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COUNTRY AND INTERCOUNTRY PROGRAMMES AND PROJECTS

Consideration and approval of country programmes

FIRST COUNTRY PROGRAMME FOR THE DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

UNDP assistance requested by the Government of the Democratic
People's Republic of Korea for the period 1983-1986

Illustrative IPF for 1982-1986: \$24 750 000

INTRODUCTION

1. This is the first country programme for the Democratic People's Republic of Korea submitted to the Governing Council of the United Nations Development Programme (UNDP). Although the Government of the Democratic People's Republic of Korea began co-operation with a number of specialized agencies in 1974 and 1975, it was not until 1979 that agreement was reached for the country to co-operate in the system of United Nations technical co-operation by participating in the activities of UNDP and to have an indicative planning figure (IPF) established. The Standard Basic Agreement between the Government and UNDP was signed on 8 November 1979.
2. The First country programme, covering the period 1983-1986, is the result of a programming exercise carried out by the Government in close co-operation with UNDP. Also, since 1980, a number of missions were undertaken by specialized agencies for sectoral programming, project identification and formulation. While these missions were not specifically for the purpose of country programme formulation, discussions held with Government authorities as well as the findings and recommendations of the missions have provided a valuable input in the formulation of the country programme.

3. The objectives and priorities of this country programme are a reflection of the Government's over-all development goals. Activities planned under this country programme have been concentrated in certain areas where it was felt that international technical co-operation could best be utilized. The methodology by which these areas were selected was by identifying bottlenecks in terms of sustaining a high rate of growth. These bottlenecks most often resulted from the country's difficulties in obtaining new technologies and processes.

4. Thus, the over-all objective of this country programme can be defined as facilitating, through joint technical co-operation activities, the transfer of technology and modern methods in research and production. The sectors where these activities will be concentrated are agriculture, energy, natural resources, industry, scientific research, transport and communications.

5. On achieving independence from colonial rule, the country's economy was backward and undeveloped. A period of war, with its attendant devastation, followed. After the war, the Government achieved impressive results in the reconstruction of the country. The Government's success in reconstruction and in maintaining a high level of growth in industrial output and agricultural production was achieved through self-reliance based on the philosophy of Juche.

6. This rapid rate of development based on self-reliance and the Government's plans for achievement of a high rate of growth during the 1980s call for very specific needs in technical co-operation with international organizations. The country has a good economic base for future growth in terms of natural resources and well-trained technical cadres. Activities under this country programme therefore will be used to introduce new technologies and processes to which the country has so far not been exposed and which in the view of the Government are required to maintain the country's high rate of growth and development.

7. Total resources taken into account for programming amount to US\$18,399,000. This consists of \$19.8 million which represents 80 per cent of the illustrative IPF for 1982-1986, less \$4,350,000 representing the authorized budget level for 1982, plus a carry over of \$2,949,000 from the previous IPF cycle. It is expected that the equipment component in this country programme will not exceed 50 per cent.

UNDP TECHNICAL CO-OPERATION ENVISAGED IN SUPPORT OF NATIONAL DEVELOPMENT PRIORITIES

A. Agriculture

8. The Democratic People's Republic of Korea has about 2 million hectares of arable land. Paddy rice and maize are the main crops. Total grain production in 1979 was 9 million tons, and the Government plans to increase production of grain by the end of this decade to 15 million tons.

9. About 700,000 hectares of land are under maize production. While some maize is used for human consumption, most of it is used for fodder and animal feed as well as for sugar production and other industrial use. The Government is interested in initiating a maize breeding and improvement programme. Under the programme, Korean specialists will be trained, varieties of maize under production will be improved so that productivity may be increased and new varieties, such as sweet corn for human consumption, will be introduced.

10. Having assigned priority to the increased production of grain, the Government wishes to improve upon the technical capacity for the storage and processing of seeds, primarily for rice and maize but also for other grains and vegetables. An improved seed storage and processing programme under the country programme will assist in the proper management of storage facilities for reserve seed stocks.

11. At the Institute of Biology of the Academy of Science, the Government is carrying out basic research to create new varieties of crops through cellular genetic engineering and microorganism breeding in order to increase the yield. Training in this area and the establishment of contacts with institutions abroad dealing with such research are an activity planned under the country programme.

B. Energy and natural resources

12. The Institute of Thermodynamics of the Academy of Science is carrying out a wide range of research into improving the efficiency of conventional energy sources, and developing non-conventional energy sources. A project with the Institute will arrange for exchanges of experience in this field with other countries, train researchers and thus seek to upgrade research to be carried out in the more economic use of boilers, improved use of petrol, gas and methanol in internal combustion engines and heat exchange. Research will also be carried out into non-conventional energy sources such as solar, geothermal and wind. Of special interest will be the introduction of the fluidized bed combustion process. This technology would lead to improvement of the combustion process of anthracite coal, of which the country has very large reserves.

13. Co-operation is planned with the Institute of Inorganic Chemistry of the Academy of Science in Hamhung, which has a department carrying out research on the gasification and liquefaction of coal. The intention is to obtain know-how from abroad on the gasification and subsequent liquefaction of anthracite coal.

14. The Government will also seek assistance under the country programme for upgrading the activities of the Mining Engineering Institute of the Academy of Science. Of special interest will be the upgrading of research leading to increased productivity of coal mines, including research on rock dynamics, hydraulic equipment, automation, pillar technology.

C. Education

15. A five-year project, Strengthening of language training at the Pyongyang Foreign Languages College, (DRK/81/001), is being undertaken from 1982 onwards to upgrade the teaching of foreign languages. The Government through this country programme is embarking on international co-operation with multilateral organizations for the first time on a large scale, and the knowledge by technical cadres of major foreign languages is crucial to this effort. The project aims at introducing modern teaching methods at the Pyongyang Foreign Languages College at all levels.

D. Health

16. The Government of the Democratic People's Republic of Korea gives high priority to the protection of the environment and the health of workers and the general public. Health protection of the citizens is at a high level and the country is well on the way to achieving a long-range objective of World Health Organization (WHO) by providing health for all by the year 2000.

17. The project, Environmental health protection in rural areas, (DRK/81/009), which started in 1982 for a period of two years, aims at assisting the Government's efforts in improving the health environment in rural and semi-rural areas through the use of improved techniques, training and research. The project will develop multidisciplinary environmental management strategies at the rural primary health level, apply appropriate technologies for water, sanitation, excreta disposal and food safety. Furthermore, through the activities of this project, an assessment will be made of the environmental impact created by the development process in rural areas.

E.

Industry

18. One of the Government's objectives in its present phase of development is to move beyond the stage of raw material production for exports to technologically more complex industrial products.

19. The engineering industry is well developed in the Democratic People's Republic of Korea. The country has factories producing medium- and high-speed internal combustion engines up to 2500 horse-power machine tool plants with a capacity of 30,000 units per year, 10,000 lorries and 30,000 tractors.

20. UNDP is already co-operating with the Government of the Democratic People's Republic of Korea on developing the electronics industry under the project, Integrated circuits, (DRK/79/003).

21. This project, which was approved in 1980, is scheduled to terminate in 1984. The Institute of Electronics of the Academy of Science is being assisted in the establishment of a pilot plant and training centre for the production of bipolar digital integrated circuits. The provision of new technology through this project will enable the Government to achieve its stated objectives of developing its electronics industry and introducing automation in production.

22. The project, Industrial property administration and establishment of a patent documentation centre, (DRK/81/003), will assist the Government in establishing a Patents Administration Centre. The activities of the project will upgrade the Inventions Committee of the State Committee for Science and Technology, thereby enabling the Committee to carry out its administrative and substantive tasks. The Patent Documentation Centre will be established within the Inventions Committee for the collection, selection, analysis and dissemination in the country of technological information contained in patent documents.

23. Co-operation is also envisaged with the Central Institute for Technical Measurements in order to upgrade the Government's facilities and capabilities in the field of metrology. A modern and well equipped metrology institute staffed by qualified technical personnel is considered a very important factor in the country's expansion and modernization of industrial production.

24. The Government is investing heavily in the production of steel. The target is to achieve the production of 15 million tons of steel per year by the end of this decade. To increase the technological base for the development of metallurgical industries, a project with the Metal Materials Institute in Kansan is planned.

25. Furthermore, activities under the country programme are planned with the Mechanical Engineering Institute of the Academy of Science located in Pyongsan. The activities will include research on improving the characteristics of lathes, heat treatment, tools and dies, and hydraulics.

26. Related to the development of the electronics industry is the Government's wish to initiate activities under the country programme for the application of electronics in manufacturing. Automation of industrial production is one of the priority goals set by the Government in its present development plans. Accordingly, the Government is requesting UNDP assistance in the introduction and application of micro-computer technology in the automation of industrial production.

F. Science and technology

27. Scientific and technological research in all fields occupies a position of high priority in the development objectives of the country. Thus, a large part of available IPF resources will be allocated to this sector.

28. Preparatory assistance under the project, Strengthening of meteorological services, (DRK/81/002), is under way to determine with the Hydrometeorological Service of the Democratic People's Republic of Korea the requirements in training and equipment for establishing weather satellite data. The improved weather forecasting which will result from the introduction of this new technology will be of immediate benefit to crop production, livestock and the environment.

29. The Government established in 1980 a National Oceanographic Committee in order to co-ordinate activities of national agencies in the field of marine science. These agencies are the Hydrometeorological Service, the Ministry of Fisheries, the Ministry of Exploration of Natural Resources, the Committee on Education, the Academy of Science, the Hydrographic Service and the Committee of Water Transportation.

30. The co-operation of the National Oceanographic Committee with the Inter-governmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO) will be sought under this country programme. This co-operation will lead to activities in the field of oceanography and cover research related to several development goals of the Government: the reclamation of tidal lands and development of fisheries, as well as pollution control of the marine environment and the investigation of the use of mineral and energy resources from the sea such as the tide, gas and oil. It is furthermore envisaged that training programmes in the field of hydrology will be organized.

31. A project is planned in the field of scientific and technical information to strengthen the Central Scientific and Technical Information Institute. Such a project, together with the one assisting the Government in the establishment of the Patents Office, will assist the Government in improving its information and data base for scientific and technological development.

32. Two hundred research institutes in the country are carrying out basic scientific research as well as applied research relating to specific technological problems in industry. The Institute of Scientific Instruments is responsible for the production, repair and maintenance of scientific and laboratory instruments for these institutes. A project is envisaged whereby the activities of this Institute will be strengthened. With scientific and technological research being emphasized in present development plans and with industry becoming more technologically sophisticated, the production, repair and maintenance of scientific instruments becomes vital for achieving the aims of scientific and technological development.

33. Finally, the Government plans to develop a project under the country programme with the Institute of Organic Chemistry of the Academy of Science situated in Hamhung. The objective is to carry out basic research on catalysts and the processes of oxydization and hydrogenation so as to lessen the country's independence on imported catalysts. The research will be conducted at the Institute for such industries as synthetic fibres, chemical fertilizers, polyvinyl chloride and synthetic rubber. These industries use about 40 different catalysts.

G. Transport and communications

34. The national railway system, which has 4500 kilometres of track, handles the bulk of long distance freight and passenger traffic. It is of vital importance both for the internal exchange of goods which enables balanced development of different parts of the country, and for the transport of goods for export. The rail system for the most part is now electrified. However, links between cities are still one track.

35. With the increased traffic, problems of safety and efficiency arise. Rather than increasing capacity through the construction of an additional track which would be very costly given the mountainous terrain of the country, the Government has chosen to improve the existing signalling system through automation. UNDP is assisting the Government in this respect under the project, Railway Automation, (DRK/80/001).

36. The air transport system in the country is relatively undeveloped. At this stage of the country's economic development, it is considered essential to establish and develop both domestic and international air links. It is expected that within the next few years air traffic will increase substantially and the Civil Aviation Administration (CAA) of the Democratic People's Republic of Korea has been entrusted with the responsibility of ensuring the safety and regularity of both domestic and international civil air transport operating within the air space of the country. A priority need therefore is both to upgrade the technical level of CAA personnel and to provide extensive training in the installation, operation and maintenance of the new facilities. The project, Reinforcement of selected civil aviation facilities and services, (DRK/81/004), which will assist the Government in achieving these objectives, began in 1982 and will continue for four years.

Annex
FINANCIAL SUMMARY

A. Resources

\$

IPF and other resources

(i)	Illustrative IPF for 1982-1986	24 750 000
(ii)	Less unprogrammed balance a/	(4 950 000)
(iii)	Less authorized budget level for 1982	(4 350 000)
(iv)	Carry-over from previous IPF cycle	2 938 000
Total resources available for programming:		<u>18 388 000</u>

B. Use of resources

(a) Programmed

(i)	ongoing projects	4 335 000
(ii)	New projects and new phases of ongoing projects included in the country programme	519 000
(iii)	Earmarked for specific objectives and activities for which projects are to be worked out at a later stage	<u>12 045 000</u>
Subtotal		<u>16 899 000</u>

(b) Reserve

Total programmed plus reserve	<u>1 489 000</u>
	<u>18 388 000</u>

C. Financial distribution of programme, by sector ^{b/}

<u>Sector</u> ^{b/}	<u>On-going projects</u> \$	<u>New projects</u> \$	<u>Sectoral earmarkings</u> \$	<u>Total</u> \$
02 General development issues, policy and planning	129 000	-	-	129 000
03 Natural resources	-	-	1 500 000	1 500 000
04 Agriculture, forestry and fisheries	-	-	2 000 000	2 000 000
05 Industry	1 492 000	519 000	4 000 000	6 011 000
06 Transport and communications	1 581 000	-	-	1 581 000
07 Health	-	-	480 000	480 000
11 Education	1 133 000	-	-	1 133 000
16 Science and technology	-	-	4 065 000	4 065 000
TOTAL:	4 335 000	519 000	12 045 000	16 899 000

a/ Representing 20 per cent of the illustrative IPF which has not been taken into account for programming.

b/ According to ACC classification.