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REPORT AND RECOMMENDATION

OF THE

PRESIDENT OF THE

INTERNATIONAL DEVELOPMENT ASSOCIATION

TO THE

EXECUTIVE DIRECTORS

ON A

PROPOSED CREDIT

TO THE

GOVERNMENT OF INDIA

FOR THE

JAMMU-KASHMIR HORTICULTURE PROJECT

May 3, 1978

CURRENCY EQUIVALENTS

US$1.00	=	Rs 8.75
Rs 1.00	=	US$0.114
Rs 1,000	=	US$114,285
Rs 1,000,000	=	US$114,285.714

WEIGHTS AND MEASURES

Metric System

ABBREVIATIONS

ARDC	-	Agricultural Refinance and Development Corporation
DA	-	Department of Agriculture
DH	-	Department of Horticulture
DHPM	-	Department of Horticulture, Planning and Marketing
GOI	-	Government of India
GOJK	-	Government of Jammu and Kashmir
HP	-	Himachal Pradesh
J&K	-	Jammu and Kashmir
JKHPMC	-	Jammu-Kashmir Horticultural Produce Marketing and Processing Corporation
RBI	-	Reserve Bank of India
UP	-	Uttar Pradesh

GOI and GOJK FISCAL YEAR

April 1 - March 31

INDIA

JAMMU-KASHMIR HORTICULTURE PROJECT

Credit and Project Summary

Borrower: India, acting by its President.

Beneficiary: The State of Jammu-Kashmir.

Amount: US$14 million.

Terms: Standard.

Relending Terms: GOI (i) to ARDC: For loans to be repaid 9 years from withdrawal at 6.75% per annum; and for loans to be repaid 15 years from withdrawal at 7.25% per annum, less 0.25% for prompt payment; and (ii) to GOJK in accordance with standard terms of GOI for development assistance to state governments.

ARDC (i) to Participating Banks: Annual interest rate of 8%; with repayments to coincide, approximately, with expected collections from ultimate borrowers; (ii) Participating Banks to JKHPMC for marketing facilities at annual interest rate of 11% with a maximum repayment period of 15 years, including a grace period of 3 years; and (iii) ARDC to JKHPMC (for the juice concentrate plant) on terms and conditions to be determined and satisfactory to the Association.

Project Description: The purpose of the project is to improve marketing and production of apples, walnuts, and mushrooms in Jammu and Kashmir by providing improved marketing facilities, credit for crop production and technical assistance to help project implementation. About 40,000 mostly small growers would benefit from the project. The project entails no unusual risks. The development of the managerial capability of the Jammu-Kashmir Horticultural Produce Marketing and Development Corporation (JKHPMC) - a new entity - will be critical for successful project implementation. Appropriate safeguards have been provided in the project to ensure that the management capability of JKHPMC is built up as quickly as possible. It will also be important to formulate proper marketing arrangements for the apple juice concentrate component of the project.

Estimated Cost:

	US$ Million		
	Local	Foreign	Total
JKHPMC Investments			
Apple Handling Facilities	5.4	0.4	5.8
Walnut Handling Facilities	2.3	-	2.3
Apple Juice Concentrate Plant	1.9	0.6	2.5
Sub-total	9.6	1.0	10.6
Crop Loans	2.3	-	2.3
Research and Technical Assistance			
Fruit and Mushroom Research and Technical Assistance	0.9	1.0	1.9
Working Capital	5.5	-	5.5
Sub-total	18.3	2.0	20.3
Physical Contingencies	1.0	0.1	1.1
Price Contingencies	5.8	0.4	6.2
Total Project Cost	25.1	2.5	27.6

Financing Plan:

	US$ Million		
	Foreign	Local	Total
IDA Credit	2.5	11.5	14.0
Local Financing:			
GOI/GOJK		6.6	6.6
GOJK		0.5	0.5
ARDC/Banks		5.8	5.8
Fruit Growers		0.5	0.5
Total	2.5	25.1	27.6

Estimated Disbursement:

	US$ Million				
	FY79	FY80	FY81	FY82	FY83
Annual	0.3	1.1	3.9	4.3	4.4
Cumulative	0.3	1.4	5.3	9.6	14.0

Rate of Return: 21%

Appraisal Report: No. 1890-IN, Dated April 25, 1978

INTERNATIONAL DEVELOPMENT ASSOCIATION

REPORT AND RECOMMENDATION OF THE PRESIDENT TO THE EXECUTIVE DIRECTORS ON A PROPOSED CREDIT TO THE GOVERNMENT OF INDIA FOR THE JAMMU-KASHMIR HORTICULTURE PROJECT

1. I submit the following report and recommendation on a proposed development credit to India for the equivalent of US$14 million on standard IDA terms to help finance a project for improving marketing and production of apples, walnuts, and mushrooms, and the construction of an apple juice concentrate plant in the State of Jammu-Kashmir (J&K). The major portion of the proceeds of the credit - US$12 million equivalent - would be channelled through the Government of India to the Agricultural Refinance and Development Corporation (ARDC). ARDC would on-lend the funds to participating banks and the J&K State Cooperative Bank for relending to apple, walnut and mushroom growers for crop production, and to the Jammu Kashmir Horticultural Produce and Marketing Corporation for the construction and equipping of an apple juice concentrate plant and for facilities for grading, packing, storing, processing and transshipping. The remaining funds - US$2 million equivalent - would be channelled through the Government of India to J&K to help pay the cost of the research, technical assistance, studies and staff training.

PART I - THE ECONOMY

2. An economic report, "Economic Situation and Prospects of India" (2008-IN dated April 17, 1978), was distributed to the Executive Directors on April 18, 1978. Country data sheets are attached as Annex I.

Background

3. India is a vast, continental country with over twenty States divided on linguistic and ethnic grounds with a population of over 620 million people, almost as many as live in Africa and Latin America combined. It has a dual economy. While 79% of its population lives in rural areas their productivity is low. Agriculture's share in value added declined only gradually from about 50% to 43% over the last twenty years. The share of manufacturing has increased slowly and, since the late 1960s, has remained approximately constant at about 16%. Industry has a highly diversified structure with import substitution and self-sufficiency pushed to the point where India has the capacity to produce virtually every type of consumer and capital good required for a modern economy. As in the case of many other large economies, the foreign sector plays a relatively minor role; both exports and imports represent about 7% of GDP; foreign saving has supplied only about 5% of gross investment in the recent past.

4. Even though growth has been slow in the past, the economy enjoys many of the prerequisites for sustaining faster growth and development. Although literacy is far from universal, India has large resources of well trained administrative, scientific and technical manpower and a dynamic entrepreneural class. Per capita consumption of commercial energy is low by international

comparison and power shortages are a way of life; but India is relatively well-placed with regard to primary fuel sources. There are very large reserves of coal and nuclear ores, and considerable hydro-electric potential. Recent petroleum and gas discoveries have begun to be exploited and prospects are bright for further discoveries. The basic elements of the infrastructure needed to serve the economy have been established; in absolute terms the irrigation, railway, telecommunication, road and power systems are each among the largest in the developing, and in some cases the developed, world. However, considerable gaps remain as the situation varies greatly from state to state.

5. Given the size of India's population, its annual increase of 13 million people is such as to absorb a large portion of any provision to increase standards of living. It is not possible to discern any significant increase in the incomes of the vast mass of the rural and urban poor, who number 200 million with a per capita income of US$70 per annum or less. Although foodgrain production may be persistently underestimated, there has been no permanent increase in per capita foodgrain consumption recorded in aggregate statistics since 1960/61. Many years after the initial target, primary education is still not universal. The labor force has grown faster than employment and a considerable backlog of unemployed exist. Nevertheless, there has been progress, with per capita income increasing on trend 1%-1.5% per annum; birth rates falling to below 37 per thousand from levels of 45-50 per thousand at the start of the 1950's; life expectancy increasing from about 32 years in the 1940's to 45-50 years in the 1970's; school enrollment rising from 32% to 65% of children in primary school ages and from 5% to 29% of children in secondary school ages since 1950/51.

6. The rate of growth of GDP has been 3.5% per annum over the period since Independence and 2.8% per annum over the period 1969/70 to 1976/77. These low rates of growth are only partly due to low availability of investible resources, although there have been times that foreign exchange was a severe bottleneck. The net transfer of resources from abroad has never been above 3% of GDP and fell to as little as 0.8% between 1969/70 and 1973/74. India's saving effort has grown steadily since the beginning of planning in 1951, when it was 9% of GDP, to its recent level of 20% of GDP, which compares well with other countries' saving performance at the same level of per capita incomes. Despite a doubling in the rate of investment, from about 10% of GDP in the early 1950's to about 20% at present, the trend rate of GDP growth has not increased. This marks a decline in the efficiency of capital use which transcends fluctuations due to weather, war or international terms of trade shifts.

Recent Trends

7. In many respects economic conditions during the last three years have been significantly different from those prevailing in previous years. In the late 1960's and early 1970's, the economy faced several shortages--foodgrains, agricultural and industrial inputs and foreign exchange--which retarded production and investment and often led to price increases. An adverse shift in terms of trade starting with the oil price hike in 1973 and continuing with the foodgrain and fertilizer price rises in the following

year greatly increased the cost of acquiring these essential commodities abroad. These external shocks combined with a spate of bad weather played havoc with the economy through 1974/75, causing slow growth in production and investment and a record level of inflation.

8. Since the excellent monsoon in the summer of 1975, a new situation has arisen. The period 1975 to 1978 has been characterized by much greater price stability, enhanced agricultural and industrial output and comfortable foodgrain and foreign exchange reserves. The new situation was a combined result of domestic policies and fortuitous circumstances. The increase in foodgrain stocks was only in part due to improved policies and programs. The more decisive factor has been the three good-to-excellent monsoons coming on top of substantial foodgrain imports in 1975 and 1976. Industrial output increased on average by 7% a year in 1975-1978 compared to 3% in 1970-75, due to greater power availability, better management in the public sector, improved labor relations, better transport and some increase in demand derived from increased incomes due to improved harvests, greater exports and higher levels of public investment. The most dramatic turnaround ocurred in the balance of payments, with a sharp real reduction in the import bill helped by good harvests and increased domestic production in iron and steel, fertilizer and oil, which reduced demand for imports The supply of foreign exchange was also greatly increased by a significant step-up in the volume of exports, an increase in foreign aid and a substantial jump in remittances from Indians working in the Middle East, Europe and America.

9. In 1977/78, the growth of GDP was about 5%, a recovery over the rate of 1.6% in 1976/77 but less than the 8.5% reached two years earlier. Prices, which had been rising during 1976/77 after a decline in 1975/76, were stabilized; wholesale prices at the end of March 1978 stood at about the same level as in March 1977, and the yearly average was only 5.4% above that of the previous year. Exports in 1977/78 are estimated at US$6.4 billion and imports at US$6.6 billion. The inflow of invisibles from abroad at US$1.4 billion and net aid disbursements of US$1.2 billion more than offset the small trade deficit of US$200 million and IMF repurchases of US$330 million to increase reserves by US$2.1 billion to US$5.8 billion by end of March 1978.

10. The 1977/78 foodgrain crop may exceed the 1975/76 record level of 121 million tons due to very good weather and increased input use. Support purchases could result in peak foodgrain stocks as high or even higher than in 1977, when they were 21 million tons. In addition to ample and evenly distributed rainfall, more intensive and widespread use of three crucial inputs--irrigation water, fertilizer and extension advice--contributed to the bumper harvest. Fertilizer consumption surged 30% in 1977/78, continuing its recovery from the depressed level of 1974/75. Annual additions to irrigated area have been on average of 2 million hectares since 1975/76 compared with 1.3 million hectares per annum achieved from 1969 to 1975. An improved extension system, which has been getting heartening results, has been introduced in several states and is slated for further coverage.

Development Prospects

11. India faces the future with large stocks of foodgrains, high and rising external reserves, excellent rabi crop expectations, price stability and good prospects for sustaining the improved supply of foreign exchange. The circumstances present a great opportunity for further promoting the development of the Indian economy. The Draft Five Year Plan for 1978-83, discussed though not yet approved by the National Development Council, responds to this challenge by projecting a rapid growth in real terms of both overall investment and public plan expenditures. Investment is to rise on average by 10.7% per annum and the economy is expected to grow on average by 4.7% per annum during the years 1978-83.

12. The new Draft Plan reveals an intention to reorient the country's development towards improving the living conditions of the poor. This is reflected in its principal objectives: (i) the removal of unemployment and significant underemployment; (ii) an appreciable rise in the standard of living of the poorest sections; and (iii) the provision of basic needs to low income groups. To achieve these objectives, the Government proposes to emphasize agricultural development, cottage and small scale industries, area planning for integrated rural development and the provision of minimum needs. As a first step towards complete removal of unemployment, the Plan envisages the creation of a large number of new jobs through a considerable expansion of construction activity as well as a boost in the consumption levels of the poor--which in turn would require the production of the necessary wage goods, largely in small-scale, labor-intensive units. Specific programs to achieve these objectives are still in the making.

13. In order to achieve a sizable rise in the income of the poorest classes of society, the Draft Plan--in conformity with the Janata Party policy--places prime emphasis on the development of rural areas. A major impulse for agricultural development will be provided by the expansion of irrigation and related agricultural inputs, such as fertilizers and better farming techniques. The Draft Plan argues that efforts to increase productivity should be supplemented by measures with a redistributive impact such as supporting small farmers and small industry with institutional credit and material supplies and assistance for marketing. The Draft Plan also intends to complement the creation of employment and the increase in rural productivity by providing basic services to those groups which have so far been unaffected. For this purpose, the minimum needs program launched at the onset of the Fifth Plan is being revitalized and accelerated.

14. The allocation of the Draft Plan outlay for the next five years reflects these priorities. Out of a total expected spending of US$81 billion, US$35 billion--43%--have been earmarked for rural development programs including agriculture, irrigation, fertilizer and social infrastructure expenditures directly benefitting the rural areas. The share of these sectors amounted to 37% during the Fifth Plan period and to 40% in the Annual Plan for 1978-79. It can thus be expected to rise further during the next four years. Similarly, spending on the minimum needs program in 1978-83 will absorb 6% of the plan resources, as compared to less than 3% in the Fifth plan. On the other hand, the shares of industry and of transport and communication have been reduced.

15. There is considerable scope for stepping up growth in agriculture. The most promising development is the sharp increase in government outlays and improved project implementation for irrigation. There are also indications that private investment in tubewells is picking up again after a slump in the early 1970's. Other favorable indicators include the spread of an improved system of extension of more states and the recovery of fertilizer demand. With regard to more productive use of existing capacity, there is an increased awareness in the Government that the benefits of irrigation projects can be much increased not only through command area development, but also through improved design standards in major surface irrigation infrastructure. Nevertheless, comprehensive improvement in water management remains a distant goal, particularly in existing systems and where farms are small and fragmented. The bulk of the increase in private tubewell development in the last few years has come from the Eastern Region, where more and more farmers are sinking wells to enable them to grow a winter crop of wheat in addition to providing better water control for the summer rice crop. Improved water management would make such investments even more productive. Increased farmer incomes from the recent good harvests, somewhat lower fertilizer prices and grain prices supported at incentive levels have encouraged farmers to apply considerably more fertilizer. Finally, the reorganized and improved extension and research system which has been introduced recently in several states in northern and eastern India holds out the hope that sound advice will reach many more farmers in both irrigated and rainfed areas and will raise their productivity significantly. The improved extension system is an excellent example of how the growth effort can and must be structured so as to increase the incomes of small and marginal farmers, who work 25% of the cultivated land and account for somewhat more than 25% of production; more importantly, these farmers make up about 70% of the rural population and constitute the majority of those living below the poverty level in India.

16. Industrial prospects are somewhat more difficult to discern. Moderate growth in 1977/78 after an excellent year in 1976/77 suggests the persistence of problems plaguing the sector since the mid 1960's--large unutilized capacity, stagnant capital formation in the private sector and low productivity growth. Lower investment than expected, of course, is one of the reasons for low capacity utilization in capital goods industries, which make up a significant portion of the sector. Low buoyancy of demand for industrial products from all sources--not only from investments but also from agriculture, exports and import substitution--has been a basic constraint. Further import substitution cannot be a major source of growth for manufactured goods in the future because most opportunities for efficient import substitution have been exploited. Higher effective demand from increased growth of real incomes from greater productivity in both agriculture and manufacturing, sustained increases in exports and increased investment, particularly from the public sector, all can raise demand for industrial production.

17. The new industrial policy of the Janta government and the orientation of the Draft Five-Year Plan emphasize small scale industry over heavy industry and have accordingly promoted such measures as product reservation, credit rationing, and, within the small scale sector, plans to initiate special efforts for the growth of the "tiny" sector. While the priority accorded to

the small scale sector is laudable, there are doubts about the efficacy of the policy measures chosen. Past experience indicates that other factors are also crucial to its development, particularly effective demand, quality control, prices and marketing techniques. Some small scale industry is capital intensive and not well suited to as rapid employment generation as is hoped; nor can all goods be efficiently produced using small scale technology.

18. India's population growth rate of about 2% is not high in comparison with that of most developing countries. Moreover, the rate is on the decline, after growing steadily census to census from 1920 through 1970, both because the birth rate continues to fall and because mortality will not fall as steeply as in the past. Family planning acceptor rates slowed down in the wake of the abandonment of the 1976 population policy after the 1977 general elections and the momentum of the program has yet to be recaptured, particularly in Northern India. However, the new Government has reaffirmed its commitment to a voluntary family planning program and has budgeted the resources to carry it out. Over the longer term, with a sustained family planning effort, it should be possible to bring the birth rate down from its 1970-75 level of about 37 per thousand to about 23 thousand to the end of the century, implying a population growth rate somewhat under 1.1%. Our "best guess" projection of India's population in the year 2000 is 885 million. Many of the benefits of family planning policy will only be felt beyond the turn of the century; the decline in fertility will, however, bring about an earlier change in the age structure of the population. The school age group will grow more slowly or not at all after 1981, thereby reducing the pressures on the primary and secondary education systems. However, the labor force will continue to grow at a faster rate -- 2.5% per annum -- until well into the 1990's, resulting in an increasing proportion of the population in the labor force from 40.8% to 45% in 1991.

19. The government's goal to eliminate unemployment in 10 years implies an expansion of the number of jobs at the rate of 9 million per annum -- 7 million new entrants to the labor force and the asborption of 2 million or so formerly unemployed. The majority of these will have to continue to be absorbed -- judging from the prevailing composition of the labor force -- in agriculture and the unorganized small scale sector. The absorptive capacity of the modern organized sector is unfortunately low; its employment elasticity is expected to be no more than 0.5. Given its low current share of output, even rapid growth of this sector would not make much of a dent in the backlog of the unemployed. Employment in the organized sector has been growing at about 2.2% per annum in the past ten years, less than the labor force growth rate, and all of this in the public sector. Private sector employment has not grown at all since 1966. While the labor absorption elasticities of the small scale sector may be higher in some cases than that of the large scale sector, a major effort to expand production must succeed before an appreciable employment impact will materialize.

20. In the short run India's balance of payments should not be a constraint on growth and development in the next few years. With good medium-term prospects for India's exports, the expected continuation of growth in invisible receipts and the potential for an increase in net aid disbursments, the net availability of foreign exchange to finance merchandise imports is projected to rise over the next five years, in current prices, from US$8.7

billion in 1977/78 to US$16.7 billion in 1982/83, an average of 14% per annum. Given the unlikely need to increase rapidly imports of some traditionally important items -- e.g., petroleum, fertilizer, foodgrains, edible oil and cotton -- other imports can increase at the rate of 20% a year over the next five years.

21. Altogether, these currently favorable circumstances present the opportunity to double India's trend rate of growth of per capita income from the average annual rate of 1.5% that prevailed for the last thirty years to 3% over the next five, and thereafter. This requires a continued fall in the rate of population growth below 2% per annum and a rise in the growth of GDP from the historical rate of 3.5% to 5.0% per annum. Both of these targets are within reach. The first should be achieved barring a total abandonment of the family planning program. The second requires improved efficiency and increased investment by both the public and private sectors; it also means more fully harnessing the gains from trade through international specialization implying a strong export effort and continued easier access to imports. In addition to enabling a faster rate of per capita income, the present situation allows for increasing the coverage of the population's minimum needs. This requires formulating and administering effective, efficient programs of public investment and, of course, requires larger public outlays.

22. With the enhanced resources at India's disposal, the economy is poised for a higher rate of economic growth. The Government is moving to take advantage of this opportunity with increased public expenditure envisioned over the next five years, and the liberalized trade policies recently announced. It is yet too early to know whether the moves made so far will be sufficient to achieve the desired targets or whether additional steps will be necessary. Assured international support for India's development effort will be an important factor in moving the Government to take greater risks in pursuing a dynamic development program directed at meeting the huge needs of its large and impoverished population.

PART II - BANK GROUP OPERATIONS IN INDIA 1/

23. Since 1949, the Bank Group has made 53 loans and 97 development credits to India totalling US$2,015 million and US$4,934 million (both net of cancellation), respectively. Of these amounts, US$881 million has been repaid, and US$2,031 million was still undisbursed as of January 31, 1978. Annex II contains a summary statement of disbursements as of January 31, 1978, and notes on the execution of ongoing projects.

24. Since 1957, IFC has made 14 commitments in India totalling US$58.4 million, of which US$13.8 million has been repaid, US$7.6 million sold and

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1/ This part of the report is substantially the same as Part II of the President's Report for the Korba Thermal Power Project (Report No. P-2186-IN), dated March 29, 1978.

US$6.9 million cancelled. Of the balance of US$30.1 million, US$23.6 million represents loans and US$6.5 million equity. A summary statement of IFC operations as of January 31, 1978, is also included in Annex II (page 2).

25. In recent years, the emphasis of Bank Group lending has been on agriculture. The Bank Group has been particularly active in supporting minor irrigation and other on-farm investments through agricultural credit operations. Major irrigation, marketing, seed development, and dairying are other agricultural activities supported by the Bank Group. Also, the Bank Group has been active in financing the expansion of output in the fertilizer sector and, through its sizeable assistance to development finance institutions, in a wide range of geographically scattered medium- and small-scale industrial enterprises. IDA financing of industrial raw materials and components for selected priority sectors has been instrumental in facilitating better capacity utilization in industry. The Bank Group has also been active in supporting infrastructure development for power, telecommunications, and railways. Family planning, education, water supply development, and urban investments have also received Bank Group support in recent years.

26. The direction of assistance under the Bank/IDA program has been consistent with India's needs and the Government's priorities. The emphasis of the program on agriculture, industry, power, urban development and water supply remains highly relevant. Projects designed to foster agricultural production through the provision of essential inputs such as credit for on-farm investments, command area development of existing irrigation schemes, intensification and streamlining of extension systems, and seed production form an important aspect of the Bank Group's program for the next several years. Special emphasis will be given to projects benefiting small farmers. Projects supporting water supply, sewerage, and urban development also form an integral part of the Bank's lending strategy to India for the next several years. Lending in support of infrastructure and industrial investments will focus on agriculture-, export- and energy-related projects.

27. The need for a substantial net transfer of external resources in support of India's economy has been a recurrent theme of Bank economic reports and of the discussions within the India Consortium. Thanks in large part to the response of the aid community, India has successfully adjusted to the changed world price situation. However, the basic need for readily usable foreign exchange assistance to augment domestic resources, assure effective utilization of existing capacity, stimulate investment and accelerate economic growth, remains. As in the past, Bank Group assistance for projects in India should include, as appropriate, the financing of local expenditures. India imports relatively few capital goods because of the capacity of the domestic capital goods industry. The import component of projects tends to be especially low in such high-priority areas as agriculture, education, and family planning. For the Bank Group to be able to make an appropriate contribution to the financing of projects in these sectors, it is important to cover a proportion of local expenditures.

28. It is clear from the review of the Indian economy that as much as possible of India's external capital requirements should be provided on

concessionary terms. Accordingly, the bulk of the Bank Group assistance to India has been, and should continue to be, provided from IDA. However, the amount of IDA funds that can reasonably be allocated to India remains small in relation to India's needs for external support, and some Bank lending to India, for which the country is creditworthy, is appropriate. As of January 31, 1978, outstanding loans to India totaled US$1,168 million, of which US$662 million remained to be disbursed, leaving a net amount outstanding of US$506 million.

29. Of the external assistance received by India, the proportion contributed by the Bank Group has grown significantly. In 1969/70, the Bank Group accounted for 34% of total commitments, 13% of gross disbursements, and 12% of net disbursements as compared with an estimated 58%, 24% and 29%, respectively, in 1975/76. On March 31, 1976, India's outstanding and disbursed external public debt was US$13.1 billion, of which the Bank Group's share was 25%. The Bank Group's share is expected to remain around this level in the future. Because Bank Group assistance to India is predominantly in the form of IDA credits, debt service to the Bank Group will rise slowly. In 1976/77 about 14% of India's total debt service payments were to the Bank Group.

PART III - HORTICULTURE IN JAMMU-KASHMIR (J&K)

Horticulture in Jammu-Kashmir (J&K)

30. J&K, in the foothills of the Himalayan mountains, lies between Tibet and Pakistan. Per capita income in J&K of Rs 835 is well below the national average of Rs 1,022. Agriculture is the dominant occupation of the 5 million people of J&K and two-thirds derive their livelihood from cultivating the land. Due to the rugged topography, however, only about 6 percent of the area of J&K is cultivated and there is little scope for increasing agricultural production by extending the cropped area. Rice, maize and wheat are the main food grain crops. Apples and walnuts are also important. Rice and apples are the mainstay of Kashmir's economy at present. There are about 100,000 apple and walnut growers in the State, the majority of whom plant about 1 ha or less with trees which constitute their principal source of cash income.

31. J&K is the leading apple producing State in India, with an annual turnover of about US$60 million equivalent. Last year, the State produced over 0.3 million tons of apples, output is expected to triple within ten years. Walnut production is estimated at about 23,000 tons per annum and should reach about 30,000 tons in ten years. About 60% of all the nuts are exported, resulting in annual foreign exchange earnings of US$0.7 million equivalent. The walnut timber, which is priced at over US$500 equivalent per tree, is used for the intricate woodwork for which Kashmir is famous. Mushroom cultivation was introduced in the valley on an experimental basis ten years ago. Presently, there are about 500 farmers producing 95 tons of mushrooms, mostly for canning by local processors.

32. There is good potential for expanding apple production provided technical problems, which hinder higher yields, can be overcome. The main apple production problem in J&K is apple scab disease and the possibility of codling moth infestation. GOI and GOJK are taking adequate measures to control these diseases and the project would provide further technical assistance and study tours to allow local experts to evaluate work on scab control. The main problem with walnut production is that trees have been derived from unselected seed. Consequently walnuts lack uniformity of size, shape, color and kernel and are, therefore, difficult to market. The Department of Horticulture (DH) has selected 32 strains for propagation by seed and budding to produce a more homogenous walnut. There are no major walnut pest or disease problems but 25% of production is lost by inadequate hulling practices which cause staining of shells and discoloration and molding of kernels. The proposed project would help alleviate these problems.

33. With regard to mushrooms, the main problem is low yields, attributable to variable spawn quality and inadequate cultivation methods. Failure to maintain sterile conditions in mushroom houses causes yield reduction from pests and diseases. These difficulties could be overcome by modern spawn production facilities and expansion of research efforts, to introduce low-cost methods of germfree mushroom cultivation. The project would help GOJK to provide appropriate services and facilities to develop a mushroom industry.

34. Apple and walnut processing, marketing and transport facilities in J&K are inadequate to handle efficiently the quantities of fruits and nuts being produced. The expected increases in apple production made the need for improvement urgent. Marketing in J&K is unregulated. There is no uniform grading system and the quality of fruit marketed varies widely. Consequently there are inordinate delays in marketing because apples have to be unpacked from crates to allow for inspection by prospective wholesale buyers. Cold storage facilities are very limited and therefore apples must be marketed immediately irrespective of prevailing market conditions and prices. Poor quality apples - cull fruit - account for almost 20% total production. Marketing costs are too high to make it financially attractive to offer such fruit in fresh fruit markets and most of it is left to rot in orchards. Processing for juice would provide an outlet for culls and would enhance growers' incomes. The Ministry of Agriculture, through its Department of Horticulture, Planning and Marketing (DHPM) has begun, on a limited scale, to address some of the problems of apple and walnut growers. The formation of fruit growers cooperatives has been a particularly encouraging development. These societies consist almost entirely of small growers. The cooperatives provide credit to their members for growing and harvesting expenses, and arrange fruit transport and sale of fuit by commission agents. Starting in 1972 with two societies handling 25,000 boxes of apples, the number of societies increased to 42 by 1976 and their turnover, 470,000 boxes (a market share of 4%) that year, was expected to double during 1977 to about 8% of total out-of-state sales. Average income per member per unit marketed has been 15-20% above that of growers using pre-harvest contractors. However, societies have no packing or cold store facilities. These cooperatives would be major beneficiaries of the centralized marketing services to be provided through the project.

Previous Bank Group Experience

35. The Himachal Pradesh Apple Processing and Marketing Project (Credit No. 456-IN) was the first project supported by the Bank Group in the horticultural sector in India. It became effective in late 1974 and its purpose is to solve the same type of apple marketing and processing problems in HP that confront growers in Kashmir. The project is financing apple packing and grading centers, cold storage, a juice plant and construction of roads and cableways, to enable a state corporation to help growers market apples by outright purchase from them, by marketing fruit on a commission basis, or by providing grading, packing and forwarding services. Initial delays were caused by difficulties in establishing the corporation and hiring of key staff. These problems have been overcome and the marketing corporation is now functioning well, key staff appointed and a growing number of horticulturalists in HP are turning to the corporation for marketing assistance.

PART IV - THE PROJECT

36. The project was prepared by GOJK with the assistance of the Agricultural Finance Corporation Limited. It was appraised by IDA in September/October 1977. The Staff Appraisal Report No. 1890-IN, dated April 25, 1978, is being distributed separately. Negotiations were held in Washington from April 4 to April 12, 1978. The negotiating delegation for India was headed by Mr. D.K. Chatterjee, Director, Department of Economic Affairs. A Supplementary Project Data Sheet is attached as Annex III. Also attached is a project map.

Project Description

37. The project would be carried out over six years and would help to finance construction of a plant to produce apple juice concentrate and facilities for apple and walnut grading, packing, processing and marketing for the Jammu-Kashmir Horticultural Produce Marketing and Processing Corporation (JKHPMC). Financing is also provided for mushroom development and fruit research to be carried out by the Departments of Agriculture and Horticulture respectively. In addition, the project provides credit for a pilot mushroom production scheme. Funds for the above-mentioned marketing facilities and the juice plant for JKHPMC would be channelled through the Agricultural Refinance and Development Corporation (ARDC) and participating banks. For the marketing components, execution of an ARDC subsidiary agreement satisfactory to IDA and drawing-up of a banking plan would be conditions of credit effectiveness (Section 5.01 (c) and (e) of the Credit Agreement). Execution of an ARDC subsidiary agreement, satisfactory to IDA, for financing of the juice plant would be a condition of disbursement for this component (Schedule 1 para 4(c)(i) of the Credit Agreement). Finally, the project includes marketing and project evaluation studies and technical assistance. Following is a brief description of project components.

38. Apple Grading and Packing Centers. A total of 25 grading/packing centers would be constructed under the project. The centers would be part of several complexes containing cold storage and sawmill facilities also to be financed by the project. The grading and packing centers would operate for about eight weeks. During the peak harvest period double shift work would be required for about five weeks. During the off season some staff would work in the saw mills as explained below.

39. Cold Storage. A total of ten cold storage facilities would be constructed under the project with a combined capacity of 17,000 tons. Development of cold storage capacity would be phased to match the throughput at each grading and packing center and at full development JKHPMC would operate seven centers each with 2,000 tons cold storage capacity and three units with 1,000 tons each.

40. Saw Mills. A total of ten sawmills would be constructed under the project to meet part of JKHPMC's needs for fruit boxes. JKHPMC would require about three million boxes per year for packing apples, excluding wooden bins for collecting fruit from growers and for transporting culls. Each sawmill would have a capacity for making some 125,000 boxes per season and would be attached to one of the ten 6,000 ton packing/grading centers. In addition to ensuring a supply of boxes, the sawmills would allow JKHPMC to cut costs and provide off-season employment for packing center staff. With increasing pressure for raw materials for packing boxes, JKHPMC would ensure timber supplies by placing bulk orders with GOJK's Forestry Department. Bulk orders would also reduce JKHPMC's costs. The Department would give priority to meeting JKHPMC's requirement for timber supplies (Section 2.08 of Project Agreement).

41. Transshipment Center. Road transport is well developed between Kashmir and Delhi but, for onward transportation to other urban centers, goods have to be transshipped to a second group of transporters operating from Delhi to other major cities. At present most J&K fruit goes to the Delhi wholesale market where it is repacked and reloaded causing congestion, waste of time and extra expense. Costs would be reduced and fruit deliveries speeded up if the transfer could take place outside the city boundaries. The project would therefore finance a transshipment center at Kundli, at the Haryana Delhi border. The center would have storage capacity for 10,000 fruit boxes and would handle apples and walnuts for JKHPMC and, on a fee basis, for traders. Other produce would also be handled and the center is expected to operate for about eight months in the year.

42. Walnut Hulling and Drying Centers and one Export Center. The project would finance fourteen walnut hulling and drying centers to process 9,000 tons of unshelled walnuts. At full development, JKHPMC expects to purchase 60% of the throughput, handle 20% on consignment and 20% on a custom service basis. About half the unshelled nuts would be sold to traders and high grade nuts would be sent to JKHPMC's export processing center for further treatment. The center would prepare and pack unshelled nuts and kernels for export.

43. Apple Juice Concentrate Plant. There are an estimated 60,000 tons of non-fancy grade apples largely wasted in J&K at present and, in ten years

time, the amount could double. The major potential use for these apples is as juice concentrate for the soft drink market. Present planning in India envisages construction of one apple juice plant in HP being financed by the Association (Himachal Pradesh Apple Processing and Marketing Project - Cr. No. 456-IN), and, probably, a second plant in Uttar Pradesh. Kashmir has enough cull apples to keep at least four to five apple juice concentrate plants working full time; marketing of the juice, however, is a problem. The Indian soft drink market, despite the size of the country, is a thin one, and past experience has shown it to be both volatile and highly price sensitive. Fruit juices at present constitute a very small proportion of the market and their prices are not competitive with the various colas and carbonated drinks. Because of the market constraints, the project would finance only one apple juice plant in J&K, with capacity to process 12,000 tons of cull apples per year. To ensure that the proposed investment in the plant is viable, the completion of a satisfactory feasiblity study and appropriate arrangements for bottling and marketing of juice would be conditions of disbursement for this component (Schedule 1, Para 4(c)(ii) and Part II.2 of Schedule 3 of the Credit Agreement).

44. Mushroom Development. The project would help the mushroom section in the Department of Agriculture (DA) to improve mushroom cultivation in Kashmir by providing 13 man-months of internationally recruited experts, 13 man-months of study-tours, a modern spawn production unit and additional research facilities.

45. Crop Production Loans. Advance payment soon after harvest is a major incentive offered to growers by preharvest contractors. To attract customers JKHPMC would have to provide, or help its clients obtain, similar financial assistance. For this purpose, the project would provide Rs 20 million production credit for growers who would contract with JKHPMC to sell or market their fruit. A small amount, not exceeding Rs 400,000, would be available also to farmers participating in a mushroom pilot scheme. Commercial banks and viable cooperative banks would channel the credit to growers either directly or through fruit growers' cooperatives and would be refinanced by ARDC.

46. Fruit Research. The Horticultural Research Station in Kashmir lacks laboratory space and equipment to conduct research on cold storage of fruits and the existing library is inadequate. Therefore, the project would help to finance cold storage units and a library annex needed for carrying out fruit research in the State. In addition, the project would finance purchase of three refrigerated trucks to test the technical and economic viability of transporting fruit over long distances under controlled temperatures. Indian Railways operate about eight refrigerated railvans for the Ministry of Agriculture which would be made available for trials under the project. Such trials would be conducted by JKHPMC in collaboration with the Department of Horticulture (DH) and the Department of Horticulture Planning and Marketing DHPM).

47. Technical Assistance. To ensure that JKHPMC gets off to a successful start, engineering consultants, technical assistance and training have been provided in the project. A total of 90 man-months of internationally recruited experts at an estimated average cost of about US$6,000 per man-month would be

provided. Consultants would assist JKHPMC in selecting sites, drawing up tender documents, preparing construction and equipment purchase contracts, and evaluating bids for the cold storage units and the juice concentrate plant. One management consultant would also be hired to assist JKHPMC's Managing Director. In addition to the management expert, the technical assistance includes two specialists for walnut operations, two for apple juice manufacture, two for cold storage research, five for mushroom research and spawn production and one for codling moth control. Assurances have been obtained that GOJK would appoint the consultants for the technical assistance program under the project (Section 2.02 of Project Agreement).

48. Studies and Training. The project would finance studies on apple products and walnut by-products development, foreign market evaluation for apple concentrate, and technological aspects of local apple marketing. Terms of Reference satisfactory to the Association would be prepared for the studies by GOJK's Department of Horticulture (Section 3.03 of the Credit Agreement). A project evaluation study to be undertaken by GOJK would also be financed to provide feedback about the effect of JKHPMC operations on existing marketing and market behavior and the benefits accruing to fruit growers from the project. The evaluation study would be initiated by December 31, 1978 and an inception report would be submitted to the Association by March 31, 1979 (Section 2.13 of Project Agreement).

49. The marketing and production technology to be introduced under the project would necessitate considerable staff training, both local and overseas. The project would finance 62 man-months to cover training needs of twenty GOJK and JKHPMC staff. Assurances have been obtained that GOJK would prepare a plan by December 31, 1978 to arrange the study-tours, subject to the approval of the Association (Section 2.15 of Project Agreement). Apart from training new staff there would be a need for periodic refresher training. The apple grading, packing and cold storage training program would benefit considerably from a similar program underway in the HP Apple project. The HP program would be in operation up to one or two years before the first JKHPMC centers would be completed and would explore the most appropriate grading, packing and cold storage techniques, which would be applied in the training courses under the proposed project.

Project Implementation

50. Apple and Walnut Components. The executing agency, JKHPMC, would construct, own and operate the apple juice concentrate plant and all facilities for grading, packing, processing and marketing of apples and walnuts. JKHPMC would establish offices in main consumption centers to promote and conduct sales of its produce. It would also maintain field services at grading and packing centers to form close links with growers, coordinate harvesting and fruit deliveries and, in close cooperation with DH, provide technical advice. In order to ensure that JKHPMC would concentrate all its manpower and financial resources on project activities, assurances have been obtained that during project implementation the Corporation would inform the Association prior to undertaking any activity not included in the project (Section 2.18 of the Project Agreement).

51. Organization and Management. JKHPMC was formed in April 1978 and its Managing Director was appointed in February 1978. The Corporation expects to have full time staff of about 800 and, in addition, to provide seasonal employment to 1,900 people. The appointment of qualified Department Heads for Operations and Finance would be a condition of credit effectiveness and assurances have been obtained that qualified persons would be appointed to head the Marketing and Administration Departments by March 31, 1979 (Section 5.01 (f) of the Credit Agreement and Section 2.06 of Project Agreement). Also, assurances have been obtained that the above mentioned senior staff would be recruited nationwide, and that every effort would be made to retain senior staff to ensure continuity of JKHPMC management (Section 3.02 of the Project Agreement).

52. JKHPMC's Managing Director is accountable to the Board which would include, in addition to himself, representatives of GOI, GOJK, ARDC and shareholder-growers. The Board would deal with major policy issues and a small executive committee of the Board would assist the Managing Director in the day-to-day operations. The Corporation's authorized share capital is Rs 50 million. The shareholders of the Corporation would be GOJK (50%), GOI (40%), and fruit growers (10%) (Section 3.03 of the Credit Agreement). To encourage greater growers' participation in JKHPMC, GOJK would allow fruit growers to increase their shareholding in the Corporation. The payment of Rs 1 million of JKHPMC's initial share capital would be a condition of credit effectiveness (Section 5.01 (d) of the Credit Agreement). Also, to strengthen JKHPMC's financial position, GOI and GOJK have agreed to purchase additional shares so that JKHPMC's share capital would be Rs 5 million by June 1979 and, thereafter, at the beginning of each financial year as shown to be necessary by the Corporation's financial plan to maintain the debt/equity at no more than 2:1 (Section 3.02 (b) and (c) of the Credit Agreement). Cash flow projections show that JKHPMC would be able to generate sufficient revenue to finance working capital requirements for full operations, estimated to be over Rs 55 million, and for future investment programs. The Corporation's estimated financial rate of return would be 22%.

53. Field activities of the Corporation would be conducted by its Operations Department which would include an Apple, a Walnut and an Engineering Section, each headed by a manager. The Engineering Section would be responsible for supervising construction and for the maintenance of both apple and walnut centers. Each center would, in addition to operating staff, have field staff to contact farmers, provide horticultural advice, coordinate fruit deliveries to centers and help farmers obtain advances or crop loans. HD staff would cooperate closely with JKHPMC staff particularly to improve apple quality by pest and disease control and to ensure that apples and walnuts are harvested on time.

54. The Marketing Department would be mainly concerned with apple marketing - particularly in development of direct sales to wholesale merchants in major consumption areas throughout India, and in promoting sales to smaller towns and rural areas. For this purpose, it would open at least ten sales offices in the most important consumption areas, in coordination with DHPM staff who gather market intelligence in Delhi, Bombay, Calcutta, Madras,

Hyderabad and Ahmadabad. Also, the Department would be responsible for procuring cull apples for the juice plant to be constructed under the project. The apple juice plant would be owned and operated by JKHPMC. Initially, the Walnut Section would sell its crop directly to wholesalers and exporters but, after gaining experience, may attempt direct wholesaling and exporting. The Corporation is expected to handle about 75,000 tons apples and 9,000 tons walnuts, about 12% and 30% respectively of projected 1987 production in J&K.

55. DA - Mushroom Development. As discussed in paragraphs 37 and 38 above, the mushroom component includes a small amount of credit for pilot production of mushrooms and financing of staff and research facilities for development of the mushroom industry in Kashmir under the guidance of DA. The research program would look into ways of improving mushroom yields, including mushroom growing on pasteurized compost in polyethylene bags. The research program has yet to be developed and assurances have been obtained that DA would draw up research plans and an implementation timetable satisfactory to IDA by June 30, 1979, (Section 2.09 of Project Agreement). To conduct the research and spawn production programs DA would need to appoint one senior mushroom scientist, four junior (graduate) scientists and three non-graduate laboratory technicians. Assurances have been obtained that the senior scientist and two junior scientists would be appointed by December 31, 1978, and the other new staff by December 31, 1979 (Section 2.10 of Project Agreement).

56. DH - Fruit Research. DH would be responsible for implementing fruit research and its staff would receive technical assistance for post harvest research and overseas training under the project. To operate the research facilities and the refrigerated road trucks mentioned in paragraph 39 above, DH would employ the following additional staff: a refrigeration engineer, two cold store operators, a post-harvest physiologist, an assistant physiologist, a post-harvest pathologist, an assistant pathologist and a food technologist. Assurances have been obtained that the engineer, operators and physiologist would be appointed by December 31, 1978, and all other new staff by June 30, 1979 (Section 2.11 of Project Agreement).

57. Engineering and Supervision of Construction. GOJK's Public Works Department would draw up and evaluate tenders and supervise construction of Project facilities pertaining to DA and DH. The tendering and supervision of construction of the Corporation's would be done either by a firm or by the Public Works Department. Arrangements for this work, on terms and conditions satisfactory to IDA, have been made a condition of disbursement of the relevant credit components (Paragraph 4(b) of Schedule 1 of Credit Agreement). JKHPMC'S own engineering staff would, with assistance of internationally recruited consultants (para 40), install and test run the grading, hulling and drying equipment, and supervise installation and testing of cold storage equipment.

58. Project Coordination. The agencies concerned directly with project implementation include JKHPMC, DA, DH, and ARDC. Other agencies would have important supporting roles such as DHPM in marketing, the Forestry Department for fruit boxes, and the J&K Road Transport Corporation for fruit transport.

Project implementation would be coordinated by a Project Coordination Committee on which key agencies would be represented. Establishment of the Committee has been made a condition of credit effectiveness (Section 5.01 (g) of the Credit Agreement).

59. Implementation Schedule. Implementation would start in July 1978 and completion of all project facilities is projected for September 1983. The first project year would be devoted mainly to organizing JKHPMC, appointment of design consultants, design of apple and walnut facilities, and placing contracts for construction and equipment. The first apple grading and packing centers and walnut hulling and grading centers are projected for completion for the September 1980 harvest season; the first cold store units for the 1981 harvest; and the walnut export center and apple juice plant for the 1981 and 1982 seasons respectively.

Project Cost and Financing

60. The estimated cost of the proposed project is US$27.6 million, of which US$2.5 million or 9% of the total would be foreign exchange costs and US$0.9 million would be duties and taxes. Estimates are based on October 1977 prices. A 10% physical contingency has been allowed for civil works and equipment costs. Price contingencies have been applied for foreign equipment at 7.5% for 1978 and 1979 and at 7% thereafter; for local equipment at 7% for each year and for civil works at 7% each year. Total contingencies amount to US$7.3 million or 26% of total project cost.

61. The proposed IDA credit of US$14 million would be made to GOI on standard terms and would meet about 50% of total project cost. GOI and GOJK would contribute US$6.6 million towards equity shares of JKHPMC; GOJK US$0.5 million for shares in JKHPMC and for the project research component costs. ARDC and participating banks would contribute US$5.8 million towards cost of production credit and working capital to construct and equip JKHPMC's facilities. Fruit growers would put up US$0.7 million for equity participation in JKHPMC. GOI would onlend US$12.0 million of IDA's credit to ARDC. ARDC would use the funds to refinance crop production loans to farmers and loans to JKHPMC for the juice concentrate plant and apple and walnut facilities. The balance, US$2 million would be passed on by GOI to GOJK as a grant to help pay the cost of research and technical assistance.

Procurement and Disbursement

62. Civil works for the apple, walnut and research facilities costing about US$7.4 million would be carried out at about 45 sites and be phased over five years. As contracts for such work would not attract foreign bidders, about US$1.5 million of the construction contracts would be carried out by force account and the remainder would be awarded after local competitive bidding, using GOJK procedures, which are satisfactory to IDA. Construction on force account of about 20 apple and walnut centers would be undertaken in remote rural areas of the project where, on the basis of experience, local contractors would not be interested in doing the work. Grading, hulling, cold storage and drying equipment for apple and walnut facilities, machinery

and equipment for the juice plant and machinery and equipment for fruit and mushroom research, costing about US$6.5 million, would be procured by international competitive bidding. A 15% preference on equipment bids based on the CIF price of each item or the actual custom tariff, whichever is lower, would be granted to domestic manufacturers, and it is expected that the bulk of the equipment would be supplied by local manufacturers.

63. Other equipment, including furniture, grading tables, pallets, saw milling equipment and similar items amounting to US$2.3 million would not be suitable for international competitive bidding and would be purchased after local competitive bidding following GOJK procedures. In addition, over a five year period, the project would finance the purchase of 58 trucks and 15 motorcycles costing US$0.6 million equivalent. International competitive bidding would not be practical since only Indian made vehicles are now used in J&K and there are no spare parts and service facilities for imported vehicles. Consequently, Indian vehicles would be purchased after local competitive bidding. Items costing less than US$10,000 and required urgently for project execution, would be purchased by prudent shopping through normal commercial channels. Such purchases would be limited to US$200,000 in total. Farmers drawing crop production loans would be free to purchase fertilizer, pesticides and other necessary inputs from local suppliers of their choice.

64. The proceeds of the credit would be disbursed against 100% of the foreign cost for directly imported items; the ex-factory cost for locally manufactured equipment and vehicles; the full cost of technical assistance, overseas study tours and studies; and against 50% of the cost of civil works, of other locally procured items, and of crop loans. No disbursements would be made against working capital needed for JKHPMC, or the cost of land purchases. GOJK would be responsible for providing the first six sites for JKHPMC's facilities. Assurances have been obtained that suitable sites would be acquired by GOJK for the project by September 30, 1978 (Section 2.16 of Project Agreement).

Economic Benefits and Risks

65. Project benefits would derive from more efficient handling and marketing of apples and walnuts. It is estimated that proper grading and improved packing would yield a price premuim of 10% over conventionally graded fruit. Preserving 17,000 tons of apples in cold storage for post-season marketing is expected to yield a price premium of about 40% and should contribute to development of new markets throughout India. In addition, over 12,000 tons of previously wasted cull apples would be processed into juice concentrate and other by-products. In the project's walnut component, better processing methods would increase grade quality with an estimated 10% price improvement, and bring into the market about 1,300-1,400 tons of walnuts which would have spoiled under conventional hulling/drying methods.

66. At full project development, the total incremental economic value at the farm level of apples and walnuts handled by the project are estimated at Rs 20 and 21 million, respectively. Income increments would accrue to about 30-40,000 growers, among the poorest in J&K, where the average holding

is under 1 hectare. For an average farm family of six members with a one acre orchard yielding 240 boxes of marketable fruit, an income increment of approximately Rs 1,500 would result, or about US$25-30 equivalent per capita. The relatively poorer walnut growers, who now sell their crop to pre-harvest contractors, would be able to double their current income by marketing under the project, resulting in an increment of approximately Rs 450 per holding of 15 trees. At full development, a total of about 2,700 jobs would be filled by JKHPMC, of which about 1,900 would be seasonal unskilled and semi-skilled positions. Many of the seasonal job opportunities would be available to women, who typically are engaged for walnut processing. Unskilled labor demand is not increased appreciably by the project. It is expected that labor demand from horticultural production in the future will increase faster than growth in the J&K labor force so that the area will attract seasonal unskilled labor through migration, as in HP.

67. The estimated economic rate of return for the entire project, including all costs, is 21%. For the juice concentrate plant costing US$3.9 million (inclusive of permanent working capital) or 14% of total project costs, the economic rate of return is estimated to be 26%. For JKHPMC's other operations, which represent US$14.1 million investment or 51% of total project costs, economic rates of return were estimated to be 22% for apple trading at a cost of US$11.3 million, and 31% for walnut trading at a cost of US$2.8 million. The average weighted economic rate of return on these three components, which account for 65% of total project costs, is 25%.

68. Perhaps the greatest potential benefit of the proposed project is not included in the above contributions. To the extent that the improvement and more efficient market technologies (e.g. grading, cold storage) are demonstrated to be successful and financially viable, they would be widely adopted by private traders who will continue to handle the major portion of the fruit trade in Jammu-Kashmir.

69. The main risk to project success would stem from JKHPMC management quality. Technical and logistical problems of dealing with 84,000 tons of perishable produce over a three month period would be formidable. Development of a high level of commercial expertise to enable the Corporation to compete with the established trade channels would be equally crucial. The Corporation would need efficient and highly motivated personnel. As already indicated above (para 44), a suitable recruitment policy would be pursued to attract highly qualified staff for JKHPMC. Technical assistance and study tours to be financed by the project would also play a key role in the intensive staff training program for the Corporation.

70. Also, there are uncertainties about the market for apple juice. However, market studies have indicated that with efficient distribution and aggressive promotion the production of apple juice from this project could be sold in India. As is explained in para 36 above, the completion of the feasibility and marketing studies, which are a condition of disbursement for the apple juice concentrate component, should provide the information for making a sound decision about this component.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

71. The draft Development Credit Agreement between India and the Association, the draft Project Agreement between the Association and the State of Jammu and Kashmir, the draft ARDC Agreement between the Association and the Agricultural Refinance and Development Corporation and the Recommendation of the Committee provided for in Article V, Section 1 (d) of the Articles of Agreement are being distributed to Executive Directors separately.

72. Special conditions of the project are listed in Section III of Annex III.

73. Additional conditions precedent to credit effectiveness include:

(i) the execution of the Project Agreement on behalf of Jammu and Kashmir has been duly authorized or ratified by all necessary governmental actions;

(ii) the execution of the ARDC Agreement has been duly authorized or ratified by all necessary corporate action (Section 5.01 (b) of the Development Credit Agreement);

(iii) the execution of the First ARDC Subsidiary Loan Agreement on behalf of the Borrower and ARDC has been duly authorized or ratified by all necessary governmental and corporate action (Section 5.01 (c) of the Development Credit Agreement);

(iv) JKHPMC's initial share capital of one million rupees has been paid up (Section 5.01(d) of the Development Credit Agreement);

(v) a banking plan satisfactory to the Association has been prepared by ARDC to ensure the relending of the proceeds of the Credit in accordance with Part I of Schedule 3 to the Development Credit Agreement (Section 5.01 (e) of the Development Credit Agreement);

(vi) JKHPMC has appointed qualified persons to head its operations, and finance and departments (Section 5.01 (f) of the Development Credit Agreement);

(vii) Jammu and Kashmir has established the Project Coordination Committee (Section 5.01 (g) of the Development Credit Agreement).

74. Additional conditions of disbursement include:

(i) with respect to expenditures for construction of marketing facilities (excluding the juice plant) the appointment of engineering consultants (Schedule 1, para 4(b) of the Development Credit Agreement);

(ii) with respect to expenditure for the apple juice processing plant, the signing of a subsidiary loan agreement and the approval by the Association of the feasibility study including a marketing plan and distribution arrangements for the products of the plant (para 4(c) of Schedule 1 of the Development Credit Agreement).

75. I am satisfied that the proposed credit would comply with the Articles of Agreement of the Association.

76. I recommend that the Executive Directors approve the proposed Credit.

Robert S. McNamara
President

May 3, 1978

INDIA - SOCIAL INDICATORS DATA SHEET

LAND AREA (THOU KM2)
TOTAL 3280.5
AGRIC. 1797.5

	INDIA 1960	INDIA 1970	INDIA MOST RECENT ESTIMATE	REFERENCE COUNTRIES (1970) INDONESIA	PHILIPPINES	BRAZIL**
GNP PER CAPITA (US$)	60.0	100.0	150.0	130.0	230.0	550.0
POPULATION AND VITAL STATISTICS						
POPULATION (MID-YR, MILLION)	434.9	547.6	620.4 /a	117.6	36.9	92.8
POPULATION DENSITY						
PER SQUARE KM.	133.0	167.0	189.0	62.0	123.0	11.0
PER SQ. KM. AGRICULTURAL LAND	247.0	308.0	345.0	411.0	375.0	49.0
VITAL STATISTICS						
CRUDE BIRTH RATE (/THOU, AV)	43.2	41.0	37.0	45.9	44.2	38.4
CRUDE DEATH RATE (/THOU,AV)	23.9	19.0	17.0	20.6	13.2	9.9
INFANT MORTALITY RATE (/THOU)	139.0/a	..	130.0	..	81.0	110.0
LIFE EXPECTANCY AT BIRTH (YRS)	41.7	47.2	49.5	..	55.6	59.4
GROSS REPRODUCTION RATE	3.2	2.9	2.8	3.2	3.3	2.6
POPULATION GROWTH RATE (%)						
TOTAL	2.0	2.3	2.1	2.0	3.0	2.9
URBAN	2.5/b	3.2	3.1	3.7/a	4.0	5.0
URBAN POPULATION (% OF TOTAL)	17.9	19.8	20.6	17.5/b	27.6	56.0
AGE STRUCTURE (PERCENT)						
0 TO 14 YEARS	41.0	41.6	40.1	44.0	45.6	42.0
15 TO 64 YEARS	55.9	55.3	56.7	53.5	51.6	55.0
65 YEARS AND OVER	3.1	3.1	3.2	2.5	2.8	3.0
AGE DEPENDENCY RATIO	0.8	0.8	0.8	0.9	0.9	0.8
ECONOMIC DEPENDENCY RATIO	1.1/c	1.1/a	1.1/b	..	1.5	1.5
FAMILY PLANNING						
ACCEPTORS (CUMULATIVE, THOU)	71.0	14585.0	37658.0	259.3	320.0	250.0
USERS (% OF MARRIED WOMEN)	..	..	18.7	..	2.0	1.6
EMPLOYMENT						
TOTAL LABOR FORCE (THOUSAND)	175000.0	218000.0	261000.0/a	..	12400.0	29400.0
LABOR FORCE IN AGRICULTURE (%)	71.0	69.0	69.0	..	55.0/a	40.4
UNEMPLOYED (% OF LABOR FORCE)	4.8 /d	4.4 /b	4.4/c,d	..	7.6	7.5
INCOME DISTRIBUTION						
% OF PRIVATE INCOME REC'D BY-						
HIGHEST 5% OF HOUSEHOLDS	26.7	25.0 /c	..	..	..	35.0/a
HIGHEST 20% OF HOUSEHOLDS	51.7	53.1 /c	..	..	54.0	62.0/a
LOWEST 20% OF HOUSEHOLDS	4.1	4.7 /c	..	..	3.6	3.0/a
LOWEST 40% OF HOUSEHOLDS	13.6	13.1 /c	..	..	11.7	10.0/a
DISTRIBUTION OF LAND OWNERSHIP						
% OWNED BY TOP 10% OF OWNERS	..	..	..	..	..	45.0
% OWNED BY SMALLEST 10% OWNERS	..	..	..	..	..	1.5
HEALTH AND NUTRITION						
POPULATION PER PHYSICIAN	5840.0/e	4890.0	4220.0	26370.0	..	1910.0
POPULATION PER NURSING PERSON	5310.0/e	5220.0/d	3680.0/e	7630.0/c	..	3220.0/b
POPULATION PER HOSPITAL BED	2590.0/h	1610.0	..	1640.0	850.0	260.0
PER CAPITA SUPPLY OF -						
CALORIES (% OF REQUIREMENTS)	95.0	92.0	89.0	91.0	93.0	109.0
PROTEIN (GRAMS PER DAY)	55.0	53.0	48.0	43.0	45.0	64.0
-OF WHICH ANIMAL AND PULSE	19.0/i	16.0	12.6	14.0	22.0	39.0
DEATH RATE (/THOU) AGES 1-4	44.0	..	..	..	6.6	..
EDUCATION						
ADJUSTED ENROLLMENT RATIO						
PRIMARY SCHOOL	41.0	63.0	65.0	75.0	113.0	87.0
SECONDARY SCHOOL	23.0	30.0	29.0	15.0	49.0	68.0
YEARS OF SCHOOLING PROVIDED (FIRST AND SECOND LEVEL)	12.0	12.0	11.0	12.0	10.0	11.0
VOCATIONAL ENROLLMENT (% OF SECONDARY)	8.0	..	..	29.0	6.0 /b	17.0
ADULT LITERACY RATE (%)	24.0	33.0	36.0/f	59.0	..	64.0
HOUSING						
PERSONS PER ROOM (URBAN)	2.6	2.8	..	..	2.1	1.0
OCCUPIED DWELLINGS WITHOUT PIPED WATER (%)	..	..	..	..	76.0	73.0 /c
ACCESS TO ELECTRICITY (% OF ALL DWELLINGS)	..	..	..	..	23.0	48.0
RURAL DWELLINGS CONNECTED TO ELECTRICITY (%)	..	..	..	..	7.0	8.0
CONSUMPTION						
RADIO RECEIVERS (PER THOU POP)	5.0	21.0	25.0	114.0	39.0	60.0
PASSENGER CARS (PER THOU POP)	0.7	1.0	1.0	2.0	8.0	25.0
ELECTRICITY (KWH/YR PER CAP)	46.0	114.0	143.0	20.0	235.0	491.0
NEWSPRINT (KG/YR PER CAP)	0.2	0.3	0.3	0.3	2.0	2.7

SEE NOTES AND DEFINITIONS ON REVERSE

NOTES

Unless otherwise noted, data for 1960 refer to any year between 1959 and 1961, for 1970 between 1969 and 1971, and for Most Recent Estimate between 1973 and 1976.

** Brazil has been selected as an objective country because of its size and comparable problems of regional inequality.

INDIA 1960 /a 1951-61 average; /b 1951-60; /c Ratio of population under 15 and 65 and over to labor force age 15 and over; /d Estimated by National Sample Survey, in terms of the average number of person/weeks of unemployment as percentage of total person/weeks in the labor force; /e 1962; /f Registered, not all practicing in the country; /g Including midwives; /h 1958; /i 1960-62.

1970 /a Ratio of population under 15 and 65 and over to total labor force age 15 and over; /b Estimated by National Sample Survey, in terms of the average number of person/weeks of unemployment as percentage of total person/weeks in the total labor force; /c 1967-68; /d Including midwives.

MOST RECENT ESTIMATE: /a 1978 mid-year population and labor force estimated at 640.4 and 261 millions respectively; /b Ratio of population under 15 and 65 and over to total labor force; /c 1977; /d Estimated by National Sample Survey, in terms of the average number of person/weeks of unemployment as percentage of total person/weeks in the labor force; /e Including midwives; /f Population 10 years and over.

INDONESIA 1970 /a 1961-71; /b 1971; /c Including midwives.

PHILIPPINES 1970 /a As percentage of employment; /b Not including private vocational schools.

BRAZIL 1970 /a Economically active population; /b Hospital personnel; /c Inside only.

R13, May 2, 1978

DEFINITIONS OF SOCIAL INDICATORS

Land Area (thou km²)
Total - Total surface area comprising land area and inland waters.
Agric. - Most recent estimate of agricultural area used temporarily or permanently for crops, pastures, market & kitchen gardens or to lie fallow.

GNP per capita (US$) - GNP per capita estimates at current market prices, calculated by same conversion method as World Bank Atlas (1974-76 basis); 1960; 1970 and 1976 data.

Population and vital statistics
Population (mid-year million) - As of July first: if not available, average of two end-year estimates; 1960, 1970 and 1976 data.

Population density - per square km - Mid-year population per square kilometer (100 hectares) of total area.
Population density - per square km of agric. land - Computed as above for agricultural land only.

Vital statistics
Crude birth rate per thousand, average - Annual live births per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970, and five-year average ending in 1975 for most recent estimate.
Crude death rate per thousand, average - Annual deaths per thousand of mid-year population; ten-year arithmetic averages ending in 1960 and 1970 and five-year average ending in 1975 for most recent estimate.
Infant mortality rate (/thou) - Annual deaths of infants under one year of age per thousand live births.
Life expectancy at birth (yrs) - Average number of years of life remaining at birth; usually five-year averages ending in 1960, 1970 and 1975 for developing countries.
Gross reproduction rate - Average number of live daughters a woman will bear in her normal reproductive period if she experiences present age-specific fertility rates; usually five-year averages ending in 1960, 1970 and 1975 for developing countries.
Population growth rate (%) - total - Compound annual growth rates of mid-year population for 1950-60, 1960-70 and 1970-75.
Population growth rate (%) - urban - Computed like growth rate of total population; different definitions of urban areas may affect comparability of data among countries.
Urban population (% of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries.

Age structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population.
Age dependency ratio - Ratio of population under 15 and 65 and over to those of ages 15 through 64.
Economic dependency ratio - Ratio of population under 15 and 65 and over to the labor force in age group of 15-64 years.
Family planning - acceptors (cumulative, thou) - Cumulative number of acceptors of birth-control devices under auspices of national family planning program since inception.
Family planning - users (% of married women) - Percentages of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

Employment
Total labor force (thousand) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc.; definitions in various countries are not comparable.
Labor force in agriculture (%) - Agricultural labor force (in farming, forestry, hunting and fishing) as percentage of total labor force.
Unemployed (% of labor force) - Unemployed are usually defined as persons who are able and willing to take a job, out of a job on a given day, remained out of a job, and seeking work for a specified minimum period not exceeding one week; may not be comparable between countries due to different definitions of unemployed and source of data, e.g., employment office statistics, sample surveys, compulsory unemployment insurance.

Income distribution - Percentage of private income (both in cash and kind) received by richest 5%, richest 20%, poorest 20%, and poorest 40% of households.

Distribution of land ownership - Percentages of land owned by wealthiest 10% and poorest 10% of land owners.

Health and Nutrition
Population per physician - Population divided by number of practicing physicians qualified from a medical school at university level.
Population per nursing person - Population divided by number of practicing male and female graduate nurses, "trained" or "certified" nurses, and auxiliary personnel with training or experience.
Population per hospital bed - Population divided by number of hospital beds available in public and private general and specialized hospital and rehabilitation centers; excludes nursing homes and establishments for custodial and preventive care.
Per capita supply of calories (% of requirements) - Computed from energy equivalent of net food supplies available in country per capita per day; available supplies comprise domestic production, imports less exports, and changes in stock; net supplies exclude animal feed, seeds, quantities used in food processing and losses in distribution; requirements were estimated by FAO based on physiological needs for normal activity and health considering environmental temperature, body weights, age and sex distributions of population, and allowing 10% for waste at household level.
Per capita supply of protein (grams per day) - Protein content of per capita net supply of food per day; net supply of food is defined as above; requirements for all countries established by USDA Economic Research Services provide for a minimum allowance of 60 grams of total protein per day, and 20 grams of animal and pulse protein, of which 10 grams should be animal protein; these standards are lower than those of 75 grams of total protein and 23 grams of animal protein as an average for the world, proposed by FAO in the Third World Food Survey.
Per capita protein supply from animal and pulse - Protein supply of food derived from animals and pulses in grams per day.
Death rate (/thou) ages 1-4 - Annual deaths per thousand in age group 1-4 years, to children in this age group; suggested as an indicator of malnutrition.

Education
Adjusted enrollment ratio - primary school - Enrollment of all ages as percentage of primary school-age population; includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education, enrollment may exceed 100% since some pupils are below or above the official school age.
Adjusted enrollment ratio - secondary school - Computed as above; secondary education requires at least four years of approved primary instruction; provides general, vocational or teacher training instructions for pupils of 12 to 17 years of age; correspondence courses are generally excluded.
Years of schooling provided (first and second levels) - Total years of schooling; at secondary level, vocational instruction may be partially or completely excluded.
Vocational enrollment (% of secondary) - Vocational institutions include technical, industrial or other programs which operate independently or as departments of secondary institutions.
Adult literacy rate (%) - Literate adults (able to read and write) as percentage of total adult population aged 15 years and over.

Housing
Persons per room (urban) - Average number of persons per room in occupied conventional dwellings in urban areas; dwellings exclude non-permanent structures and unoccupied parts.
Occupied dwellings without piped water (%) - Occupied conventional dwellings in urban and rural areas without inside or outside piped water facilities as percentage of all occupied dwellings.
Access to electricity (% of all dwellings) - Conventional dwellings with electricity in living quarters as percent of total dwellings in urban and rural areas.
Rural dwellings connected to electricity (%) - Computed as above for rural dwellings only.

Consumption
Radio receivers (per thou pop) - All types of receivers for radio broadcasts to general public per thousand of population; excludes unlicensed receivers in countries and in years when registration of radio sets was in effect; data for recent years may not be comparable since most countries abolished licensing.
Passenger cars (per thou pop) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles.
Electricity (kwh/yr per cap) - Annual consumption of industrial, commercial, public and private electricity in kilowatt hours per capita, generally based on production data, without allowance for losses in grids but allowing for imports and exports of electricity.
Newsprint (kg/yr per cap) - Per capita annual consumption in kilograms estimated from domestic production plus net imports of newsprint.

ECONOMIC DEVELOPMENT DATA

GNP PER CAPITA IN 1976 a/: US$ 150

GROSS NATIONAL PRODUCT IN 1976/77 b/

	US$ Bln.	%
GNP at Market Prices	86.04	100.0
Gross Domestic Investment	16.62	19.3
Gross National Saving	18.18	21.1
Current Account Balance	1.56	1.8
Resource Gap	0.95	1.1

ANNUAL RATE OF GROWTH (%, constant prices) c/

1960/61-1964/65	1965/66-1969/70	1970/71-1975/76
3.9	3.8	2.9

OUTPUT, LABOR FORCE AND PRODUCTIVITY IN 1971

	Value Added (at factor cost)		Labor Force		V.A. Per Worker	
	US$ Bln.	%	Mil.	%	US$	% of National Average
Agriculture	24.5	46.6	130.0	72.1	188	64
Industry	11.8	22.3	20.2	11.2	582	199
Services	16.3	31.1	30.2	16.7	542	186
Total/average	52.6	100.0	180.4	100.0	292	100

GOVERNMENT FINANCE

	General Government d/			Central Government		
	(Rs. Bln)	% of GDP		(Rs. Bln)	% of GDP	
	1976/77	1976/77	1974/75-1976/77	1976/77	1976/77	1974/75-1976/77
Current Receipts	147.46	19.1	17.9	83.78	10.9	10.4
Current Expenditures	140.18	18.2	16.2	84.25	10.9	9.6
Current Surplus/Deficit	7.28	0.9	1.7	- 0.47	-	0.8
Capital Expenditures e/	59.05	7.6	7.1	40.39	5.2	5.0
External Assistance (net)	11.21	1.5	1.7	11.21	1.5	1.7

MONEY, CREDIT AND PRICES

	1970/71	1972/73	1973/74	1974/75	1975/76	1976/77	September 1976	September 1977
	(Billion Rs outstanding at end of period)							
Money and Quasi Money	105.7	142.2	169.0	186.9	215.0	262.6	238.2	284.8
Bank Credit to Public Sector(net)	56.9	82.5	92.9	102.6	109.1	117.3	112.7	130.7
Bank Credit to Private Sector	56.7	76.0	90.1	109.5	127.5	161.0	144.0	170.0
	(Percentage or Index Numbers)						January 1977	January 1978
Money and Quasi Money as % of GDP	24.3	27.3	26.4	25.5	27.6	31.3		
Wholesale Price Index (1970/71 = 100)	100.0	116.2	139.7	174.9	173.0	176.6	178.8	183.3
Annual percentage changes in:								
Wholesale Price Index	7.7	10.0	20.2	25.2	-1.1	2.1	7.5	2.5
Bank Credit to Public Sector (net)	8.6	19.6	12.6	10.4	6.3	7.5	4.7 f/	15.8 f/
Bank Credit to Private Sector	17.3	18.0	18.5	21.5	16.4	26.3	24.9 g/	11.9 g/

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a/ The per capita GNP estimate is at market prices, calculated by the conversion technique used in the World Atlas. All other conversions to dollars in this table are at the average exchange rate prevailing during the period covered.
b/ Quick Estimates.
c/ Computed from trend line of GNP at factor cost series, including one observation before first year and one observation after last year of listed period.
d/ Transfers between Center and States have been netted out.
e/ All loans and advances to third parties have been netted out.
f/ Net bank credit to Government Sector.
g/ Bank credit to Commercial Sector.

BALANCE OF PAYMENTS	1974/75	1975/76	1976/77	1977/78 h/
		(US$ Million)		
Exports of Goods	4,174	4,665	5,760	6,400
Imports of Goods	-5,665	-6,084	-5,950	-6,600
Trade Balance	-1,491	-1,419	- 190	- 200
NFS (net)	213	310	405	500
Resource Gap	-1,278	-1,109	215	300
Interest Payments (net) i/	- 198	- 216	- 135	- 130
Other Factor Payments (net)	-	-	-	-
Net Transfers j/	257	470	730	1,000
Balance on Current Account	-1,217	- 855	810	1,170
Official Aid				
Disbursements	1,761	2,341	1,953	1,840
Amortization	-515	-531	-560	- 630
Transactions with IMF	522	242	-336	- 330
All Other Items	-589	-403	-292	23
Increase in Reserves (-)	38	-794	-1,575	-2,073
Gross Reserves (end year)	1,378	2,172	3,747	5,820
Net Reserves (end year) k/	758	1,365	3,276	5,670
Fuel and Related Materials				
Imports	1,451	1,417	1,580	1,800
of which: Petroleum	1,451	1,417	1,580	1,800
Exports	26	43	37	n.a.
of which: Petroleum	17	22	21	n.a.

RATE OF EXCHANGE

Prior to mid-December 1971 : US$1.00 = Rs 7.5
Rs 1.00 = US$0.133333

Mid-December 1971 to end June 1972 : US$1.00 = Rs 7.27927
Rs 1.00 = US$0.137376

After end June 1972 : Floating Rate

Spot Rate January 31, 1978
approx. US$1.00 = Rs 8.063
approx. Rs 1.00 = US$0.124

MERCHANDISE EXPORTS (AVERAGE 1974/75 - 1976/77)

	US$ Mln.	%
Engineering Goods	515	11
Sugar	379	8
Tea	296	6
Jute Manufactures	294	6
Leather and Leather Products	268	5
Clothing	257	5
Iron Ore	238	5
Cotton Textiles	223	5
Others	2396	49
Total	4866	100

EXTERNAL DEBT, MARCH 31, 1977 h/

	US$ Billion
Outstanding and Disbursed	13.6
Undisbursed	3.2
Outstanding, including Undisbursed	16.8

DEBT SERVICE RATIO FOR 1976/77 14.4 percent h/l/

IBRD/IDA LENDING, December 31, 1977 (US$ Mln.)

	IBRD	IDA
Outstanding and Disbursed	489.0	3,560.5
Undisbursed	674.9	1,257.0
Outstanding, including Undisbursed	1,163.9	4,817.5

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h/ Estimated.
i/ Figures given cover all investment income (net). Major payments are interest on foreign loans and charges paid to IMF, and major receipt is interest earned on foreign assets.
j/ Figures given include workers' remittances but exclude official grant assistance, which is included within official aid disbursements.
k/ Excludes net use of IMF credit.
l/ Amortization and interest payments on foreign loans as a percentage of merchandise exports.

THE STATUS OF BANK GROUP OPERATIONS IN INDIA

A. STATEMENT OF BANK LOANS AND IDA CREDITS
(As of March 31, 1978)

Loan or Credit No.	Year	Borrower	Purpose	US$ Million[1/] (Net of Cancellation) Bank	IDA	Undisbursed
40 Loans/ 51 Credits fully disbursed				1,102.2	2,604.6	
267-IN	1971	India	Wheat Storage	--	5.0	3.4
294-IN	1972	India	Bihar Agricultural Markets	--	14.0	9.1
312-IN	1972	India	Population	--	21.2	6.1
342-IN	1972	India	Education	--	12.0	9.3
356-IN	1972	India	IDBI	--	25.0	10.5
377-IN	1973	India	Power Transmission III	--	85.0	3.1
378-IN	1973	India	Mysore Agricultural Markets	--	8.0	6.9
902-IN	1973	ICICI	Industry DFC X	67.5	--	5.8
390-IN	1973	India	Bombay Water Supply	--	55.0	25.3
403-IN	1973	India	Telecommunications V	--	80.0	3.4
427-IN	1973	India	Calcutta Urban Development	--	35.0	10.1
440-IN	1973	India	Bihar Agricultural Credit	--	32.0	14.9
456-IN	1974	India	HP Apple Processing & Marketing	--	13.0	9.9
481-IN	1974	India	Trombay IV	--	50.0	11.6
1011-IN	1974	India	Chambal (Rajasthan) CAD	52.0	--	34.8
482-IN	1974	India	Karnataka Dairy	--	30.0	26.0
502-IN	1974	India	Rajasthan Canal CAD	--	83.0	52.5
520-IN	1974	India	Sindri Fertilizer	--	91.0	18.2
521-IN	1974	India	Rajasthan Dairy	--	27.7	25.8
522-IN	1974	India	Madhya Pradesh Dairy	--	16.4	15.3
526-IN	1975	India	Drought Prone Areas	--	35.0	24.3
1079-IN	1975	IFFCO	IFFCO Fertilizer	109.0	--	66.3
1097-IN	1975	ICICI	Industry DFC XI	100.0	--	27.5
532-IN	1975	India	Godavari Barrage Irrigation	--	45.0	22.2
541-IN	1975	India	West Bengal Agricultural Development	--	34.0	25.4
562-IN	1975	India	Chambal (Madhya Pradesh) CAD	--	24.0	18.5
572-IN	1975	India	Rural Electrification	--	5710	46.0
582-IN	1975	India	Railways XIII	--	110.0	16.7
585-IN	1975	India	Uttar Pradesh Water Supply	--	40.0	26.4
598-IN	1975	India	Fertilizer Industry	--	105.0	90.8
604-IN	1976	India	Power Transmission IV	--	150.0	149.6
609-IN	1976	India	Madhya Pradesh Forestry T.A.	--	4.0	3.8
610-IN	1976	India	Integrated Cotton Development	--	18.0	17.7
616-IN	1976	India	Industrial Imports XI	--	200.0	1.7
1251-IN(TW)	1976	India	Andhra Pradesh Irrigation	145.0	--	142.8
1260-IN	1976	India	IDBI II	40.0	--	37.0
1273-IN	1976	India	National Seed	25.0	--	25.0
1313-IN	1976	India	Telecommunications VI	80.0	--	36.1
1335-IN	1976	BMRDA	Bombay Urban Transport	25.0	--	21.2
680-IN	1977	India	Kerala Agricultural Development	--	30.0	30.0
682-IN	1977	India	Orissa Agricultural Development	--	20.0	20.0
685-IN	1977	India	Singrauli Thermal Power	--	150.0	137.0
687-IN	1977	India	Madras Urban Development	--	24.0	23.5
695-IN	1977	India	Gujarat Fisheries	--	4.0	4.0
1394-IN(TW)	1977	India	Gujarat Fisheries	14.0	--	14.0
690-IN	1977	India	West Bengal Agricultural Development	--	12.0	12.0
712-IN	1977	India	Madhya Pradesh Agricultural Development	--	10.0	10.0
715-IN	1977	India	Second ARDC Credit	--	200.0	175.9
720-IN	1977	India	Periyar Vaigai Irrigation	--	23.0	23.0
728-IN	1977	India	Assam Agricultural Development	--	8.0	8.0
1473-IN	1977	India	Bombay High Offshore Development	150.0	--	104.5
736-IN	1977	India	Maharashtra Irrigation	--	70.0	70.0
737-IN	1977	India	Rajasthan Agricultural Extension	--	13.0	13.0
740-IN	1977	India	Orissa Irrigation	--	58.0	58.0
1475-IN	1977	ICICI	Industry DFC XII	80.0	--	79.0
* 747-IN	1978	India	Second Foodgrain Storage	--	107.0	107.0
* 756-IN	1978	India	Second Calcutta Urban Development	--	87.0	87.0
* 761-IN	1978	India	Bihar Agricultural Extension & Research	--	8.0	8.0
*1511-IN	1978	IDBI	IDBI Joint/Public Sector	25.0	--	25.0
	Total			2,013.1	4,933.9	
	of which has been repaid			854.4	35.5	
	Total now outstanding			1,158.7	4,898.4	
	Amount Sold		133.2			
	of which has been repaid		111.5	21.7		
	Total now held by Bank and IDA			1,137.0	4,898.4	
	Total undisbursed (excluding *)			593.8	1,299.0	

* Not yet effective.

1/ Prior to exchange adjustments.

B. STATEMENT OF IFC INVESTMENTS
(As of March 31, 1978)

Fiscal Year	Company	Amount (US$ million) Loan	Equity	Total
1959	Republic Forge Company Ltd.	1.5	-	1.5
1959	Kirloskar Oil Engines Ltd.	0.9	-	0.9
1960	Assam Sillimanite Ltd.	1.4	-	1.4
1961	K.S.B. Pumps Ltd.	0.2	-	0.2
1963-66	Precision Bearings India Ltd.	0.7	0.3	1.0
1964	Fort Gloster Industries Ltd.	0.8	0.4	1.2
1964-75	Mahindra Ugine Steel Co. Ltd.	11.8	1.0	12.8
1964	Lakshmi Machine Works Ltd.	1.0	0.3	1.3
1967	Jayshree Chemicals Ltd.	1.0	0.1	1.1
1967	Indian Explosives Ltd.	8.6	2.9	11.5
1969-70	Zuari Agro-Chemicals Ltd.	15.1	3.8	18.9
1976	Escorts Limited	6.6	-	6.6
	TOTAL	49.6	8.8	58.4
	Less: Sold	6.0	1.6	7.6
	Repaid	14.5	-	14.5
	Cancelled	6.2	0.7	6.9
	Now Held	22.9	6.5	29.4
	Undisbursed	5.3	-	5.3

C. PROJECTS IN EXECUTION[1/]

Generally, the implementation of projects has been proceeding reasonably well. Details on the execution of individual projects are below. The level of disbursements was US$598.6 million in FY77 or 80% of Bank Group commitments to India in that year. The undisbursed pipeline of US$1,893 million as of March 31, 1978, corresponds roughly to commitments over the preceding two-year period and reflects the leadtime which would be expected given the mix of fast and slow-disbursing projects in the India program.

Ln. No. 902 — Tenth Industrial Credit and Investment Corporation of India Project; US$70.0 million loan of June 8, 1973; Effective Date: August 16, 1973; Closing Date: December 31, 1978

Ln. No. 1097 — Eleventh Industrial Credit and Investment Corporation of India Project; US$100 million loan of April 2, 1975; Effective Date: July 1, 1975; Closing Date: December 31, 1980

Ln. No. 1475 — Twelfth Industrial Credit and Investment Corporation of India Project; US$80 million loan of July 22, 1977 Effective Date: October 4, 1977; Closing Date: March 31, 1983

These loans have supported industrialization in India through a well-established development finance company and are designed to finance the foreign exchange cost of industrial projects. ICICI continues to be a well-managed and efficient development bank financing medium and large scale industries, which are often employing high technology and are export oriented. Loans 1097-IN and 902-IN are fully committed and disbursements have reached 73% and 88% of total loan amounts respectively as of March 31, 1978, which is slightly ahead of schedule.

Cr. No. 440 — Bihar Agricultural Credit Project; US$32.0 million credit of November 29, 1973; Effective Date: March 29, 1974; Closing Date: June 30, 1978

Credit No. 440 provides US$32.0 million over three years in support of a lending program for 50,000 units of tubewells and pumpsets in the Tirhut Division of Bihar. Because of slow disbursements caused by a lower than estimated Dollar/Rupee exchange rate and by low unit investment costs compared

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1/ These notes are designed to inform the Executive Directors regarding the progress of projects in execution, and in particular to report any problems which are being encountered, and the action being taken to remedy them. They should be read in this sense and with the understanding that they do not purport to present a balanced evaluation of strengths and weaknesses in project execution.

with appraisal estimates, IDA agreed to extend the closing date by one year to June 30, 1978, and to extend the project area to cover the whole State of Bihar. The physical targets should be achieved by revised closing date and disbursements are expected to accelerate.

Cr. No. 715 Second Agricultural Refinance and Development Corporation (ARDC) Project; US$200.0 million credit of June 1, 1977; Effective Date: August 24, 1977; Closing Date: December 31, 1979

The above agricultural credit projects are similar in structure, being designed to provide long- and medium-term credit to farmers through credit institutions, for on-farm investments, primarily in minor irrigation. Credit 715 is a continuation nationwide of the previous program of agricultural credit projects, which were confined to individual states. Apart from initial start up problems with the individual state projects, mostly due to the introduction of new lending criteria and lending terms, progress under these projects has been satisfactory.

Cr. No. 267 Wheat Storage Project; US$5.0 million credit of August 23, 1971; Effective Date: November 14, 1972; Closing Date: September 30, 1978

Cr. No. 747 Second Foodgrain Storage Project; US$107.0 million credit of January 6, 1978; Effective Date: April 6, 1978 (expected); Closing Date: June 30, 1982

The US$15.9 million project, co-financed with Sweden, finances (i) the construction of bag and bulk grain storage and handling facilities, (ii) staff training, and (iii) an All-India Grain Storage Study. The government-owned Food Corporation of India is responsible for the storage construction. All the nine 10,000 ton capacity bag warehouses envisaged under the project (as revised) were completed and became operational in 1975. The construction of five grain silos is progressing satisfactorily after delays due to cement shortages and is expected to be completed by December 1978. The training component is being implemented. The All-India Grain Storage Study was completed in October 1976 and proved useful in formulating the proposal for the Second Grain Storage Project which was appraised in February/March 1977 and approved by the Board on November 15, 1977.

Cr. No. 456 Himachal Pradesh Apple Processing and Marketing Project; US$13 million credit of January 22, 1974; Effective Date: September 26, 1974; Closing Date: December 31, 1978

This project provides US$13.0 million to promote the development of apple processing and marketing in Himachal Pradesh, and comprises grading and packing centers, cold storage facilities, a juice processing plant, road improvements and cableways. The project also includes on-farm cold storage and oak mushroom production. The main executing agency is the Himachal Pradesh Horticultural Produce Processing and Marketing Corporation (HPMC).

The project encountered initial delays due to managerial and technical problems; however remedial measures have been taken to overcome these difficulties. Land is expected to be acquired for all packing and grading sites by early 1978. The Project Preparation Report for the juice processing plant has been completed and found satisfactory, and tenders on the equipment are being called. The road improvement programme is progressing satisfactorily, and the feasibility reports on aerial cableways at the packing/grading sites are also expected to be completed shortly. As a result of the significant improvement in project implementation during the past year, disbursements have recently gathered momentum.

Cr. No. 403 Telecommunications V Project; US$80.0 million credit of June 25, 1973; Effective Date: July 30, 1973; Closing Date: December 31, 1978

Ln. No. 1313 Telecommunications VI Project; US$80.0 million loan of July 22, 1976; Effective Date: September 14, 1976; Closing Date: March 31, 1980

Both projects are progressing satisfactorily. The closing date of Credit 403 was extended by one year to December 31, 1978, to cover the delivery and installation of imported transmission and switching equipment. Disbursements under Loan 1313 have commenced.

Cr. No. 377 Power Transmission III Project; US$85.0 million credit of May 9, 1973; Effective Date: October 31, 1973; Closing Date: September 30, 1978

Cr. No. 604 Power Transmission IV Project; US$150.0 million credit of January 22, 1976; Effective Date: October 22, 1976; Closing Date: June 30, 1981

The drawdown of Credit 377 was slow initially and as a consequence it has been necessary to postpone the Closing Date to September 30, 1978 (originally September 30, 1977). However an amount of US$84 million had been disbursed by the end of March 1978 and the balance of US$1 million should be disbursed well before the revised Closing Date. Disbursements under Part A of Credit 604 (US$120 million) have been slow with only US$0.4 million disbursed at March 31, 1978. However, contracts aggregating about US$50 million had been awarded by March 1978 and disbursements should now accelerate. This Credit included a supplementary Credit of US$30 million under Part B to meet increased costs of equipment scheduled under Credit 377-IN; of this amount some US$26 million has been committed leaving an amount of US$4 million for load despatch equipment which should be committed by June 30, 1978.

Cr. No. 481 Trombay IV Fertilizer Expansion Project; US$50.0 million credit of June 19, 1974; Effective Date: August 21, 1974; Closing Date: June 30, 1979

Cr. No. 520 Sindri Fertilizer Project; US$91 million credit of December 18, 1974; Effective Date: February 27, 1975; Closing Date: September 30, 1978

Ln. No. 1079 IFFCO Fertilizer Project; US$109 million loan of January 24, 1975; Effective Date: April 28, 1975; Closing Date: March 31, 1979

Cr. No. 598 Fertilizer Industry Project; US$105.0 million credit of December 31, 1975; Effective Date: March 1, 1976; Closing Date: June 30, 1980

Progress on the Trombay IV project has been good although project completion may be delayed by about 18 months due to longer than expected delivery times for critical equipment and to reflect the current situation with respect to the use of the Credit proceeds. Under the Sindri project plant construction and erection is proceeding generally according to schedule except for a one-month delay due to anticipated delays in receipt of some materials. Commencement of commercial production is expected by March 1978. The anticipated cost to complete the project is presently running within budget. The IFFCO project was delayed by about a year as a result of a change in feedstock from fuel oil to naphtha and delays in completion of engineering contracts. The project is now progressing satisfactorily based on naphtha as feedstock. Site work has begun, process- and time-critical equipment is being ordered, and engineering work is well under way. Credit 598-IN is designed to increase the utilization of existing fertilizer production capacity. The project has encountered delays in sub-project preparation and investment approvals by the Government. Further, some of the sub-projects identified earlier may not materialize because of reconsideration by the Central and State governments. The Central Government has submitted a list of sub-projects to replace the ones that are likely to be dropped. Because of the above, the project is likely to be delayed by 6-12 months.

Cr. No. 294 Bihar Agricultural Markets Project; US$14.0 million credit of March 29, 1972; Effective Date: July 31, 1972; Closing Date: December 31, 1978

Cr. No. 378 Karnataka Wholesale Agricultural Markets Project; US$8.0 million credit of May 9, 1973; Effective Date: September 7, 1973; Closing Date: December 31, 1979

These projects were designed to help with establishment of wholesale markets in a number of towns in Bihar and Karnataka. Progress under the Bihar project has generally been satisfactory. The project includes training of the Agricultural Produce Marketing Committee (APMC) staff and evaluation of the project's economic impact. As of June 30, 1977, development plans had been completed for 48 of the 50 project markets. The remaining 2 are pending land acquisitions. Appraisals and loan sanctions had been completed for 13 and was in progress for 18 markets. Farmers and traders served by the 8 market yards now in operation report more efficient marketing

activities and improved farmers' terms of trade. Progress under the Karnataka project is improving. As of August 1977, when the project was last reviewed appraisals for 36 of the 39 project market yard plans had been completed by participating banks and 25 of these 36 approved by ARDC. Construction is in progress at 33 markets. In an attempt to accelerate project progress, more liberal lending terms have been provided to APMCs and Market Intermediaries (MIs) for construction of shop-cum-godowns. The project is expected to be completed by the closing date (December 1979) and to achieve its major objectives of making farm produce marketing more efficient and improving farmers' terms of trade.

Cr. No. 312 Population Project; US$21.2 million credit of June 14, 1972; Effective Date: May 9, 1973; Closing Date: June 30, 1979

This credit is designed to finance an experimental and research oriented population project in Karnataka and Uttar Pradesh. The project's infrastructure, which would provide the optimum facilities (buildings, equipment, staff and transport) according to GOI standards in selected districts in each state, is almost complete. The two Population Centers, which will design and monitor research aimed at improving the family planning program, are now functioning. To allow adequate time for the Population Centers to complete their evaluation of family planning strategies and the introduction of management information and evaluation systems, the closing date has been extended to June 30, 1979.

Cr. No. 342 Agricultural Universities Project; US$12.0 million credit of November 10, 1972; Effective Date: June 8, 1973; Closing Date: December 31, 1979

The project involves the development of the agricultural universities in Assam and Bihar. Initial lag in implementation on account of late appointment of project staff has been overcome. Campus plans have been approved, and construction has started in both Assam and Bihar. Disbursements which have been slow because of initial delays should accelerate now that construction and equipment procurement are under way.

Cr. No. 356 Industrial Development Bank of India Project; US$25.0 million credit of February 9, 1973; Effective Date: June 22, 1973; Closing Date: September 30, 1978

Loan No. 1260 Second Industrial Development Bank of India Project; US$40.0 million loan of June 10, 1976; Effective Date: August 10, 1976; Closing Date: June 30, 1981

Loan No. 1551 IDBI Joint/Public Sector Project; US$25.0 million loan of March 1, 978; Effective Date: May 31, 1978 (expected); Closing Date: March 31, 1983

The first IDBI Project (Cr. 356) had a slow start mainly due to institutional problems in the participating State Financial Corporations.

However, the credit is now fully committed. In order to continue Bank Group's involvement in assisting small and medium scale industries and in strengthening the State Financial Corporations involved, the second operation (Ln. 1260) was approved on May 18, 1976, and more than 10% of the loan amount had been authorized by mid-March 1978.

Cr. No. 390 Bombay Water Supply and Sewerage Project; US$55.0 million credit of January 22, 1974; Effective Date: March 13, 1974; Closing Date: December 31, 1979

Having overcome earlier difficulties, including cost overruns caused by inflation (requiring project redefinition in February 1975), redesign of major project components and an unforeseen addition of a supplementary study on sewage disposal, the project is now progressing relatively well. All of the major contracts for the water supply components have been awarded and it is forecast that works will be sufficiently advanced to permit the supply of additional water (455 mld) in the last quarter of 1978; completion of water treatment works for the whole supply by the end of 1979 is realistically forecast. Completion of additional sewage disposal studies (August 1977) has allowed engineering design of the project sewerage components to proceed, so that completion of construction of these works is now scheduled for 1980 two years later than originally forecasted. Financial performance of the project entity is satisfactory and all covenants are being met.

Cr. No. 585 Uttar Pradesh Water Supply and Sewerage Project; US$40.0 million credit of September 25, 1975; Effective Date: February 6, 1976; Closing Date: June 30, 1980

The Project has had a slow start due to delays in the preparation of technical reports for regional and local water authorities and in the engagement of consultants. While improvements have been made in the physical execution, other aspects of project implementation continue to lag so that disbursements under the Credit have fallen short of estimates at the time of appraisal. In order to improve the situation, arrangements are being made to appoint a full-time management adviser to closely supervise and coordinate implementation.

Cr. No. 616 Eleventh Industrial Imports Project; US$200.0 million credit of February 26, 1976; Effective Date: April 1, 1976; Closing Date: June 30, 1978

Utilization of the Technical Development Fund has been slower than anticipated and the closing date has been postponed by one year to allow completion of disbursements from the Fund which has been fully committed.

Cr. No. 427 Calcutta Urban Development Project; US$35.0 million credit of September 12, 1973; Effective Date: January 10, 1974; Closing Date: December 31, 1979

Cr. No. 756 Second Calcutta Urban Development Project; US$87.0 million credit of January 6, 1978; Effective Date: April 10, 1978 (expected); Closing Date: March 31, 1983

For the first of these projects, following considerable increases in project costs, GOI and IDA finalized a project redefinition in April 1976, to accommodate the project to funding available. It is now expected to be substantially completed by March 1979. Agreements have been reached on consultants services and technical assistance, as provided for under the project.

Cr. No. 687 . Madras Urban Development Project; US$24.0 million credit of April 1, 1977; Effective Date: June 30, 1977; Closing Date: September 30, 1981

The project is designed to develop and promote low-cost solutions to the problems of providing improved services to the urban poor in the Madras Metropolitan Area (MMA) and to strengthen metropolitan planning. Project components consisting of sites and services; slum improvement; small-scale and cottage industry; and maternal and child health are designed to benefit directly some 250,000 persons in low-income areas of the city. The water supply and sewerage; road and traffic improvements; bus transport and technical assistance components are designed to eliminate bottlenecks in water supply and transport.

Cr. No. 482 Karnataka Dairy Development Project; US$30 million credit of June 19, 1974; Effective Date: December 23, 1974; Closing Date: September 30, 1982

Cr. No. 521 Rajasthan Dairy Development Project;; US$27.7 million credit of December 18, 1974; Effective Date: August 8, 1975; Closing Date: December 31, 1982

Cr. No. 522 Madhya Pradesh Dairy Development Project; US$16.4 million credit of December 18, 1974; Effective Date: July 23, 1975; Closing Date: June 30, 1982

These three credits totalling US$74.1 million support dairy development projects organized along the lines of the successful AMUL dairy cooperative scheme in Gujarat State. The Karnataka Project which got off to a slow start has begun to show considerable improvement under new management appointed recently. Farmer response has been good and over 500 dairy cooperatives with small farmer participation are functioning effectively. All four dairy unions, as envisaged under the project, have been established and are functioning satisfactorily. In Madhya Pradesh good progress has been made. About 110 new dairy cooperatives societies have been established. Detailed design studies for plant construction are complete. The response of small farmers to the project is excellent. GOMP has plans to cover all districts in the State. Technical services investments are being made. Contracts have been placed for livestock imports. The Rajasthan project is

also doing well. Four milk unions have been formed and excellent progress has been made in organizing the servicing of nearly 350 dairy cooperatives at the village level. Plant-designs are ready, and procurement is making adequate progress. Based upon the good results experienced, GOR is planning to expand the form of dairy development to all other districts of the State. Karnataka's decision to procure plant equipment jointly with Rajasthan and Madhya Pradesh on the same tender should lead to a recovery of considerable time lost earlier in the Karnataka project.

Cr. No. 532 — Godavari Barrage Project; US$45 million credit of March 7, 1975; Effective Date: June 9, 1975; Closing Date: June 30, 1980

Both the civil works and equipment tenders have been awarded after international competitive bidding. Work is in progress and is proceeding satisfactorily.

Ln. No. 1011 — Chambal (Rajasthan) Command Area Development Project; US$52 million loan of June 19, 1974; Effective Date: December 12, 1974; Closing Date: June 30, 1981

Cr. No. 502 — Rajasthan Canal Command Area Development Project; US$83 million credit of July 31, 1974; Effective Date: December 30, 1974; Closing Date: June 30, 1981

Cr. No. 562 — Chambal (Madhya Pradesh) Command Area Development Project; US$24 million credit of June 20, 1975; Effective Date: September 18, 1975; Closing Date: December 31, 1979

Ln. No. 1251 (TW) — Andhra Pradesh Irrigation and Command Area Development Composite Project; US$145.0 million loan (Third Window) of June 10, 1976; Effective Date: September 7,1976; Closing Date: December 31, 1982

Cr. No. 720 — Periyar Vaigai Irrigation Project; US$23.0 million credit of June 30, 1977; Effective Date: September 30, 1977; Closing Date: March 31, 1983

Cr. No. 736 — Maharashtra Irrigation Project; US$70.0 million credit of October 11, 1977; Effective Date: January 11, 1978 (expected); Closing Date: March 31, 1983

Cr. No. 740 — Orissa Irrigation Project; US$58.0 million of October 11, 1977; Effective Date: January 16, 1978; Closing Date: October 31, 1983

These projects, based on existing large irrigation systems, are designed to improve the efficiency of water utilization and, where possible, to use water savings for bringing additional areas under irrigation. Canal lining and other irrigation infrastructure, drainage, and land shaping are prominent components of these projects. In addition, provisions have been made to increase agricultural production and marketing by reforming and

upgrading agricultural extension services and by providing processing and storage facilities and village access roads. Progress of these projects is generally satisfactory. An April 1978 mission which supervised Cr. 720 Periyar Yaigai found that construction of the project commenced in March 1978. The Public Works Department (PWD) has set up a strong construction organization headed by a Special Chief Engineer in order to complete the project on schedule. Monitoring of flows in irrigation canals will start in June 1978. A system operation plan is under preparation and GOTN has appointed a Committee to study water and water-related charges in Tamil Nadu.

Cr. No. 541 West Bengal Agricultural Development Project; US$34 million credit of April 28, 1975; Effective Date: August 28, 1975; Closing Date: March 31, 1980

The project provides US$34.0 million over four years mainly for minor irrigation investments but also for development of markets, agro service centers, and support of related government services. Although disbursements have been slower than anticipated there has been a considerable improvement in project organization and administration during the past six months and disbursements are expected to improve considerably during the next twelve months. The physical progress of shallow tubewells, and of deep tubewells for the Minor Irrigation Corporation is satisfactory. IDA, GOWB and ARDC are combining efforts in order to solve difficulties such as organizational problems at the farm level; lack of demand for agro service centers; and finalization of designs for water distribution systems and irrigation schemes. Positive results, particularly for the water distribution systems are expected shortly.

Cr. No. 682 Orissa Agricultural Development Project; US$20 million credit of April 1, 1977; Effective Date: June 28, 1977; Closing Date: December 31, 1983

Cr. No. 728 Assam Agricultural Development Project; US$8.0 million credit of June 30, 1977; Effective Date: September 30, 1977; Closing Date: March 31, 1983

Cr. No. 690 West Bengal Agricultural Extension and Research Project; US$12.0 million credit of June 1, 1977; Effective Date: August 30, 1977; Closing Date: September 30, 1982

Cr. No. 712 Madhya Pradesh Agricultural Extension and Research Project; US$10.0 million credit of June 1, 1977; Effective Date: September 2, 1977; Closing Date: September 30, 1983

Cr. No. 737 Rajasthan Agricultural Extension and Research Project; US$13.0 million credit of November 14, 1977; Effective Date: February 16, 1978 (expected); Closing Date: June 30, 1983

Cr. No. 761 Bihar Agricultural Extension and Research Project; US$8.0 million credit of January 6, 1978; Effective Date: April 6, 1978 (expected); Closing Date: October 31, 1983

These projects totalling US$63 million finance the re-organization and strengthening of agricultural extension and the development of adaptive agricultural research services with the objective of achieving early and sustained improvements in agricultural production, particularly foodgrains. Arrangement for monitoring and evaluation of project progress and impact is an essential feature of these projects. The Orissa and Assam projects also provide funds for laying the basis for longer term improvements in groundwater development in the States. The project's components include provision of additional staff, training facilities, housing, offices, laboratory facilities, equipment and transportation.

Cr. No. 526 Drought Prone Areas Project; US$35.0 million credit of January 24, 1975; Effective Date: June 9, 1975; Closing Date: June 30, 1980

Overall physical progress of the Drought Prone Areas project (DPAP) continues to be satisfactory. The rate of disbursement is improving and implementation of most components is proceeding, by and large, according to schedule. However, progress may be affected by possible changes in thinking at the national level. GOI is presently reviewing all national rural development programs, including the DPAP, in order to determine ways to improve overall performance in the rural sector. The Government's review is being followed closely to determine whether any recommendations would have an impact on the ongoing project and require changes.

Cr. No. 680 Kerala Agricultural Development Project; US$30 million credit of April 1, 1977; Effective Date: June 29, 1977; Closing Date: March 31, 1985

This project would improve tree crop production in Kerala and has particular emphasis on increasing benefits to small farmers. It comprises rehabilitation of 30,000 ha coconut and 10,000 ha pepper and 2,240 ha cashew, and new plantings of 5,000 ha coconut and 1,500 ha cashew. About 25% of the coconut area would be irrigated for intensive intercropping. Funds have been provided for development of a seed garden for tree crops and for strengthening tree crops research. Ten crumb rubber factories would also be established to process smallholder rubber. Project implementation started slowly due to initial staffing and funding delays but has recently gained momentum. Project actions for 1978/79 have been rephased and advance action planned so as to make up for lost time.

Cr. No. 572 Rural Electrification Project; US$57.0 million credit of July 23, 1975; Effective Date: October 23, 1975; Closing Date: December 31, 1979

The Project consists of a tranche of rural electrification schemes which, at about Rs 5 million each, would cover about 140 schemes. There are now twelve States eligible for onlending (compared with six at the time of

appraisal). The project got off to a slow start, due principally to the need to adapt the specifications and tendering procedures to international competitive bidding, but the position has now improved and the cumulative value of contracts entered into or about to be entered into at February 28, 1978 was US$50.32 million leaving an outstanding uncommitted balance of US$6.68 million. The full amount of the Credit is expected to be committed by mid 1978 and it should be fully disbursed by the closing date of December 31, 1979.

Cr. No. 582 Railways XIII Project; US$110.0 million credit of August 26, 1975; Effective Date: October 10, 1975; Closing Date: September 30, 1978

The project was designed to cover most of the foreign exchange requirements of Indian Railway's (IR) investment program for two years, from April 1, 1975, through March 31, 1977. However, since the approval of the project, increased production in steel products in India and further developments in IR's indigenization program slowed down the rate at which IR requires foreign exchange. Therefore, the Closing Date was extended for one year to September 30, 1978 in order to complete implementation of the project. Disbursements as of March 31, 1978 were 85% of the total credit amount.

Cr. No. 609 Madhya Pradesh Forestry Technical Assistance Project; US$4.0 million credit of February 26, 1976; Effective Date: May 26, 1976; Closing Date: December 31, 1981

This project will identify a sound resource base for pulp and paper manufacture and related industries, develop suitable logging systems, and undertake a feasibility study to determine optimal use of the existing wood resources in the Bastar District of southern Madhya Pradesh. It also includes a study of ways to integrate the area's tribal population with future development.

Cr. No. 610 Integrated Cotton Development Project; US$18.0 million credit of February 26, 1976; Effective Date: November 30, 1976; Closing Date: December 31, 1981

The project finances equipment, civil works and crop production credit to support programs for cotton research and cotton production increase in three states. The project also provides credit for improving cotton ginneries, new ginneries, cotton seed oil extraction plants and vegetable oil processing factories. (Effectiveness was delayed by slow appointment of consultants, but the cotton extension services program was started without delay and has now been in operation for two years. Disbursements have been small mainly due to poor demand to date for project credit.) A recent supervision mission, working with technical consultants, has made detailed recommendations for more appropriate pest control practices and more adaptive research to identify and introduce better varieties. These measures are under discussion with GOI, and when agreed to and implemented, should speed up project disbursements.

Ln. No. 1273 National Seed Project; US$25.0 million loan of June 10, 1976; Effective Date: October 8, 1976; Closing Date: June 30, 1981

This project supports seed industry expansion in the public and private sectors; improvements in seed quality control; strengthening of breeding and seed technology research; and development of a reserve stock scheme. Institutional development and managerial arrangements, particularly at the state level, have proceeded fairly satisfactorily. Project implementation, however, slowed down after loan effectiveness mainly due to organizational problems. Project progress is now being made since approval of the project by the new Government in September 1977 and is anticipated to gain further momentum as GOI is about to appoint the two top officers of the National Seeds Corporation.

Ln. No. 1335 Bombay Urban Transport Project; US$25.0 million loan of December 20, 1976; Effective Date: March 10, 1977; Closing Date: September 30, 1980

Disbursements have been delayed somewhat because of delays in procurement action. However, contracts for bodies and chassis for 325 single deck and 175 double deck buses have been awarded and some 144 buses have been delivered. Bids for an additional 200 buses are being evaluated. Civil works contracts have been awarded for 8 to 15 bus facilities, and 13 of about traffic engineering schemes. Delays are expected in implementing some BMC traffic engineering schemes and the BEST workshop schemes although steps are being taken to minimize such delays. Consultants in organization, administration, financial management systems, accounting and development planning are at work assisting the Borrower, the Bombay Metropolitan Regional Development Authority. The beneficiaries of the loan, the Bombay Municipal Corporation and the Bombay Electric Supply and Transport Undertaking, have selected consultants in traffic engineering and operations and management assistance, respectively.

Ln. No. 1394 (TW) and Cr. No. 695 Gujarat Fisheries Project; US$14 million loan and US$4 million credit of April 22, 1977; Effective Date: July 19, 1977; Closing Date: June 30, 1983

Progress is good. All project implementation units appear to be competent and enthusiastic and the project is progressing as anticipated at appraisal.

Cr. No. 685 Singrauli Thermal Power Project; US$150.0 million credit of April 1, 1977; Effective Date: June 28, 1977; Closing Date: December 31, 1983

The Singrauli project is the first stage of the 2,000 MW Singrauli development which is, in turn, the first of four power stations in the Government's program for the development of large Central thermal power stations feeding power into an interconnected grid. It is proposed that the Bank Group will have a continuing involvement in this development program.

The National Thermal Power Corporation (NTPC) has been formed to construct and operate these power stations, and the development program has gotten off to a good start. Organization and staffing of NTPC is proceeding satisfactorily and the project is proceeding on schedule with land acquisition almost complete. Site levelling is in progress and contracts have been awarded for major plant (turbogenerators, boilers, transformers).

Ln. No. 1473 Bombay High Offshore Development Project; US$150.0 million loan of June 30, 1977; Effective Date: October 20, 1977; Closing Date: December 31, 1980

The project is progressing satisfactorily. Gas and oil pipelines from Bombay High to shore have been laid and are expected to be commissioned by May 1978. Bids for well and processing platforms at Bassein have been received and are under review. Disbursements increased rapidly during March at US$45.5 million and is expected to keep pace with appraisal estimates.

INDIA - JAMMU-KASHMIR HORTICULTURE PROJECT

SUPPLEMENTARY PROJECT DATA SHEET

Section I: Timetable of Key Events

(a) Time taken by the country to prepare the project

About three years

(b) The agency which has prepared the project

The Government of Jammu and Kashmir with the assistance of the Agricultural Finance Corporation

(c) Date of first presentation to the Association and date of first mission to consider the project

January 1976; September 1976

(d) Date of departure of appraisal mission

September 14, 1977

(e) Date of completion of negotiations

April 11, 1978

(f) Planned date of effectiveness

August 1978

Section II: Special IDA Implementation Actions

None

Section III: Special Conditions

1. GOI and ARDC would sign the first subsidiary agreement, and ARDC draw up a banking plan (condition of effectiveness (para 37).

2. Signing of the second ARDC subsidiary agreement for refinancing of the apple juice concentrate plant (condition of disbursement for this component (para 37).

3. GOJK's Forestry Department would ensure timber supplies for JKHC's sawmills (para 40).

4. Submission of a feasibility study and marketing plan (condition of disbursement for the apple juice component (para 43)).

5. GOJK would appoint consultants for the technical assistance program (para 47).

6. GOJK would undertake by December 31, 1978 an evaluation study and submit by March 31, 1979 an inception report for this study covering the marketing aspects and benefits to fruit growers (para 48).

7. GOJK would prepare a plan by December 31, 1978 for the study tours (para 49).

8. JKHPMC would inform the Association before undertaking investment unrelated to project activities (para 50).

9. GOI would appoint JKHPMC's Department Heads for Operations and Finance, and by March 31, 1979, it would appoint Department Heads for Administration and Marketing. The senior staff would be recruited nationwide (the appointment of the first two officers is a condition of effectiveness (para 51)).

10. Rs 1.0 million will be paid up to JKHPMC (condition of effectiveness (para 52)).

11. JKHPMC's shareholders would be GOI, GOJK and fruit growers; and GOI and GOJK would ensure that JKHPMC's share capital would be Rs 5 million by March 1979 and that JKHPMC's debt/equity ratio would be maintained at no more than 2:1 (para 52).

12. DA would prepare research plans for mushroom development by June 30, 1979 (para 55).

13. GOJK would appoint one senior scientist and two junior scientists for the mushroom program by December 31, 1978 and the other new staff by December 31, 1979 (para 55).

14. GOJK would appoint an engineer, operators and the physiologist by December 31, 1978 and the other staff for the fruit research program by June 30, 1979 (para 56).

15. JKHPMC would finalize arrangements for tendering and supervision of the construction of the juice concentrate plant and of the marketing facilities (condition of disbursement for JKHPMC's civil works (para 57).

16. the Project Coordinating Committee would be established (condition of effectiveness (para 58).

17. GOJK would make available land for construction of three apple grading centers and three walnut hulling centers by September 30, 1978 (para 64).

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INDIA
JAMMU-KASHMIR HORTICULTURE PROJECT
APPLE AND WALNUT MARKETING & PROCESSING FACILITIES