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PROGRAMME PLANNING

Country and intercountry programmes and projects

THIRD COUNTRY PROGRAMME FOR VIET NAM*

<u>Programme period</u>	<u>Actual resources programmed</u>	<u>\$</u>
1987-1991	IPF for 1987-1991	70 733 000
	Carry-over from the third cycle	<u>12 760 000</u>
	Total	83 493 000

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I. DEVELOPMENT TRENDS, STRATEGIES AND PRIORITIES

A. Current economic trends

1. The present state of the economy of Viet Nam and the achievements made since reunification in 1975 should be reviewed in the context of the impact of prolonged war on an already devastated and impoverished economy and of the long-term development objectives of the Government to stabilize and expand the economy. Thus, reconstruction and rehabilitation continue to be the Government's prime concern, particularly in the energy and transport sectors, in the rehabilitation and development of agricultural and forest lands and in maintaining and expanding an extensive but technologically obsolescent industrial sector (including overcoming the shortage of spare parts and raw materials).
2. Since 1975, in the context of successive five-year plans, the Government has sought to reunify and reconstruct the economy, to increase the availability of food and other essential consumer goods, to improve the living conditions of the people in conformity with the policy of fair distribution and to use science and technology as a means of utilizing more effectively the abundant natural resources and talents of a highly literate and skilled population with a considerable contingent of post-graduates. If not for this latter factor, Viet Nam would qualify among the least developed of the developing countries (at present per capita income is about \$110) and General Assembly resolution 32/3 of 1977 testified to international recognition of these enormous needs and to the effort required to overcome the ravages of war and poverty.
3. The five-year plan for the period 1976-1980 contained ambitious targets for reconstruction (13-14 per cent increases in income) and assumed considerable external capital and technical assistance. Initially the economy expanded rapidly in line with the plan, but this momentum could not be sustained, particularly in agriculture owing to the accumulated obstacles from previous years, exacerbated by repeated and severe natural disasters, and to the unrealized flow of external resources. The modest assistance received, however, helped significantly to expand productive capacity through a number of large-scale reconstruction and development projects and by relieving acute shortages of agricultural and industrial raw materials. Despite these achievements, serious difficulties existed, especially in the energy, transport and raw material sectors.
4. The reassessment undertaken as part of the preparation of the current plan, 1981-1985, led to increasing emphasis on diversifying the economy in order to meet the pressing needs of the people, although the re-establishment and expansion of basic infrastructure in energy, transport and industry continued. During the first four years of the current plan period, total material product increased at an annual rate of 6 per cent, well above the annual rate of 2.4 per cent of population increase. Agricultural and industrial production expanded at an average annual rate of 4.7 per cent and 11 per cent respectively.

5. As an integral part of the process of economic diversification, the share of agriculture in total material product declined from 44.1 per cent in 1980 to 42.5 per cent in 1984, while that of industry increased from 26.8 per cent to 32.8 per cent. Aggregate investment in real terms increased annually by 12.8 per cent between 1980 and 1984, the bulk of investment (11 per cent) being in the material production sector. The increase in investment has been financed by mobilizing additional domestic resources and by net inflows from abroad. Changes in pricing and incentive policies in agriculture since 1980 and in other sectors more recently have contributed significantly to the growth in material product, particularly in agriculture, as has the policy of decentralization of economic activities.

6. Among productive sectors, the role of agriculture remains pre-eminent because it not only provides more than two fifths of total material output but also absorbs around two thirds of the labour force. Both crop output and livestock production have recorded substantial increases during the current plan period, with the latter rising faster than the former. Since 1980 the expansion of food crops, mainly rice and maize, has resulted largely from increases in average yields with the area under these crops having remained virtually unchanged. There has been a significant increase in the area devoted to industrial crops, which have also benefited from rising yields. Consequently, the output of cotton, jute, sugar cane, groundnut, soybean and tobacco has shown an encouraging upward trend. In the years ahead, to increase production of both foodstuffs and industrial raw materials, efforts will have to be continued to bring additional land under cultivation and step up the average crop yield. This will require considerable capital investments.

7. Since 1980, the production of light industries has increased substantially faster than that of heavy industries. Thus, the share of the former in total industrial output rose from 59.7 per cent in 1980 to 65.5 per cent in 1984. In the same period, the share of provincial or local enterprises (in contrast to the enterprises under the management of central authorities) increased from 61.4 per cent in 1980 to 63.2 per cent in 1984. The range of industrial products, both consumer and producer goods, has continued to widen. Industry, however, continues to suffer from underutilization of capacity, resulting from shortages of raw materials, spare parts and infrastructure facilities (energy, transport and communications).

8. Parallel to increases in material output, social services have continued to expand. The numbers of educational and medical institutions and personnel have increased significantly and provide remarkably extensive coverage for such a poor economy. Particular attention is being given to enhance the cadres of trained people at various levels of skills. Family planning is being encouraged to reduce the growth of population which increased from 55 million in 1981 to an estimated 60 million in 1985. Acute shortages of supplies and equipment, however, continue to restrain the effectiveness of these networks of critical development services. In both urban and rural areas the lack of investment resources has constrained also

the expansion of housing, water supply and sanitation and related facilities. The rapidly increasing pressure of people on land, forests and other resources, the ecological damage caused during the war and the lack of investment resources to rehabilitate and properly exploit the natural resources are leading to rapid ecological deterioration in many areas, requiring immediate remedial measures. Similar concern exists about the nutritional status of the population, for which remedial measures are also urgent despite the increases in agricultural production over the past five years.

9. In the medium term the development of Viet Nam's economy, besides having to overcome the damage inflicted by war and setbacks caused by different natural disasters in many areas of the country, is faced with severe constraints in many economic sectors. Energy shortages and ineffective distribution and overburdened transport and communications systems are expected to continue to restrict the capacity utilization in the economy (in industry currently estimated at an average of 40 per cent). In the long term, however, the investments which have been made or are expected to be completed in these sectors over the next five years should eventually provide the basis for further rapid expansion of the economy, particularly through the transformation of natural resources into industrial raw materials and subsequently into consumer goods for domestic and export markets. In the meantime serious imbalances will continue for lack of appropriate investment resources to renew existing capital and to create complementary new investments.

10. A further critical imbalance exists in the external relations of the economy. While vigorous efforts are being made to expand exports and reduce imports through import substitution, the balance of trade has continued to deteriorate. Net capital inflows from the other members of the Council for Mutual Economic Assistance (CMEA) have sustained the economy and provided investment funds for its expansion. At present, however, Viet Nam is unable to repay all its external hard currency debt obligations and commercial and concessionary hard currency flows are therefore constrained and inadequate to meet pressing investment demands.

B. National Development Strategy

11. Against the economic and social progress achieved and the development constraints encountered during the past few years, the Government of Viet Nam has formulated the country's development plan for the period 1986-1990. The new plan is intended to shape the contours of further progress by consolidating and expanding the base established, under the preceding development plan.

12. The overriding objective of the new plan is to bring about sustained improvement in the living standards of the people. This will be achieved by means of an orderly expansion of the economy and changes in its relative structure. The human and material resources of the country will be more effectively utilized to enhance national productive capacity, and further management reforms are planned to increase overall efficiency in the economy.

13. Total material output is envisaged to increase during of the plan period at a rate well above that recorded in the past few years. The main sectoral objectives of the plan are:

(a) To increase food production by increasing rice yields and diversify further into secondary food crops, especially maize and horticultural produce, in order to increase the nutritional balance of the diet, which is overly dependent on rice. For similar reasons further expansion of fish and animal production is envisaged;

(b) To increase the production of consumer goods to meet the basic needs of the people, especially for clothing, household products, paper, transport and electrical products;

(c) To improve the availability of health and education facilities and utilities, including housing, particularly in rural areas;

(d) To promote population control and redistribution to provide better opportunities for improved living conditions of the people;

(e) To improve the conservation and utilization of forest resources, particularly to avoid further ecological disturbance and to provide raw materials for energy, construction and industry;

(f) To increase and diversify industrial production, particularly to supply consumer goods and to increase exports, by means of increased exploitation of indigenous raw materials and more efficient utilization of existing production capacity;

(g) To increase the supply and distribution of energy and fuels for domestic and industrial use, through more efficient exploitation of existing capacity and the development of new sources, especially hydro-electric power;

(h) To increase the efficiency and coverage of transport and communications services, particularly coastal and inland shipping and railways;

(i) To expand exports and reduce imports through increased domestic production in order to increase investment and consumption;

(j) To increase the productivity of the economy, through the improved application of science and technology to economic activities in all sectors, through training and through the implementation of economic reforms to improve Socialist economic management, marketing and accounting systems, and continued decentralization of the economy.

14. The sectoral and other targets of the plan have yet to be finalized. The major factor to be settled concerns the overall size of the plan, which is related to the level and nature of external resources. Thus it is anticipated that, as in previous years, the overall framework provided by the plan's objectives will be translated into annual plans for the purposes of implementation.

C. Technical co-operation priorities

15. Because of the growing size of Viet Nam's economy, the total investment to be undertaken during the years 1986-1990 will be much larger than during the preceding five years. Thus, while pursuing increasing self-reliance in relative terms, Viet Nam will still require in absolute terms substantial external contributions to help to implement the new development plan. Both development finance and technical co-operation from external sources will be needed to make it possible to carry out a multitude of development tasks. The very multiplicity of those tasks, the extensive potential which exists to be exploited if sufficient investment resources were to be made available, the concentration of external support in only a few, traditional donors and the prevailing constraints limiting possible new sources of assistance are all factors influencing the size and content of the plan and the assessment of technical cooperation needs and priorities. The existing priorities will continue to prevail in the new plan period, 1986-1990.

16. External support provided to Viet Nam comes mainly from the Union of Soviet Socialist Republics and other members of CMEA, Sweden and other Nordic countries and United Nations organizations. Bilateral programmes have for the most part integrated the capital and technical aspects of their cooperation into relatively large-scale long-term investment projects. The priority sectors include energy (coal, oil and gas, electricity generation and transmission), transport and communications (railways, seaports, civil aviation, roads, telecommunications) and industry (including industrial raw materials such as minerals, timber, textiles, the paper industry, machine tools, industrial motors, fertilizer production and industrial crops). Imports of raw materials and supplies have been provided to support production activities, for example within the agricultural sector (fertilizer, insecticides and agricultural machines) and also within the health sector (pharmaceuticals). Considerable overseas training programmes, both long and short term, are also financed by bilateral programmes, mostly from CMEA members.

17. The technical co-operation programmes of the United Nations organizations have been concentrated in the sectors of agriculture (UNDP/Food and Agriculture Organization of the United Nations (FAO)), industry (UNDP/United Nations Industrial Development Organization (UNIDO)), construction (UNDP/United Nations Centre for Human Settlements (UNCHS)), health (World Health Organization (WHO)/United Nations Children's Fund (UNICEF)), water supply and sanitation (UNICEF/WHO), education (UNICEF/United Nations Educational, Scientific and Cultural Organization (UNESCO)), science and technology (UNDP/UNESCO) and population activities (United Nations Fund for Population Activities (UNFPA)). In addition the World Food Programme

(WFP) is supporting projects to help vulnerable groups and to improve irrigation and reforestation schemes. A limited number of small bilateral and non-governmental programmes have promoted cultural and scientific exchanges. Regular support has been provided by all sources to alleviate the effects of natural disasters.

18. An overall assessment of Viet Nam's technical co-operation needs and priorities has been undertaken as an integral part of the Government's own planning exercise, for which in the majority of cases it is integrated with capital investment programmes. In the light of UNDP's lack of mandate to finance capital investment and the lack of access at present to such capital sources as the World Bank, the Asian Development Bank (AsDB) and the International Fund for Agricultural Development (IFAD) with which UNDP has a close working relationship, the Government has determined that the primary focus of UNDP technical co-operation should be the improved utilization of existing investments and the transfer of the appropriate technology to prepare the way for planned future investments. To the extent feasible these efforts will be linked to investment sources, as was done for three projects in the second country programme.

19. The extensive experience of UNDP and its partners will be utilized in all projects to apply science and technology, train human resources in the use and application of new techniques and provide advice on effective utilization of resources to achieve development goals within the context of management reforms and the decentralization of economic activities. The priorities are similar to those of previous plans with increasing emphasis, however, on improving productivity in agriculture and industry and on the utilization of local raw materials in diversifying agriculture, industry and exports.

20. Technical co-operation from external sources, both bilateral and multilateral, has helped to speed up the economic and social progress of Viet Nam. The country is greatly appreciative of this valuable contribution and hopes that the requisite co-operation for implementing the new development plan will be forthcoming. For its part, the Government of Viet Nam will continue to do its utmost to secure technical assistance from external sources in a co-ordinated manner and to utilize the assistance effectively.

II. THE COUNTRY PROGRAMME

21. The Government attaches great importance to technical co-operation in the framework of UNDP by virtue of UNDP's role as an unbiased instrument of the international community. Before outlining Viet Nam's requirements of technical cooperation from UNDP during its programme cycle for the period 1987-1991, it is pertinent to review briefly the country's experience during the preceding two programme cycles in order to draw some lessons for the coming years.

A. Assessment of previous country programmes

22. The present assessment of the implementation and impact of UNDP-financed projects covers the period 1977 to 1985, namely, two country programme periods. This is because any assessment should take into account the recent history of Viet Nam including the impact of war on the economy and people and because Viet Nam joined the United Nations only in 1977. The impact of the first factor has been mentioned in earlier sections, in particular the constraints on the development of UNDP-assisted projects caused by shortfalls in resource availability. The second fact resulted in a late start to the first country programme, complicated by the lack of familiarity of the parties involved with each other's policies and procedures.

23. The outcome was the later than planned completion of projects included in the first country programme, several continuing until 1983/1984. Nevertheless, of the 18 projects implemented 16 were described in the country programme document, another was approved for programming purposes and another was for fellowships only and related to a project in the programme. Compared to the total allocation foreseen for these projects, total expenditures through 1985 amounted to \$47.3 million, or some 96 per cent of the original 1977-1981 IPF of just over \$49 million. Most of these projects were eventually successful in establishing the basic infrastructure and facilities required for undertaking the research and investigation work which was a major objective of the programme. Twelve of these projects continued to receive assistance under the second programme in the form of second phase or new projects dealing with related development issues. Two feasibility studies were successfully completed but investment follow-up has not yet taken place. In general, therefore, the implementation of the first country programme has been remarkably consistent with the country programme document.

24. The second country programme (1982-1986) was approved on the basis of a resources figure of \$94.4 million but this was subsequently reduced to \$64.9 million because of the overall resource constraints of UNDP. Of the carry-over from the first country programme of \$10.8 million, fully \$9.1 million was allocated for the completion of first country programme projects. Thus, the total resource availability for new projects included in the second programme is about \$66.6 million. It is anticipated to spend the carry-over to the third country programme on the completion of these second programme projects.

25. A feature of the two programmes has been the continuity evident, both when comparing the two programmes and when comparing each to its original objectives, in the sectoral allocations/expenditures. Comparing the two programmes the main change has been the importance given to industry in the second programme and the emergence of trade and of science and technology as priorities. Following the establishment of basic infrastructure in the first programme the emphasis in the human settlements sector has changed to training and management in the second. The reduction in importance of the natural resources and transport sectors reflects the

impact of UNDP policy which led to the dropping of certain projects from the second programme. The agricultural, forestry and fisheries sector continues to dominate the second programme as it does the national economy.

26. Another difference between the two programmes is the number of projects, which was limited to a few generally large-scale projects in the first programme justified by the need for complete rehabilitation after the war and to concentrate resources where they could have an impact, but constrained in fact by the shortfall in investment resources and reduced economic activities. In the second programme a much larger number of smaller projects are being implemented, a reflection of the change in government development strategy to diversify the economy and decentralize economic activities and in recognition of the difficulties experienced in implementing large-scale projects in the first programme. The primary focus of projects in both programmes is institution-building with increasing importance being given to strengthening institutions capable of having a direct impact on production activities. The importance of direct support projects has diminished, whereas that of training as a primary function of projects has increased. Similarly, the training and advisory (personnel) components of projects have increased (from 2 per cent to 9 per cent for training and from 16 per cent to 26 per cent for personnel between the two programmes), while the equipment component has decreased from three quarters to one half.

27. Whilst delays in project implementation in the first programme (overall implementation rate of 78 per cent) may be attributed to unfamiliarity and to resource constraints in the government development plan, delay in the second programme (estimated overall implementation rate of 75 per cent) may be attributed to several other factors. UNDP resource and policy constraints frequently obliged the Government to reassess its priorities among various subsectors and projects, which resulted in a longer-than-usual endorsement process of projects by the Government. Secondly, there has been delay in the approval process by UNDP, following the Governing Council's consideration of the second programme at its thirtieth session and the consequent unusually detailed scrutiny to which individual project submissions have been subjected. A third factor has been in some instances less-than-adequate quality in project formulation, which is particularly important when viewed in the context of the other factors, and has caused delays in the finalization of project documents. Finally, delays in implementation have arisen because of recruitment difficulties, the restrictions on purchasing equipment destined for Viet Nam and the lack of sufficient fellows with knowledge of appropriate foreign languages to benefit from overseas training sponsored by UNDP. These last series of delays also affected implementation of first country programme projects.

28. Projects have, on the whole, yielded good results in such areas as identification and management of natural resources, development of food and industrial crops, rehabilitation of priority industrial activities and application of science and technology to development. Implementation of the development plans

for 1976-1980 and 1981-1985 has consequently been facilitated, especially in the agriculture sector. These results are reflected in the comments which follow on the lessons for the new programme derived from the assessment of the past programmes of cooperation.

B. New programme proposal

29. The third country programme of Viet Nam, covering the period 1987-1991, will largely coincide with the time-span of the country's new development plan, namely 1986-1990, as was the case for the first and second programmes. The IPF allocation for Viet Nam during the 1987-1991 programme cycle is envisaged to be \$70.73 million. The carry-over from the preceding cycle is expected to be \$12.76 million. Thus, the total UNDP resources available for Viet Nam during 1987-1991 are expected to be \$83.49 million. No other substantial resources are available to be included in the framework of the country programme. The project proposals included in the programme add up to \$77.97 million, of which ongoing projects will absorb \$19.87 million and new projects \$58.10 million. The Government considers it desirable to maintain an unprogrammed reserve of \$5.53 million to allow for changes in economic policy and circumstances. New projects and follow-up phases of existing projects will be proposed, in accordance with UNDP's procedures for continuous programming in the framework of semi-annual programme reviews. An in-depth review will be undertaken in late 1988.

30. Whereas the two past programmes were organized under sectoral headings, the presentation of this programme follows the objectives selected by the Government for assistance from UNDP.

31. Based on the assessment of the two previous programmes the new programme has been designed taking into account the following factors:

(a) In view of the limited sources of assistance available and its enormous requirements, the Government has a policy of matching projects to the most suitable donor, given the latter's different capacities and mandates. Care has been exercised to ensure that the proposals are in conformity with the mandate of UNDP as an organization financing technical assistance and taking account of the technical assistance being provided by such United Nations organizations as UNICEF and WHO. To achieve this balance the Government also exercises its prerogative to co-ordinate bilateral and multilateral assistance programmes, although it welcomes UNDP's role in furthering United Nations-system co-ordination and in mobilizing additional resources from bilateral sources to complement the country programme (as has been done with Sweden, Norway, Australia and Finland);

(b) The Government also desires closer links with participation in UNDP regional and global projects, as well as activities generated by the United Nations

system in general, which may contribute to the transfer of technology and the training of personnel. Existing links are mentioned in the section on projects. These activities are also important for institutions which have received or will receive assistance in the framework of the country programme;

(c) The fundamental objective of technical co-operation continues to be institution-building so as to make the country increasingly self-reliant in designing and executing more and more complex development tasks. Viet Nam needs to receive and assimilate quickly efficient technologies for development. There should be strong linkages in such projects, particularly research-oriented projects, to production problems so as to ensure that research will have an impact on the development problems of the society;

(d) Particular attention will be given to the application of science and technology to all sectors of the economy. The scientific and technical institutions of the country have already made important achievements, especially in agriculture. This process needs to be greatly advanced for the industrialization of Viet Nam. In harmony with the country's economic and social conditions, suitable measures will be devised to utilize simple and appropriate technologies. To enhance national skills and capabilities, Viet Nam remains in urgent need of suitable equipment. While the relative importance of equipment in project expenditure is prone to vary from project to project, depending upon the underlying needs and capacities, the share of this component in the total programme expenditure is not expected to exceed 50 per cent;

(e) The Government proposes to increase the training component in comparison with the preceding cycles. It attaches special importance to in-country training, which usually generates high net benefits. Also important for certain activities will be the training of selected nationals in foreign institutions that have the facilities to cater to the needs of countries with economic and social conditions akin to those of Viet Nam. All international project personnel will be expected to help to expand the technical and managerial skills of national counterparts;

(f) The criteria used for selecting projects for inclusion in the country programme, besides sectoral priorities, UNDP's mandate and the other general considerations referred to above, include the absorptive capacity of the relevant government institution (availability of infrastructure, raw materials, financial and human resources), the feasibility of the project (management aspects and expected impact of outputs) and the performance of the institution overall, particularly in relation to previous technical co-operation projects;

(g) A critical area for improvement is design and formulation. Sector and subsector assessments will be stressed in this process, as will analysis of institutional structures, co-ordination mechanisms, absorptive capacity, resource availability, equipment justification and training requirements. The effectiveness of executing agency personnel in project formulation will be improved, the

involvement of central government personnel increased and the provision of adequate time for the process will be ensured. Delays on the part of UNDP in approving projects also need to be overcome;

(h) Improvements are being made in project implementation but several aspects require further attention, including increasing the availability of housing for project personnel, speeding up the processing of fellowship applications and the clearance of project personnel, reducing delays in the latter's recruitment and improving selection and expediting delivery of equipment;

(i) More consistent and effective use of project work plans is needed. The monitoring of projects through tripartite reviews and evaluations is operating very effectively. Semi-annual programme reviews have been successfully used to review policy and other programme and project level constraints;

(j) It is expected that national personnel will increasingly be given the opportunity to manage UNDP-financed technical co-operation projects, through the selective use of government execution. Appropriate training programmes have been started to facilitate this process.

32. The number and scale of ongoing projects in the new programme is explained by the delays or deficiencies in formulation and implementation analysed above. The majority of these projects are fully consistent with the objectives of the new programme, in large measure due to the constancy of the Government's development strategy over the time-span of these country programmes.

33. The selection of objectives for UNDP assistance reflects the need to continue co-operation in high priority sectors such as agriculture, textiles, drug production, rehabilitation and maintenance of industry and trade, while at the same time developing new areas for co-operation, particularly animal and fish production and the assessment, analysis and transformation of raw materials for industrial purposes and industrial management and vocational training. Further explanation for the choice of these objectives for UNDP assistance is provided in the following sections presenting projects by objectives and sub-objectives.

Increased food production

34. The objective is to raise food intake from 300 kg per capita to 400 kg per capita per annum, and at the same time to diversify the diet, which at present mainly consists of rice. UNDP assistance is particularly important in this context because of the experience of the United Nations system in improving productivity and diversifying production in complex tropical environments with poor and basically agrarian societies. UNDP's assistance in this sector was particularly helpful in previous country programmes, in the first by assisting in the establishment of basic agricultural research institutions and in the second by helping to strengthen applied research pertaining to particular crops or to particular services required for improved productivity.

35. Production constraints. While the present scarcity of investment resources limits the realization of the potential for increasing food production, with its own resources the Government is attempting to expand the crop areas benefiting from irrigation and drainage schemes, the use of high-yielding seed varieties and the application of pesticides and fertilizers. UNDP projects are designed to strengthen the services supplying these much needed inputs.

36. Agricultural research. Upon completion in 1983 of assistance in strengthening two major research institutes (VIE/76/002, National Institute for Agricultural Sciences, and VIE/76/008, Soils and Fertilizers Research Institute) further co-operation was considered necessary to improve national research programming, co-ordination, management and evaluation, including training, as well as to provide modest amounts of basic research equipment to a number of other research institutes associated with priority national programmes in agriculture. The operational project VIE/82/001, Agricultural Research started under preparatory assistance in 1985 and is designed to meet these needs and so improve the effectiveness and relevance of agricultural research, particularly by focusing on cropping systems and the link between extension and research. Further assistance to research will be considered in 1987, after evaluation of the present project. It will also help to strengthen links to regional and international agricultural research organisations, such as those which exist already with the International Rice Research Institute, the International Centre for Maize and Wheat Improvement and the International Potato Centre.

37. Water management. In the varied ecological conditions of Viet Nam irrigation and drainage programmes are essential for double or triple cropping and to avoid crop losses. Benefiting from extensive local experience and in anticipation of considerable future investment in this sector, a new project is proposed to establish a model for scientific control of water in complex agricultural environments at the district level, thereby directly involving the farmer, co-operative and local government in co-ordinated efforts to solve water management problems. The project will be located in the Red River delta, in Thai Binh Province. If the project is a success, consideration will be given to applying the approach to other regions, including the Mekong delta, where it will be necessary to integrate activities with the projects provided through the Interim Mekong Committee.

38. Seed production. Current assistance (VIE/80/010) for the establishment of a national seed production plan for rice and the regional and provincial stations needed to implement it is expected to be completed in 1986. Limited further assistance may be required to extend the scheme to the district level and to crops other than rice. A new project is proposed to strengthen the national seed certification and testing services to maintain standards in the approval of new varieties and in their reproduction.

39. Plant protection: Phase II of assistance to plant protection services (VIE/82/009) is expected to end in 1987 with the completion of integrated pest management plans for rice in the Red River and Mekong deltas, the establishment of plant quarantine facilities and a fully operational in-service training programme. Assistance will also be extended to rodent control, plant quarantine, pest management for non-rice crops and pesticide formulation and residue analysis. A new project will assist in reducing losses in the supply and distribution of fertilizers and pesticides by introducing modern methods of storage and handling and by improving quality control of imports and locally formulated products.
40. Diversification of food production. While efforts to increase rice production will continue, the Government is anxious to diversify the diet of the people to improve nutritional levels especially among more vulnerable groups, who receive at present supplementary feeding through WFP assistance. The national campaign for increased village and farm-level production of vegetables, poultry and fish is supported by UNICEF as a means of rapidly improving nutritional levels. The assistance from UNDP will be directed towards developing research and production programmes designed to improve the yields of such diversified production activities as well as orienting the projects described above towards crops other than rice.
41. Other food crops. An existing project (VIE/80/004) is assisting in the establishment of a national research and development programme for maize, the country's second most important crop. This programme is expected to require further support once the basic network of four stations and numerous demonstration plots has been established by 1988. Through its technical co-operation programmes, FAO has assisted in the establishment of a national programme for soyabean development.
42. Horticulture. The production of vegetables and fruits is another high priority of the Government. The existing research and extension project aims to improve supplies to the Hanoi region (VIE/80/005) and it will be complemented in Ho Chi Minh City by a similar, new project to undertake research and extension programmes on vegetables (VIE/85/016). Another new project is proposed to develop special fruit production programmes (orange, lemon and lychees) in three regions. Other new projects include expanding mushroom cultivation and processing in the south (VIE/85/011) and increasing the production of cashew nuts (VIE/85/005), with particular emphasis on improved processing and on developing export potential. On the acid-sulphate soils which affect much of the Mekong delta, a new project will aim to improve yields of pineapple farms and to investigate alternative processing of end products.
43. Tree crops. The existing project on coffee production and processing (VIE/80/008) assists in improving processing techniques so as to help to increase exports. Special priority is attached also to the existing project to develop coconut production and processing (VIE/80/009), given the extensive importance of

the product in many southern areas and the diverse outputs, both nutritional and industrial, which the fruit provides. The basic agronomic research programme should be established in 1987, at which point the need for further co-operation will be reviewed. Consideration will also be given to assisting with initial research on the introduction of palm oil.

44. Animal production. The success achieved through project VIE/80/012 in improving both the quantity and the quality of vaccines for certain diseases and in developing a pilot surveillance system to determine intervention strategies may justify further assistance to extend the services to other diseases and to make the system operative nationally through appropriate training schemes.

45. Three new projects are envisaged to strengthen animal breeding programmes for meat cattle, chickens and ducks in order to distribute improved varieties to co-operatives and farmers and to improve animal feeds and meat and by-products processing.

46. Fisheries. Tremendous potential exists for both marine and inland water fisheries. UNDP assistance focuses on improving brackish water shrimp production (VIE/82/003). A new project is proposed to undertake research on the production of fresh water fish with the aim of distributing suitable species to farmers. Another new project is proposed near Hue to establish the feasibility of cultivating and processing techniques for agar agar production, for which there is potential in the many lagoons of Viet Nam's coastline.

47. Food processing. The transport and communications difficulties within Viet Nam, the environment and the distribution of the population call for important efforts to reduce post harvest losses and to process food into suitable forms for consumption over time. One existing project (VIE/80/014) operates a pilot scheme in Hau Giang province and is concerned with establishing the parameters and causes of rice post-harvest losses and, when completed in 1987, should provide a demonstration to other provinces of how to reduce losses. Another aim is to establish a national food research programme. Further assistance is envisaged to extend the benefits of the project to farm level operations and to cover non-rice crops.

48. A new project is designed to strengthen research and development laboratories responsible for the use of modern enzymatic fermentation and related biotechnologies for food processing, by-products utilization and animal production as another important means of diversifying food products.

Other basic needs

49. To bring about increased production of consumer goods and services the Government has selected three priority areas for UNDP assistance, namely, textiles, pharmaceuticals and human settlements, each being critical to improving living conditions for the population.

50. Textiles. A current project (VIE/84/001) aims to improve breeding and pest control for cotton and establish effective extension services for cotton small holders. A new project is designed to undertake research on the spinning of locally grown short-fibre cotton, with particular reference to the experience in India, so as to improve the productivity of artisanal producers by introducing more modern small-scale spinning equipment. Another new project will strengthen the Textile Research Centre in Ho Chi Minh City to improve quality control and try new production techniques for the industry in that region. Another new project is being undertaken to develop the Leather Research Centre in Hanoi (VIE/85/013) with reference to leather tanning technology and quality control of leather products.

51. Health. In the health sector considerable support is received from the Swedish International Development Authority (SIDA) and other bilateral donors, WHO and UNICEF in upgrading and maintaining the very extensive health system. For UNDP assistance the Government has identified as a priority need the production of drugs of which there are severe shortages throughout the health system.

52. An existing project (VIE/80/032) aims to improve the capacity to develop and test the production of reliable pharmaceuticals from indigenous raw materials (traditional medicines). New projects proposed include the production of pharmaceuticals from animal by-products using the outputs of abattoirs in Ho Chi Minh City for research and pilot production of medicinal extracts. Another pilot plant is proposed in Hanoi for research and development of seventeen essential bulk drugs selected from the WHO list and using chemicals as raw materials.

53. Another priority activity in the health sector, and linked to UNDP's heavy involvement in the industry sector, is environmental health. An existing project is concerned with investigating and introducing technologies to control industrial pollution of the air and water in the region of Ho Chi Minh City (VIE/80/049). Two new projects aim to strengthen the capacity of institutions responsible for investigation, analysis and control of dust and noxious gases, in factories and in mines, respectively.

54. Rural/urban infrastructure and utilities. The construction needs of Viet Nam are enormous, both to reconstruct the war damaged facilities and to cope with the rising population and level of economic activity.

55. Through a completed project (VIE/76/105) the capacity has been established to undertake nation-wide more exacting investigations of building sites and foundation designs, for housing units inter alia. The present focus (VIE/84/003) is on improving management and training in the Union of Survey Companies to improve utilization of the facilities. A new project is proposed to develop several prototypes and strengthen planning capacities for the capital construction and settlement requirements in rural areas as part of the Government's policy to accelerate decentralization of economic and social activities. Another new project proposed is to develop low-cost building materials using local raw materials, especially for roofing, by undertaking appropriate laboratory research and pilot production trials.

56. An existing project (VIE/82/011) is upgrading the management and training and the quality control capacities of the Hanoi Water Supply Company as complementary assistance to an investment being undertaken with assistance from Finland. New projects are planned in Hanoi to demonstrate on a pilot-scale modern and appropriate ways of coping with urban waste water and urban garbage disposal problems, also with a view to supplying irrigation water and organic fertilizers for agricultural use.

Assessment and exploitation of natural resources

57. Improvements are required in almost all areas if the challenge of more rational and sustainable exploitation of natural resources is to be met, particularly in the light of severe ecological imbalances which are threatening the ability of the people to sustain even present levels of development.

58. More accurate and timely information is required and an increasingly integrated approach to its analysis and application necessary if these problems are to be effectively confronted. This applies in particular to forestry resources, the alarming depletion of which has implications for all aspects of long-term development. The Government has recently strengthened arrangements for environmental research and co-ordination, and UNDP-assisted projects will be formulated within this framework. Similar considerations apply to the exploitation of minerals and other natural resources including the availability of adequate supplies of raw materials and the determination of which investments are feasible, in terms of both scale and technology and markets.

59. Improved collection, analysis and utilization of information on natural resources. An existing project (VIE/83/004) has successfully established the capacity to collect, analyse and interpret remote sensing data on agricultural and natural resources. This information has contributed also to the successful completion of a forest inventory (VIE/76/014) which revealed the extent of the depletion of Viet Nam's forest resources. A follow-up project (VIE/82/002) aims to establish the capacity to implement effective forest management plans in varying ecological regions so as to reverse this decline. A new project is proposed to strengthen land use planning, and in particular to recommend the most appropriate use of different land types, given the pressures from sectors concerned with agriculture, animal husbandry, forestry, industrial crops, power and settlements.

60. An existing project aims to strengthen the hydrological research capacities of the Ministry of Water Resources in the analysis of data and design of suitable structures. The geological research and analysis laboratories of the General Department of Geology (VIE/80/024) will be upgraded to assess more accurately the mineral potential revealed through exploration undertaken by the department and with bilateral assistance.

61. A new project is planned to improve the hydro-meteorological services charged with providing timely and appropriate information to agricultural and other rural producers. Another new project aims to upgrade the seismological services so as to provide data for planners concerned with large construction projects in north Viet Nam (VIE/84/011). Another new project (VIE/85/004) is proposed to improve the technology used to print the vast number of maps needed to translate the natural resources and other data into a readily usable form for development purposes.

62. Exploitation and transformation of forest resources. The critical dual functions of conservation for ecological balance and of utilization to meet pressing demands for use in the construction, energy and industrial sectors may be met if forest resource utilization is planned to suit different ecological regions and to meet demand on a sustainable and economical basis. UNDP assistance is focused on creating or conserving forest resources and on improving the efficiency of their exploitation, thereby reducing waste. The FAO/SIDA Trust Fund project is assisting the Government in implementing its policy of turning over the responsibility for natural forests to the local community for conservation and exploitation. The results of this project are expected to guide the design of a new project to accelerate reforestation in different ecological zones through the implementation of three pilot/demonstration projects with emphasis on meeting community energy requirements. Co-operation will be assured with WFP, which is already implementing a project for the protection of agricultural land from incursions by sand dunes.

63. To meet rapidly rising industrial demands, the Government has embarked on an extensive plantation programme and a new project is proposed to upgrade the management of such forest areas, particularly in combating losses due to pests and forest fires. Another new project will aim to increase the quality and supply of forest seeds for both afforestation and plantation purposes by establishing seed testing and conservation facilities, nurseries and related distribution/extension activities so as to double the area planted with good quality seed.

64. Two completed projects have successfully raised the capacity of government institutions to exploit forest resources more effectively, one through better road and buildings design (VIE/80/016) and the second through establishing repair and maintenance facilities for logging vehicles and machines, training workers in their use and undertaking studies of logging operations (VIE/80/019). New projects are proposed to: (a) design and test tools and equipment and adopt appropriate methods in pilot logging areas to utilise waste wood left at the forest gate after major logging operations; and (b) design and test equipment and introduce techniques to improve wood utilization in various construction and industrial applications, especially of bamboo.

65. Another important activity, whose expansion is being carefully planned with that of forest plantations, is the development of the natural rubber industry, a

priority both for supplying local industry and for exports. The Government's ambitious plans are being assisted by UNDP through improvement of the research (development of new clones and better husbandry practices) and processing laboratories of the General Department of Rubber (VIE/80/007), and further assistance will be considered, particularly to help to expand rubber growing in the high plateau of central Viet Nam. Related to this programme is a new project to upgrade the teaching and research capacity of the Rubber Technology Department of the Ho Chi Minh City polytechnic (VIE/84/007) so that graduates are well prepared to serve the industry.

66. Mineral resources. A series of new projects is planned to introduce and experiment with processing technologies on a pilot/demonstration scale to determine the most effective means of transforming mineral resources into industrial raw materials. The existing sponge iron pilot plant will be upgraded, and the technology introduced to utilize local coal in sponge iron. In a second proposal extensive laboratory analysis will be required to determine raw material suitability and processing techniques for the establishment of an aluminium industry, based on recently discovered bauxite reserves and on hydro-electric power which should be available from 1988. A third project is proposed for strengthening the tin ore laboratory so as to be able to undertake studies of the beneficiation, smelting and refining of complex alluvial and primary tin ores, preparatory to the establishment of a tin industry.

67. One existing project aims at utilizing locally available raw materials, in this instance kaolin, for the development of ceramic insulators (VIE/80/026) used in the production of electrical consumer products. A new project is proposed to introduce the technology for synthetic fibre development, necessary to meet the demand for clothing and other materials, using initially limestone, coal and hydro-electric power to produce polyvinyl alcohol fibres, and later the petroleum resources currently under exploration in Vietnamese waters.

68. Other natural resources. Viet Nam has extensive resources of plants and other materials suitable for the production of various oils and dyes and pigments. Projects are designed to introduce technology to process these products, for both the domestic and the export markets. A new project (VIE/85/001) aims to upgrade the dyes and pigments experimental factory in Ho Chi Minh City in order to establish the technological capacity eventually to replace imported supplies for several industries, including textiles, paints, ceramics, printing and plastics. A second new project (VIE/84/010) is concerned with improving extraction rates and processing technology used to obtain essential oils, an important export item. Another new project will undertake pilot-scale production of aromatic oil derivatives used in the pharmaceutical and food industry and for export, based on a range of locally available plants whose potential has been tested only on a laboratory scale. A fourth new project aims to study the use of lubricant additives derived from local vegetable raw materials in improving the performance of imported lubricants and minimizing equipment damage caused by rapid lubricant degradation in a tropical environment.

Improved efficiency of industrial and other investments

69. In its efforts to improve living conditions since independence, the Government has made substantial investments in infrastructure, transport, energy and industry, often with external support. Nevertheless, the progress made in modernizing the economy is very limited and many enterprises and organizations are using very outdated designs and techniques. As exports increase, the Government is committed to purchasing needed spare parts, but where possible the capacity to produce such parts locally is being extended. Regular preventive maintenance and availability of repair services are also needed. Continued UNDP assistance is requested in establishing or improving such services.

70. In pursuing its policy of modernizing the economy through the application of science and technology to development, the Government has selected three other priority areas for UNDP assistance. The first is in the application of standards in industry along with calibration and quality control services gradually to improve product quality, especially for export. Secondly, research and development institutes in critical industrial sectors are to be strengthened, both to improve the efficiency of existing investments and to undertake research design and pilot experiments in order to guide future investments. Finally, new efforts are being made to upgrade trade and technical training and to modernize management training. These efforts, backed by a continuing programme of economic reform, are expected to provide the incentives in industry for improved productivity, to be accelerated as and when new technology is available to be applied through investment projects.

71. Information and standards. An existing project (VIE/80/045) aims to help to establish documentation centres and information distribution networks for scientific and technological information, both to achieve economies and to promote co-ordination. A new project will assist in strengthening the patents and trade marks office to provide more effective services to industry by developing appropriate information and training programmes.

72. With assistance from UNDP, considerable progress has been made in establishing a national network for metrology, standardization, calibration and quality control. An operational project (VIE/83/001) is upgrading the metrology services at both national and regional levels. For the particular needs of the expanding electronics industry in the south, the need for calibration of test equipment and introduction of effective quality control at the plants to improve end-product quality is being tackled through a separate project (VIE/80/047). New projects are proposed to:

(a) Expand the national network to include the regional centre in Danang and four pilot provincial centres;

(b) Create the capacity in Hanoi to design and produce simple industrial measuring and testing equipment to meet the needs of some 40 provincial laboratories and to replace imported measuring instruments;

(c) Create the capacity in Ho Chi Minh City to repair and maintain testing, measuring and precision instruments in the south (VIE/85/009). A project already exists in the north to strengthen maintenance and repair services for electrical and optical equipment (VIE/80/039).

73. Rehabilitation, repair and maintenance of investments. UNDP assistance has already had considerable impact in introducing preventive maintenance programmes and in demonstrating the effectiveness of producing spare parts locally. Current assistance is devoted to rice mills (VIE/82/004) and sugar mills (VIE/80/037). In the power sector a project is expected to start in 1986 to assist in the introduction of maintenance and repair programmes for thermal power stations in the south (VIE/80/044), with rehabilitation services and spare parts provided through bilateral support from Sweden. Also in the power sector and in the south a new project is concerned with establishing a production and repair facility for high tension capacitors, whose present poor performance exacerbates already large losses in power during electricity distribution (VIE/85/010).

74. In the transport sector assistance began in 1985 to provide training in the rehabilitation of diesel locomotives (VIE/80/054) again with spare parts financed by Sweden. Three projects are concerned with maintaining civil aviation ground operations. An ongoing project consisting of a long-term fellowship training programme for airport maintenance personnel will finish in 1987 (VIE/79/003). As a follow-up to assistance in the rehabilitation of civil aviation facilities at Viet Nam's major international airports (VIE/78/002), which was completed in 1985, a new project has been developed (VIE/84/004) to introduce more effective operations, maintenance and repair activities through on-the-job training and advisory services. A complementary new project (VIE/84/005) is designed to modernize formal operations and maintenance training programmes by strengthening the Civil Aviation Training Centre in Ho Chi Minh City.

75. A group of ongoing projects is designed to improve the quality and supply of tools, glassware and standard chemicals used in industry and in research and development activities generally, the lack of which frequently paralyzes operations. A new project is planned to improve the quality of hand tools, which is considered essential for improving industrial productivity. After introducing new technologies and methods of production to the Mechanical Hand Tool factory in Hanoi, the techniques and technology will then be transferred to the other five factories producing hand tools.

76. Industrial design and development. Rapid improvements are required in updating the design and production methods used in industry to overcome many years'

lack of contact with modern techniques. For the chemical industry a new project will strengthen the capacity of the Institute of Chemical Engineering Design to carry out research and development work on new chemical processes, on equipment design and in providing solutions for the rehabilitation and modernization of existing chemical plants. A new project also under consideration will assist in establishing at the Institute of Engineering Technology (VIE/85/007), the capacity to introduce new technologies to existing industries, for example, in metallizing techniques to improve the quality of spare parts and in improving foundry techniques. In the power sector, enormous potential exists for hydro-electric power, which is being exploited on a large scale with considerable bilateral support. The contribution of small hydropower stations to meet needs in isolated rural communities remains largely unutilized, however, and is poorly exploited because of faults in design or poor construction. A new project is proposed to strengthen the capacity of the Institute of Electric Research to investigate, design, manufacture, construct and operate small hydropower stations. In the printing industry quality control of raw materials and the introduction of modern typesetting technologies will be used to improve overall productivity and working conditions in the industry. The telephone network requires modernization and the present analog system's poor performance will be upgraded through a new project to investigate and apply digital techniques and to train personnel in order to prepare for planned future investments in telecommunications.

77. Training and Management. While in this large set of projects assistance will be concentrated on meeting immediate needs for maintenance of industrial and related operations, longer-term programmes of skill development have been pursued by the Government for many years so as to provide the training needed by industrial workers. Considerable numbers of workers, at all skill levels, are trained overseas in CMEA countries. Through the General Department of Vocational Training, national and industry-specific systems of trade training have been established and assistance is requested through a new project to strengthen them. The aims are to improve the capacity to develop appropriate training methodologies and curricula, including training aids, train instructors and define training standards for the various trades taught in the technical vocational and industrial schools. A separate project is being financed by the Energy Fund to upgrade training of workers on offshore oil industry operations (VIE/84/E03).

78. The overall objective of the Government to move from centralized bureaucratic management towards socialist economic management, marketing and accounting systems has important implications for training, especially at the managerial level. An important role has been assigned to the Central Institute for Economic Management and Research, which has responsibilities concerning development planning and policies, as well as development administration, industrial and financial management. A new project is proposed to help the Institute in developing appropriate training methodologies and materials for management training in industry, small industries and handicraft establishments.

79. Given the significance of the economic reforms under way, it is anticipated that many more training needs will emerge during the implementation of the country programme. In addition, it is anticipated that the extensive experience of the United Nations system in dealing with such issues will be made available to the Government in a variety of ways including possible new UNDP projects. One such new project is the utilization of micro-computers for improved management and accounting systems in industrial, economic and related enterprises.

Development of foreign trade

80. The Government encourages both import substitution and export promotion and expects continued UNDP technical assistance in both these areas.

81. In direct support of this objective, UNDP is already providing assistance to two projects which are dealing with overall trade matters. A new project is designed to strengthen the export packaging industry in the north (VIE/84/009) by introducing modern design and packaging concepts and materials. In the south a new project will focus on improved packaging and preservation techniques for exports of food products.

C. Unprogrammed Reserve

82. Many ideas for future technical co-operation are expected to emerge during the implementation of the third country programme in what is expected to be a period of vigorous growth and expanding opportunities for international cooperation. These will be developed within the framework of the objectives of the country programme through the process of continuous programming. Given the resource constraints of UNDP, however, it is not anticipated that many such ideas will be developed prior to the mid-term review of the programme, planned for late 1988. It is hoped that UNDP will be able to attract the additional resources required to implement all the project ideas likely to emerge. At present only the Government of Australia, through a regional programme for improvement of English language training for scientists and technicians, is providing support to the country programme.

83. As was the case with previous country programmes, the Government may request UNDP and its partners to assist in general programming missions designed to meet emerging sectoral needs. Two have been implemented to assist in the preparation of the present programme (with FAO and UNIDO). An umbrella project for such programming activities is proposed (for example to continue the recently introduced training programmes for government officials on the management of technical co-operation projects) and a programme logistical support project will provide experienced secretarial and administrative staff, office, transport and housing supplies to support projects.

FINANCIAL SUMMARY

Annex

I. ACTUAL RESOURCES TAKEN INTO ACCOUNT FOR PROGRAMMING

A. <u>UNDP-administered sources</u>	\$	\$
Third cycle IPF balance	12 760 000	
Fourth cycle IPF	70 733 000	83 493 000
Subtotal IPF		83 493 000
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	-	
Subtotal, UNDP non-IPF funds		-
B. <u>Other sources</u>		
Funds from other United Nations agencies or organizations firmly committed as a result of the country programme exercise	-	-
Parallel financing from non-United Nations sources	-	
Subtotal, other sources		-
TOTAL ACTUAL RESOURCES TAKEN INTO ACCOUNT FOR PROGRAMMING		83 493 000 =====

II. USE OF RESOURCES

Ongoing projects	19 865 000	
New project proposals	58 100 000	
Programmed reserve	-	
Subtotal, programmes resources		77 965 000
Unprogrammed reserve		5 528 000
TOTAL USE OF RESOURCES		83 493 000 =====

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