programme. Accordingly the importance of pricing and marketing has been fully recognized under the "Waga Lanka" programme. It has also incorporated proposals for re-allignment of the administrative organization.

The next attempt in planning agricultural development in Sri Lanka particularly with emphasis on the upgrading of the small scale rural economy is reflected in the strategy proposed in the Five Year Plan of 1971 (MPE 1971). The importance of assigning high priority to agriculture, particularly small scale sector, in the national economic development agenda as well as of designing an appropriate integrated planning and implementation strategy with the participation of organized small producers was clearly emphasized by the

Five Year Plan. It was to be a joint-effort by people and government in all respects. An implementation Strategy with a package of certain organizational arrangements, institutional mechanisms and policy reforms was also instituted to back-up and facilitate the operationalisation of the planned proposals. (Annexure I)

The implementation of this Five Year Plan started with a great deal of enthusiasm by the Permanent Secretary, Prof. H.A. de S. Gunasekera of the Ministry of Planning and Employment at that time. The implementation was earnestly continued but was disturbed by the after-effects of the insurgency of April 1971. Later, in the face of this insurgency a system of District Political Authority was introduced to expedite plan implementation and to bring about co-ordination of the efforts of different government agencies at district level.

Along with the Five Year Plan the People's Front government initiated the programme of Land Reforms under which the privately owned estate land was nationalized. Part of this nationalized land came to be administered direct by the state and part of it was alienated to private individuals to form small settlements, with small scale farming. During the same period the Mahaweli Development Programme was commenced and a feasibility-study was completed with programmes aimed towards diversifying agriculture under new farming and settlement patterns.

The colonization schemes started during the thirties, forties and followed in the early fifties, no doubt developed as "growth poles" in the rural areas and resulted in the emergence of some kind of "systematic farming". However subsequent evaluations of these schemes have found that this "systematic farming" did not differ very much from the "Mono-Crop subsistence farming" that prevailed in the *Purana* Villages of the Dry Zone under village irrigation works and in rainfed areas.

Mahaweli Development Programme of 1971 as well as the Accelerated Programme of 1978 attempted to change this farming system with new cropping patterns and agro enterprises and rural industries based on new settlement patterns and organizational and institutional arrangements with a view to making agriculture profitable and sustainable in the long run (MIPH 1972).

Beginning with late sixties during the "Food Drive" (the fourth attempt) action was initiated to review the performance of these colonization schemes - Major Irrigation Schemes under a programme commonly known as the "Irrigation Programme Review". Under this Review an IBRD/FAO Team (Paperzak Mission) studied these schemes and highlighted the need for greater output and also pointed out that the high costs incurred in the setting up and management have been out of proportion to economic returns. The income realized has been low in relation to the costs resulting in an overall capital output ratio of 12:1. Consequently several programmes were launched in the major irrigation schemes all over the country on an experimental basis to remedy the weaknesses and improve the performance of these schemes. More important among these experiments were "Special Projects" System 1965-70, Water Management Programme 1982, and Gal Oya Left Bank Rehabilitation Programme 1982 (Annexure II).

Apart from these specific experimentations several projects for rehabilitation and improvements to water management practices were negotiated and implemented. In addition several attempts were made to grow-high value crops such as cotton, potatoes and sugar in different areas of the country and also to divert to other field crop cultivation for economical use of irrigation water. A programme to enlist beneficiary participation through Farmer Organizations also was commenced.

Results and achievements both positive and negative of the above experimentations are recorded as significant landmarks in the recent history of irrigation and agricultural development in Sri Lanka. The lessons learned from their implementation inspired the Ministry of Lands and Land Development to design a programme for "the integrated management of agricultural settlements" (INMAS) in 1984. The programme was to be applicable only in the schemes known as major irrigation schemes and thirty four of such schemes were taken up for a start. Later in 1990, three more schemes were added. In 1988/89 a system of "participatory management" of major irrigation schemes was introduced under this programme in order to hand over the responsibility of operation and maintenance of distributory systems of these schemes to the beneficiaries through their Farmer Organizations. Under a separate arrangement this programme is being implemented on a limited scale in the Medium type Irrigation Schemes by the Irrigation Department through their own technical staff (Management of Irrigation systems - MANIS). During 1992/93 this programme was introduced to the Mahaweli Settlement Schemes as well.

Several reviews and surveys of the experience of the Irrigation Management Division and the Irrigation Department under this programme have indicated that it has been highly rewarding and productive. The programme certainly has provided an effective irrigation rehabilitation strategy based on beneficiary participation as an inevitable requirement of success. Nevertheless in regard to overall agricultural development the programme has to go a long way in its attempt to integrate the efforts of all agencies related to agriculture development in the country (Ariyaratne 1974).

Shared Control of Natural Resources (SCOR), is a participatory watershed management project aimed at development and testing a holistic interdisciplinary approach to integrate conservation concerns with production goals. SCOR hypothesizes that a package of measures such as type of vegetation on/livestock/aquaculture, appropriate land and water conservation practices, and user rights connected to economic benefits, is more effective in conserving natural resources. The package, formulated jointly by professionals and resources users, focuses on incentives such as an appropriate cash flow and profits as well as non - monetary benefits in return for action on conservation (IIMI 1997).

Among the many important programmes of the SCOR Project, the most innovative and highly relevant one is that which is testing the farmer company formation and operation as an organizational mode to ensure the active participation of the small farmers in the market economy benefiting from it through profitable economic ventures.

The concept of farmer companies evolved from the felt need for creating space for the small farmers to undertake farming for markets and profit from the production and market opportunities in an open economy. In the event of accepting market economy as the appropriate mode for economic development for the country by all the main stream political processes, the question of how small farmers coexist in an open economy had to be addressed. It is assumed that the small farmer sector which consists of a large number of small farmers farming small plots of lands with low investment resulting in sub-optimal input use leading to low productivity can have a major breakthrough only if the small farmers can be provided with technology, economic organization and resources with required policy changes to form their own companies and undertake farming to markets. This model was developed and is being tested in the two pilot watersheds of Huruluwewa and Nilwala by the Shared Control of Natural Resources (SCOR) project which is a collaborative effort of the Government of Sri Lanka, the United States Agency for International Development (USAID) and the International Irrigation Management Institute (IIMI) (Annexure III).

While these experimentations were being implemented in the irrigation/agricultural sectors certain organizational and political reforms were effected in the Provincial, District and Divisional Levels of the Public Administration hierarchy.

With the change of political power in 1977, the Political Authority System gave way to the District Ministry System and later to a District Development Council System aimed towards intensifying the development effort in the districts and regions. Thereafter in 1988 with the introduction of the Provincial Councils System, the responsibility for servicing the rural agricultural sector became highly fragmented and this aggravated the hopeless situation created for the small-scale producers by the open market economy introduced after 1977. In addition the small farming communities were severely betrayed by the dismantling of the agriculture extension services when all extension workers at village level (KVS) were converted as *Gramaseva Niladharies* (village level administrative officers).

The Election Manifesto of the People's Alliance declared that it would after coming to power restore and rehabilitate the declining and disintegrating rural agriculture economy with all the relevant subsidies, concessions and patronage extended through appropriate policy reforms (Department of Information 1994).

The New Effort

Immediately after the formation of the new Ministry of Agriculture, Lands and Forestry in August 1994 amalgamating the three sectors of agriculture, lands and forestry which were hitherto administered under three separate Ministries, an Advisory Committee was formed to prepare a development plan for the new Ministry. Within a short period of time this Advisory Committee came out with a National Policy Framework for the three sectors which was approved for implementation by H.E. the President in Feb 1995. (MALF 1995a).

The recommendations contained in the National Policy Framework mentioned above,

taken as a package attempt to achieve the following objectives.

1. Provision of high quality seeds and planting materials;
2. Streamlining of the agriculture extension services including the provision of supportive services and inputs (integrated extension);
3. Integrated production planning to include

    i. Production, harvesting, collection, storage, processing, marketing, value addition and export, (functional integration in agriculture)
    ii. Crop-production, livestock development, inland fisheries, agro forestry etc. (integrated farming system);

4. Institutional building including organizing of farmers and restructuring of Agrarian Services Centers as Production Centers catering to the needs and the supply of all requisites for farming; building of *Govi Sevana* (building structure for gathering/meeting); (institutional integration);

5. Integrated approach by the State, Private and Non-Governmental Organizations. (organizational integration).

Based on these policy fundamentals several action plans were prepared by the Ministry during 1995/96 and also instituted certain action research programmes to implement some of the policy recommendations. Four Task Forces were appointed with competent staff drawn from various agencies of the Ministry as well as Provincial Councils to implement these programmes in each of the sectors of rice, other field crops, vegetables and fruits. However, due to the drought situation during *Maha* 1995/96 and *Yala* 1996 these programmes could not be fully operationalized resulting only in limited success. In addition, the Department of Agriculture was able to introduce some new high-yielding varieties of seeds through the different research stations of the Department (Annexure IV).

It would be seen that in these programmes there is an attempt to deviate from the normal traditional systems and practices of agriculture and initiate some new and innovative activities in order to bring about a qualitative and structural transformation and make agriculture yield profits and thus become a profitable venture that can be professed on cost-benefit considerations even by educated youth. Despite the adverse climatic and weather conditions and the consequent limited success achieved in *Maha* 1995/96, and *Yala* 1996, the Ministry continued these programmes during *Maha* 1996/97 and *Yala* 1997 as well.

In regard to the need for an integrated effort by all agencies concerned, a deliberate attempt was made to reorganize the field organization of the Ministry towards the objective of effectively implementing these programmes. This attempt included the establishment or the reorganization of the Farmer Organizations, the establishment of *Govi Sevana* Centers, the development of Agrarian Services Centers as *Govijana Kendrayas*, formation of the District Farmer Organization Federations and the grouping of the District level and Divisional level extension officials into Agriculture Development Teams at those respective levels. It also included a proposal to strengthen the District and Divisional Agricultural

Committees for effective co-ordination of the development programmes in the agricultural sector. Training Workshops were held in seventeen Districts and this exercise was completed by April, 1995. Under this arrangement the District and Divisional Agricultural Development Teams along with the Farmer Organizations and *Govisevana Niyamakas* (officer-in-charge of *Govisevana*) and Agrarian Service Committees were geared to undertake a process of preparing an Integrated Agricultural Development and Extension Programme for *Maha* 1996/97 and *Yala* 1997 and this process was completed by the end of September 1996. The programme thus prepared became the "Action Plan One" under "*Waga Lanka*" Seasonal Planning. This process is being continued to prepare a similar programme for *Maha* 1997/98 and *Yala* 98 as well (MALF, 1996c).

This process based on the strategy of Integrated Agricultural Development Planning is known as "AMA". It has been designed and put in place at District and Divisional levels with the objective of revitalizing the Agricultural Extension Services which came to be disrupted during the last ten, or twelve years. Later with the appointment and training of *"Govi Sevane Niyamakes"* as Farmer Extension officers at village level, Agriculture Development Teams are being formed at the Village Farmer Organization level as well (MALF 1997b).

This planning process includes a programme for the development of Agrarian Services Centers as *Govi Jana Kendrayas* (MALF 1995b). Approximately 153 Agrarian Services Centers have been selected for this development. The task of supervising this activity has been entrusted to the members of the "AMA" District Agricultural Development Teams and each of the staff officers at district level has been assigned one Agrarian Services Center for this supervision. There will be an Agrarian Development Council or "*Govi Jana Sanwardana Sabha*" at this Center, consisting of representatives of all the Farmer Organization Areas falling within the authority of these Centers and officials of the Divisional Agricultural Development Teams. The Agrarian Services Act will be amended to accomodate this arrangement. This programme would be collectively approved by the Agrarian Development Council and submitted to the Divisional Agricultural Committee. The Divisional Secretary being the Chairman of the Divisional Agricultural Committee would discuss the programmes received from each of the Agrarian Services Centers and incorporate them into a composite programme for the division and approve this in consultation with the Divisional Agricultural Development Team and pass this on to the District Secretary. The District Secretary would discuss these Divisional Level Programmes with the District Agricultural Development Teams at the District Agricultural Committee meeting and is expected to submit such approved District Programmes to the Ministry to be implemented during the two seasons of the year. The establishment of District Farmer Organizations Federations has also commenced and the District Secretaries have been requested to appoint representatives of these Federations to their District Agricultural Committees. This process has been endorsed by the Special Presidential Task Force on Food Production. District Agricultural Committee meetings in major food producing Districts were held with the participation of the Special Task Force Chairman and members.

Action has been initiated to redemarcate the Agrarian Services Center Areas particu-

larly in major irrigation schemes to fall in line with this arrangement and also to establish Agrarian Services Centers in the Mahaweli Settlement areas (MALF 1997a).

It would be seen that this Programme would be a common programme prepared on a participatory basis by state officials and farmer representatives. The Programme consists of five major components as institutional development, resource development and conservation, provision of infrastructure, integrated production planning, and agro-enterprise development and marketing.

Programmes on crop production, animal husbandry, inland fisheries, agro-forestry and other agro-based economic activities would be integrated into a composite programme on the basis of the Farmer Organization areas, *Govi Jana Kendraya* areas of authority and Districts. It has also been proposed that all investment resources provided by the different agencies of Government and NGOO should be pooled in terms of these areas of operations in order to avoid duplication, over-lapping and waste. Ministry has also proposed that the District and Divisional Agricultural Committees be strengthened in order to facilitate and intensify this coordination which is a must for the increasing of investment efficiencies particularly in the rural agricultural sector. Joint action has been initiated by the Ministries of Plan Implementation and Public Administration and Home Affairs to revitalize the DACC to become an effective forum for formulating and implementing this programme (MALF 1996a).

Institutional, Scientific and Technological Realities of Sri Lankan Agriculture

Through the above planning process the Ministry of Agriculture, Lands and Forestry created an opportunity to look at Sri Lankan Agriculture in a global context based on scientific, technological and institutional realities. Several field studies conducted by the Ministry revealed that the very internal structure of Sri Lankan agriculture was weak and would not stand the strains and stresses imposed on it by a free market economy (HARTI 1997). In fact even in the context of the local region of South Asia, Sri Lankan agriculture was found to be the lowest yielding occupation with the production and productivity levels remaining static or decreasing.

Demographers and other professionals in the field of population studies have pointed out that the world population is increasing rapidly and would be around 7.1 billions by the year 2010 AD. At the same time, physical scientists the world over have warned of a rapidly deteriorating and narrowing agriculture resource-base particularly land, soil and water. Due to the adverse effects of "green house" phenomena the temperature of the Earth's atmosphere will rapidly increase causing unpredictable fluctuations in climatic and weather conditions and rainfall patterns resulting in crop failure and agricultural disorders. In view of this situation it is generally agreed that it would just not be possible to produce adequate food supplies to the population of 7.1 billions by the year 2010 AD. Large numbers of human beings therefore would have to suffer from hunger and malnutrition. In the meantime certain international arrangements agreed upon recently would aggravate the situation by compelling the major food production countries in North America and Europe to do away with their

subsidies in the agricultural sector. These countries will either produce just enough for their own consumption or their cost of production will be so high that the developing countries would not be able to afford. The effects of this drama would be hard felt by the poorer countries of Latin America, Africa and South Asia.

The majority of the people in the South Asian countries are involved in agriculture and allied vocations. The majority of them live in the rural agricultural areas and employment opportunities of the majority of these people are provided by agriculture. Similarly, these countries are not developed in non-agricultural sectors so as to compete with the developed countries. As a result, in times of food-scarcity, famine or any other disaster the people of these countries become immediate victims to many catastrophes and hardships. The truth is that these countries and the people do not have the capacity or the strength to cope with situations such as natural disasters or man made emergencies. Even at present, with the impending unsatisfactory weather and climatic conditions and low or no rain, the situation will be very much worse.

In this regard FAO's Agriculture Production Index in 1996 shows the kind of challenge that Sri Lanka has to face and over come in order to increase food production to a reasonably satisfactory level.

The agriculture sector, the cornerstone for socio-economic development of Sri Lanka is unfortunately saddled with declining productivity and according to latest statistics is the lowest in the SAARC region.

According to the Food and Agriculture Organization (FAO) Sri Lanka's agriculture productivity had slumped from 108.3 in 1985 to 96.3 in 1993. Sri Lanka's standing in 1993 is poor as reflected in the FAO's Agricultural Production Index (API).

Malaysia (225.2), Pakistan (176.6), India (158.5), Nepal (157.8), Bangladesh (132.1) and Sri Lanka (96.3) (FAO 1996a).

Sri Lanka's population is eighteen million, 72.2 percent of whom live in rural areas (Central Bank 1996). Forty five percent of them are farmers who are directly and partially involved in agriculture. The total land area of the country, leaving out the streams, channels, rivers and tanks etc. is 6.23 million hectares, while the extent covered by forest is 2.05 million hectares. Houses and homesteads cover an extent of 0.80 million hectares. Wastelands and other lands account for an extent of 1.30 million hectares. The total extent under tea, rubber and coconut is 0.80 million hectares. The area under asweddumized paddy cultivation in both *Yala* and *Maha* seasons is about 0.73 million hectares whereas other food crops and vegetables are cultivated in an extent of 0.37 million hectares (DCS 1997). In other words subsistence agriculture, excluding the forestry sector, accounts for 30.6 percent of the total land area of the country.

In the above context of land use in Sri Lanka, several issues need consideration. Can Sri Lanka expand its agricultural resource base particularly in the non-plantation crop

sector? What about the position with regard to the provision of irrigation facilities and rainfall pattern? The trends are such that Sri Lanka would have to face severe adverse conditions in the next two or three seasons. Alternate systems of irrigation such as rain water harvesting, drip irrigation, conjunctive use of ground and gravity irrigation would have to be thought of and designed. It is also important to think of new farming systems and cropping patterns to stand the stress in case of water-short situations. These new farming systems and cropping patterns should be conducive to more efficient use of land, water and soil with appropriate techniques of conservation farming. The SCOR Project mentioned above offers certain valuable strategies in this regard.

Sri Lanka's total annual paddy production is 2.56 million metric tons. When allowance is made for seed paddy and harvest waste, the total amount of paddy available for consumption is 2.32 million metric tons, which is equivalent to 1.58 million tons of rice. For Sri Lanka as a whole, the rice consumption requirement is about 1.88 million metric tons (MALF 1997). Therefore, the deficit has to be taken care of by imports. The quantity of rice imported fluctuates according to such conditions as natural disasters and unexpected calamities including climatic and weather fluctuations. Agriculture in Sri Lanka and particularly paddy and all subsidiary crop cultivation is highly susceptible to these conditions. Consequent to less rain, and unsatisfactory weather and climatic changes the expected 1996 production of rice fell short by 27 per cent (that is 748,000 M.T.) (DCS 1996).

Due to the inadequacy of local production of most food commodities, Sri Lanka has to spend around Rs.32 billions annually to import wheat, milk products, Canned fish, Sugar, Dhal etc. (Customs Department 1997). The total value of Sri Lanka's annual paddy production is only Rs. 20 billions. It is obvious that this situation has to be remedied soon if Sri Lanka is to get onto a right development track.

There is another important aspect to the problem of food-self-sufficiency and security and that is connected with the need to maintain an adequate nutritional level for the entire population. In this regard, Sri Lanka's situation cannot be considered as satisfactory. It is reported that one out of four children born in Sri Lanka registers under-weight and under-height at birth and also a very low rate of brain-development during the first two years after birth. It is therefore extremely important that Sri Lanka should plan for an year-round cropping pattern that would ensure adequate food supplies to the entire population throughout the year.

But is this sufficient by itself? What about the employment opportunities for the growing numbers in the labour force particularly the educated youth? These have to be found either in the agriculture sector itself or in the industrial and other sectors. The development of the industrial sector too needs heavy investment and can Sri Lanka purely depend on foreign aid and loans for this? Agriculture therefore should be made to produce a surplus to meet at least a part of this investment requirement. As an example if it is possible to increase the present paddy production average of 3.5 metric tons per hectare to 4.5 by the year 2000 AD Sri Lanka would be able to become self sufficient in the rice requirement for a projected population of 20 million by that time. The Ministry of Agriculture has already started to work

several paddy tracks to achieve this growth of 4.5 Mt per hectare (Annexure V).

Farmers in Sri Lanka today as a community belong to the lowest stratum of the socio-economic order and consequently a large majority of them are direct beneficiaries of various Poverty Alleviation Programmes such as *Janasaviya* and *Samurdhi*. An agricultural land-extent of about two acres with irrigation facilities would yield a monthly income of about Rs.2000/- only. In non-irrigated rainfed areas and even lands under village irrigation works it would be even below this. This would result in a monthly income of Rs.400/- per individual in a five-member farm family .

Today in Sri Lanka, the common complaint is that agriculture, particularly paddy and most other crop cultivation is a losing job and is not remunerative in comparison to costs of production. While the cost of production constantly keeps on increasing the yields remain static or decrease rendering it uneconomical and totally unprofitable. Majority of farmers remain below the official poverty line. Even in the colonization schemes the situation does not seem to be different except that a few enterprising farmers, perhaps those who had easy access to government officials, politicians and other resources and also who could therefore exploit the large majority of poorer farmers emerged as well to do businessmen and traders in these areas. This class appears to be representing a sort of middle-class or a semi-middle class status in the socio-economic stratification in these areas (Ariyaratne 1972). However the general conclusion is that a large majority of farmers in Sri Lanka still remain on or below the povertyline and therefore as a community remain in the periphery of the national socio-economic system.

It has been found that paddy cultivation would be profitable if the average yield per acre could be raised above 80 bushels. However it is not only this quantitative increase that matters when one thinks of attracting the educated youth to agriculture. The quality of agriculture along with how it is being done in the same old traditional way that makes it a drudgery and nuisance in the perception of the educated youth should change by transforming it to a more mechanized, modernized and profitable venture based on scientific as well as cost-benefit considerations. A Survey on Youth Preference conducted by the Hector Kobbekaduwa Agrarian Research and Training Institute has revealed that only 1.9% of the G.C.E.(O/L) qualified youth prefer to take to agriculture as a vocation (HARTI 1997).

In view of these realities relating to Sri Lanka's agricultural situation a major issue surfaces as to what have been the impact of the earlier plans and programmes discussed in Part I of this paper. Taken together they do not seem to have contributed much towards a qualitative and structural transformation of Sri Lankan agriculture. Of course, one must remember that the second and the fifth efforts could not be fully operationalised due to many reasons, some of them being inherent defects in their implementation strategies and others being the political changes which adversely affected their implementation (Ariyaratne 1972).

It should be noted that the Mahaweli Development Programme of 1971 as well as the Accelerated Programme of 1978 attempted to change the traditional system of subsistence mono-crop farming into a profitable economic venture that could ensure an adequate income to the individual farmer and also a surplus for the nation. New farming systems, new

cropping patterns with related agro-based enterprises and rural industries based on innovative organizational and institutional arrangements were proposed and some of then were operationalized in the settlement areas. In fact the 1978 effort only accelerated the infrastructure building process, but continued with the same strategies of socio-economic development followed from 1971 (MIPH 1972). A project named Management of Agricultural and Rural Development (MARD) funded by USAID attempted to commercialize Mahaweli agriculture in system 'B.' Yet after nearly twenty five years of operation and acceleration is 'Mahaweli Agriculture" capable of withstanding the pressures and challenges of an open market economy and be sustainable in a global context?

Despite this optimism, certain positive lessons learned in the seventh and eighth efforts mentioned earlier have been encouraging and they have shed some light on the pathway that Sri Lankan agriculture should follow in the present global context. They have both demonstrated that integrated and collaborative approaches are very vital for success particularly in small-scale farming. The eighth one-SCOR has influenced and inspired the proposals regarding the rational resource use/tenure patterns under conservation farming, land use mapping and zoning as well as the need for value addition and production for markets in the small farmer sector. In this regard SCOR's strategy of Farmer Company formation as an important buffer that would enable the small farmer to achieve a competitive position of bargaining power in the open-market-economy is highly relevant and important to the implementation of " New Agriculture" envisaged in this Paper (MALF 1976a).

It is the above realities, issues and experiences, both negative and positive related to the Sri Lankan agricultural situation that prompted the Ministry to embark on a comprehensive planning-process as outlined in the earlier sections. However, there is yet another immediate cause that led to the incorporation of an acceleration parameter to the planning process.

The Food and Agriculture Organization of the United Nations brought together the Heads of States and Governments and other World leaders at its Rome Head Quarters from 13 - 17th November 1996 to renew high level commitment to the eradication of hunger and malnutrition and to the achievement of lasting food security for all people. It has been estimated that as the year 2000 approaches hundreds of millions of people will live in chronic hunger and malnutrition. "For 1997, preliminary indications are that world trade in rice would decline. World rice stocks at the end of the marketing seasons in 1997 are likely to reach their lowest levels in eight years" (FAO 1996b).

The FAO had surveyed the food situation in the whole world. It declares that in the developing countries alone, more than 800 million people today face chronic undernourishment, and 200 million children under the age of five suffer from chronic calorie and protein deficiencies. Unless determined action is taken, the number of chronically undernourished people might still be about 700 million in year 2010 (FAO 1996c).

At this very particular moment as many as 82 nations fall into the category of low income food-deficit countries, 41 in Sub-Saharan Africa, 19 in Asia and the Pacific, 9 in

Europe/Commonwealth of Independent States, 7 in Latin America and the Caribbean, and 6 in the Near East/North Africa. Rising prices in the international grains market have serious consequences for these countries, which have to import cereals to meet their domestic food needs (FAO 1996c).

It was against this background that the FAO initiated a World Food Summit to adopt a Declaration and Plan of Action for achieving food security. The FAO has assured that "The World Food Summit" is not intended to be a pledging conference, nor is it aimed at creating new financial mechanisms, institutions or bureaucracy. After the Summit, each participating nation will consider independently how it can achieve the objectives set out in the Plan of Action adopted by the Summit. International organizations, NGOO and others will also be invited to be part of an international effort to eliminate chronic hunger " (FAO 1996d).

Sri Lanka, the First Country to Respond

Sri Lanka is a signatory to the FAO Declaration and has pledged to adopt the Plan of Action. The new effort of the Ministry of Agriculture, Lands and Forestry as outlined in the latter part of this paper was converted into "*Waga Lanka Waga Sangramaya* " partly to honour this pledge given at the World Food Summit and more importantly to boost the weak Sri Lankan agriculture and enable it to deliver the goods. In fact, Sri Lanka has got the credit of being the first country to respond to the FAO's call. Sri Lanka was fortunate as outlined above to have had a prepared runaway to take off when the FAO warning was first signalled. Accordingly the Ministry's planning-process was streamlined and proposals containing Strategies for an Accelerated Food Production Programme was submitted to the President during the latter part of 1996 (MALF 1996a). This document incorporated both short-term and long-term programmes and activities to be implemented to firstly increase the production of major food crops and secondly to promote and develop a "New Agriculture" for Sri Lanka capable of withstanding the stresses and pressures of a free-market economy and be sustainable in a global context. The short-term strategies were approved for implementation with 1996/97 *Maha* and a Presidential Task Force on Food Production was established to monitor this programme (Presidential Secretariat 1997). This was declared policy at the National Farmer Organization Convention held on 12th December, 1996 in Colombo.

The long-term programmes, activities and strategies incorporated in the above document however needed further analysis, consideration and refinement and therefore on a directive by H.E. the President, were referred to a Working Group on Agricultural Policy set up through the National Development Council. Accordingly the Ministry of Agriculture, Lands & Forestry commenced a process of developing concept/working papers on the different aspects and activity areas of agriculture incorporated in a very broad comprehensive manner to include even Agro-forestry, Floriculture, Agro-Industries, Farmer Organizations/ Companies etc. which in the past have not been thought of as integral components of agriculture. These proposals entitled "New Agriculture" are now being studied by the above Working Group along with the relevant officials of the Ministry of Agriculture, Lands & Forestry (MALF 1996a). Main components of this "New Agriculture" are given below :

1. Research and Development (i).National Agricultural Research Programme (ii). Bio-Technology
2. Mechanisation
3. Agriculture Extension
4. Farming Systems (i). Study of the Paddy Sector (ii). Diversification in Wet Zone Paddy Lands
5. Forestry (Agro-Forestry and Fuel Wood Planting)
6. Coconut Based Inter Cropping
7. Fruits and Vegetables
8. Floriculture
9. Non-Traditional Export Crops
10. Seed and Planting Materials
11. Agro-Processing and Agro-Industries
12. Marketing and Crop Forecasting (i). Paddy Sector (ii). Other Crops
13. Agricultural Credit
14. Subsidies and Incentives
15. Institutional/Organizational Development (Farmer Organizations and Farmer Companies)

It would thus be seen that this whole exercise has been evolved through a "continuous experiential learning-planning process" as mentioned at the very beginning of this paper. This planning process attempts to achieve the following policy-goals as a package towards developing the agricultural sector in the widely accepted global context of a free market economy (MALF 1996a).

1. Qualitative and quantitative increase in total agricultural production to attain food security and self sufficiency where comparative advantage exists such as for rice and major field crops, increased income and employment while conserving the natural resources base, especially land and water ;

2. Broad-basing the benefits accruing from an open economic policy through empowering of the producers/small farmers ;

3. Augmenting the benefits to the economy and ensuring greater equity through more effective collaborative and complementary arrangements between organized producers (goal 2) and the organized private sector, and through more appropriate and proper delineation of the respective roles, and avoiding conflicts ;

4. Providing higher yields in crop-production, increase in employment opportunities, increase in incomes and increase in the bargaining-power, investment capacity and social dignity of the farming community.

5. Creation of a self-supporting and self-reliant prosperous rural community, with adequate bargaining-power to be an effective partner in the overall process of national development through a "New Agriculture" based on commercialization and modernization and making it attractive and dignified as a profession particul arly for the educated youth.

There is no doubt that if these policy-goals could be achieved, Sri Lanka would get onto the correct track to march towards the status of a prosperous nation even in the global context with a sustainable agriculture contributing to the national development process by creating a surplus as well as providing a ready market for the goods and services produced in the manufacturing and other sectors. Nevertheless, the history of the developed countries as well as those developing countries which have recently started modernizing their agriculture affords abundant experience and information that these goals cannot be achieved just by "Drives, Accelerated Programmes or Crash Programmes" alone but by a mutually compatible and harmonious combination of all short-term, medium-term and long-term strategies carefully planned, effectively implemented and continuously monitored for their performance and results. This has essentially to be a joint/combined effort by people and government particularly in developing countries. In view of this need for a joint-effort by people and Government there are two basic facts connected with Sri Lankan agriculture which should draw the attention of the agricultural planners of Sri Lanka.

The first of these basic facts is related to the manner in which Sri Lankan agriculture is used as a tool of economic development and social welfare. For the next few decades a large majority of people in Sri Lanka will continue to live and earn their living in a rural economy and allied pursuits. The major factors of progress in this rural economy are the human labour and the human talent of a multitude of "primary producers". Purely physical conditions such as those of soil, water and ecology are, of course, of considerable importance. But they merely provide the base to which the small "primary producer" applies whatever skills he has, in so far as he feels the need of, or is willing to put in the hard work required. Any attempt to drastically reorganize or revolutionise this sector on the basis of an alien ideology or an unfamiliar economic system imposed from outside is bound to end up in chaos and confusion and more seriously in a betrayal of rural masses. This is vividly reflected in the crisis being faced by the small-scale farmers in selling their products in the open-market economy at present.

The second basic fact is connected with the very nature of agriculture and its physical attributes. Agriculture as a science and agricultural development as a tool of human welfare has to be synthesized in terms of many natural/physical attributes such as soil, water, climate, weather, terrain and topography of land which are subject to constant fluctuations and change affecting agricultural practices as well as production and therefore the incomes and standards of living of those engaged in agriculture. More over, these physical attributes can be made to produce only through the intervention of those "doing" agriculture and this is highly dependent on how the "doers" are organized through appropriate organizational and institutional arrangements. It is therefore of paramount importance that reforms and changes in this sector should be carefully phased out so that the structural transformation should pass through a gradual process allowing those engaged in agriculture as the chief occupation to adjust themselves to the new requirements through their own perception, understanding and experience. "*Waga Lanka's* " transition to a modern agricultural economy has therefore being phased out into three stages to be implemented under two major Action Plans.

Three Phases in the Transition to Commercial Agriculture

Though the transition has been phased out into three stages it is rather difficult to determine precise time-frames for each of these phases and the different programmes and activities should be made adjustable and flexible to depend on the impending climatic and weather conditions and policy-expediencies arising out of internal as well as external factors during a particular phase. However it should be emphasized that the various projects, programmes and activities should be structured and organized on a mutually supplementary/ complementary/supportive basis to ensure their continuous implementation as integral components of a single integrated package. With this requirement in view the projects/ programmes /activities have been grouped under two major Action Plans as follows : (Annexure VI)

Action Plan One - Accelerated Programme

* Seasonal Planning - (Short Term)

  Take Off - *Maha* 1996/97 and *Yala* 1997

  Maha 1997/98 and *Yala* 1998

Action Plan - Two - Programme for "New Agriculture"

* Experimental-with Action Research (Medium Term)1998-2000 AD
* Transition Planning-(Long-Term) 2000AD - 2005AD

It should be noted that the objectives of the short-term seasonal plan are limited. It is an urgent action plan to increase the production of major food crops and thereby ensure food security for the nation and increase of incomes to individual farmers so that they could generate some savings for investment in the next two phases. It also attempts to immediately increase the quantities of seed and planting materials to be utilized in the next two phases and also to take care of the nutritional status of the nation. More importantly it attempts to revitalize and strengthen the weakened and disrupted organizational/extension structure in the rural agricultural sector.

The two phases of Experimental Planning and Transition Planning are taken under a single Action Plan Two. Objectives as well as the strategies identified are inter-linked.. Models/Pilot projects developed and implemented during the second phase are expected to lead the farming community towards a "New Agriculture" that will emerge during the Third Phase. In any case most of these projects would yield results only on a long-term basis. They are aimed towards the development and adoption of new farming systems, new cropping patterns, new agricultural practices and even new modes of management with mechanization and scientific consideration of the natural physical attributes related to agriculture and based on rational decision making by farmers on cost benefit considerations.

Through the transition process the traditional subsistence agricultural sector which now remains on the periphery of the national development process would get stimulated and awakened with the development of a semi-modern sector (rural industries) within its fold itself as a stepping stone to a fully modernized commercial agriculture through the consolidation of this semi-modern sector on a partnership basis with the developing urban industrial sector. This sort of transition has been the landmark in the development history of all developed and developing countries which claim to enjoy modern economies today.

Historically speaking the industrialization process of most of the advanced countries in the world today were made possible only with the emergence of prosperous rural communities. In all the literature dealing with this process the rural community has been treated as synonymous with the agricultural sector as against the industrial sector. Thus in England, a revolution in agriculture preceded the industrial revolution and supplied the necessary surplus for investment in new industrial ventures and also released an adequate amount of labour for these industries. In Soviet Russia the collectivisation of agriculture and the policy of "primitive accumulation" enforced by Stalin compelled the agricultural sector to release its surpluses of food output to feed the urban population as well as to enhance capital investment for industrial development. During the initial stage of modern development in Japan the agricultural sector was able to earn adequate foreign exchange through the export of tea, silk and other agricultural products which helped to import capital goods required by heavy industry. Taiwan offers a classic example (of a developing economy) of how the surplus income accrued by agriculturists was statutorily passed over for investment in agro-industrial ventures in the rural areas themselves. Many such examples of agriculture's contribution to or role in the overall process of national development can be found even today. Notable among them are Israel, Cuba, Malaysia, Thailand and of course Republic of China which follows a strategy that can be easily and comfortably adopted by developing countries saddled with an agricultural structure dominated by small-scale farming and other allied pursuits (Annexure VIII).

Japan and China both, although different in approach emphasize that the reformation of the traditional rural sector is a necessary and vital pre-requisite as a foundation for the launching of the overall development process of the national economy. The rural sector has to assume and play an "intermediary role" during the initial phase of socio-economic development particularly in situations of poverty and underdevelopment. Sri Lanka's agricultural development story has yet to mark such a stage in its history. Five Year Plan along with its implementation strategy and proposed policy reforms emphatically attempted to gear the Sri Lankan small-scale rural sector to play this "intermediary-role".

In Sri Lanka, the rural sector, in order to play this "intermediary role" must lend itself to a planned transformation or modernization process which can release the development energies within that sector. It calls for an upgrading of the vast reservoir of human resources available to it and the development of skills and techniques applicable within it. With the diversification of economic activities at the village level and the intensive micro-planning that should go into such an effort, it has to extract the maximum incremental gains from the rural economy with minimum capital inputs. Inherent in this strategy is a planned transition

to a modern economy, but not a "drive" at full speed towards it. The "transition economy" would then not be the sum-total of unsettled socio-economic conditions arising out of a dualistic process and the consequent mal-distribution of income. It will not accentuate the rural-urban imbalance and promote the hopeless drift of the rural population to the city. Its role becomes a consciously chosen and planned rate of change which integrates the entire rural community-into the overall process of national development.

The Content and Quality of Agriculture Envisaged to Evolve During 2000 AD - 2005 AD

It would be an economic activity with diversification, market oriented modernization and profitable agro-industries established in rural areas. Its essential elements would be rational land use/tenure strategies, specialization and zoning of crops and agricultural activities and the promotion of Farmer Companies among enterprising small producers. Its major themes would be production for markets, modernization to capture economies of scale and new partnerships/relationships between farmers and the state on the one hand and between farmers and the organized private sector on the other. A new organized private sector will emerge among the rural agricultural communities through the establishment of strong and effective Farmer Organizations and Farmer Companies organized on a business mode. This would yield a reduction of government, direct involvement in production and marketing and would be confined only to acting as a facilitator through the provision of extension, beneficiary credit facilities, policy reforms and the necessary legal framework to support this "New Agriculture" (Annexure VIII).

Organizational Arrangements, Institutional Mechanisms and Policy Reforms

It is quite obvious that the above programmes and strategies are rather too ambitious and will not be very much intelligible in the present context of Sri Lankan agricultural planning and administration. It has also to be accepted that implementation of these programmes and strategies are not going to be easy and simple as one can think of. In the past many of the programmes became total or partial failures, not so much because of any inherent defects in the programmes themselves but rather due to various problems, shortcomings and retrogression in their implementation. Implementation of the new programmes and strategies therefore cannot be taken for granted but has to be carefully and deliberately planned as a part of the planning process itself (MALF 1995a).

As mentioned earlier Ministry of Agriculture, Lands and Forestry during 1995 initiated an integrated participatory process for plan preparation and implementation in the agricultural sector. This implementation strategy was introduced to all officers, Farmer Organization Representatives and others concerned through a series of Consultative Work-shops and District Level Meetings commencing in Anuradhapura and Matale in February 1995; hence the name "AMA" combining the initials of the two district names which connotes in Sinhala language a sustainable, non-stopping, non-dying process. This process is now being widely followed by seventeen districts as an incremental development effort and also as an experiential learning planning process. Under this implementation strategy special

attention has been focused on certain organizational arrangements, institutional mechanisms and policy reforms needed to steer the above programmes and activities in an effectively co-originated fashion. (Annexure IX)

In addition, it is of paramount importance that state policy should be reformulated and new policies instituted to encourage, induce and foster the implementation of the new agriculture programmes and activities as they could lead to a radical structural transformation of Sri Lankan agriculture. This would include the necessary legal and statutory back-up which has to come from the State Authority. Policy reforms and changes where applicable will have to be instituted to help the establishment of the new organizational arrangements and institutional mechanisms mentioned here and also to implement the new policies

In this connection attention is drawn to the part of this paper dealing with the different components of the "New Agriculture." Several sectoral areas in relation to the operationalization of these components have been identified as needing new policies or the reformation and change of the existing legal procedures. Through a process of consultative discussions of the Agricultural Policy Group of the National Development Council and the Presidential Task Force chaired by H.E. the President ten such areas are being studied and final policy recommendations and Action Plans would be approved well in time for *Maha* 1977/78 by when certain Pilot Projects would commence to test out and validate the relevant policy recommendations (Annexure X).

Under this planning process the year 1998 by when most of these programmes are expected to commence operationalisation would become the " Agricultural year" for Sri Lanka.

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Annexure - I

Five Year Plan 1971 - Objectives and Strategies

The next attempt in planning agricultural development in Sri Lanka particularly with emphasis on the upgrading of the small scale rural economy is reflected in the strategy proposed in the Five Year Plan of 1971. The importance of assigning high priority to agriculture in the national economic development agenda was emphasized by the Five Year Plan as follows.

"In 1970, the agricultural sector contributed 35 percent of the Gross Domestic Product. It is the largest productive sector in the economy and therefore the overall growth of the economy is closely related to the increases in agricultural production. But it is not for this reason alone that agriculture claims high priority in the plan. It presents the greatest scope for the expansion of output and employment in relation to investment outlay. In agriculture there are substantial growth possibilities which are not constrained by a shortage of foreign exchange. This is due to the scope for more intensive use of land and labour for increasing output with high yielding strains in a variety of crops and for better use of available water resources. The possibilities of import substitution are also greatest in agriculture...."

"The success of the plan depends on an unremitting effort to upgrade productivity in small scale agriculture and industry. For example increases in production in paddy, cotton, subsidiary food crops, manioc, passion fruit and pineapple will depend on the skill and productivity of the small farmer. An increase of output in coconut, and to some extent in

rubber, is contingent on the success with which the small-holders are organized. A significant share of the increase in industrial output during the plan period will come from the small-scale sector."

"The small producers themselves would have to be organized for collective and cooperative effort to make the best use of the available services. This would require a much more effective cooperative movement than in the past. Active participation of small producers will be required in the formulation of seasonal and annual programmes"

It would be seen that the objective of the Five Year Plan reflects the realities which should be addressed in attempting the development of the rural economy in Sri Lanka. This is more vividly emphasized in the following statement that sets out the implementation strategy of the Plan.

"Among the factors which are important for the development of the small-scale sector, the following should be mentioned.

- The strength and capacity of the government agencies which service this sector,
- The Institutions for self-management and co-operation among the small Producers"

It is interesting to examine the strategy proposed in this Five Year Plan regarding the government agencies responsible for the implementation of agricultural programmes in the rural sector. According to this, in all the programmes, the District Administration was to be the focal point of plan implementation. The diverse activities of the different Government agencies would have to be effectively coordinated at the District Level. In the District the major development agencies are the Department of Irrigation, the Industrial Development Board, the Territorial Engineering Services, the Cooperative Department and the Department of Agrarian Services. A large number of other government agencies would support this effort. The activities of these numerous agencies would be harnessed towards the single purpose of overall national development. It has to be emphasized that the development effort at the village depends entirely on the proper functioning of these inter-related activities. It is therefore necessary to appraise their performance continuously and to make changes that might be necessary in the light of experience.

The salient features of this Five Year Plan Implementation Strategy can be summa rized as follows:

(i) Effective co-ordination of the diverse activities of the different Government agencies at the District Level;
(ii) Vesting of the responsibility for such co-ordination in a District Development Committee;
(iii) Making Government Agent the principal officer for plan implementation as well as progress control in the District Development Committee;
(iv) Setting up of Planning Offices in the District;

(v) Decentralization of plan formulation work through the District Development Committees and the Divisional Development Councils;
(vi) Providing for special allocations of funds for capital expenditure on District Basis;
(vii) Delegation of some Kachcheri-functions to the DRO divisions (Ariyaratne, 1974).

Annexure II

Irrigation Programme Review Experiments in Major Irrigation Schemes

" The "Special Project" System introduced on the recommendation of the Paperzak Team helped to increase yields, managed to introduce other field crops in to the mono-cropping pattern, brought about a better co-ordination in the services and most importantly attempted to handle all agricultural activities on a "project basis" or a "programme basis" for the first time. This programme could not however, sustain due to the lack of adequate institutional development programmes and the non-involvement of farmers in the management of operation and maintenance. The farmers were essentially treated as another input into the chain of production. At the end of the programme, it was clear that the higher production levels were achieved largely by exploiting the greater potential of high yielding varieties together with the proper application of the necessary inputs. Adequacy and predictability in the supply of water was not considered an important concern in this strategy. The potential production increase that could be realized from a system of better management of the resource base still remained largely untouched. The attempt to centralize all decision making adversely affected institutionalized farmer participation in O & M programmes."

"The second attempt to look at agricultural settlement schemes as "projects" and manage them on a "programme basis" with participation of the settlers came in 1971/72 with the preparation of the feasibility proposals for Mahaweli. The Mahaweli Development Board in addition to analysing the findings of the previous studies and investigations, conducted a series of studies and investigations on its own. The problems of the schemes were clearly identified and a wide range of alternate solutions were formulated and considered. The feasibility plan thus prepared recommended a system of participatory/self management through the organizing of farmer committees and establishing a linkage between these committees and project administration on a basis of guidance, technical assistance and contractual economy. A careful study of the feasibility report in its eight volumes would indicate that Mahaweli planners clearly recognized the need to change the existing system of agricultural settlement management. It envisaged the participation of settlers through their organizations in all the operation and maintenance programmes of the project. The officers of the project were expected to serve the settlers not as their masters but as their helpers in a facilitating role."

"The next attempt of looking at these systems as "Projects" came as an experiment in 1982 with the intervention of the Ministry of Lands and Land Development. This attempt identified irrigation water as the most critical resource in the production chain and also

recognized the need to have viable Farmer Organizations to represent farmers' interests and to provide for their participation in management. It also attempted to introduce a "project management System" to a few selected schemes with the emphasis on water management. The programme which was popularly known as the Water Management Programme covered 25 major schemes and sought to emphasis a project management system with a resident Project Manager and a network of farmer organizations. Evaluated over a period of three seasons the programmes was found to have infused a greater sense of discipline in water use among farmers and contributed to a great degree of co-ordination among services to farmers. A gradual emergence of organized representation of farmers and their participation in project activities were also realized."

"In the meantime another experiment was being carried out in Gal Oya for a search of new management mechanisms to improve the production and productivity of the Major Irrigation Schemes. The Government of Sri Lanka with financial and technical assistance provided by USAID undertook in 1979 to rehabilitate the physical system and to improve the water management organization and capabilities of both technical staff and water users. With a catalyst system of Institutional Organizers the Gal Oya Experiment was able to successfully build a system of farmer organisations and achieve direct participation by farmers on operation and maintenance activities, more economical use of irrigation water, proper adherence to cultivation meeting decisions and a closer co-ordination between farmers and the state officials " (Ariyaratne, 1974).

Annexure III

Innovative Action Research in the Formation of Farmer/Producer Companies

- Huruluwewa Janatha Farmer Company Ltd. (IIMI - SCOR, IMD, Agrarian Services)
- Nilvala Janatha Govi Samajaya (Tea Small Holdings Authority, IIMI, SCOR, Agrarian Services, Agriculture)
- Dambulu Janatha Govi Samagama - (IIMI, Agrarian Services, Cooperative Dept., Divisional Secretary, District Secretary)
- Habarana Green Path Company (IIMI, SCOR, Agrarian Services, Cooperative Dept. DS) to be formed.
- Elehera Govijanatha Samagama

Ministry of Agriculture Lands, and Forestry is involved in internalizing the mechanisms of SCOR, using concepts and lessons learned to promote farmer companies for achieving the policy objectives of the new agriculture strategy addressing a needed structural change in the traditional agricultural sector.

Hurulu Janatha Farmer Company, Dambulu Janatha Farmer Company, Habarana Green Path Farmer Company and Nilwala Janatha Farmer Company have already engaged themselves in partnerships with state agencies and with the organized private sector in production and marketing while conserving resources. Hurulu Janatha Farmer Company supplied 700 metric tons of Soya beans valued at Rs. 15.4 million in one cultivation season to the Ministry of Health for the production of *Thriposha* which is a food supplement distributed among malnourished pregnant and lactating mothers and malnourished children in the country. At present collective farmer efforts in eleven districts are in focus for forming into farmer companies to undertake commercialized farming as profitable economic ventures.

Current initiatives have already demonstrated that farmer companies can effectively enter into partnerships with state agencies and the organized private sector to produce agricultural products on forward contracts meeting the requirements of quality and quantities in time. The Ministry of Health in consultation with the ministry of Agriculture is arranging for the award of a forward contract to two farmer companies to supply Soya and Maize to the value of Rs. 140 million for the production of *Thriposha*.

Based on this experience the Ministry incorporated a proposal on the formation of farmer companies as a vital requirement particularly in respect of marketing of agricultural products. This proposal was submitted to the President in a policy document titled " Strategies for Accelerated Food Production Programme" in August 1996. The President accepted the proposal as policy and directed that action be taken to commence pilot projects (IIMI 1997).

Annexure - IV

Some Research findings and Action Research Programmes

A.

1. New variety of Paddy - "A.T.5" *Samurdhi* yielding approximately 3.5-4.00 M.T. per ha. conforming to international quality standards. This is now designated "*Bhasmathi*".

2. Disease and pest resisting 3 1/2 month age variety seeds which would yield 20% more than the present short-term variety B.G.1639.

3. A new chillie seed variety called "*Arunalu*" high-yielding and capable of long duration storage.

4. Two varieties of green-gram RIRB 102, and RIRB 10 disease resistant and high-yielding.

5. Two cow-pea varieties suitable for cultivation with early *Maha* rains and harvested within 90-95 days and 60-70 days respectively.

6. High-yielding and disease resistant leafy-vegetables (*Thampala, Mukunuwanna, Gotukola*).

7. A new variety of Sweet-Potato called "*Gannoruwa Sudu*" with lesser sugar content and yielding about 20 MT per hectare.

B.

1. Experimental large scale tracts in districts such as Ampara, Polonnaruwa in order to ensure at least 120 bushels per acre.

2. Successful attempts in rice-fish culture in the Batalagoda Paddy Research Station and several farms in the Badulla District.

3. Research and training programmes for the improvement of rice based food industries.

4. High yielding varieties of pigeon-pea and maize in order to ensure such farming as a profitable venture.

5. Practical research and demonstration farming in mushroom and yams in districts such as Gampaha.

6. Technology in storage, transport and processing for vegetables in order to prevent post harvest losses.

7. Introduction of Weekly Markets (*Pola*) for the sale of agricultural products at the level of *Govi Sevena* and *Govijana Kendra*.

8. Contractual arrangements in marketing between the Farmer Organizations, organized public sector and companies.

9. Training of farmer organizations for agricultural enterprises.

10. Encourage forestry in the school gardens and household lands on the basis of the agroforestry programmes.

11. Experimentation of new approaches in repairing minor tanks in the dry zone under the World Food Programme.

12. Diversification of crops throughout the year to ensure an increase in income.

13. Establishment of small-farmer groups in order to ensure the emergence of active Farmer Organizations and training the Farmer Organizations in management techniques and financial procedures and establishment of Farmer Companies.

14. Development of Agrarian Service Centres as *Govijana Kendaras*.
15. Special Programmes of Agro-Wells in the Dry Zone.
(MALF 1997).

Annexure V

Average Yield Results of Large Scale *Yaya* Demonstrations During *Maha* 1996/97

District/ Mahaweli System	Name of Tract	No. of Farmers	Extent (hec.)	Average Yield per acre
Hambantota	Superintangama *Yaya*	30	48.4	141
	Kirindioya Rathnelumwila	40	24	163
A'pura	Rajangana Right Bank *Yaya*	24	19.2	155
	Rajangana Left Bank *Yaya*	13	12.4	118
	Tisawewa Ottupallama *Yaya*	11	15.7	158
Mahaweli	Galnewa D.1,T5,306 *Yaya*	14	14	127
System 'H'	D.16 Palwehera	31	37	116
	DFC1, Eppawela - Kaledivulwewa	39	39	129
Ampara	Nawagiriyawa, Welimada *Yaya*	35	71	124
	Galapitagala East LB38	25	35	120
Badulla	Mahiyangane Mapakada Canal 15	16	13.2	181
Mahaweli System 'H'	Madagama FC 49	12	12	123
	Ginidamana FC7/8	28	28	122
Mahaweli System 'C'	Belaganwewa *Yaya*	30	30	157
	Diyawiddagama *Yaya*	36	33	144
Hobariyawa		30	30	147
Matara	Phulwella *Yaya*	12	6	114
Kurunegala	Mahakiriula *Yaya*	45	44	132
	Nikaweratiya Katugamuwa Canal 2	19	20	158
	Ibbagamuwa Godagama *Yaya*	34	10.4	170

(MALF 1997c)

Annexure VI

Three Phases in the Transition to a New/Modern/Commercial Agriculture

1. Seasonal Planning - Short Term
1996/97 *Maha* and1997 *Yala*
1997/98 *Maha* and 1998 *Yala*

A. Objectives

1. Quantitative increase in the

   - Production of main food crops for higher incomes to farmers and food security for the nation. (self-sufficiency or near self-sufficiency)
   - Production of seed and planting material
   - Nutritional standards of people

2. Develop an integrated approach in planning and implementation in the non-plantation crop sector

3. Revitalize/strengthen the weakened and disrupted organizational/extension structures

4. Demonstrate the example, conviction and commitment of the national leadership

5. Facilitate the transition to a new/modern/commercial and sustainable agriculture

B Strategies

1. Develop an integrated approach in planning and implementation in the rural agricultural sector (an integrated approach has already been developed under AMA strategy to plan and implement an Integrated Agriculture Development and Extension Programme from 1996) .

2. Revitalize/strengthen the weakened and disrupted organizational/extension structures. (an attempt is being made under AMA strategy to strengthen the weakened and disrupted organizational extension structures at District and Field Levels. Govi Sevana Niyamakas are being trained to assume the role of extension workers at the village level. District and Divisional Secretaries have already been directed to strengthen the DACC and hold regular meetings. Presidential Task Force to monitor this programme has been appointed and commenced sittings).

3. Timely cultivation meetings, adherence to cultivation calendars and supply of

fertilizers, seeds and extension advise (action has already been taken and the situation has improved a lot).

4. Marketing arrangements for major products with minimum delays and inconveniences. Several Farmer Organizations and Companies have been provided with soft bank loans and storage facilities to undertake paddy purchases. CWE is implementing a scheme of purchasing food crops from farmers at reasonable prizes.

5. Facilitate the formation of Farmer Companies in selected areas - initiate the State - Farmer Foster Company (Five of such Companies have already been formed and started functioning).

6. Involve the Private Sector in the production, marketing and processing of agricultural products.

2. Experimental planning (Medium - Term 1978 AD - 2000 AD).

A Objectives

1. Towards a "New Agriculture" - Models or Pilot Projects on a demonstration and educational basis.

2. Realization of better incomes including a surplus to encourage savings for farmers.

3. Demonstrate that farming in its wider meaning becomes a dignified and profitable profession.

4. Attract the unemployed youth to agriculture and allied ventures of managing Farmer Organizations, Companies etc.

5. Gradual transfer of responsibility on agricultural infrastructure to farmers through their organizations.

B Strategies

1. Intensive but ecologically sound land use in both irrigated and rainfed areas through the promotion and adoption of appropriate crops, cropping - patterns, conservation farming, livestock and agricultural production.

2. Diversification of economic activities at the village level through intensification of the integrated planning process, extensive micro level planning.

3. Up grading of the human resources and the development of skills and techniques - improved level of organizing and management ability.

4. Farmer Companies taking up storage, processing and value addition activities and marketing, with forward contracting and other transactions on a business mode.

5. Market facilitators trained and fully deployed, *Govisevana Niyamakas* as extension facilitators.

6. Regular and effective extension system launched.

7. Encourage private sector to move into rural areas to undertake agro processing and value addition and allied enterprises.

8. Agricultural infrastructure - construction and management gradually being transferred to the farmers.

9. Improve other social and economic infrastructure-schools, hospitals, transportation, telecommunications etc.

3. Transition Planning - (Long Term) 2000 AD - 2005 AD

A Objectives

1. Production geared to special markets local and foreign.
2. Full employment to the farming population in the rural sector itself.
3. Semi-modern sector in the rural areas by expansion of the agricultural sector (quasi-agricultural sector) rural industries.
4. Agriculture producing a surplus to be invested in the semi-modern sector and the urban-based modern sector.
5. Planned transition to a modern economy rather than a haphazard "drive" at full speed towards it.
6. Minimize rural-urban imbalances preventing the hopeless drift of the rural population to the city.
7. Consciously chosen and planned rate of change that integrates the entire community with the process of overall national development.
8. Broad-basing the benefits accruing from an open economy.

B Strategies

1. Specialization and zoning of production and agro-industry.
2. Conjunctive use of ground water, water harvesting, precise irrigation mechanization.
3. Maximum use of the super abundant human resources available in the rural sector (non-monetized capital formation).
4. Mobilization of labour and entrepreneurial skills on a broad front in small scale enterprises scattered in the rural areas.

5. Improvement of productive techniques in traditional indigenous cottage industries such as oil extraction, rice-processing, fish-drying, dehydration of vegetables and fruits.

(MALF 1996b)

Annexure - VII

Innovative/Experimental/Action Research Projects for "New Agriculture" under "*Waga Lanka*" Programme

Description	Implementing Agency	Investment Required Rs.	Location
a. Bio Technology			
1. Propagating of *Bin Kohomba*	DOA	50,000	Station Research
b. Agricultural Mechanization			
1. Popularization of small scale pulses processing machine	DOA	317,000	To be selected
2. Popularization of small scale seed paddy cum grain cleaner	DOA	146,000	A'ra, H'tota, Polonnaruwa
3. Popularization of manually operated rice transplanter with weeder	DOA	180,000	A'pura, H'tota, System H, Polonnaruwa
c. Natural Resource Management			
1. Farmer centered integrated watershed management	DOA	550,000	Badulla, Kandy, Kegalle
2. Improved farming systems for better watershed management supported by the FARM programme of the FAO	DOA		Thirappane A'pura
3. Crop diversification in low country Wet Zone paddy land to improve productivity and farm income	DOA	565,000	Gampaha

d. Extension

1.	Large scale *Yaya* demonstrations programme including integrated management of plant nutrients in collaboration with Paddy Task Force	DOA	1,035,472 (per season)	All Island
2.	Development of Other Field Crop Sector in collaboration with OFC Task Force	DOA		H'tota, Badulla, R'pura, K'gla, P'naruwa, Kantale N'Eliya, Matale, A'pura, Ampara, Mahaweli Area
	a. Maize yaya demos	DOA	520,000	
	b. Pigeonpea cluster demos		7000,000	
	c. Pigeonpea processing units		700,000	
	d. Chilli production demos		52,000 (per season)	
3.	Development of fruit sector			
	Banana		905,000	All Island
	Papaya		2,480,000	
	Pine Apple		485,000	
	Mango		1,120,000	
	Passion Fruit		1,960,000	
	Pine Apple		3,240,000	

e. Production of Seed & Planting Materials

1.	Production and distribution of seed at the ASC level	DOA	NA	All Island

f. Horticulture

1.	Introduction of improved production package of Horticultural crops in small holdings of mid country wet zone to ensure maximum land utilization	DOA	300,00	Kegalle
2.	Introduction of a few selected vegetables and root crops as commercial production and marketing on under utilized lands of non traditional vegetable growing areas	DOA	305,000	Kandy
3.	Commercial Mushroom production through farmer organizations	DOA	175,000	Kandy
4.	Demonstration of protected cultural methods for off season vegetable production	DOA	310,000	Matala, Badulla

5.	Introduction of improved technologies for production, processing and marketing of tomato at Walawela area in Matale District	DOA	110,000	Matale
6.	Demonstration of proven technologies for commercial production of Banana	DOA	150,000	Kegalle
7.	Improving yield and quality in Bean seed production	DOA	60,000	Kandy
8.	Introduction of improved farming technology to vegetable farmers at Naula area in the Matale District	DOA	100,000	Matale
9.	Development of mixed vegetable cultivation and marketing facilities at Naranwita *yaya*, Gampola	DOA	100,000	Gampola
10.	Development of Samurdhi Cooperative Farm at Attanagalla	DOA	160,000	Gampaha

g. Floriculture

1.	Promotion of the production of planting materials, foliage and cut flowers by members of farmer organizations in the the wet & Intermediate Zones based on the demand for same which will be ascertained in consultation with the Floricultural Association of Sri Lanka	DOA	NA	To be selected

h. Food Technology

1.	Feasibility of marketing of Papaw using plastic containers for local market	DOA	236,000	To be selected
2.	Feasibility study on utilization of Tomato pulping seed extraction industry	DOA	130,000	Station research
3.	Post harvest loss reduction in five commodities	DOA	NA	Embilipitiya, Dambulla N'Eliya
4.	Production of aflatoxin free Maize to Manufacture *Thriposha*	DOA	75,000 (Per season)	A'pura, Badulla

i) Task Force on Rice

1.	A pilot project to increase income of rice farmers	DOA	1,959,000	Polonnaruwa

ii) Task Force on Fruits

1.	Establishment of Fruit Productivity Villages	DOA	116,550	To be selected
2.	Improvement of post harvest handling of fruits	DOA	5,3000,000	To be selected
3.	Off season production of some tropical fruit crops in Sri Lanka	DOA	15,415,000	To be selected
4.	Improvement of seed and planting material certification	DOA	9,835,000	To be selected
5.	Development of value addition and agro processing sector in Sri Lanka	DOA	1,910,000	To be selected

iii) Task Force on Vegetables

1.	Improvement of post harvest handling of vegetables	DOA	1,725,000	Badulla, N'Eliya, Kandy, Matale
2.	Introduction of cold chain storage facilities for selected markets	DOA	4,000,000	N'Eliya, Welimada, Dambulla, Bandarawela
3.	Improve the nutritional status of family through increase consumption of vegetables	DOA	1,250,000	All *Govijana Kendra*
4.	Introduction of protected agricultural technologies for high quality vegetable production	DOA	900,000	N'Eliya, Badulla, Kandy
5.	Development of value addition and agro processing sector in Sri Lanka	DOA	880,000	Matale, Kandy, N'Eliya, Badulla
6.	Market information Service	HARTI	9,830,000	All Island
1.	Integrated development of Minor Irrigation Schemes	HARTI	115,000	A'pura, K'gala, H'tota
2.	Rain Water Catchment System study	HARTI	77,880	Tabbowa

3.	Integrated programme to strengthen farmer Organizations for sustainable agricultur al development	HART	15,828,000	Galawela, Hanguranketha , Abanpola, Tirappane Lunugamwehera
4.	Promoting Accelerated Food Production Drive	HARTI	860,000	To be selected
5.	Identifying the feasibility of location specific agro based industries in the Matale District	HARTI	NA	Matale
6.	Action research on agricultural produce marketing through Farmer Organization in Puttalam District	NFS	489,500	Puttalam
7.	Promotion of organic fertilizer	NFS	248,900	H'tota, Mo'gala, Kandy, Matale, N'Eliya, A'pura
8.	Popularization of the use of mechanical threshers for paddy threshing	PMB	454,000	Rajangana, Hingurakgoda
9.	Rice parboiling and processing at rural level	PMB	2,216,600	Rajangana, Giritale Minipe, Medawachchiya
10.	Promotion of plant nurseries	DEA	5,329,636	Matale, Kandy, N'Eliya, R'pura, K'galle
11.	Promotion of Kandyan home garden style homesteads	DEA	52,000,000	Matale, Kandy N'Eliya, R'pura, K'gala
12.	Promotion of fuel plantation	DF		NA Kandy, N'Eliya Matale, K'gala, Mo'gala
13.	Agro Forestry under Participatory Forestry	DF	NA	K'gala, P'naruwa, Mo'gala, Puttalam, R'pura, Kalutara
14.	Intercropping with forest plantation	DF	NA	N'Eliya, K'galle, Ampara, A'pura, Badulla
15.	School Garden Programme	DF	NA	Galle, H'tota, Kandy Matale

(MALF 1997c)

Annexure VIII

Japanese and Chinese Models of Modernizing Rural Agriculture

Modern development of Japan offers a valuable example of an appropriate strategy of modernizing the rural agriculture saddled with small - scale farming. Bruce Johnston in discussing the Japanese experience of modern development refers to the dual structure of the Japanese economy in the first half of the 20th century. This was a structure which deliberately created a semi-modern sector which was an expansion of the rural sector. This lay beneath the growing modern sector in industry. It would be even true to say that in fact this formed part of a conscious strategy. Johnston goes on to make the following comments ; "The detailed policies enumerated in 1984 report emphasized the mobilization of labour and entrepreneurial skills on a broad bont in small-scale rural enterprise which constituted a quasi-agricultural sector (consisting of agriculture, Sake-brewing, tea, leather, weaving, spinning, wood-products etc.). Major emphasis was given to the improvement of production techniques in traditional indigenous industries". The Five Year Plan 1971 of Sri Lanka seems to have developed such a strategy.

Before modernization Japanese agriculture was mainly traditional and primitive characterized by small-scale subsistence farming and dominated by social relationships of a hierarchical or feudal character. The level of productivity as measured by yields per acre or per man was probably not very different from or at least only moderately higher than levels of productivity which persist to this day in many parts of the developing world. In a more specific sense what is of interest to other countries is rather that modernization took place within a traditional framework of small-scale farming. This is in marked contrast to other countries which have undergone rapid economic development, where the rise in productivity has been associated with fairly large farms or with farms whose size was actively increased whether by opening up new land for large-scale cultivation, enclosure movement or by the introduction of collective or co-operative farming.

People's Republic of China offers another attractive example of the vital role of the rural sector in relation to the overall process of national development. In fact the Chinese strategy of modernizing the traditional rural sector has been quite different to that of Japan. The rural sector has been afforded a significant place by the National Planning Bureau to promote and develop rural industries in the localities, where Japan attempted to modernize the traditional sector to create a surplus and invest this surplus in the industrial sector. China's strategy aimed at converting the traditional rural sector into a modern sector by certain structural transformations in the rural sector itself. This Chinese attempt reflects a very inspiring model for a successful strategy of "Integrated Rural Development" adopted by many developing countries today.

Chinese development of the rural sector passed through at least three stages and by 1958 it reached its climax in the programme of "Peoples' Communes" established all over China. These "Peoples' Communes" are not confined to dealing with agricultural activities only, but also assume a multipurpose role in planning and implementation of all administra-

tion, social and economic activities in the rural areas. The tremendous achievements of these Communes are aptly demonstrated by the fact that there is not a single Chinese family today (after 35 years of the programme) without the basic necessities of health, education, housing, clothing and food being provided with adequately. How many countries in Asia, Africa and Latin America would be able to achieve this record or at least get near to it?

Of course one has to be very cautious in talking about the appreciable achievements of the Peoples' Republic of China. This does not mean at all that China has found solutions to all her problems political, social and economic. China is still not only a developing country but also has to go a long way to achieve the so called prosperity levels that the developed countries are supposed to have achieved. Yet the speciality in the Chinese experience is that within a comparatively shorter period of time China has been able to eradicate the three main problems of dier-poverty, unemployment and economic inflation. These are the three problems that any country in Asia, Africa and Latin America would not be able to overcome in the foreseeable future.

The unorganized peasant-economy that was the pattern of the day before the Chinese Revolution developed into versatile, viable and efficient Production Units through the Communes during 15 - 20 years after the revolution. These Production Units were able to satisfy the basic needs of the people in the respective localities by adopting a strategy of agricultural growth encompassing the promotion and development of a suitable-appropriate technology, water resources management, land development and such other affiliated activities and programmes involving the rural people directly.

In many developing countries the process of industrialization resulted in the creation of "industrial-fortresses" in and around the urban centres. There is a trend for the surplus labour from remote rural areas to be attracted to these "fortresses" in magnetic form and by sheer compulsion. Furthermore this style of development has contributed towards the phenomenon of rural areas remaining in the periphery of development and function as satellites of the urban industrial centres. People's Republic of China completely discarded this style of development and designed an approach enabling the economic activities in the rural areas to be diversified in conformity with the resource-capacity and requirements of the rural economy. This also enabled rural China to evolve and build an egalitarian social structure that prevented any form of imbalance or differentiation in income-distribution and social-status. Under this process there was opportunity for anyone to decide one's own consumption levels to suit one's requirements and also to increase income level through economic incentives yet at the same time preventing the emergence of a privileged class in the society.

(Ariyaratne 1975)

Annexure IX

A. Organizational Arrangements

* Producer's Groups at grass root level or represented by the Farmer Organiza

tions (Farmer Organizations, Small Groups, *Govi Sevana, Govijana Kendraya*). Already started by the Ministry of Agriculture & Lands.

* Farmer Companies/People's Companies of enterprising farmers. These will be commercially organized bodies with farmer membership as the form of shares, managed by competent paid managers and aimed at handling production and marketing which will include produce like rice and other grains, rice milling, vegetables-fruits processing, agro industries etc. Creation of a new organized private sector among Small Farmers.

* Private Sector-both as individual and joint organizations. The organized private sector will be invited to participate in this production programme. This sector and organized producers will develop strong partnerships through forward contracting etc.

* Integrated agricultural development teams of state extension officials at District Divisional and Village Levels. Task Forces and Market Facilitators at*Govijana Kendraya*. The Ministry of Agriculture and Lands has already formed the AMA Teams for the purpose. Attention has been drawn to a number of institutional arrangements for efficient implementation of the programme.

B. Institutional Mechanisms

* Presidential Coordinating Council established at national level which will be chaired by the President. (Instead of the PCC a Presidential Task Force has been formed)

* Secretariat to serve the PCC and to be responsible for the implementation of proposed Accelerated Food Production "*Waga Lanka - Waga Sangramaya*."

* The Institution of a strong and effective political leadership at the District level. District Agricultural Committee mechanism to be strengthened.

* All State Agencies to work with Farmer Organizations in planning and implementation of their respective projects. Implementation of all Government and Non-Government Programmes through the *Govijana Kendraya*.

* *Samurdhi Niyamakas* now attached to the Farmer Organizations as *Govisevena Niyamakas* should be made to involve themselves on a full time basis in agriculture. (already done)

* Development activities and building up of Farmer Organizations (AMA and *Samurdhi* Structures have to be integrated).

* Development of *Govisevanas* and *Govijana Kendraya* as production, training, demonstration, marketing and Community Development Centres.

* Formation of District Federations of Farmer Organizations and a National Federation of Farmer Organizations.

* Formation of Food Production Units in all Ministries and establishment of home gardens, tree planting and other activities in all state institutions.

* Home garden programme in the entire island. The Lake House has already commenced such a programme. School Gardens Programme while initiated by the National Education Committee.

* Institutions such as CWE, Markfed and the Cooperatives to organize periodical sales of fruits to school children.

* Contractual arrangements between the Welfare Societies of Government Institutions and Farmer organizations for the marketing of agricultural products.

C. Policy Reforms

* New laws to facilitate the formation of Farmer/User-companies and credit institutions (amendments to the Agrarian Services Act already commenced). Formation of a company at national level for import and export enterprises through investments by the public and the private sectors.

* Usufructuary rights eg. long-term rights to farmers/ farmer companies to replace chena with stabilized farming systems and to optimize production and conserve in under-utilized highlands (amendments to the land law - already proposed).

* Legislation to re-vitalize Agrarian Services Centres to be managed on a participatory management basis by Producer Organizations and state officials.

* Legislation to promote private sector in agricultural enterprises and allied activities.

* Regulation of chemical fertilizer supplies and distribution and encouragement of use of straight chemical fertilizer and more carbonic manure.

* New laws to encourage free land transactions and make land available for agricultural enterprises and promote productivity of land and other resources and creation of a rural land market

* New laws to encourage private participation in the production of seeds and planting materials and agricultural extension services.

* Determine and declare a "National Diet" for Sri Lanka.

* Coordination of Local Production and Trade (Imports and Exports) - adjustment of trade, fiscal and tariff policies in favour of the programme.

* Gearing of Sri Lankan missions abroad to search for foreign markets for local produce.

* The state media to play an important role in order to implement the programme effectively. Encourage participation of the private sector in this programme. (MALF 1996a)

Annexure X

Sectoral Areas Selected for Policy Initiatives, Reformation and Change

1. Seed and Planting Material

- Restriction of Government intervention on instances of market failure
- Incentives to the Private Sector
- DoA to liaise with NDC and Private Sector regarding the latter's seed and planting material needs
- Implement seed and planting material sub committee report
- Seed and planting material imports to be liberalised at zero duty, but subject to phyto - sanitary control.

2. Land Use/Tenure and Allotment

- Establishment of a Land Allotment and Clearing Authority.
- Lease rights to be converted to free - hold in selected pilot areas.
- Provide management expertise to the pilot schemes.
- Offer incentives to land owners to bring under - utilised land into cultivation.
- Revise Agrarian Services Act to permit share cropping rentals in non - paddy crops
- Review draft Registration of Titles Act to expedite land registration process and to initiate cadastral surveys.

3. Irrigation - Integrated/ Participatory/ Management by Farmers

- Establishment FOs/FCs in all schemes and provide a legal basis for sustaining their operations & professional management along private sector lines.

- Establish FOs/FCs in pilot schemes

- Transfer the management of irrigation schemes to beneficiary FOs/FCs according to a time - bound action plan.

- Allow FOs/FCs in the pilot schemes to collect fees from farmers for financing the O & M of irrigation schemes.

- All state services to farmers in the pilot schemes should come under the management of the pilot scheme authorities.

4. Trade Policy

- Phase out the wheat flour subsidy on a time - bound basis

- Replace non-tariff measures with tariff measures, with provision for a dual tariff catering separately for lean and harvesting seasons

- No indirect taxation should be imposed on locally produced food, both processed and unprocessed

- Supplement present air-freight subsidy applicable to Europe with US $ 0.10 sea - freight and US $ 0.20 air - freight subsidy per kilo to other destinations

- Extend air - freight Subsidy applicable to Europe to other destinations.

- Search for export - markets on a crop - wise basis.

- Phase out the wheat - flour subsidy on a time - bound basis.

5. Domestic Marketing

- PMB to provide storage facilities to farmers and FOs/FCs based on a bonded warehousing structure and PMB purchasing activities to be phased out.

- Liberalise all agricultural imports with tariff safe guards and phase out CWE activities in imports

- National Farmer Organization to take over domestic purchasing and market ing activities of the CWE, and enter into other agricultural activities

- Wheat and flour distribution to be transferred to private sector

- Facilitate construction and operation of wholesale marketing facilities in Colombo and regions.

- Provide incentives to the private sector to get into the area of post-harvest handling and processing.

- Establish national standards in grading,packing and transport of agricultural produce.

6. Fertilizer

- Strengthen quality control programmes .

- More facilities for soil and foliage analysis.

- Encourage import of bulk fertiliser for packing in Sri Lanka.

- Devise measures, including incentives, to encourage commercial manufacture of organic fertilizer.

7. Research

- Provide funds to Farmer Organizations/ Producers Associations and Trade Associations to contract research in private and public Sector institutions.

- Obtain services of ISNAR to analyse the problems inhibiting research output.

- Strengthen the existing contract research system by linking the beneficiaries to reseach

- Establish a Center of Excellence in bio -technology

8. Extension.

- Unify extension services with "generalist" at village level and speaialists at district levels.

- Research - Extension - Farmer linkages to be enhanced by having researchers work in the field periodically.

- Launch a pilot project to test the viability of "Paid- for" extension services provided by the private sector.

- Promote a specialised extension service at divisional and district levels to cater to needs of agri-investors. This should provide an "extension package" including technical, financial, marketing and project development assistance.
- Contract mass media extension programme.

9. Credit

- As experience is gained with the pilot schemes, expand the mumber of FOs/FCs to enhance farmer credit - worthiess
- stablish medium and long-term credit schemes for agriculture analogous to SMI applicable to small, medium and large - scale investors
- More effective debt recovery procedure should be institued possibly with a 24 hour conflict resolution procedure
- Group lending system and collective farmer responsibility concept should be encouraged to cater to small farmers' credit requirements
- State intervention in writing - off of agricultural debt should be ended forthwith
- A credit guarantee system administerd by the Central Bank should be instituted to cover all situations where defective property titles deter credit access
- RRDBs should be restructured to facilitate the State and Private commer cial Banks participating in the ownership and management
- Agriculture crop insurance scheme of the AIB should be rationalised to allow private companies to operate in this field
- Amend the AIB Act to allow other banks to accept private crop insurance policies as collateral for loans

10. Incentives For Commercial Private Sector

- Incentives to encourage large - scale diversification of privatised regional Plantation Companies, and in Collection Centres which help eliminating waste and distress sales by farmers.
- Examine specific policies with respect to import tariffs on processing and packaging machinery, seed prodution and marketing to provide greater incentives for private sector.
- Introduce procedures for the proper enforcement of cantracts.

(MALF 1996, National Development Council 1996)