



**Governing Council
of the
United Nations
Development Programme**

Distr.
GENERAL

DP/CP/BUR/5
13 November 1986

ORIGINAL: ENGLISH

Special session
February 1987, New York
Item 4 (a) of the provisional agenda

COUNTRY AND INTERCOUNTRY PROGRAMMES AND PROJECTS

FIFTH COUNTRY PROGRAMME FOR BURMA*

<u>Programme period</u>	<u>Actual resources programmed</u>	\$
January 1987-December 1991	IPF for 1987-1991	59 339 000
	Balance from the fourth cycle	5 142 000
	Other resources programmed	<u>1 033 000</u>
	Total	65 514 000

CONTENTS

	<u>Paragraphs</u>	<u>Page</u>
I. DEVELOPMENT TRENDS, STRATEGIES AND PRIORITIES	1 - 23	2
A. Current economic trends	1 - 8	2
B. National development strategies	9 - 12	3
C. Technical co-operation priorities	13 - 18	4
D. Aid co-ordination arrangements	19 - 23	6
II. THE COUNTRY PROGRAMME	24 - 79	8
A. Assessment of current country programme	24 - 29	8
B. New programme proposal	30 - 78	10
C. Unprogrammed reserve	79	22
<u>Annex.</u> Financial summary		23

* Detailed listings of projects and other related data prepared as part of the country programming exercise are available on request. These listings include (a) ongoing projects; (b) proposed projects; (c) distribution of resources by objective; and (d) distribution of new country programme by sector.

I. DEVELOPMENT TRENDS, STRATEGIES AND PRIORITIES

A. Current economic trends

1. Burma has a land area of 677,000 square kilometres and a population of approximately 37 million. A comparatively sparsely populated country, endowed with substantial natural resources and with a population density of 55 persons per square kilometre, the development of its human resources is a critical factor in the exploitation of its varied potential for the benefit of its citizens. The population growth rate is 2 per cent per annum and per capita income is \$US 180.
2. The majority of the population depends on agriculture for its livelihood. The predominance of agriculture is also reflected in Burma's exports. Its two main exports are rice and teak, accounting for about 40 per cent and 25 per cent, respectively, of the export earnings over the past several years. The excessive dependence on these two crops is an economic characteristic which the Government of Burma is determined to change. The world rice and cereals markets have been subjected to major fluctuations and Burma has been affected as a consequence. In the case of teak, the present level of exports is about the volume that can be sustained over a long period without depletion of the timber stock. A notable feature of Burma's economy is that its total exports as a percentage of the Gross Domestic Product (GDP) are only 7 per cent. Compared to most other developing countries, the export sector is small in relation to the total economy. Economic growth in Burma has been much more domestically-oriented; at the same time there is an unutilized potential for the expansion of its export sector.
3. The structure of Burma's imports is worth noting; 90 per cent consists of capital and investment goods, raw materials and intermediate goods to support its agriculture and industry. As exports basically generate the earnings for most of these imports, the export sector in effect functions as a capital goods sector.
4. Burma is a centrally planned economy, and the state sector plays an important role in national development. Co-operatives play an increasingly important role in the economy. Foreign trade is in the hands of state enterprises, as are the major industries. The private sector plays a crucial role in agricultural operations, in transport (especially roads and inland waterways) and in small industries.
5. Burma has been fortunate in having experienced a favourable growth performance over the last five years averaging nearly 6 per cent annually which means a growth in per capita income of 4 per cent. This has been achieved in spite of considerable external economic constraints which have had an adverse impact on the economy.
6. Firstly, there has been a sharp decline in the terms of trade. If 1979/1980 is taken as 100, the index dropped to 87 for 1984/1985. However, if the base years are shifted to 1980/1981 and 1981/1982, the decline is much sharper, being in the order of 25 per cent. In absolute terms, these losses exceed \$US 100 million a year.
7. Secondly, partly as a consequence of the decline in the terms of trade, Burma has increased its debt burden in spite of its policy of following a cautious

attitude to external borrowing. The debt-service ratio is expected to reach approximately 45 per cent during the next few years, a level which certainly cannot be sustained without greater access to concessionary sources of financing. However, of this debt, a vast proportion relates to official development assistance.

8. Thirdly, as a consequence of the first two factors, a sharp reduction in the level of imports had to be made if Burma was to avoid mounting indebtedness. The reduction in imports affects the level of capacity utilization in both agriculture and industry and leads to the diminution of supplies of essential consumer goods. These trends must be corrected if Burma is to sustain an adequate level of investments and growth, and the Fifth Four-Year Plan, which began in April 1986, attempts to address these issues. Technical assistance geared to export promotion is a vital tool in implementing the economic policies outlined in the Plan.

B. National development strategies

9. In the early 1970s Burma embarked upon a long-term 20-year perspective plan, which has been divided into five Four-Year Plans. The Fifth Four-Year Plan aims at achieving a growth rate of 4.5 per cent. Present projections indicate that foreign exchange of over \$US 500 million annually must be obtained through various sources of financing if the Plan is to be implemented on schedule. The role of technical assistance must be seen in the context of this vital need for increased foreign exchange.

10. In its national development strategies, Burma has attached a distinctive importance to the concept of self-reliance. The country seeks to achieve its development through its own efforts and the external contribution to that effort can only be of a residual and temporary nature. Though Burma strongly welcomes external participation in selected areas, implicit in the concept of self-reliance is the greatest possible use of indigenous resources. The cultural dimension of economic development is considered a quintessential element in the overall development of the country and the maintenance of the Burmese way of life, in which Burmese women play an important role, is one of the main objectives of the planning process. Traditionally, women in Burma have not only enjoyed an important place in society, but have enjoyed equal rights with men in education and employment in accordance with the assurances provided to women under the Basic Law of Burma; in many professions such as medicine, engineering and education, women play a prominent role.

11. As Burma is a centrally planned economy, the state and co-operative sectors play a dominant role in economic development. The state sector is primarily organized through state economic enterprises, of which there are over 50. Any effective development strategy must be predicated on the enhanced dynamism of these agencies, especially those involved in foreign trade. These enterprises act as a conduit in the channelling of capital and related technical assistance into the economy. The private sector, as noted above, has its own contribution to make through small-scale enterprises, especially in agriculture, transport and industry, and the Private Enterprise Law has provided assurances to this sector for the stimulation of investment and growth.

12. Considering that the choice of technology assumes a critical role both in investment decisions and in issues relating to income distribution and employment creation, Burma's policy for the use of advanced technology is selective. Labour-intensive and modestly capital-intensive technologies have been stimulated, particularly with a view to the exploitation of the indigenous resource base to the greatest extent possible. Given the parameters of the national development strategy, the next five years should witness a strong focus on export promotion both in terms of volume and in value. Coupled with this externally-oriented strategy will be an inward-looking strategy to provide for enhanced supplies of basic goods to the general population. To achieve these two primary objectives, Burma's national development strategy lays stress on the following factors:

(a) An accelerated expansion of the agricultural sector and its corresponding diversification into a wider range of products. The increase in exports which is anticipated, will be derived primarily from expansion of the agricultural sector. Agriculture should also provide increased supplies for local consumption and inputs into the industrial sector. Major investments will be required to achieve the various agricultural sector targets and, in seeking external assistance, this factor looms large in Burma's policy.

(b) A balanced development of both agriculture and industry, the best prospect for which lies in the expansion of its agro-industrial base and in establishing mutual linkages between agriculture and industry. Investments in agricultural processing therefore play a key role in the country's development strategy.

(c) The strengthening of the physical infrastructure as absolutely crucial to the achievement of agricultural and industrial expansion. Various bottle-necks arising from inadequate infrastructure have been identified and should be addressed over the next few years. The transport and energy sectors require rapid improvement and, consequently, large investments.

(d) No less important than physical infrastructure, the strengthening of social infrastructure, especially for the development of human resources. To perform adequately in terms of Plan objectives, the agriculture sector in particular must be seen in the context of rural development, which is a concept broader than the direct productive efficiency of agricultural enterprises. It also means improvement in facilities and access to services such as health, water supply and education. Over the last two decades, Burma has attempted, through mechanisms such as the People's Health Plan, primary health care, water supply programmes and literacy campaigns, to emphasize this aspect, and it is expected that these concerns will be appropriately reflected in resource allocations. Efficiency and equity are equal attributes of Burma's development strategy.

C. Technical co-operation priorities

13. The Four-Year Plan has identified a large number of projects for technical assistance - nearly 80 - to which the Government attaches priority. The Government also presented a list of priority projects to the Burma Aid Group meeting held in Tokyo in January 1986. In the preparation of the country programme these

priorities have been taken into account; technical assistance from other multilateral and bilateral sources is also expected to reflect the concerns expressed in the Four-Year Plan.

14. Given its long-term development objectives, the Government has expressed a strong preference for technical assistance in four areas. First is the development of an indigenous research capacity in the key sectors of the Burmese economy. Past and present country programmes reflect the strong emphasis on such research. The Agricultural Research Institute at Yezin has been the focus of considerable attention, as have been the research needs for a wide range of crops, especially with support from the international agricultural research institutes. An important corollary of the strengthening of indigenous capacities is the need to adapt research and technology to available local resources and conditions so that technical assistance is less a transplant than an adaptative technique.

15. Second, technical assistance is sought for the identification of investment opportunities and the preparation of feasibility studies for investment projects. It is seen as an input complementing capital assistance. Burma was the first country to initiate the umbrella projects under which a diversity of feasibility studies have been executed by two multilateral financing institutes, the Asian Development Bank (AsDB) and the World Bank. The complementarity of technical to capital assistance is well illustrated by investment projects born of umbrella projects' activity. Feasibility studies taken up by the World Bank under the first three umbrella projects, with a UNDP contribution of \$US 9.7 million in the past 10 years, have yielded no less than \$US 700 million in investments, while studies made by the AsDB under two umbrella projects, at a cost of \$US 2.7 million over the past six years, have led to investment of more than \$US 152 million in various sectors of the economy. The same relationship is strongly evident with bilateral donors and several linkages have been established between bilateral and multilateral agencies in matching technical with capital assistance. Some projects for which Burma seeks external financing are technologically sophisticated and require considerable investment; for these, project preparation could be a costly exercise. Technical assistance in grant form, which could assist in the initial stages of project preparation, is therefore highly preferred.

16. Third, Burma is interested in selected fields of advanced technology for which equipment and expertise are essential. Computers and other electronic equipment in civil aviation and telecommunications are illustrative of this kind of technical assistance requirement. Burma has entered a phase of its economic development where its physical infrastructure - the transport and communications system, and the energy sector - act as constraints on rapid expansion, especially where exports are concerned.

17. Fourth, Burma is anxious to train its nationals, but such training and experience should not necessarily be long-term training leading to diplomas and higher degrees. The country's policy is primarily to obtain the necessary skills irrespective of paper qualifications. The organization of local training courses to the greatest extent feasible, assisted by foreign expertise, is viewed with great favour.

18. In terms of sectoral priorities, technical assistance is required primarily for those sectors the Government considers vital to its national development strategy. Those sectors which contribute to increased exports are accorded priority. Agriculture, therefore, is central to the country programme. Training, research and investment feasibility studies are all required in this sector. Agro-industry and selected upgrading of infrastructural capacities contribute similarly to the generation of exports. Export promotion could be considered the rope which binds together a large package of technical assistance projects across all sectors.

D. Aid co-ordination arrangements

19. Both capital and technical assistance are programmed in relation to national development plan priorities. The Foreign Economic Relations Department (FERD) of the Ministry of Planning and Finance has been designated as the co-ordinating agency and the channel for all foreign assistance, a role which is reflected in the State Budget Law or the Financial Appropriations Law. The FERD performs its co-ordinating functions under the guidance of the Economic Co-ordination Committee of the Council of Ministers, which is assisted by a Projects Appraisal Committee to strengthen the aid screening process. The proposed UNDP Technical Assistance to Central Planning and Aid Co-ordinating Agencies in the new country programme should make a useful contribution to strengthening the co-ordinating mechanism for aid policy.

20. The World Bank-sponsored Burma Aid Group, which met in January 1986, provides a forum for the co-ordination of aid policies. At its last meeting, a free and frank exchange of views took place between the Government of Burma on the one hand and multilateral and bilateral donors on the other. Aid co-ordination was uppermost in the minds of the Aid Group, whose decisions were instrumental in the allocation of aid resources to mutually agreed upon priority sectors.

21. Apart from these central mechanisms of aid co-ordination encompassing the entire economy, aid co-ordination also takes place at the sectoral and project levels. Several large agencies within the Government are themselves co-ordinating a range of activities within their respective sectors. The Planning and Statistics Department under the Ministry of Agriculture and Forests, the Industrial Planning Department under the Ministry of Industry and the Planning and Operations Department under the Ministry of Transport and Communications are examples of the planning and co-ordination agencies within the respective Ministries. Fragmentation of decision-making channels has thus been reduced and sectoral co-ordination of aid has therefore improved.

22. Several sectoral studies for both capital and technical assistance have been undertaken by some aid agencies; examples of these are the agriculture sector study of the AsDB, the UNDP/World Bank energy sector study and the United Nations Industrial Development Organization (UNIDO) industrial sector study. Such sectoral studies provide guidelines for aid co-ordination and have been of assistance in policy planning. Resident Missions of United Nations agencies such as the United Nations Fund for Drug Abuse Control (UNFDAC), the United Nations Children's Fund (UNICEF), the Food and Agriculture Organization of the United Nations (FAO)

and the World Health Organization (WHO) and diplomatic missions of donor countries have also joined forces to promote aid co-ordination. The International Drinking Water Supply and Sanitation Decade (IDWSSD) is an example of successful co-ordination of the assistance from multilateral agencies such as UNDP, UNICEF, WHO and the AsDB, along with that of a number of bilateral donors, notably Australia, the Federal Republic of Germany, Japan and the Netherlands. In addition to frequent meetings and exchange of views among all agencies concerned, an IDWSSD mid-decade meeting has been scheduled towards the end of 1986. A Technical Support Team (TST) has also been established by the UNDP Field Office in order to co-ordinate the activities of the United Nations agencies and to provide effective support to the Government agencies concerned with the planning and implementation of the IDWSSD strategy. The Governments of the Federal Republic of Germany and Canada have been providing financial support to IDWSSD sector meetings which have been recognized by all participants as a useful forum for co-ordinating activities of all donor agencies and the Government agencies.

23. The UNDP involvement in several key sectors of development in Burma and the provision of technical assistance also facilitate aid co-ordination at the sectoral as well as at the national level, establishing the country programme as a frame of reference for aid donors. UNDP's annual report on Development Assistance in Burma has over the past years provided useful information on sectoral support provided by aid agencies and, as such, has facilitated a better allocation of available resources. FERD and UNDP have made arrangements for meetings at regular intervals in order to ensure effective aid co-ordination. In consultation with FERD, the UNDP Field Office also has held meetings with representatives of United Nations Missions and donor country missions based in Rangoon at regular intervals, during one of which the project proposals contained in the draft fifth country programme were explained to the participants. The use of the country programme as a frame of reference for other sources of external aid was enhanced by the distribution of a list of projects for which Government sought further assistance (DP/BUR/PAL.1). The Resident Representative of UNDP also performs the role of Resident Co-ordinator of the United Nations system's operational activities for development in Burma and undertakes co-ordinating functions among resident United Nations missions in Rangoon, namely, UNFDAC, United Nations Information Centre (UNIC), UNICEF and United Nations Specialized Agencies such as FAO and WHO which have extensive technical co-operation programmes in Burma. He also acts as the representative of UNFDAC and the United Nations Fund for Population Activities (UNFPA) in the execution of activities of these agencies. It should be noted that a fairly large programme with a total input of \$US 11.1 million from UNFDAC, is envisaged during the period of the fifth country programme. A coffee research station in Maymyo and a tea research station in Taunggyi are to be established to assist farmers in crop substitution. Other projects will focus on the expansion of livestock farms to produce poultry for distribution to target areas, reinforcement of existing treatment centres in the rural areas, development of a vocational rehabilitation and social integration programme for former drug-dependent persons and improvement in the existing road network in crucial parts of the project area to allow farmers to gain easy access to markets for their products. The UNFPA assistance during the programme period will involve a total contribution of \$US 1.5 million, mainly in support of activities relating to maternal and child health, vital statistics registration, the establishment of a statistical base for manpower planning, undertaking an inter-census survey, and providing a data base for urban planning.

The Resident Representative is also involved in the World Bank Aid Group Meeting concerned with Burma while keeping in close touch with the World Bank and AsDB missions visiting the country. Many of the World Bank and AsDB-assisted projects which arose out of studies made under UNDP umbrella projects have paved the way for further co-operation with UNDP by matching the technical assistance inputs required in such investment projects. Thus, it can be seen that the UNDP assistance to Burma has been one of long-term perspective and that its role in aid co-ordination as a complement to the government aid co-ordination efforts has been recognized as an effective and beneficial contribution to the implementation of the national development plans.

II. THE COUNTRY PROGRAMME

A. Assessment of the current country programme

24. The fourth country programme covered the period 1982-1985 and was subsequently extended for a further period of one year to the end of 1986. At the beginning, the IPF was expected to amount to \$US 102 million, but with the financial limitations affecting the UNDP, the IPF was reduced to \$US 60.5 million. During this period 73 projects, both ongoing and new, were undertaken and total expenditures incurred are expected to be well over 90 per cent of available resources.

25. The fourth country programme experienced its fair share of both achievements and deficiencies. Reflecting Burma's fundamental concern with the transformation of agriculture, the programme provided technical assistance required for the sector's modernization. Over the last decade, the UNDP contribution to the Agriculture and Forest Research Institutes in Yezin has been around \$US 20 million. Between the years 1977/78 and 1984/85, for example, paddy production increased from 9.3 million to 14.4 million tons. The introduction of high-yielding varieties was the main reason for this expansion in production and UNDP's assistance in the creation of an agricultural research development and extension network was extremely beneficial. The same project also provided a major stimulus to the development of crops other than rice with the introduction of new varieties in cotton, wheat, groundnut, sunflower, sugar, and maize in keeping with the Government's objective of crop diversification. Apart from significantly aiding in developing a programme of varietal introduction, selection and testing with a view to obtaining high-yielding varieties, the project established ongoing mechanisms of collaboration with the international agricultural research centres (belonging to the Consultative Group on International Agricultural Research (CGIAR) such as International Maize and Wheat Improvement Centre (CIMMYT) in Mexico, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) in India, and the International Rice Research Institute (IRRI) in the Philippines, and these proved a valuable source for elite cultivars and germplasm which have now been introduced into Burma. In the forestry sector, a major contribution from UNDP was the development of institutional capacity to prepare first management plans based on detailed first inventories, using aerial surveys and field investigations. Other areas of UNDP assistance also included the upgrading of research and training in forestry, livestock and fisheries, successful examples being the projects for the Establishment of an Animal Breeding and Research Centre

and Development of Animal Virus Vaccines. The first survey of the fish biomass in Burmese waters was also carried out through the UNDP-funded Marine Resource Survey.

26. A unique contribution under the fourth country programme was made through its largest project, Civil Aviation Development. Burma has approximately 600 flights over its air space every week. Through this project the Department of Civil Aviation was able to obtain the expertise, equipment and training required to meet international air traffic safety standards. This has enabled Burma not only to play its own modest role in the expanding world of international civil aviation, but has also led to considerable improvements in domestic air safety.

27. The fourth country programme also contributed significantly to the telecommunications sector. Assistance to the Telecommunications and Postal Training Centre Project enabled Burma to develop in another rapidly expanding and highly sophisticated sector of electronic communications. Concern with modern technology was equally reflected in the UNDP-funded project for the establishment of the National Computing Centre. The Population Census of Burma of 1983 was assisted through the provision of computer facilities by UNFPA and UNDP along with supplementary contributions provided by Norway and the United States Agency for International Development (USAID). The Government is fully aware of the contribution computers can make to its development efforts. Through UNDP's growing involvement in this field, the formulation of a national computer policy has been considerably facilitated.

28. In several areas of national development, UNDP-assisted projects have filled critical gaps in technical assistance needs. In agro-industry a noteworthy project has been the Pilot Plant for Pulp and Paper Research which has supported experimentation in the use of indigenous bamboo, jute and agriculture waste for the local paper industry. In the supply of drinking water, in collaboration with UNICEF and several other multilateral and bilateral donors, considerable advances were made in providing safe drinking water to a sizeable proportion of Burma's population. In tourism, a start has been made in enabling the Government to exploit the country's potential in this area. Investment feasibility studies were undertaken in irrigation, urban development, timber distribution, fertilizer production and in many other such ventures through the umbrella projects funded by UNDP and executed by the World Bank and the AsDB which introduced a new dimension of collaboration between UNDP and international financing agencies permitting rapid resource mobilization to following the feasibility studies.

29. During the assessment of the ongoing fourth country programme, held by the Government with UNDP and the resident missions of United Nations agencies in June 1986, the experience gained in the implementation of the programme was examined with a view to developing measures which would ensure smooth and effective implementation of projects in the future, including new projects under the fifth country programme. The representatives of diplomatic missions in Rangoon, such as the Federal Republic of Germany, Japan, the United Kingdom and the United States of America, were also consulted. These and other discussions led to many useful suggestions for improvement in the design and quality of project documents, taking into account government procedures and the conditions relating to implementation of project activities in Burma. It was generally agreed that it should be possible to make improvements in the following areas:

- (a) Project design and preparation of project documents. Close attention should be paid at a very early stage to project design and preparation of project documents in order to avoid major deviations in the future, due account being taken of the procedural requirements of both the Government and UNDP and of a realistic time-frame for implementation.
- (b) Faster processing of training. As far as possible, overseas training should be provided for non-degree or non-diploma courses which require less rigid selection procedures on the part of the government agency; candidates with requisite qualifications should be made available by the agency so that placements can be arranged without delay.
- (c) Faster processing of project documents. FERD has advised the implementing agencies to keep the appropriate Ministries fully informed of the scope and content of the project during the preparation of the project document. It was noted that delays in approval of project documents were due mainly to further information being sought by the respective Ministries after the project had been finalized and submitted for their approval.
- (d) Equipment component. Equipment requirements in relation to the technical assistance needs of the projects should be fully discussed in detail and agreed upon during the preparatory stage. The government agency concerned should also consult the Central Equipment Statistics and Inspection Department (CESID) and, if necessary, obtain the clearance of the Equipment Control Committee (ECC) before the project document is finalized. It was also felt that spare parts necessary for operation of the equipment for a period of two years from the termination date of the project should be provided out of funds available within the project budget.

The annual review of the country programme, in addition to periodic review of the individual projects as part of the continuous programming exercise, has provided the Government and the UNDP with an insight into the past to avoid the recurrence of similar difficulties in the future.

B. New programme proposal

30. To ensure coherence with national development policies and objectives, the fifth country programme is expected to be implemented within the framework of governmental priorities as set out in the Government's Fifth Four-Year Plan (1986/87 to 1989/90). The projects included in the Programme have been selected on the clear understanding that they will contribute directly towards the achievement of the developmental objectives of the Fifth Four-Year Plan. Given the resource limitations of the country programme in relation to overall technical assistance requirements, the programme focuses on a few selected sectors critical to the development effort. In keeping with past practice, two umbrella projects to be executed by the World Bank and the AsDB, are incorporated in the new programme proposal. The specific sub-projects to be undertaken within the umbrella projects will reflect the themes which have been identified as areas of concentration.

31. The agriculture sector (including agriculture, forestry, livestock and fisheries) is by far the most important in the economy, accounting directly for about 50 per cent of GDP and 75 per cent of export earnings. Three quarters of Burma's population is rural and agriculture provides employment to two thirds of its inhabitants. Most manufacturing and service activities are centred around agriculture. Farm produce takes up two thirds of the capacity of transport and processing sectors. The development of Burma's agro-industrial base and the modernization of its infrastructure should directly stimulate the agricultural economy.

32. As noted earlier, a prerequisite for further economic growth is a strong export sector. Burma exports only 7 per cent of its GDP, and the potential for expanding its export base is considerable. A primary aim of the Government's development strategy is to expand the traditional export of rice and timber, and to develop a wider range of agricultural exports with a much greater value-added and processing content.

33. The new UNDP country programme has been designed in consultation with all relevant government agencies and after extensive discussions with donor country representatives and United Nations Missions resident in Rangoon. In selecting the themes on which activities should be concentrated, the country programme reflects the overriding objectives of the Government over the next five years. It also constitutes a frame of reference for the overall planning of technical assistance from other sources. Thus the projects contained in annex 3 (Part II) indicate the areas in which the Government seeks further assistance from bilateral or multilateral donors.

34. The country programme is focused on the following four themes:

- AA. The Modernization of the Agriculture Sector - Its expansion; diversification; increased productivity; enhanced capacity for research and development and the improvement of supplies and services primarily to the small farmer.
- BB. The Development of Agro-Industry - Intensification of the backward and forward linkages between agriculture and industry, thereby facilitating greater processing of agricultural commodities and the manufacture of new products, in particular for export and import substitution, while generating an industrial base extensively using indigenous materials, manpower and technology.
- CC. The Development of Physical Infrastructure - With special attention to the facilities for movement of goods and services and the utilization of available energy resources in a planned fashion.
- DD. The Development of Social Infrastructure - Improvement in social services, including the development of health services based on the Third People's Health Plan, with the emphasis on training of personnel required for effective implementation of the Plan.

AA. Modernization of the agriculture sector

35. Burma is richly endowed with agricultural resources such as land, water and forests allowing intensive agricultural development. Thus far, however, it has been primarily dependent on two commodities - rice and timber - for most of its agricultural production and exports. What is needed at this point in time, is to increase the export earnings of rice through further productivity gains and through qualitative improvements of this commodity and, at the same time, to reduce extensive dependence on rice through diversification of the exports into other traditional and non-traditional crops. To achieve higher levels of productivity and to embark more vigorously on an extensive programme of crop diversification, an integrated package of measures is needed - a variety of inputs such as water through various forms of irrigation, improved seeds, fertilizers, pesticides, and a research and development capacity for which the existing institutional network must be strengthened. The importance of forestry in Burma's economy requires strengthening that sector and diversifying it with the aim of exploiting more systematically timber resources other than teak, especially those species which have an export potential. The fifth country programme is designed to support the implementation of these strategies in the agriculture sector and specific projects are directly linked to the facilitation of the needed packages in the agriculture and forestry subsectors.

36. Within the overall theme of agricultural modernization, several sub-themes or more precisely targeted areas for intervention can be discerned and these are pin-pointed in the sections that follow. Broadly, technical assistance to the agricultural sector in Burma can be classified into three categories - crop diversification, agricultural inputs and forestry. The agricultural inputs group is sufficiently broad to allow further sub-division into several analytically meaningful clusters. Neat and strictly compartmentalized classification, however, is not feasible as projects tend to contain diverse elements which spill over from one category to another.

Crop diversification

37. Crop diversification is central to Burma's agricultural strategy to reduce its dependence on rice. The Government has included 19 crops in its diversification programme, all of them grown in some part of Burma, each being the traditional crop of one or more groups of farmers. Crops such as sesamum, groundnut, chickpea, maize, wheat, sorghum, jute, cotton, rubber and sugarcane, in addition to vegetables, fruits and pulses, are extensively cultivated. These crops are generally grown in far from robust, near-arid climatic and fragile soil conditions with low yields and low profitability. The benefits in farm agricultural research have thus far not fully reached the small farmers in any appreciable degree. The country programme has three major projects in this area: Food Crops Development, Plantation Crops Development and Industrial Crops Development. Common to all three are the objectives of building up an institutional research and development capacity and the reinforcement of demonstration and extension networks which can effectively relate research and development to specific farming conditions. These build on the past achievements of UNDP-funded projects in related fields.

38. The primary aim of the Food Crops Development Project is to improve the efficiency of food legumes and coarse grain production in central Burma, normally undertaken in dry farming conditions. The Agricultural Research Station at Yezin is to be upgraded. Field investigations will be facilitated through four experimental farms, with priority attached to specific crops of significance to the various agro-ecological zones. Sorghum, chickpea, millet and beans will form the nucleus of crops around which the project will be undertaken.

39. The project on Plantation Crops is concentrated mainly on rubber and cashew. Statistics indicate that Burma has 200,000 acres of rubber, but yields are extremely low, generating only around 16,000 tons for export and local use. UNDP has been involved for several years in the rubber sector, alongside the International Development Association's (IDA) capital assistance for planting high-yielding varieties. The Government's Fifth Four-Year Plan has set a target of 26,000 acres of plantings of which half will be cultivated by the private sector. In cashew, a target has been set at 6,300 acres. In addition, new plantings are planned for cocoa and coconut. The creation of an applied Plantation Crops Research Institute is an important objective around which the development of an indigenous research, development, training and extension capacity in these crops will progress.

40. Another dimension of crop diversification is manifest in the Industrial Crops Development Project. Burma's economic strategy requires the creation of an industrial base linked back to the agricultural sector. Crops such as cotton, sugarcane and jute offer the best prospects for expanded schemes of production and processing. The three crops cover nearly one million acres, with cotton accounting for 50 per cent. The country is not self-sufficient in these commodities; cotton and jute imports amount annually to \$US 12 million. UNDP is expected to provide further assistance for a system approach to cropping so that multiple and inter-cropping systems suitable to irrigation and rain-fed areas can be developed. Other agronomic management practices, pest control and improved methods of processing will be tested and developed for local adaptation.

Agricultural inputs

41. The application of a variety of agricultural inputs in a properly integrated manner constitutes a critical ingredient in agricultural modernization. UNDP assistance in the past included continuing support to ensure the supply of agricultural inputs. Projects on fertilizers, irrigation, agricultural credit and agricultural research, have been among them. In the new programme, UNDP assistance is sought to build on its past contributions as well as on those of other multilateral and bilateral donor agencies.

Irrigation

42. Of the 21 million acres of sown area in the country, only about 2.6 million acres or 12.4 per cent are irrigated. Irrigated land is mostly taken up with paddy production, and less than 5 per cent of the areas sown in oilseeds and pulses receive any irrigation. Burma, however, has ample water resources to expand the irrigation system and UNDP is expected to provide assistance to several projects

which should lead to further expansion of irrigated land. For this purpose, the Water Resources Development Project aims to establish a computerized water resources data bank in the Irrigation Department, introducing improved methods of collection, processing, storage, retrieval and analysis of water resources data. The project should assist in planning various systems of irrigation - major, small-scale, and tube-well - resulting in a more precise definition of investment priorities, taking into account relative costs and benefits of each project from a potentially lengthy portfolio.

43. The Ye-U Irrigation Rehabilitation and Modernization Project is being co-financed by the World Bank/IDA, and the technical assistance component is financed by UNDP. The Ye-U irrigation system was constructed nearly 70 years ago, and the objective of the project is to restore it to its previous capacity by improving and modernizing the irrigation system. UNDP assistance is being requested for the strengthening of the capacities of the Irrigation Department to plan and carry out the modernization, rehabilitation and maintenance of irrigation infrastructure and also to enable it to manage a growing fleet of heavy equipment to be used in Ye-U and subsequently in other irrigation projects.

44. UNDP assistance is also sought under the World Bank-executed Fourth Umbrella Project in updating the study and design of the Mu Valley Irrigation Project, a major high-priority undertaking requiring an investment of nearly \$US 700 million. The updating of the study and design is of crucial importance for the appropriate phasing of further investment.

45. In tandem with these large schemes, the Government has given high priority to the construction and the rehabilitation of Small-Scale Irrigation Works. Several benefits result from small-scale irrigation development, notably a greater focus on benefits to farmers and a shorter gestation period leading to quicker returns. Utilization of relatively small-scale irrigation operations also involves considerably increased farmer participation in their construction. AsDB is financing some \$US 40 million for small-scale irrigation projects in the central Dry Zone area of Burma with 16 sub-projects spread over Mandalay, Magwe, Sagaing and Pegu Divisions, providing irrigation to over 30,000 acres. UNDP has been requested to provide technical assistance to formulate development plans for sub-projects and undertake feasibility studies.

Seeds

46. In the crop diversification projects outlined above, a major component was the development of an appropriate seed production capacity for each of these crops. High-yielding varieties (HYV) provided the basis for rapid agricultural transformation in most countries, and Burma has been no exception in its experience of rapid increase in rice production. UNDP has been involved in this field for several years and, in co-operation with the World Bank/IDA, is continuing to provide technical assistance to enhance the research and experimental capacity of institutions under the Ministry of Agriculture through its Seed Multiplication Project. Annual seed supply is estimated to have increased by about 21,000 tons of paddy (75 per cent of Burma's HYV requirements), 3,100 tons of medium staple cotton (100 per cent) and 3,200 tons of pulses (25 per cent).

Pesticides

47. Burma has remained relatively pest-free despite a low level of pesticides application. However, this fortunate position will be difficult to maintain when new production technologies lead to profound changes in the crop ecosystems. New crops breed new pests and new problems of pest control. The only chance of limiting the application of pesticides is to develop integrated pest management techniques for each of the major crops including a strong component of biological or natural control. An earlier UNDP-assisted project on Plant Protection and Quarantine has led to the introduction of new technologies for pest control in Burma through biological means under a new project on Plant Quarantine and Pest Control. UNDP assistance will include the establishment of bio-control laboratories and necessary surveys and research to identify the natural enemies of the various pests for a series of crops.

Agricultural statistics

48. An effective strategy for the development of agriculture requires a strong data base which can be made use of for policy planning. The proposed project on Agricultural Census and Strengthening of the System of Agricultural Statistics is expected to provide assistance in organizing a national agricultural census which will constitute the basis of the development and institutionalization of an expanded permanent system of data collection and processing.

Forestry

49. The forestry sector plays a vital role in the economy and provides an important contribution in terms of export earnings. Well known as the world's largest exporter of teak, Burma is also rich in other timber resources. The export of teak and other forest products contribute nearly 30 per cent to Burma's export earnings. UNDP assistance has been involved in the forestry sector for several years, along with investment support provided by the AsDB, the World Bank and Finland. Three distinctive strands can be noted in the forestry policy of Burma. First is an increasing concern with improved and efficient management practices in the utilization of forest resources. In the logging and extraction of timber, considerable waste has occurred and much greater economy of the raw material could be ensured through improved practices. Second is the growing recognition that greater diversification in forestry is feasible and desirable. Species other than teak which lend themselves both to processing and export could be popularized both at home and abroad. Third is the imperative of forest conservation for a sustainable forest industry over the long term. Though forests cover 57 per cent of Burma's land area, large tracts of forests constituting nearly one third of forest area have been degraded.

50. In the context of the new country programme, it is important to note the close connection between forestry and energy sectors and the role of fuelwood as the main source of energy in the country. Moreover, forestry has always been intimately linked with farming. With new land being opened up and with the provision of irrigation to more areas, the management of forestry to provide for the protection of water resources assumes an added significance. Development projects should

therefore be mutually reinforcing, cutting across conceptual and operational compartments and divisions. The country programme envisages six projects in the forestry sector, including two projects for which financing is being sought.

51. The National Forest Management and Inventory Project will formulate and help implement a national forestry policy as part of an integrated, balanced land use plan. To achieve that objective, the Forest Department and the Timber Corporation need facilities and a full staff of trained personnel. An inventory based on aerial surveys will be made of forest resources; maps will be included.

52. The Forest Industries Training Project will focus on the provision of training facilities for personnel directly involved in tasks ranging from logging to processing. A considerable amount of investment has already been made in the Timber Corporation by multilateral agencies and by bilateral donors such as Finland and Japan. The optimum returns from such investments require highly trained staff. This project is related to the timber distribution study undertaken by the World Bank and financed by UNDP, which has now led to further IDA capital assistance.

53. Fuelwood has long been the primary source of fuel in many areas, and the proposed Pilot Fuelwood Production Project aims at establishing pilot/demonstration fuelwood farms incorporating different agro-forestry systems and at developing fuelwood plantations in degraded and denuded forest areas.

54. Efficient farming requires environmental safeguards, particularly where irrigation is involved; the assurance of water supplies necessitates forest cover in the watersheds. The Multi-Purpose Kinda Dam has been constructed at an investment cost of more than \$US 150 million financed by the World Bank, bilateral donors, and the Government of Burma. An important requirement for the continued efficient management of the irrigation component of the project is that the watershed areas are provided adequate protection from environmental hazards. The Kinda Dam Watershed Management Project is expected to undertake a general survey of the watershed and establish a selected pilot area in which methods will be demonstrated for the improved management not only of the Kinda Dam watershed, but other watersheds in Burma as well. The ecological balance (soil, plant, water systems) of many watersheds in Burma has been seriously disturbed by unsuitable land use practices, including shifting cultivation, excessive fuelwood extraction, and soil erosion, and the project is expected to assist in developing an integrated watershed management strategy for the country as a whole.

55. The project on Research into Utilization of Lesser-Known Wood Species, a/ will break new ground in extending and intensifying programmes in a range of wood species which have thus far remained unexploited. Burma's forests contain more than 1,600 wood species of which only 22 have been extensively cultivated and utilized. The potential of the lesser-known species needs to be explored thoroughly and it is highly probable that an export market could be developed for some of these species. The Forest Research Institute at Yezin in central Burma, which has already undertaken some research in these areas, will be the focal point of project implementation.

a/ Included in annex 3 (Part II) as a reserve project.

Linkages in agricultural modernization

56. Development of suitable management practices is crucial to the conservation and protection of watersheds. Several linkages can be identified in the project portfolio under this theme. The Kinda Dam Watershed Management Project is a follow-up to the massive investments amounting to over \$US 150 million made by the World Bank, the Federal Republic of Germany, Japan and Norway in constructing the dam, the irrigation networks and hydropower facilities. It should be noted here that UNDP technical assistance comes after, rather than before the investment stage and is an indication of the opportunities available for technical assistance to maximize the long-term returns of investments already made. IDA has provided capital assistance alongside UNDP technical assistance for the Rubber Rehabilitation Project. The Seed Multiplication Project is closely associated with financing provided by IDA. The United Nations Fund for Drug Abuse Control (UNFDAC) has financed coffee planting in upland Burma linking itself with the overall agricultural diversification programme.

BB. Development of agro-industries

57. The importance of agro-industries is emphasized by the Fifth Four-Year Development Plan in which the share of public investment envisaged is 6.7 per cent, compared with 13.6 per cent in agriculture, and 6 per cent in forestry and livestock, including fisheries. Accordingly, appropriate weight has been given in the new country programme to agro-supportive as well as agro-based industries. Agriculture, as the main sector in the development programme, will continue to expand and diversify significantly both in terms of crops and products during the next five years. To maximize gains from the modernization of the agricultural sector, the provision of agricultural inputs such as pesticides and the processing of agricultural products and their transformation into agricultural commodities have become vital elements within a comprehensive agricultural development strategy; agro-industrial components are found even in projects that have been described under the rubric of agricultural modernization. Six projects have been identified for UNDP assistance under the fifth country programme, including two projects which will inject technical support needed for strengthening investment projects taken up by the Government with IDA credits and AsDB loans. The remaining projects will provide support to agriculture and lead to further expansion of agro-based industries. Using the country programme as a frame of reference, the Government is also seeking financing for two more agro-based projects, namely the Development Centre for Rubber Technology (Part II) and the Development Centre for Leather Technology (see para. 63 below).

58. The Grain Storage and Processing Project, based on a UNDP/World Bank umbrella project study and co-financed by IDA, is one of the more important export promotion projects for which UNDP has been requested to contribute technical assistance. External capital assistance involved is around \$US 35 million. The project addresses itself to one of Burma's major agricultural constraints; rice exports have obtained prices which are about 20 per cent lower than those obtained by similar varieties of rice exported from other countries because of poor milling and grading quality as well as unfavourable storage conditions. The IDA loan project is expected to address these shortcomings and also to rehabilitate and upgrade the

capacity of private rice mills. Upon completion of the project, Burma stands to earn about \$US 60 million per year in incremental foreign exchange earnings resulting from increased volume of rice exports and improved quality of rice. UNDP assistance will be utilized to provide consultancy services to assist the Agricultural and Farm Produce Trade Corporation in mill rehabilitation, improved paddy storage, post-harvest technology and local manufacture of equipment and spare parts needed for rice milling.

59. Burma consumes large quantities of edible oil processed mainly from groundnut, sesamum and sunflower with an average per capita consumption of 5 kilogrammes per annum. The Government has adopted a policy of self-sufficiency in edible oils and, by the end of the current Twenty-Year Plan in 1991, annual consumption is expected to increase to 9 kilogrammes per capita. In the agricultural sector, plans are being implemented to expand oilseeds production and a complementary increase in processing capacity is therefore imperative. The AsDB has prepared a feasibility study under the UNDP umbrella project, and is now co-financing an Edible Oil Project. At the same time, USAID is also financing a major investment programme in the context of the Maize and Oilseeds Production Project, which is directly related to the activities being undertaken by the UNDP and AsDB. The country programme includes further assistance by UNDP covering a substantial technical assistance component for revitalization of the oilseeds processing industry.

60. Under the fourth country programme, through the Plantation Crop Development Project, the Government received UNDP assistance for the rehabilitation and expansion of the rubber industry. As a complement to this project, a research and training base is needed in the form of a Development Centre for Rubber Technology (DCRT). The objectives of the proposed Centre include training of skilled workers in the industry, testing raw materials and finished products in accordance with internationally accepted standards, establishing process control systems and developing new products for manufacture in Burma.

61. The subject of pests in agriculture and pest control through biological means has been mentioned earlier in paragraph 47. Pesticides would still have to be used for a large number of applications in agriculture, industry and health. At present, Burma's use of pesticides is limited by their high cost, almost \$US 6 million a year. The feasibility of producing some of these pesticides locally has been studied, and additional funds are requested from UNDP for the ongoing Pilot Plant for Formulation of Pesticides which will utilize locally available raw materials. The establishment of the pilot plant will include a quality control laboratory and facilities for training of personnel in liquid pesticide formulation technologies.

62. The Pilot Plastic Appliances Extrusion Demonstration Unit, although classified under the agro-industry sector, is an integral part of the national strategy for the International Drinking Water Supply and Sanitation Decade (IDWSSD) adopted in 1981 at a national meeting in which the major donor countries and aid agencies also participated. This unit, the first of its kind in Burma, is expected to initiate an industrial capacity for the production of plastic pipes and appliances required for water supply projects in which many bilateral and multilateral donors are participating. It is also expected to provide savings of up to 50 per cent in foreign exchange costs for the equipment needed in national supply projects. The

pilot plant will be complemented by facilities for training personnel in related technologies and will be the outcome of a UNDP-supported project which includes undertaking feasibility studies of the local production of essential supplies in support of the IDWSSD, such as welded steel pipes, mini cement plants and plastic pellets based on agricultural raw material (sugar cane molasses).

63. Being an agricultural economy with large cattle resources, assistance is required for the development of the leather industry through the establishment of the Development Centre for Leather Technology (DCLT). b/ The leather industry in Burma is modest, consisting of a leather products factory, two medium-scale mechanized tanneries which produce a range of leathers and small tanning units spread over the country which cater to the local artisanal slipper manufacturers. It is hoped that assistance will be available, for the establishment of a Development Centre for Leather Technology which would provide facilities for the improvement of the quality of raw materials, the development of locally available tanning materials, and the introduction of measures for quality control for a sector which has considerable export potential.

Linkages in agro-industry

64. In this sector, UNDP complements capital assistance provided by IDA and Switzerland to the Grain Storage and Processing Project in an important effort to reinforce Burma's export capabilities. UNDP is also collaborating with the AsDB in the Edible Oils Project with particular reference to technical assistance needs concerning the design and construction of new oil mills and the rehabilitation of old mills in the co-operative and private sectors. This project is linked with the USAID Maize and Oilseeds Production Project, under which USAID is providing grant assistance of \$US 30 million. The linkage was expressly recognized in the project preparatory phase of the USAID project.

CC. Development of physical infrastructure

65. Capacity constraints in the physical infrastructure sector, notably in transport and communications, limit the production and distribution of goods and services in other sectors of the economy, particularly in agriculture and industry. What is required is not only expansion, but also the upgrading of existing facilities in view of rapidly changing technologies in some subsectors, such as civil aviation and telecommunications. A fairly long pipeline of projects compete for UNDP assistance under this theme, and it is proposed to take up only six projects under the new country programme, leaving a group of five no less important projects within the frame of reference of the country programme for future development and financing.

Transport

66. Burma has over 14,000 miles of roads, of which about 5,000 miles are surfaced with bitumen and only 400 miles are wide enough for two-way traffic. The Road

b/ Included in annex 3 (Part II) as a reserve project.

76. A primary requirement in providing the basic health services is to improve the system of medical education. Burma produces nearly 550 doctors annually and about 60 dental personnel. The UNDP project on Training for Health Manpower has specially selected the Institutes of Medicine and Dental Medicine as pivotal points for intervention to strengthen their teaching capacity. The objective is to provide facilities for teachers in these institutions to obtain high level post-graduate medical education. Under the UNDP-assisted project on the Strengthening of Nursing Services, the equally important task of improving nursing services in the country will be taken up, utilizing the new Nurses Training Centre established with grant aid from Japan. The Government of Japan has agreed to provide \$US 200,000 in trust funds, which will probably be available for this project on a cost-sharing basis with UNDP.

77. The project for the Reinforcement of the Instrumentation Division of the Department of Medical Research, and the project for Strengthening of the Food and Drugs Control Administration, are both directed towards enhancing two existing institutions vital to an efficient health administration. One objective among many will be to provide facilities for maintenance and repair of equipment. In an earlier project UNDP had provided assistance to establish a Food and Drugs Control Laboratory; the present project is a follow-up to strengthen these services with a particular focus on reinforcing the food and drug inspectorates.

Linkages in social infrastructure

78. In social infrastructure development, the Government of Japan is expected to co-finance with UNDP the Strengthening of Nursing Services Project, a logical follow-up to the Nurses Training Centre which was established recently with grant aid assistance from Japan. UNFPA has also offered to co-finance with UNDP the project on Establishing a Statistical Base for Manpower Planning. The Rangoon City and Regional Development Project of UNDP is linked to the Federal Republic of Germany's contribution of nearly \$US 1 million for associated projects. Linkages may also be noted in this sector with three UNDP regional projects - the Regional Seismological Network of the Himalayan Range (executed by the United Nations Educational, Scientific and Cultural Organization (UNESCO)); the Prevention and Control of Blindness and Visual Impairment (the World Health Organization (WHO)); and Regional Project on Cyclones in the Bay of Bengal Area (the World Meteorological Organization (WMO)) in which Burma is an active participant. The first two of these projects are based in Rangoon.

C. Unprogrammed reserve

79. A sum of \$US 5,408 million is set aside as unprogrammed reserve to meet technical assistance requirements which are expected to be identified later during the implementation of the fifth country programme.

Annex

FINANCIAL SUMMARY

I. ACTUAL RESOURCES TAKEN INTO ACCOUNT FOR PROGRAMMING

<u>A. UNDP-administered sources</u>	\$	\$
Third cycle IPF balance	5 142 000	
Fourth cycle IPF	<u>59 339 000</u>	
Subtotal IPF		64 481 000
Special Measures Fund for Least Developed Countries	-	
Special programme resources	-	
Government cost-sharing	-	
Third-party cost-sharing	-	
Operational funds under the authority of the Administrator	-	
UNDP special trust funds: (Japan)	<u>200 000</u>	
Subtotal, UNDP non-IPF funds		200 000
<u>B. Other sources</u>		
Funds from other United Nations agencies or organizations firmly committed as a result of the country programme exercise (UNFPA)	183 000	
Parallel financing from non-United Nations sources (AsDB TA)	<u>650 000</u>	
Subtotal, other sources		<u>833 000</u>
TOTAL ACTUAL RESOURCES TAKEN INTO ACCOUNT FOR PROGRAMMING		<u><u>65 514 000</u></u>

II. USE OF RESOURCES

Ongoing projects	16 714 000	
New project proposals	38 392 000	
Programmed reserve	<u>5 000 000</u>	
Subtotal, programmed resources		60 106 000
Unprogrammed reserve		<u>5 408 000</u>
TOTAL USE OF RESOURCES		<u><u>65 514 000</u></u>
