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COUNTRY AND INTERCOUNTRY PROGRAMMES AND PROJECTS

Consideration and approval of country programmes

FOURTH COUNTRY PROGRAMME FOR BHUTAN

UNDP assistance requested by the Government of Bhutan  
for the period 1986-1991

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## I. INTRODUCTION

1. As a result of both geography and policy, Bhutan remained in a state of near isolation until the early 1960s when a deliberate but measured programme of modernization and development was adopted by the Royal Government under the dynamic leadership of His Late Majesty, King Jigme Dorji Wangchuck. From the outset, full public participation and the preservation of the traditions and cultural values of the country have been integral in all development efforts.

2. Bhutan has been the beneficiary of co-operation with the United Nations system since shortly after it became a member of the United Nations in 1971. This co-operation has greatly strengthened since the office of the United Nations Development Programme (UNDP) was opened in Thimphu on 14 May 1979, contributing to the Government's understanding of the possibilities for co-operation and of the policies and procedures of the United Nations system as well as the multilateral financial institutions. UNDP has continued to contribute to the close supervision and increasingly effective implementation of existing programmes and to the development of appropriate programmes, including the present country programme. The staff of the Food and Agriculture Organization of the United Nations (FAO), the World Food Programme (WFP), the World Health Organization (WHO), the United Nations Children's Fund (UNICEF) and the United Nations Fund for Population Activities (UNFPA) who have been posted in Bhutan have also helped in widening the areas of co-operation.

3. The first UNDP country programme for Bhutan was approved with an allocation of \$2.5 million for the cycle 1972-1976. Implementation of the first IPF-supported projects was started in 1974. UNICEF started its co-operation with Bhutan in 1972. In 1975, WFP initiated food aid, and a first grant of more than \$750,000 was approved by the United Nations Capital Development Fund (UNCDF).

4. For the second programming cycle (1977-1981) the IPF was increased to \$12,250,000, against which utilization during the period of Bhutan's second country programme (1977-1980) was \$7,730,000. An additional amount of \$1,135,000 was also approved from the Special Measures Fund for the Least Developed Countries (SMF/LDC) and \$20,000 from the United Nations Special Fund for Landlocked Developing Countries (UNSF/LLDC). In addition, a special allocation was made from the regional programme in 1979 for the LDCs of the region, including Bhutan. During this period, UNICEF and WFP expanded their programme in the country; projects approved by the latter now exceed \$10 million. New grants amounting to more than \$5 million were approved from UNCDF. Assistance from UNFPA was initiated in 1979-1980 under a project estimated to cost over \$2 million. Negotiations were started with the International Fund for Agricultural Development (IFAD) in 1979 and a project of approximately \$7.5 million was finalized.

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5. During Bhutan's third country programme (1981-1985), utilization of IPF resources is expected to further increase to \$21,286,000, of which \$16,866,000 pertain to the years 1982-1986 which fall within the third programming cycle. Additional funds were utilized or approved as follows: SMF/LDC \$1,624,000; United Nations Volunteers Special Voluntary Fund (SVF) \$376,816; UNCDF \$6,485,000; UNFPA \$1,544,000; WFP commitment \$17 million, HABITAT \$38,000. These were in addition to United Nations system regular budget-supported programmes. Multi-bilateral financing through third-party cost sharing and trust funds through United Nations agencies were also received from the following sources: Denmark (FAO) \$49,667; Norway (UNESCO) \$860,000; Norway (FAO) \$646,422; the Netherlands (UNDP) \$848,000; Arab Gulf Fund (AGFUND-UNESCO) \$460,000; Sweden \$9,624 and Finland \$19,248. The approvals under the Technical Co-operation Programme (TCP) of FAO amounted to \$299,825. Assistance under UNDP regional programmes amounted to around \$2 million. In addition, assistance was approved under the United Nations Emergency Operation Trust Fund for \$390,000.

6. Bhutan's fourth country programme (1986-1991) covers a period of six years which span the last year of the third UNDP programming cycle and the five years of the fourth programming cycle. This period also covers the last year of the extended fifth five-year national development plan and almost the full duration of the sixth plan, ending March 1992.

7. The provisional IPF for the fourth cycle is at the same level as for the earlier cycle; that is, \$20,075,000. When the balance from the previous cycle is added, the total IPF resources available for the present six-year country programme amount to \$25,004,000. Firm estimates of other United Nations system as well as multi-bilateral financing through third-party cost sharing and trust funds through United Nations agencies are not available as yet, but negotiations are under way for several areas and activities reflected in the present country programme. Contributions expected from the SMF/LDC are placed at \$500,000, but no amounts are indicated as yet from SVF, UNCDF, UNFPA, UNICEF and WFP. In addition, resources up to \$100-120 million are expected to be mobilized in specific priority areas from the World Bank (IBRD), the Asian Development Bank (ASDB) and IFAD; no quantification is available as yet for India, Switzerland, United Nations Industrial Development Organization (UNIDO) trust fund, Italy (FAO, UNDP trust funds), Norway (UNESCO and FAO), etc. To these should be added resources available to Bhutan under regional, interregional and global projects supported by UNDP, which are estimated at \$3 million.

8. Preparations for the fourth country programme started in early 1984 with the Government's own comprehensive assessments and reviews of overall development policies and objectives as well as of detailed sectoral activities. A large volume of assessments obtained from the United Nations system, multilateral financial institutions and bilateral sources was taken into account in this exercise. Consultations were held with missions from various United Nations system partners: UNIDO, the United Nations

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Educational, Scientific and Cultural Organization (UNESCO), FAO, the International Labour Organisation (ILO), UNFPA, WHO and United Nations Volunteers (UNV). Suggestions and comments were received from the International Trade Centre (ITC), the United Nations Conference on Trade and Development (UNCTAD), the United Nations Department of Technical Co-operation for Development (UN/TCD), the Universal Postal Union (UPU), UNDP, the World Intellectual Property Organization (WIPO), the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) on the perspective and content of this country programme. While the impact of the substantial UNDP support for the country's human resources development was assessed in depth by the Government, a workshop for comprehensive evaluation and planning of manpower development with United Nations system participation is scheduled to be held in the first half of 1985. The workshop is to serve to enhance effectiveness of the system of identification of training needs and personnel development, placements and follow-up.

9. In this context, the appropriate role and setting for international development co-operation has drawn much attention. This dynamic and growing area calls for mature management in order to achieve an optimal developmental impact, consistent with the country's goals and policies. Given the limited past engagement of Bhutan in this field, the rich experience gained in recent years has led to a clearer framework and focus which is incorporated in the present country programme.

10. It should be stressed that Bhutan fully subscribes to a continuous programming approach, with the requisite degree of flexibility to support the country in responding effectively to a changing development environment. Given its support of the dynamic programming approach, Bhutan also seeks an equal sense of commitment from its development partners for flexibility, increased speed of delivery and closer dialogue at regular intervals to derive the best benefits and value from the assistance.

11. Bhutan strongly upholds Governing Council decision 75/34 on the new dimensions in technical co-operation. It has promoted self-reliance by appointing national project managers in many projects, by utilizing local expertise and equipment whenever possible, and by adopting the modalities of government execution of projects when appropriate. In some cases, under government execution, services of a co-operating United Nations agency have been used for delivering components of projects that could benefit from outside advice, such as more selection of experts and equipment, placement of fellows, etc. Bhutan has sought to build up its productive capability and increase indigenous resources by engaging in an intensive training programme in other developing countries through Technical Co-operation among Developing Countries (TCDC) and other programmes, as well as in developed countries. Recognizing the close relationships between technical co-operation and capital formation, UNDP assistance has been co-ordinated with sources of capital assistance by the Government, as mentioned in paragraph 15 below.

12. The major national aspirations, which provide the framework for Bhutan's national development efforts and are equally applicable to all external assistance, including the present country programme, are: (a) the achievement of national self-reliance through the enhancement of Bhutan's economic, social and political capacity to sustain and promote all forms of economic growth, social development and national sovereignty; (b) the creation of a strong, united and just society, and (c) the preservation and promotion of Bhutan's rich cultural heritage, values and institutions.

13. The present country programme incorporates several important features which have emerged from the experience gained by Bhutan in external aid management in recent years. Since the start of the country's fifth five-year plan, mobilization of multilateral and bilateral resources has been integrated with overall as well as sectoral objectives and priorities of the national plan. This approach will continue in the present country programme. Based on this experience, Bhutan would continue as far as possible to seek more grants than loans. Soft-term loans would be sought to finance directly productive projects and in areas where a large requirement of funds could not be met through grants. Co-ordination of technical assistance with activities of other United Nations organizations and multi-bilateral sources as well as relevant regional projects and initiatives would also be brought about in this manner.

14. Within this framework, the Government has identified growing resource needs. While the Special New Programme of Action for the 1980s for the Least Developed Countries (SNPA) calls for increased attention to the special needs of the LDCs, and although Bhutan has participated keenly in various follow-up forums, initial results have been disheartening. The UNDP-supported round table meeting in May 1983 provided an opportunity for Bhutan to consult with its development co-operation partners on a carefully conceived series of development programmes and projects. Further intensification of bilateral contacts is taking place, with partial support under a project assisted by the Government of the Netherlands (INT/83/U01), to clarify issues, cumulatively and individually. Bhutan views this as a continuing process for enlarged mobilization and co-ordination of development assistance. Basic ground rules are yet to be developed, however, and there seems to be no clear affirmation as yet by the development partners about the nature of an expectation from one or another forum for regular consideration of Bhutan's requirements. Advance planning, predictability of the availability of a certain level of resources, understanding of modalities and procedures, are responsive systems for projecting and channelling aid which would help to determine the relative speed and effectiveness of aid absorption. The initial steps related to aid mobilization have sometimes imposed considerable strain on the limited and relatively young governmental machinery, at times with less than satisfactory results. The Government awaits with great interest the emergence, in the UNDP Governing Council's deliberations and in the forthcoming mid-term global review on the implementation of SNPA, of arrangements which will enable mature consideration of mutual approaches and roles, and enable it to develop programmes and proposals with a sense of business and purpose.

15. Bhutan has now reached the stage in its development when it is possible and necessary to make substantial investments in various sectors of the economy. International assistance will need to be directed increasingly to support the country's programme of investments. Investment funds and technical assistance grants are viewed together as complementary, especially within larger-sized projects. In this context, priority will be given to the building up of the capacity for survey and sound management of national mineral, land, water and forests resources. At the same time, given the country's manpower and organizational constraints, the country programme will continue to place major emphasis on appropriate institution building, educational development as well as external and in-country training. Effectiveness and relevance of training will be kept under close review. Technical and vocational training will also be strengthened.

16. With a view to achieving a more effective mobilization of the limited number of educated and trained manpower and to plan, design and implement more meaningful training and development programmes, manpower planning has been recognized as a critical aspect in the national planning process. Efforts have already been initiated to strengthen the planning capability in order to make more accurate manpower assessments, projections and plans. Furthermore, the Government having become aware of the inadequacies of the existing organization and decision-making process, has now begun restructuring the entire government machinery while streamlining the process of decision-making and execution. As a corollary to this, an institute for management training is being established to facilitate the training of civil servants at various levels while also catering to the growing needs of managers in the private and public corporations. With increased sophistication necessary to sustain a broad-based strategy of development, the Government needs support which would restructure and reorganize the administrative system, accurately forecast needs and planning of manpower development, continuing evaluation of training programmes, etc. Considerable attention is given within the present country programme to the design and development of the national data collection and processing system, and to the generation of an effective programme management and project formulation, monitoring and evaluation system. Consequently, related staff training, development of the requisite infrastructure and computer hardware and software, enhancing of capacity for financial and economic analysis, and strengthening of accounting and reporting systems are being undertaken.

17. Bhutan subscribes to the overall global priorities which emerged in the framework of the new international economic order (NIEO) and, in particular, to those related to the allocation of priority to actions for poverty alleviation, integration of women in development, food security, etc. Significant progress has been achieved in the decentralization of development administration and towards substantial popular participation. Better dzongkhag (district) planning methods are being evolved and more effective and integrated delivery systems are being designed for meeting basic human needs of access to roads and communications, education, health and extension

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services. Within these programmes, women and children will be a primary focus for attention, and the National Women's Association of Bhutan (NWAB) is undertaking rural development activities and developing national strategies for active integration of women in development. Complementarity in use of multiple sources of financial and technical support, including UNICEF, WHO, UNFPA and WFP is being effected. External resources are being mobilized for meeting these grass-roots requirements, and more activities under the present country programme will serve to promote field-level initiatives.

18. Environmental considerations are a notable part of Bhutan's traditional culture and remain a primary policy concern. There is clear and categorical support for valuing conservation above growth if the latter were to imply a negative environmental impact. This naturally restricts the exploitation of natural, mineral and forest resources to limits dictated by the imperatives of proper management. Improvements in conservation and management systems are sought within the country programme, as well as through support under the South Asian Co-operative Environment Programme (SACEP) and by participation in the activities of the International Centre for Integrated Mountain Development (ICIMOD). Urban planning, development and regulation are also imbued with equal concern for the environment.

## II. NATIONAL DEVELOPMENT OBJECTIVES AND PROGRAMMES TO BE SUPPORTED BY UNDP

### A. An overview of development objectives

19. Bhutan comprises an area of approximately 46,500 square kilometers bordered to the north by China and to the east, south and west by India. Rugged, mountainous terrain and considerable extremes of climate, from tropical to alpine, and of altitude, from virtually sea level on the southern border to peaks of up to 8,000 metres in the north, characterize the country. Of the total land area, about 70 per cent is covered by forest, 9 per cent is under cultivation, and the rest is wilderness. Although the country has historically served as a transit route for trade between China and India, the terrain renders communications and transportation within and over the borders difficult and the small scattered communities have traditionally been very largely self-sufficient.

20. The total population is estimated at 1.2 million, with an average population density of 25 inhabitants per square kilometre. The growth rate of population is estimated in the range of 1.8 to 2.0 per cent. A few urbanized areas or towns now exist and new clusters of settlements are emerging; the largest two towns have a population of approximately 20,000 each. A basic network of vehicular roads has been constructed. The economy began to be monetized when the collection of Government revenues in cash was initiated in the late 1950s and early 1960s. The countryside retained its traditional setting and the lives of the rural population essentially remain based on subsistence farming and animal husbandry. Reflecting the early stage of

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development, agriculture and animal husbandry account for almost half the gross domestic product (GDP), and provide the main livelihood for 95 per cent of the population.

21. The Government launched formal development planning in 1961. The first and second five-year development plans focused primarily on the development of basic infrastructure. The agriculture, animal husbandry, road and communications, and social service sectors gained in emphasis. The industrial sector has figured modestly since the third plan, and now contributes over 6 per cent to the GDP. Expenditures have consistently doubled from one plan to the next.

22. The World Bank has estimated GDP in 1981 at \$129.3 million, or \$116 per capita. Foreign exchange earnings, generated through tourism, the sale of stamps, and a few primary commodity exports are still marginal, and internally generated revenues, while increasing, are still inadequate. Development activities depend heavily on external sources of support. In addition to the assistance provided by the United Nations system and, more recently, by multilateral financial institutions, most external assistance has been provided bilaterally, principally by India. The economic potential of Bhutan is considerable, however. It includes, in particular, vast hydroelectric power resources, forests, as well as agriculture, especially horticulture, small-scale resource-based industries, mineral extraction and processing. The main domestic constraints to fuller realization of the country's economic potential remain the inadequacies of the existing physical and institutional infrastructure, the limited scale of capital investments and technical assistance resources, and the continuing shortages of trained and skilled personnel. However, as infrastructural constraints lessen through sustained attention within the plans, and the educational and training programmes yield results, the main gap, which was also identified by the World Bank, remains that of increased external assistance necessary particularly in view of growing investment needs.

23. The objectives of Bhutan's development plans are defined not merely with reference to economic and social development but with equal emphasis on social justice, balanced regional growth, a decentralized and self-reliant administrative system with a strong base in popular participation, and a healthy balance between modernization and upholding of cultural values and traditions. These objectives have been evolved through the country's experience of the development process over the years, and reflect the maturing of an approach to the planning system which permeates the detailed identification of programme and economic sector objectives and priorities.

24. The fifth plan (1981-1986) is designed to:

- (a) Achieve an acceptable and sustainable rate of growth of the economy;

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(b) Attain a level of internal resources generation adequate to cover the normal maintenance expenditure of the Government, leading to economic self-reliance in the long term;

(c) Achieve greater distributional equity among various sections and regions;

(d) Involve the people directly in the planning and execution of development programmes.

25. In the light of the above objectives, five major strategies were adopted:

(a) Dzongkhag (district) self-reliance, (b) decentralization of development administration, (c) popular participation, (d) control of maintenance expenditure, and (e) mobilization of internal resources.

26. Following a detailed review of the country's fifth plan, it is apparent that both country needs for investment and the capacity to implement projects have greatly increased. The major objectives in the fifth plan to encourage public participation in the development process and to consolidate the Government's own activities in various fields of development have been largely achieved. An assessment of the Government's own role and activities suggests that both the planning and delivery systems need to be further strengthened. This assessment has had a direct bearing on the requirements placed on the present country programme in so far as more of the assistance will be utilized to strengthen the planning process itself.

27. The sixth plan (1987-1991) is currently under formulation. To maintain the pace of development gained so far and to bring about meaningful changes in the living standards of people, preliminary exercises indicate that a minimum level of resources mobilization of the order of \$650-700 million is necessary. Against this figure, internal resources including domestic borrowings are estimated at about \$350 million. The balance is to be sought from traditional multilateral sources, international financial institutions and bilateral donors. Efforts will also be made to seek assistance from new development co-operation partners. The sixth plan objectives are not yet elaborated in terms of quantified growth rates, but mainly refer to macro-economic programmes and policy criteria and means for careful identification of sectoral goals and priorities.

28. While the formulation of the plan proceeds, the main considerations of healthy, balanced and self-reliant development will govern the utilization of external assistance, including UNDP assistance in the present country programme as follows:

(a) Programmes are based on their relevance to and consistency with the national planning approach and objectives;

(b) National resources, finances and manpower are available for effective support, design and implementation, and for follow-up and continuity after external assistance ends; this limits the risk of undertaking isolated activities;

(c) In the event that local manpower is not readily available for any development programme and expatriate manpower is obtained, sometimes even through external assistance, a significant manpower development programme is simultaneously undertaken to ensure speedy availability of trained nationals to take over the responsibilities;

(d) In addition to training abroad, a substantial strengthening of a wide range of national educational and training institutions is also undertaken through support for institutional development programmes related to requirements of new technical skills as well as for building up management capacities and efficient management systems;

(e) Complementary, cost-sharing and co-financing arrangements drawing on multiple sources of external finance are instituted to meet fully the package of requirements of capital investment, technical assistance and local costs particularly in the case of large industrial and infrastructure development projects, as well as programmes which are best delivered to the community in an integrated fashion;

(f) Since foreign borrowings will also involve eventual debt repayment, a major objective pertains to the promotion of revenue-yielding and foreign-exchange earning activities and enterprises.

29. The Government wishes to use UNDP assistance to pursue the above-stated aspirations and objectives, as before, on a multisectoral basis, and to utilize the co-operation of the United Nations system to enhance the cohesion and co-ordination among, and consequently the impact of, various development activities. Except for those fields in which bilateral co-operation is well advanced and the development of which it wishes to pursue mainly through such co-operation, the Government intends to devote multilateral resources to all priority economic and social sectors.

30. Bhutan wishes to have access to the wider-ranging and increasingly sophisticated financial and technical experience it requires. The co-operation of UNDP and the United Nations system as a whole is considered to be an essential complement, particularly in terms of financial resources and technical experience, to the assistance available from other multilateral and bilateral sources. The Government intends to use UNDP resources under the fourth country programme specifically for the following major types of activities:

(a) Preparation of sectoral and subsectoral analyses, pre-feasibility and

feasibility studies needed to develop programmes and projects to attract capital investments and additional technical assistance;

(b) Removal of technical weaknesses and gaps inhibiting the more effective development of various productive sectors of the economy and the greater impact of development efforts and resources;

(c) Strengthening of management capabilities, planning and delivery systems, and the institutional base for development;

(d) Alleviation of acute shortages in the trained manpower required for development activities.

#### B. Strategies and programmes related to UNDP assistance

31. As noted earlier, the level of IPF assistance increased progressively from the first to the third country programme. The fourth country programme, however, marks a phase of levelling off, with an amount of \$25,004,000 being indicated as available for the six-year period 1986-1991. Given the circumstances of Bhutan as a small isolated, landlocked and least developed country, it is important to stress the need for UNDP to continue exploring ways and means of improving this disheartening prospect.

32. The programme for utilizing IPF assistance covers a wide range of sectors in the present country programme. In fact, there is now a more even spread than in the past when most funds were utilized for programmes in agriculture and forestry, education and transport and communications and for a comprehensive group of manpower development projects providing for training abroad. In addition to these sectors, greater emphasis is now placed on improvements in the planning process with nearly 11 per cent of distributed funds going to this sector, and the building up of the in-country base for technical and professional training which together account for 40 per cent of the funds committed.

33. This shift in emphasis to institution building and human resources oriented projects allows Bhutan a greater opportunity for moving towards self-reliance in its development efforts. To a certain extent, this change is itself a product of the past IPF-supported programme insofar as more trained and experienced national personnel are now available to undertake greater self-reliant efforts. Mention must also be made of the fact that IPF assistance was the only major source, other than bilateral support mostly from India, for meeting the country's needs for capital equipment for pilot projects; more recently, other multilateral and bilateral sources are being tapped for capital investments, including IBRD and ASDB. As a result, UNDP support can now be availed of largely to meet the more traditional technical co-operation requirements.

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C. General development issues, policies, planning and administration

34. While an elaborate structure for planning at the national level has existed for some time, and is complemented by regular participatory arrangements for district plans, a basic job evaluation and restructuring of the national administrative and management system is under way to streamline functional relationships and increase organizational effectiveness. This will enable the administrative system to cope with tasks of increasing complexity and sophistication as the country progresses from one phase of development to another. This exercise signals the growing maturity of the management system itself, brought about by its enhanced technical knowledge and capability as well as by its experience of implementing an expanding development programme. Another factor which has placed demands on the planning machinery relates to new knowledge and understanding required for mobilizing international assistance on a wider basis, knowledge of procedures and modalities unique to the various sources of multilateral and bilateral funding. UNDP assistance for strengthening government execution is being mobilized particularly with reference to projects supported by IBRD and ASDB.

35. Starting from an initial phase of seeking to master the techniques and create a machinery for development of basic infrastructure, and of building up a pool of knowledge in sectoral development, a stage has now been reached in Bhutan in which assessment of the impact of development is becoming a major focus of interest. For this purpose, more precise and regular information related to the performance of different sectors is required to measure changes and improvements. At the same time, it is necessary to assess the efficiency in use of various capital and manpower inputs and the effectiveness of design and delivery systems. Monitoring and evaluation require more resources and appropriate and objective methodologies to supplement the assessment of individuals.

36. The requirements for information and statistics are proposed to be met under new projects to introduce micro-computers and provide advisory services for a fully designed statistical system with prescribed linkages from the field up with line ministries, enterprises and units. The IPF-assisted United Nations-executed project is under way, with support from FAO, WFP and Government of Norway with regard to agriculture and food security related statistics. Statisticians and computer operators are being trained and expert advice is being obtained for this purpose. This series of actions will be followed up in present country programme. In addition, the methodology for decentralized district level planning is being systemized. In 1982-1983, rural development study tours were undertaken and Government personnel were given training in regional planning at the United Nations Centre for Regional Development, Nagoya. Until recently, the total number of technical and other staff available at the district level was not adequate, but through considerable efforts and firm policy enforcement a certain redistribution of staff from headquarters to the field has taken place. Proper functional linkages are being forged and the design of the system for assuring

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availability of technical support and guidance from headquarters to district levels and to primary producers, beneficiaries and target groups is being strengthened.

37. At the national level, the Government has taken cognizance of the importance of land-use planning. The problems arising from a rugged mountainous terrain, large untapped forest areas co-existing with over-exploited areas, the concern for effective conservation and use of water resources, the challenges of increasing pressures of urbanization and industrial/commercial progress on scarce agricultural and paddy lands are major issues which will be resolved within a broad framework of scientific and comprehensive land use planning. Initial studies and suggestions have been obtained from FAO on this programme.

38. Thus, physical as well as programme co-ordination and planning, information and statistics, development communications, monitoring and evaluation and data processing are new emerging areas to be covered in the present country programme.

39. Another critical component of IPF assistance within this sector pertains to the role of a wide range of professionals mobilized as United Nations volunteers in promoting national development through an umbrella project, which was also recently evaluated. The number of United Nations volunteers, whose skills are relevant to the present level of Bhutan's technological development, has ranged between 20 and 50. Based on the evaluation of this programme, a list of requirements for new skills is being worked out; the volunteers will not merely provide direct services while Bhutanese personnel are being trained, but will also bring about a transfer of know-how and technology in a wide variety of sectors including agriculture, animal husbandry, education, health, urban development and trade.

#### D. Natural resources and energy

40. Natural resources may be classified as non-renewable, like minerals, renewable, like forests and land, and exponential, like water. In this sector, IPF support was used in the past for the first FAO-assisted forest resources survey in Bhutan, and for a start with training and equipping the survey organization.

41. It is apparent a comprehensive approach is needed for an economical and efficient exploitation of natural resources. The development and elaboration of such an approach requires basic survey information in order to assess the appropriate limits for exploitation, development, conservation and improvement. Geological information is also required, much of which has been gathered in the course of joint surveys with the Geological Survey of India. In the past, a lack of trained manpower, basic equipment and laboratory facilities has been a major constraint. To a large extent, these aspects have been tackled within the earlier country programme, for instance, through projects relating to manpower development and support to the logging training

centre. The United Nations project mentioned above for strengthening the survey organization will continue, however, possibly with cost-sharing from the Government of Switzerland. There is ample scope for support in planning the exploitation of natural resources, particularly mineral resources.

42. Following the availability of considerable power supplies on completion of the Chukha hydro-electric project, the main requirement in the field of energy will be to develop sound distribution and maintenance arrangements. A major UNDP/United Nations project has been initiated to assist in setting up the central electrical equipment maintenance facility, with appropriate provisions for training and equipment to meet the new demands. Further, possibly with technical support under the regional energy project funded by UNDP and a new project being developed, substantial programmes of exploitation of micro- and mini-hydel technology will also be undertaken in areas not linked to the Chukha grid. Availability of power in all parts of the country is viewed by the Government as a basic element in creating equal opportunities for development.

43. Issues related to maximizing the use of power, including pricing for domestic and industrial needs, will be taken up through ongoing projects and, if necessary, some new pilot projects may be undertaken with IPF support to test out alternative models for supply and use of power in different settings.

#### E. Agriculture, animal husbandry and forestry

44. The broad goals of the Government in respect of the development of the agriculture sector are to: (a) increase the income level and improve livelihood in the rural sector; (b) attain self-sufficiency in the main cereals, while progressively reducing imports; and (c) provide reasonable and meaningful protection to agriculture from the onslaught of industry and urban development. As noted in paragraph 20 above, 95 per cent of Bhutan's population depends on the primary sector. Development efforts undertaken so far have created a substantial base of technical services, supplies, information and applied research, and an infrastructure for extension and participation. Dependence on food imports and aid continues to be a feature, however, even though of marginally diminishing proportions.

45. Development of cash crops, horticultural crops and fruits in particular, has been constrained by inadequate infrastructure for storage, processing, packaging and marketing. In the last country programme, projects were planned with UNCDF and IPF funding to provide capital needs, technical advice and training for horticulture, which have been delayed in implementation on account of changes in content and design. The early years of the present country programme, however, should see completion of a major part of the infrastructure for the horticulture industry, but further improvements will be called for to extend farmers' participation. Within the technical functions of the International Board for Plant Genetic Resources (IBPGR) a large project has been undertaken with positive results for development of technology for

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seed potato cultivation for a large market in neighbouring countries; further extension of production areas is planned. Other elements of agricultural development will include soil conservation and development, and the promotion of indigenous manures and fertilizers.

46. The major requirements in the agriculture sector now relate to the need to systematize, strengthen and enhance the effectiveness of the extension and the applied research system in support of integrated farming activities. Sound support is needed to accelerate the changes in technology and the introduction of new varieties of crops and practices for higher productivity that the rural community expects. A major new FAO-executed project for extension training and research has been drawn up for implementation under the present country programme.

47. The basic infrastructure of animal husbandry services, as a natural part of the country's mixed farming system, now exists. A veterinary diagnostic laboratory was set up through a FAO-executed project as a substantial technical resource and a supply source for vaccines. Specific activities encouraged in the last country programme included integrated livestock and pasture development, poultry development, piggery, aquaculture, provision of technical and advisory services, and wide-ranging training. The Government's strategy is to encourage farmers to keep fewer, more productive cattle; this will call for better care and management, as well as fodder development. Future needs identified essentially relate to extension of the initiatives already taken, for instance in aquaculture, to maximize farmer level impact. Establishment of a new feed mixing plant is proposed to meet present deficiencies in the supply line. The major programme constraint pertains to the population's religious opposition to the slaughter of large animals. Modern arrangements for slaughter and marketing are being devised, and project assistance will be mobilized for improving availability of dairy, meat and poultry products in the emerging urban areas of the country.

48. In the forestry sector, several initiatives were taken earlier covering survey and assessment of forest resources, drawing up of forest management plans, logging equipment and training, and above all the establishment of the Gedu Wood Manufacturing Corporation, which is now being upgraded from a veneer mill into a plywood and blackboard producing plant with support from the Kuwait Fund. The objective is to raise timber value added within the country and promote local industrial activity and employment. The major issues which now confront the country pertain to reverification of the forest inventory, scientific management with a view to enhance in conservation, afforestation and efficient exploitation. In the past, the inadequacy of forest roads has hampered the proper exploitation of aging forests while at the same time leading to over-exploitation in accessible areas. An FAO-executed new project to assist in the proper management of logging operations and planning of forest roads is being developed as a follow-up to the earlier projects.



49. Bhutan has had a strong tradition of community interest in forests in the neighbourhood of settlements. The effort, which is now described as social forestry, is to revive and strengthen traditional institutional arrangements, provide technical guidance and a regular timber supply, and restore the over-exploited forests. Efficient use of timber also calls for better training and technology to be used by the traditional village artisans and craftsmen. In both these community-related areas, IPF-funded projects are expected to be taken up in the present country programme.

#### F. Industry and mining

50. This sector still contributes only 6 per cent of Bhutan's GDP. At the same time, it is recognized that Bhutan has many minerals, including limestone, dolomite, lead, zinc, copper gypsum, graphite, coal and slate. Further investigations continue and the geological survey organization is being strengthened, including through staff training.

51. The small size of the industrial sector constitutes a major development challenge. Institutional arrangements and policies are being reviewed for encouraging the growth of a modern corporate sector, and for a more streamlined approach to promoting joint sector enterprises. The Government expects to discharge a promotional lead role until entrepreneurial development takes place; in large sector industries, selection and viability assessments would also remain in the public sector. At the same time, renewed emphasis is being placed on medium-, small- and cottage-scale enterprises. With ASDB assistance a feasibility study for the establishment of an industrial development bank is in hand. It is foreseen that technical assistance and training needs for conducting feasibility studies and assessments, entrepreneurial development and guidance services, infrastructural and marketing support services, industrial estates, and newer methods for financing industrial enterprises will receive attention in the country programme.

52. Large-scale projects are expected to be initiated soon with support from IBRD, as well as from bilateral sources in such areas as calcium carbide, cement, etc. By 1986, the pilot high-density polythene mini-plant will be completed, with possible cost sharing from the Government of Switzerland, and down-the-line activities will be undertaken to ensure optimal utilization of capacity. It is expected that polythene pipe production will contribute very significantly to the acceleration of rural and urban water supply and sanitation schemes and provide a good opportunity for acquiring new industrial experience and training.

#### G. Transport and communications

53. In a country as rugged and mountainous as Bhutan, the provision of facilities for transport of goods and passengers over roads and bridges, and the creation of a network of communications acquire particular significance. Despite a relatively late start in this field, the road network now provides

for main arteries and connects 17 out of 18 districts. At the same time, very substantial requirements remain unfulfilled for developing east-west links. In the absence of other forms of transport within the country the Government road transport corporation plays a vital role in meeting passenger transportation needs. Ongoing UNIDO-executed projects have enabled the creation of a satisfactory bus-body building unit and overhaul and regular maintenance workshop facilities with appropriately trained personnel and complementary equipment. In a search for improved efficiency and quality of services, private transport operations have been encouraged on a selective basis.

54. Given the acute shortage of labour, the Government's policy is to support techniques for the substantial mechanization of road construction and maintenance. Considerable progress has been made in this direction in the recent past. UNCDF assistance, supplemented by technical assistance and training under IPF projects, enabled the Government to create basic mechanized road construction capabilities. This experience has given confidence to the department to embark on a more ambitious programme of mechanization, mobilizing domestic resources as well as external assistance. Given the importance of this sector, and the priority attached to it by the Government, an immediate requirement of \$14 million has been assessed for seeking UNCDF and other multi-bilateral assistance, with technical assistance supported from the IPF for training as well as augmentation of basic workshop facilities. The Government would request UNDP to mobilize resources in support of this basic objective essential for promoting self-reliant development of the country.

55. A substantive new project for construction of suspension bridges continues the earlier programme of support through UNCDF and cost-sharing from the Government of Switzerland, with supporting technical assistance provided from an IPF project. This has contributed very significantly to step up the Government's plans for linking distant localities. Improved technology and economical constructions have become possible as a result of this assistance, but further requirements for bridges remain. A new project executed by UNIDO has also been initiated for construction of prefabricated bridges for smaller spans.

56. For the planning of an efficient road system throughout the country, further technical assistance is required to work out a co-ordinated long-term plan, taking into account roads of various standards to fulfil the different requirements of trunk services, links with the rural communities and "Gewog development areas" referred to below in paragraph 66, roads for forest and mineral exploitation, and so on.

57. With the commissioning under Indian assistance of a microwave link in November 1984, Bhutan's communications have taken a leap forward. By early 1986, telex facilities supported through IBRD and UNDP will also become

available in the capital city and the country's major commercial and industrial towns in the foothills. Inter-district and intra-district links remain to be strengthened, and assistance is to be explored to this end.

58. Assistance was provided under the SMF/LDC for the national carrier, Druk Air, which opened its services in April 1983. The start taken by this service is very promising and the direct access to the country so essential for tourism development and speedy acquisition of expert advisory services which it provides has opened up possibilities. It is proposed to launch a major initiative in tourism development as well as for commercial and trade promotion. Further planning of air services may call for multi-bilateral support, including for training and manpower development.

59. Since postal services continue to be of vital importance within the country, training of manpower will continue to be provided in the present country programme. If necessary, the support of the Universal Postal Union for marketing of Bhutan's unique stamps will also be obtained.

#### H. Trade and development finance

60. Trade remains a relatively small sector, though of critical importance to sustaining the present standard and style of living in Bhutan. Most of the trade, 90 to 95 per cent, continues to be with India on a free and equal trading basis. The search for new and larger supplies of exportable primary commodities and handicrafts, the development of such exotic products as mushrooms, and the marketing of fresh as well as processed horticultural products present an important challenge and will remain a significant part of the strategy for enhancing exports, calling for continued support of UNCTAD/International Trade Centre, UNCDF and FAO.

61. The role of this sector is also becoming critical for meeting the potential requirements of hard currency not only for prospective debt repayments but also for meeting requirements of spares and replacements of equipment and transport vehicles, etc., imported from different sources. Further support for marketing information and development, training and product adaptation is also foreseen under the present country programme and through the regional projects in this field.

62. The need also continues for building up an effective marketing strategy, information system and trade statistics. Policies aimed at promoting the trade and commerce sector are under development and it is expected that requirements will arise for funding from the IPF for the public as well as the private sector.

63. It should be noted that the Government has no reservations about meeting the needs of the private sector from the IPF; on the contrary, it is expected that support will be extended particularly for marketing and design studies by private producers and traders and for searching out new markets for Bhutan's

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artistic handicrafts and other products.

64. In the last few years, considerable development of the monetary and banking system has taken place and a national network of bank branches has been established by the Bank of Bhutan. The Royal Monetary Authority (RMA) has also acquired, with technical support from the International Monetary Fund and training from UNDP, a strong capability to manage and advise in currency, credit and monetary matters. The requirement for training staff will continue to be met from the IPF.

#### I. Human settlements

65. Even though most of the country's population resides in scattered settlements, a number of small and large towns are rapidly developing. The policy of the Government is to maintain a healthy balance between urban and rural settlements in terms of infrastructure and services, but the effort is obviously seriously constrained by a lack of financial and capital resources. The situation is aggravated by the preference of farmers to live on their farms, scattered widely over the hillsides.

66. Accordingly, problems arise in the design of effective and cost-efficient delivery systems for community and social services. It is proposed to provide rural communities with better access to basic communications, health, educational, extension and supply services through the promotion of clusters of these services in identified newly-developing central places in all parts of the country, to be called "Gewog development areas." This effort is expected to lead to balanced regional growth.

67. Initially, the townships grew without much regulation. In the third country programme, a project was undertaken to assist in urban development planning and generation of new and appropriate housing technology including construction of prototype buildings, standardizing codes and procedures, training staff, and elaboration of urban development plans. With technical support from United Nations Centre for Human Settlements/HABITAT, the project has developed quickly, and has particularly gained in effectiveness with the creation of the National Urban Development Corporation (NUDC). The pressure for elaborating plans for district headquarters and other urban localities has resulted in the definition of a sister-project in urban planning itself. Assistance has also been provided to NUDC in connection with urban water supply and sanitation schemes being undertaken with the financial support of ASDB.

68. An effort is being undertaken to create healthy conditions for planned expansion of urban areas, taking into account hill features and landscaping. Project activities in this area may provide solutions to problems commonly noted to arise in the harsh climatic and physio-geographic conditions prevailing in mountainous areas. This project may be of wider interest to the Himalayan region and call for support through a regional project.

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## J. Health

69. The national priority in this sector relates to the completion of infrastructure development and to ensuring that trained staff services are available in far-distant communities. A basic network has come into existence, and the next stage in development consists of maximizing impact, effective delivery, and follow-up services.

70. Specific needs of the health sector programmes covered in the last country programme included training of health personnel, creation of a nursing school, provision of basic supplies and vaccines for the expanded programme of immunization and the anti-rabies campaign and advisory services for organizing a school health programme and nutrition planning. Continuing requirements will be met in the present country programme. In this sector, WHO support continues to be available, and IPF assistance basically serves to complement it.

71. The family health and population programme, with UNFPA funding, has created quite an impact. The basic health and nutritional status of Bhutan's population is generally good, but the country's young and growing population will be provided necessary advice and facilities. UNDP assistance will continue in manpower development as well as in promoting cross-sectoral activities which call for linkages with various United Nations agencies.

72. In the field of water supply and sanitation, UNICEF assistance is expected to continue to play a significant role in the present country programme. The national strategy for the International Drinking Water Supply and Sanitation Decade (IDWSSD) incorporates the objective of a progressive increase in coverage to meet 100 per cent requirements of the rural and urban population by the year 2000. This will require additional resources on a large-scale. The UNDP/Dutch multi-bilateral assisted institutional sanitation project of under \$1 million has had a positive impact, and further mobilization of external funds will be necessary to reach the goal.

## K. Education and technical training

73. Rapid strides have been taken in this field over several years but the literacy rates as well as the total volume of the trained manpower in the country still remain low. Degree-level education is now available within Bhutan, and a substantial capacity for both primary and secondary teachers' training has been built up with support for a project entitled "National Institute of Education", executed by UNESCO. In the meantime, the pressure on the educational system has increased considerably and the physical facilities are simply outstripped by demand. Expatriate teachers retain a major role in the staffing of educational institutions in the absence of a sufficient number of trained nationals. The services of volunteers are also availed on a significant scale through the United Nations Volunteers Programme, and sponsorships from co-operating countries like the United Kingdom, Canada and New Zealand.

74. Past UNDP assistance has enabled the setting up of technical and vocational training institutions, through an ILO-executed project. Changing requirements and a critical assessment of the experience of the initial curricula and teaching systems have resulted in the definition of a new project, which aims at restructuring the technical education system, while also adding new subjects and short-term skills development courses which seek to develop the higher-level skills required in the process of development.

75. In addition, IBRD assistance is being mobilized for the improvement, reconstruction and construction of buildings, to meet the challenge of mounting pressures of demand on the educational system. A major gap in facilities still continues to exist, however, and significant support through cost sharing and other funds is called for to enable the school system to meet foreseen infrastructure and trained manpower needs.

76. A National Institute of Education has been set up with a national director at its helm; the goal is to reach self-sufficiency of trained teachers of Bhutanese origin. The IPF-funded UNESCO-executed project referred to earlier in paragraph 73 above covered curriculum development, training of staff, building up of laboratories and other facilities, and was supplemented by Norwegian Agency for International Development/AGFUND support for part of the buildings. The country's first degree college which started in 1983 is also being supported through a new IPF project; further support will be extended, as necessary, for the introduction of new courses at the graduate and higher levels.

#### L. Employment, training and manpower development

77. The shortage of manpower has always been a major constraint in the development process of Bhutan. Although considerable efforts have been devoted to minimize the influence of this constraint through increasing educational institutions and training facilities, the rapid pace of development continues to make greater numerical and qualitative manpower demands. At the same time, the national goal of self-reliance has made it necessary to adopt a localization programme whereby the excessive dependence on expatriate manpower is methodically reduced. In view of these considerations, as many as 21 manpower development projects have been implemented through IPF assistance under the last country programme, resulting in training abroad of about 450 Bhutanese personnel.

78. Given the unusual development situation of Bhutan, the effectiveness and relevance of training remains an area of constant attention. While the Government has made its own assessments of training requirements and means of fulfilling them, it is intended to hold a proper evaluation and planning workshop with SMF/LDC support, drawing on the expertise of training personnel of the United Nations system agencies. Training needs will be met both by sending personnel for training abroad and by in-country training. Funding will be required from the IPF in the present country programme for building up national and regional training institutions, and for the training of staff.

79. Two types of training are proposed to be undertaken within the country, over and above the sectoral and line specialties already under way or planned. The first would be for middle-level management, and the second for office management. The proposal is to set up a Royal Institute of Management. ASDB funding with co-financing from bilateral donors and UNDP is planned. It is expected that the Institute will be a strong focal point for continued system improvements and upgrading of skills, and for meeting specialized requirements which arise from time to time, including for the increasing use of computers.

#### M. Science and technology

80. Various efforts have been made in the country to obtain and create an information and data bank for an appropriate technology for the country, but a major gap still exists. Energy-related aspects are being assisted under the regional project RAS/84/001 as noted earlier, to cover biogas, solar energy, micro hydro and hydrams planning.

81. Given the country's geographic conditions, the traditional social setting and low literacy rates, the introduction of scientific and technical change will call for efforts through the educational system as well as through a prospective non-formal system and the extension system. Much remains to be done in this regard. Clear priorities for action are being identified for funding under the present country programme.

#### N. Tourism

82. While tourism is recognized as an important industry for Bhutan and a main foreign exchange earner, the policy of the Government is to develop tourism within acceptable limits which do not disturb the social fabric of the country. Infrastructure facilities are being improved and training undertaken for a higher quality of service to be delivered.

83. In the last country programme, a World Tourism Organization-executed tourism development project was implemented for training nationals and installing equipment, as well as for preparing a master plan for tourism development, the ramifications of which are under consideration. Further support in this relatively new industry will be extended in the current country programme as the country's development perspective on the industry is firmed up.

84. The policy of the Government is to encourage public as well as private sector participation in the industry. The support therefore may include training and marketing in the private sector.

#### O. Development support for communications

85. In a country of low population density and isolated settlements and hamlets, the role of the extension agent and the development support

communication (DSC) system become critical, more so on account of low literacy and relative lack of exposure to modern tools and techniques. The national DSC division has been set up as a central technical resource and Government personnel have acquired basic technical training and equipment through a project executed by UNDP. For the next phase, means for maximizing impact are being evolved, training packages are being prepared and inter-agency linkages are being established for promoting community education, health and agricultural development at the central and district level.

86. Radio broadcasting is also planned to be expanded, opening new opportunities for non-formal education and greater outreach for agricultural extension, etc. A new broadcasting support project will be developed within the present country programme, and manpower training activities will be continued.



Annex

FINANCIAL SUMMARY

A. <u>Resources</u>	(US dollars)
(a) <u>IPF resources</u>	
(i) Illustrative IPF for 1982-1986 at 55 per cent	20 075 000
(ii) Balance from previous IPF cycle	<u>1 720 000</u>
Subtotal	21 795 000
(iii) Less IPF expenditures 1982-1985	(16 866 000)
(iv) Add provisional IPF for 1987-1991	<u>20 075 000</u>
Total IPF resources	<u>25 004 000</u>
(b) <u>Other resources</u>	
(i) Total programme cost sharing	
(ii) Special Measures Fund for the Least Developed Countries, unspent allocation	<u>500 000</u>
Total resources available for programming	<u>25 504 000</u>
B. <u>Use of resources</u>	
(a) <u>Programmed</u>	
(i) Ongoing projects	4 108 000
(ii) New projects and new phases of ongoing projects included in the country programme	6 017 000
(iii) Earmarked for specific objectives and activities for which projects are to be worked out at a later stage	7 110 000
(b) <u>Unprogrammed reserve</u>	<u>8 269 000</u>
Total use of resources	<u>25 504 000</u>

C. Distribution of programme, by sector

<u>ACC classification</u>	<u>Sector</u>	<u>Ongoing projects</u>	<u>New projects</u> (US dollars)	<u>Sectoral earmarking</u>	<u>Total</u>
02	General development issues, policies and planning	581	269	1 000	1 850
03	Natural resources	339	847	450	1 636
04	Agriculture, forestry and fisheries	370	2 096	500	2 966
05	Industry	172	20	350	542
06	Transport and communications	-	965	300	1 265
07	International trade and development finance	102	-	300	402
09	Human settlements	117	549	150	816
10	Health	34	-	240	274
11	Education	224	372	1 300	1 896
12	Employment <u>a/</u>	<u>2 169</u>	<u>399</u>	<u>2 500</u>	<u>5 068</u>
	TOTAL	4 128 <u>(24)</u>	6 017 <u>(35)</u>	7 110 <u>(41)</u>	17 235 <u>(100)</u>

a/ Includes manpower development projects for all sectors.