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REPORT AND RECOMMENDATION
OF THE
PRESIDENT OF THE
INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
TO THE
EXECUTIVE DIRECTORS
ON A
PROPOSED LOAN
TO THE HELLENIC STATE
FOR AN
INTEGRATED FORESTRY DEVELOPMENT PROJECT

May 22, 1979

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GREECE

INTEGRATED FORESTRY DEVELOPMENT PROJECT

Loan and Project Summary

Borrower: The Hellenic State

Beneficiary: Agricultural Bank of Greece (ABG) for the logging equipment credit component equivalent to \$1.2 million

Amount: \$25 million

Terms: 15 years, including 3 years of grace, with interest at 7.9 percent per annum.

Relending Terms: Government would on-lend to ABG \$1.2 million of the loan for the logging equipment credit component, on the same terms and conditions as the Bank loan. The Government would bear the foreign exchange risk.

Project

Description:

The project is a five-and-a-half year (1979-84) time slice of a long-term forestry development program to introduce intensified forest management in north-western and western Greece, which account for about 55 percent of national forest resources. Components include:

- (a) construction of about 3,500 km and improvement of about 2,000 km of forest truck and tractor roads, and provision of equipment for road and machine maintenance;
- (b) provision of logging equipment and fire protection equipment and works, and transport and housing facilities for about 3,000 forestry workers and staff;
- (c) establishment of about 16,000 ha of industrial plantations, three seedling nurseries, and pilot range management on about 20,000 ha;
- (d) construction or improvement of connection roads, water supply, drainage and sanitation systems, community centers and other infrastructure works for about 37 selected forest villages;
- (e) programs for training in mechanized logging methods, industrial plantation research and range management techniques including the provision of equipment, facilities, about 9 manyears of consultant services and 14 manyears of training abroad;

- (f) a forest and forest industries sectoral development strategy study and a regional development study for Western Greece including the provision of about 11 manyears of consultant services and a revolving Fund totaling \$2.4 million equivalent for short term specialists.

The project would substantially increase forest production, create additional permanent employment and improve labor productivity as well as the quality of life in remote mountain villages in the project area. Estimated net foreign exchange savings of \$180 million and incremental stumpage revenues of \$182 million would be realized over the project development period of 15 years. Institution-building benefits would result from improvements in long-term strategy planning and project preparation capabilities, and from demonstration effects of the training and research programs. About 35 percent of the project beneficiaries would be below the relative poverty level and receive about 10 percent of the quantifiable benefits of the project and most of the non-quantifiable benefits from the village component. Risks are low since project organization is structured within the existing administrative framework, the technology is not new, and financial incentives are adequate.

Estimated Cost:

	US\$ Million			% of Project Base Cost
	Local	Foreign	Total	
Forest Roads	22.0	14.2	36.2	36.7
Plantations	11.7	3.9	15.6	15.8
Fire Protection	2.0	1.8	3.8	3.9
Village Infrastructure	14.3	7.0	21.3	21.6
Maintenance Equipment	0.4	2.8	3.2	3.2
Logging Equipment	1.0	1.9	2.9	2.9
Transport/Housing	3.2	2.1	5.3	5.4
Training and Studies	5.0	2.9	7.9	8.0
Project Administration	<u>2.3</u>	<u>0.2</u>	<u>2.5</u>	<u>2.5</u>
Base Cost	61.9	36.8	98.7	100.0
Physical Contingencies	7.2	3.8	11.0	11.1
Price Contingencies	<u>26.5</u>	<u>8.4</u>	<u>34.9</u>	35.5
Total Project Cost <u>/a</u>	<u>95.6</u>	<u>49.0</u>	<u>144.6</u>	

/a Cost estimates include about \$23 million of taxes and duties.

Financing Plan:

	US\$ Million			%
	<u>Local</u>	<u>Foreign</u>	<u>Total</u>	
IBRD /a	-	25.0	25.0	17.3
Foreign commercial bank	-	24.0	24.0	16.7
ABG	2.1	-	2.1	1.4
Beneficiaries	6.7	-	6.7	4.6
Government	<u>86.8</u>	<u>-</u>	<u>86.8</u>	<u>60.0</u>
Total	<u>95.6</u>	<u>49.0</u>	<u>144.6</u>	<u>100.0</u>

Estimated Disbursements:

	US\$ Million					
	<u>FY80</u>	<u>FY81</u>	<u>FY82</u>	<u>FY83</u>	<u>FY84</u>	<u>FY85</u>
Annual	1.2	5.7	5.8	4.8	3.8	3.7
Cumulative	1.2	6.9	12.7	17.5	21.3	25.0

Rate of Return: 18 percent (21 percent excluding village development and the two studies)

Staff Appraisal Report:

"Integrated Forestry Development Project, Greece"
(No. 2425-GR), dated May 7, 1979

/a The Bank's share of total cost net of taxes and duties is 20.5 percent.

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

REPORT AND RECOMMENDATION OF THE PRESIDENT
OF THE IBRD TO THE EXECUTIVE DIRECTORS
ON A PROPOSED LOAN TO THE HELLENIC STATE
FOR AN INTEGRATED FORESTRY DEVELOPMENT PROJECT

1. I submit the following report and recommendation on a proposed loan to The Hellenic State for the equivalent of \$25 million, to finance a portion of the foreign exchange cost of a forestry project. The loan would have a term of 15 years including 3 years of grace, with interest at 7.9 percent per annum. The equivalent of \$1.2 million would be relent to the Agricultural Bank of Greece for 15 years, including 3 years of grace, with interest at 7.9 percent per annum.

PART I - THE ECONOMY

2. A report entitled "Country Economic Memorandum - Greece" dated February 8, 1978 was distributed to the Executive Directors on February 21, 1978 (1755a-GR). It was based on the findings of an economic mission which visited Greece in mid-1977. Its conclusions, modified as necessary in light of subsequent developments and updated information on the economy, are presented below. Country data sheets are attached as Annex 1.

Recent Developments

3. Premier Karamanlis' Government was re-elected to power in November 1977. Since then, it has worked further to strengthen the reestablishment of democracy in Greece, besides restoring and broadening international economic relations. Its efforts to make Greece a full member of the European Economic Community (EEC) met with success when the EEC and Greece agreed in December 1978 on the basic principles governing Greece's membership. The treaty is scheduled to be signed on May 28, 1979, and following ratification by all EEC members, Greece is expected to become an effective member on January 1, 1981.

4. Although real GDP growth averaged 7.4 percent annually and consumer prices increased less than 3 percent between 1963 and 1973, supply constraints developed in the early seventies, as a result of which prices came under increasing pressure. Import prices also increased sharply. The restrictive policies then adopted, together with the impact of the Cyprus crisis on Greece, led to a 2 percent decline in GDP in 1974, and a record 27 percent increase in consumer prices. The Karamanlis Government's immediate objective was to reverse this trend, by resuming growth, while reducing inflation and containing the balance of payments deficit. Its economic policies since then have essentially achieved this objective. Public sector investments played a key role, unusual for Greece, in stimulating the economy, while defense expenditures and salaries also rose rapidly. The public sector deficit, equivalent to about 6 percent of GNP in 1975 and 1976, was financed mainly by the Bank of Greece. Credit to the private sector expanded by 24 percent per annum. The other dynamic forces on the demand side were private consumption and investment in residential construction. The economy responded with real GDP growth

of 5.1 percent in 1975 and 5.9 percent in 1976, despite the unfavorable international economic environment and poor climatic conditions for agriculture. Industry was the leading sector with an 8 to 10 percent annual growth rate. At the same time, inflation was brought down to 13 percent in 1975 and 1976. The current account deficit was stable at \$1.1 billion in both years. Almost half of it was financed in 1975, and 80 percent in 1976, by large inflows of private capital, mainly foreign exchange deposits at advantageous rates made by Greek seamen and emigrant workers, and funds for real estate investments.

5. In 1977, however, GDP growth dipped to 3 percent, with a weakening of private consumption growth and foreign demand for Greek manufactured exports, restrictions on some textile exports, and hence a slowing of manufacturing growth to only 2 percent. Agricultural production fell for the second successive year while housing investment boomed and offset the stagnation or decline in investment in other sectors. Unemployment fell to a record low level of 2 percent of the labor force and inflation stabilized at 13 percent. Government current expenditure maintained the public sector deficit at 6.5 percent of GNP, and money supply and credit expansion exceeded official targets. Imports of goods rose 15 percent to \$6.4 billion, while exports of goods grew more slowly by 13 percent to reach \$2.5 billion despite depreciation of the drachma. While receipts from shipping rose to \$1.1 billion, and tourism earnings to \$1.0 billion, the current account deficit was somewhat higher at nearly \$1.3 billion. However, capital inflows reached \$1.5 billion, permitting reserves to increase for the first time in four years.

6. For 1978, the Government set targets of 5 percent real GDP growth and not more than 10 percent inflation. Preliminary estimates show that real GDP growth was 5.8 percent, with both agriculture and manufacturing growing by 6.5 percent. Private consumption continued to grow at 5 percent, while the growth of public consumption fell to 3 percent. However, public fixed investment grew faster (by 7.7 percent) than did that of the private sector (4.5 percent), recovering from its sharp fall in 1977. Unemployment remained at the 1977 level. The initially budgeted increase in the public investment program (to Dr. 55 billion) was halved in June to restrain demand. New taxes aimed at reducing luxury imports and speculative investment in real estate were introduced. To contain public expenditures, a freeze on civil service salaries and new hiring was also introduced in June. Despite these measures, there was a large budget deficit again financed by the Bank of Greece, so that credit to the public sector expanded by 26 percent in 11 months. This contributed to the rate of inflation declining only slightly from the 1977 level, despite slower credit expansion to the private sector and a partial price freeze imposed at mid-year. To stimulate savings and investment, deposit rates were raised 2.5-3 percent, while the increase in long-term lending rates was held to 1 percent (see paras. 31 and 32). New investment incentives were approved in fall 1978, including the removal of import duties on farm machinery, tax exemptions for reinvested profits, special loans for modernization, energy conservation and pollution reduction, and easier credit for investment. Some of these incentives were extended for investment in Greater Athens for the first time in several years, albeit at less favorable rates.

7. Imports of goods grew by 15 percent again to \$7.4 billion, and might have been higher except for delays in licensing. Exports and tourism were stimulated by the depreciation of the drachma along with the U.S. dollar.

Exports of goods grew by 19 percent and reached a record of \$3 billion, despite EEC curbs on some textile products. The number of tourists reached 5 million, and earnings were around \$1.3 billion. The current account deficit was maintained at nearly \$1.3 billion, as in 1977. Capital inflows reached a new peak and included a strong growth of foreign exchange deposits, and permitted reserves to increase again to \$1,171 million at the end of December 1978, equivalent to about two months of imports.

Short-Term Prospects

8. For 1979, the Government plans real GDP growth of 6 percent. Demand for manufactured exports may accelerate, since the 1979 textile export quotas agreed with the EEC are larger than those for 1978. However, the oil price increase is likely to have an important impact, in addition to the measures resulting from the Government's determined effort to reduce the rate of inflation. The budget envisages significant reductions in consumer goods subsidies. The freeze on new civil service recruitment has been extended. Public investment is contemplated to be about Dr. 64 billion and, in principle, will not involve new projects, except in agriculture (especially in preparation for EEC entry) and for Salonica earthquake reconstruction. Although there will again be a large budget deficit, the Government is for the first time considering a bond issue to reduce its inflationary impact. At the same time, it is determined to hold real wage increases close to the rise in productivity. Finally, it is requiring prior approval of all price increases on manufactured goods. As for the balance of payments, imports of goods are expected to grow by 17 percent to \$8.6 billion, including the effect of the oil price increases. Exports of goods may rise 15 percent to almost \$3.5 billion. Tourism should continue to grow strongly, with nearly 6 million visitors bringing in \$1.7 billion. However, the increase in the trade deficit will probably be reflected in a somewhat larger current account deficit. On the other hand, prospects for capital inflows remain good, and reserves are likely to increase again.

Medium-Term Development Issues and Prospects

9. Since early 1975, well-designed economic policies have enabled Greece to enjoy modest, but sustained, economic growth of between 3 and 6 percent per annum, considerably above EEC and OECD averages, although these rates were well below Greece's rapid growth rate in the previous decade. In 1977, GNP per capita reached \$2,810 (Atlas methodology), which is roughly half of the EEC average. Industry (including construction) and tourism have been the mainstays of growth, which has been stimulated by large public sector deficit financed investments, besides housing investment. Unemployment has remained very low, despite some net return of migrant workers. The balance of payments constraint to growth has diminished in importance, as Greece can rely on large and rapidly increasing invisible receipts from shipping, workers' (including seamen's) remittances, and tourism to keep the current account deficit around 5 percent of GNP. It also enjoys large private capital inflows of two special types: foreign exchange deposits and funds for investment in real estate. Public sector external borrowing has remained quite modest.

10. However, Greece still faces structural problems similar in many ways to those of developing countries with considerably lower income per head.

Agriculture still accounts for almost one-third of both exports and employment, and 14 percent of GDP. Its growth is hampered by very small and fragmented farm holdings, insufficient irrigation, and lack of marketing facilities. Also, despite its past rapid growth to a 21 percent share of GDP, and rising productivity, manufacturing is still restricted by a small domestic market, limited export orientation, heavy dependence on capital goods imports, and the dominance of small family units with limited financial, managerial and technical knowhow. Both these sectors would need significant adjustments in terms of both structural changes and investments to enable Greece to obtain the expected medium-term benefits from its entry into the EEC.

11. Greece's foreign trade retains its long standing structural weaknesses, with exports still covering only 40 percent of imports, which in turn include significant imports of luxury consumer goods and consumer durables. Despite regional investment incentives and other efforts, especially over the last three to four years, sharp disparities remain between highly affluent Athens and Salonica and other much poorer regions which have per capita incomes substantially below the national average. Greece's public administration remains weak in the face of the need to articulate and implement long-range development strategies and structural change--especially in connection with EEC entry--as well as develop sound projects.

12. While Greece should effectively become a full member of the EEC by 1981, there will be a general transition period of five years for adjustments by both sides. The principles agreed in December 1978 between the EEC and Greece reflect the need for adjustments and the flexibility necessary towards that end. The EEC will remove all restrictions on Greek agricultural exports over five years, except for peaches and tomatoes (for which seven years are provided). It already accepts Greece's non-agricultural exports effectively without restrictions, except for temporary ones on some textiles. The EEC will permit the free entry of Greek workers seven years after membership; but meanwhile, Greek workers already in the EEC will begin to receive job and social benefits protection. Tariffs on imports from the EEC will be fully phased out by 1984, but imports of certain manufactures in which Greek industry is especially vulnerable to EEC competition will be restricted by quotas for five years. Greece will adopt the Common External Tariff of the EEC over five years, but vulnerable products (including textiles) will also be protected meanwhile by quotas on imports from third (non-EEC) countries. On accession, Greece will have to terminate its bilateral clearing account agreements, as it has already begun to do. More important, it will also have to eliminate its direct export subsidies. On the other hand, it will be able to rebate the value added tax, which must be introduced within three years, in the case of exports; draft legislation for this tax was published in fall 1978.

13. Over the long term, Greece stands to gain significantly from full membership in the EEC, mainly by hastening its development of a more efficient, and hence competitive, production structure. The benefits may include greater inflows of foreign investment and technology and more efficient management. Membership may, in particular, help the Government overcome institutional rigidities, and enact and implement far-reaching and otherwise difficult socio-economic reforms. In the interim, however, significant infrastructure investment and considerable adaptation will be required within Greece, given

the differences of economic structure and standards between Greece and other EEC member countries. Besides, the administrative requirements of implementing European policies and directives, such as the Common Agricultural Policy, are likely to be considerable. To assist Greece in meeting these challenges, the EEC is providing about \$316 million through late 1981 under the existing Association Agreement, of which about \$250 million will be EIB loans. In addition, a net financial inflow rising from some \$110 million in 1981 to some \$670 million per annum after the transition period is expected as direct budgetary support, mostly for agriculture and regional development, after formal entry. However, Greece's access to external assistance on concessionary terms is extremely limited. With the cessation of Bank lending after the loan proposed in this report, the EEC will be virtually the only source of such assistance.

14. The 1979 budget documents contain Government projections for the period 1979-81. Real GDP growth is expected to average 6 percent per annum, with agriculture growing at 4 percent, the broad industrial sector at 7-7.5 percent, and services at 5-6 percent. The investment rate will rise slowly to 21 percent in 1981. The current account deficit is expected to decline from 5 percent of GNP in 1979 to 4.6 percent in 1981. A development plan for the period 1978-82 is being debated in the Greek Parliament. It envisages the same 6 percent annual growth rate in real GDP, with a recovery in agricultural growth; investment growth near the 1960s rate; investment in industries with a competitive edge, and preferably based on indigenous resources; development of basic domestic resources such as forestry and minerals (especially energy-related ones such as the Thassos oil field), in view of their foreign exchange earning or saving potential; preparations for EEC entry; the lessening of disparities in regional development; continuing full employment; moving progressively closer to the EEC average rate of inflation; and a current account deficit no higher than \$1.7-2.0 billion per annum. Assuming maximum effort to achieve planned investment expenditures, Greece should be able to sustain annual GDP growth of nearly 6 percent over the Plan period, with a current account deficit of about \$1.4 billion annually, which is slightly lower than the Plan forecast. Assuming gradually tapering inflows of foreign exchange deposits, the Government may need to borrow up to \$800 million to \$1 billion annually (in gross terms) to finance the current account deficit, increasing amortization payments and normal increases in reserves. Most will have to be borrowed on commercial terms from European capital markets. In view of the liquidity of the Eurodollar market, it should be possible for Greece to tap it on reasonable terms.

15. Greece's public external debt outstanding (including undisbursed) at the end of 1977 was about \$3.5 billion, including \$341 million from the Bank. The disbursed portion was \$2.6 billion. There was also an estimated \$2.0 billion in private external debt outstanding. Service payments on public debt in 1977 reached \$533 million (of which \$19 million on Bank loans), and represented almost 11 percent of exports of goods and non-factor services. Inclusive of external private debt, the ratio is estimated to have been about 17 percent. On reasonable expectations regarding export growth and future borrowing, the debt service ratio should remain at similar levels through the 1980s. About 5 percent of total service payments in 1980 would be due to the Bank. In view of its good prospects for future economic growth, Greece is creditworthy for Bank lending.

PART II - BANK GROUP OPERATIONS IN GREECE

16. Bank lending to Greece started in 1968, after disputes in connection with the country's pre-war external debt had been substantially settled. Greece has so far received sixteen loans totalling \$464.9 million (net of cancellations), of which \$381.8 million was held by the Bank as of April 30, 1979. These include five loans totalling \$96.6 million to the National Investment Bank for Industrial Development (NIBID), four loans for education (\$142.3 million), three loans for irrigation (\$95 million), a highway loan (\$30 million), a wastewater disposal loan (\$36 million), a loan for regional development (\$35.0 million), and a vegetable production loan (\$30.0 million).

17. The execution of Bank-financed projects has generally been acceptable, although that of the irrigation and education projects has been especially slow and subject to significant cost overruns due to both domestic and international inflationary pressures. As of December 31, 1978, disbursements amounted to 33 percent of initial appraisal estimates, and to 87 percent of revised estimates. Recognizing the need to improve project performance drastically, the Government and the Bank have instituted a system of joint project reviews. The first of these reviews took place in December 1978 and the second one in May this year. During these reviews, a series of actions have been agreed for both the irrigation and education projects which have since begun to be put into effect by the Government. It is expected that the gradual effects of these actions will begin to manifest themselves, in terms of prompter implementation of project works as well as increased disbursements against Bank loans, in the course of the second half of calendar 1979. Annex II contains a summary statement of Bank loans and IFC investments as of April 30, 1979.

18. Bank assistance to Greece has had the following objectives: supporting institutional reform and essential infrastructure in key sectors, including agriculture, wastewater disposal, and highways; modernizing key sectors such as agriculture and education; and reducing substantial regional income and social disparities through support for selected regional development programs and regional balance in projects. In accordance with previous plans, the proposed forestry project is the last loan to Greece.

19. IFC has made investments totalling \$56.3 million in six Greek companies. An equity and loan investment of \$0.6 million was made in a fertilizer factory in 1962 and sold in 1970. An equity investment of \$0.7 million was made in NIBID in 1965, reduced to \$0.1 million in 1974. In 1977, IFC made a \$40 million loan to NIBID, of which \$5 million was for IFC's own account. Loan and equity investments totalling \$8.7 million were made in an aluminium company in 1970 and 1972. In early 1975, IFC invested \$1.1 million in an agro-industry project in Larisa for processing of tomatoes from the area of the Groundwater Development Project assisted by the Bank (Loan 754-GR). IFC recently contributed another \$0.2 million to expansion of this project to include the growing and harvesting of tomatoes as well as the canning of apricots and peaches.

PART III - THE FORESTRY SUB-SECTOR

Forestry in the Economy

20. Forests cover about 2.5 million ha or 20 percent of Greece's total land area. Of this, 1.8 million ha are exploitable forests. About 60 percent of the total growing stock is coniferous (fir, black pine and Aleppo pine) and the rest is broadleaf (mainly beech and oak).

21. Largely as a result of traditional and conservative forest management policies, Greek forests, with a growing stock of 134 million m³(r)*, are currently only yielding less than a third of their potential sustainable annual cut of about 4 million m³(r). Industrial roundwood production is thus less than 1 million m³(r) per annum. As a consequence, despite substantial untapped forest resources, most of the country's sawmills and other forest industries operate well below capacity, and a sizeable proportion of domestic wood product requirements has to be met by imports. Forest product imports cost more than \$265 million in 1977 and have been growing at nearly 15 percent per annum in the last decade. Imports are projected to continue to rise rapidly to about \$400 million by 1985, unless steps are taken to increase local wood production. Over the past decade, the Government has received technical assistance for studies in the forestry sector from several multi-lateral and bilateral sources, which have addressed the problems of more intensive forest management and access and laid the basis for formulating the sector's development plans to redress this situation. The project is a major component of these plans, and provides for their accelerated implementation.

22. Two thirds of the forests in Greece are owned by the State; the balance are owned by communities, monasteries, various public and private organizations, groups or individuals and some jointly by other owners and the State. Because of the steep terrain in Greece, forests play a vital role in protecting the natural watersheds against erosion by water runoff. They also provide substantial grazing areas to an estimated 13 million animals, mostly sheep and goats. Moreover, because the forest areas include some of the least developed parts of Greece, with per capita incomes and access to social facilities substantially lower than the national average, forest development is central to the Government's policy of improving income distribution through regional development.

Forest Management and Development Needs

23. Because of heavy destruction of the forests during and immediately after World War II, Greek forest management policies over the last 20 years have correctly put emphasis on the need to restore the forest cover and to build up the growing stock volume to ensure soil protection. However, these policies have now led to over-stocking, which in turn is causing reduced growth, high mortality and poor regeneration. The Government is therefore re-orienting its forest management policies. Experience from other countries

* r = roundwood equivalent.

indicates that more intensive management and extraction can be safely introduced without causing serious ecological problems. In addition to more intensive management of the existing forests, there is a huge potential in Greece for substantially expanding production by planting fast-growing species on the approximately one million hectares of land with suitable soil and other conditions which could be made available for this purpose. An annual planting program of up to 40,000 ha per year (10 times the present rate), would permit reaching long-term self sufficiency in wood supplies at considerable economic savings to the Greek economy. In the past, ill-defined grazing rights for villagers' livestock in forest regeneration areas have been one major constraint to expanding the use of fast-growing plantation species. The Government now proposes to meet this problem through intensive development of pilot range areas, improved animal husbandry and protecting regeneration areas by fencing.

24. Before increased production from forests can be realized, however, an accelerated program of road construction and maintenance is needed to permit access to the forests. Increased access will also lead to improved labor productivity by allowing logging crews to operate for up to 200 days per year compared to the present 70-100 days, and would encourage the adoption of more efficient mechanized skidding methods. To complement the road program, policies and facilities are needed to encourage further mechanization of forestry operations, which in general would offset growing shortages of labor and trained animals as well as permit more attractive incomes for those workers remaining in forestry. In particular, timber allocation policies should be adjusted to allow larger-volume, longer-term contracts. Access to sufficient credit for equipment purchases should be maintained, and mechanization should be phased in to minimize conflict with existing methods. In addition, training of logging operators to use the equipment, and improvement in the physical and social infrastructure in forest villages, better housing for workers, and better transport are required to retain an adequate supply of workers and operators in the forest areas.

Forestry Development Plans

25. The Government's forestry development plans for the whole of Greece during the period 1978-83 aim at: improving accessibility into forest areas by construction of up to 7,500 km of new roads; substantially increased wood harvesting and log production; improvement and upgrading of natural forest potential through natural and artificial regeneration of about 10,000 ha of felled-over areas annually; establishment of about 6,500 ha a year of fast growing industrial plantations; fire protection; improvement of livestock grazing ranges located in forest areas; improvement of workers' housing and social facilities in mountainous forest regions; and continued expansion of pulp and paper and other forest industries. The Government's annual budget for forestry is currently running at about \$90 million, about half of which is allocated for investments. Forestry revenues derived mainly from log sales amount to some \$36 million a year. The Ministry of Agriculture operates a revolving fund ("Central Fund for Agriculture, Livestock and Forestry Development"), under which most of the forestry revenues are retained and ploughed back into forest development. The European Investment Bank has provided about \$13 million to finance a six year (1977-82) slice of this plan covering six

forest districts of eastern Macedonia and Thrace, and including provision for 634 km of forest road construction, 660 km of road improvement, housing for 360 workers, and other facilities. The proposed project covers a larger area in the west and south.

26. The Government currently provides various incentives for exploitation of non-State forests and for the operation of wood-based industries, including direct investment grants, protection from imports, and subsidized interest rates. Logging equipment purchases have been subsidized up to 15 percent in recent years. Roads in non-State forests are regarded as essential infrastructure and, as such, part of the costs of constructing them are borne by the State. These roads are an integral part of the overall forest road network and would have to be built, to achieve the Government's forestry development objectives. They are accessible to the general public and are used by the Government for fire protection and other purposes. Hence, such road construction is eligible for direct grants from Government ranging from 20 percent to 40 percent (depending on location) and for medium/long-term loans at an effective interest rate of 4.5 percent per annum. These and other subsidy policies in the forestry sector will have to be adjusted as part of the process of alignment of domestic policies following Greece's expected entry into the EEC. The sectoral development strategy study to be financed under the project would also look into the entire tax-subsidy regime in forestry and make recommendations for appropriate changes to ensure efficient resource allocation while maintaining adequate incentives.

Forest Production Constraints

27. As indicated above, Greece has the potential for achieving self-sufficiency in forest products on a sustainable basis from its domestic forests. The main constraints hindering achievement of this objective are: (a) overly conservative forest management and timber allocation systems, which are incompatible with an acceleration in wood extraction programs; (b) inadequate all-weather access roads and tractor roads, which prevent effective harvesting of the forest; (c) low productivity due to insufficient mechanization, partly the result of allocating and contracting policies which discourage the adoption of mechanized methods; (d) shortage of trained animal and man power, in part due to the lack of permanent employment opportunities and poor living conditions in the mountain areas; and (e) land-use conflicts between grazing and forestry, which because of the lack of effective range management methods have led to unnecessary destruction of forest regeneration areas.

Forest Industry

28. Most forest industry is private, including some 1,500 small sawmills, 30 medium to large sawmills, 2 pulp mills, 6 paper or paperboard mills, and 19 plywood, particle board or fiberboard factories. Output from these industries grew at a faster rate (17 percent per annum) between 1963 and 1973 than the rest of the manufacturing sector (12 percent per annum), and the sector accounts for about 5 percent of industrial production and 7 percent of industrial employment. The sawmill industry is currently operating at less than 50 percent of capacity because of raw material shortages; other

wood-processing industries depend to a considerable extent on imported raw materials. With sufficient raw materials, both the sawmill industry and the manufactured board factories could meet domestic demand until the latter half of the 1980's without significant expansion. However, there is a major need for additional capacity in the pulp industry. Chemical pulp imports are presently 80,000 tons per year and expected to rise to about 140,000 tons by 1985. Thus, domestic demand warrants early consideration of the construction of a chemical pulp mill of about 150,000 tons per annum capacity, especially since pulpwood supply is not expected to be a constraint after the execution of the project. The possibility of such a mill in the project area has been identified and the project includes a study to verify its economic viability and evaluate alternative wood supply patterns to meet the needs of such a mill as well as of other wood industries.

Forestry Organization

29. Conservation and management of all forest resources are the responsibility of the Directorate General of Forests (DGF) in the Ministry of Agriculture. DGF is organized into nine Directorates in Athens, each responsible for overall planning and coordination of a particular aspect of forest development. Forest production, protection and management programs are carried out in about 100 Forest Districts, each with its own decentralized organization, controlling wood extraction operations in both State and non-State forests. DGF has a demonstrated capacity to implement large-scale forest production and management programs; during the period 1971-76, annual industrial wood production in Greece averaged 651,000 m³(r), DGF's road construction program increased from 700 km to 900 km per year and reforestation programs averaged 4,000 ha per year. DGF's professional staff of about 1,440 is generally well-qualified and experienced. Support is provided by an ongoing program of forestry research and training, though weaknesses appear in mechanized logging and plantation establishment methods, and in modern forest management techniques.

The Agricultural Bank of Greece

30. The Agricultural Bank of Greece (ABG) is practically the only institutional source of credit to the agricultural and forestry sectors. It is the main executing agency for the Vegetable Production and Marketing Project (Loan 1588), approved in 1978. ABG is a well-managed, professional organization, reaching over 90 percent of all farmers through nearly 190 branches and a staff of more than 5,500. Nearly half of its outstanding loan portfolio of some \$3 billion equivalent consists of medium/long-term loans. Loans in the forestry sector account for less than 2 percent of this total. ABG's lending procedures are well-established, with a large measure of decentralization in approval authority permitting quick and flexible responses to borrowers' needs. Supervision of borrowers is also very effective; loans are almost fully recovered within a year of falling due and arrears are under control. In connection with the Vegetable Project, ABG's equity is being increased by about \$550 million over five years.

31. The interest rate mechanism in Greece has traditionally played a relatively minor role as an instrument of either maintaining monetary stability or influencing resource mobilization. Rather, its role has been geared

towards medium- and long-term development management as a tool for stimulating and directing investments into those sectors, for example, agriculture, which the Government has determined need development. As a result, interest rates do not necessarily reflect either market conditions or the availability of capital in Greece. With the decline of the inflation rate from 27 percent in 1974 to 12 percent in 1978, some rates have moved much closer to positive rates of interest. ^{1/} The interest rate structure in Greece has been centrally controlled since the spring of 1973 by a ministerial level Currency Committee, which establishes rates for each type of deposit and credit. In administering interest rate policies, the Central Bank uses a combination of adjustments in its rediscount rate and concomitant adjustments upwards or downwards in deposit rates.

32. Since June 1978, the rediscount rate has been 14 percent, rates on saving deposits have ranged up to 11.5 percent, the highest lending rate has been 17 percent for imports and domestic trade, and the lowest lending rate 4.5 percent for long-term loans for livestock. The maximum interest rate for long-term loans to industries has been 11.5 percent, while the interest rate for medium- and long-term lending for general agriculture has ranged from 7.0 percent to cooperatives (plus a 0.5 percent appraisal fee) to 11.5 percent to private agroindustries (plus a 1.0 percent appraisal fee). Short-term interest rates in agriculture have varied from 8.5 percent to 10.5 percent, plus various charges and fees. Since 1974, there has been a gradual increase in the rates for the agricultural sector, most recently in June 1978, when short term rates were increased by 2 percent and long-term rates by 1 percent.

Regional Development

33. About one-half million people or 5 percent of the Greek population, live in villages in or near the forest areas and are largely dependent on forest activities or grazing for their livelihood. A substantial majority of these people have per capita incomes less than one third the national average. With poor facilities, difficult working conditions, and limited opportunities for employment outside of agriculture and forestry, mountain villages have suffered substantial migration of younger people to urban areas and abroad, and a serious labor shortage is developing in some forest regions. Even in a relatively wealthy region like Thessaly, government studies show that the mountain villages have a substantially lower standard of living than the rest of the rural population in the same region. The Government policy is to promote regional development through a number of measures, including improvements in physical and social infrastructure and the quality of life in the poorer regions. Moreover, along with mechanization and training, the improvement in social services, transport and housing facilities for forest workers and villagers, will be key factors in retaining an adequate supply of workers and operators in the forest areas.

^{1/} Expected inflation in 1979, 1980 and 1981 is 12 percent, 11 percent and 10 percent respectively.

PART IV - THE PROJECT

Project History

34. The project was identified by the Government and by Bank missions visiting Greece in November 1977 and January 1978. It was prepared by the Government between March and August 1978, with the assistance of consultants financed by OECD. Bank appraisal took place in November/December 1978. Negotiations were held in April 1979, with the Greek delegation headed by Mr. Petros Papadakis, Director General of the Ministry of Coordination and including representatives of the Directorate General of Forests (DGF) and the Regional Policy Development Service (RPDS).

Project Objectives and Area

35. The project is a five and half year (1979-84) time slice of a more intensive long-term forestry development program for continental western and north-western Greece, including the regions of Epirus, the western parts of Macedonia, Thessaly and Central Greece, and the Peloponnessus (see Map 14031R). It aims to: (i) increase wood production from currently underutilized forests, thereby providing additional raw material to help meet domestic demand and reduce dependence on imported wood products; (ii) assist in developing sound long-term strategies for forest resource and industry development, including introduction of more intensive forest management and extraction systems; (iii) improve incomes and the quality of life in selected forestry villages in the project area which includes some of the poorest prefectures of Greece; and (iv) strengthen local capabilities for planning and preparation of projects.

36. The project area covers about 5 million ha, or about 40 percent of the total land area of the country. It also includes about 40 percent of the country's commercial forest area and 57 percent of the growing stock, including both coniferous and deciduous species. The State owns 380,000 ha or 56 percent of the project area forests; the rest are owned by various communities, organizations and private individuals. Current wood production in the project area is only about 650,000 m³(r), or about 33 percent of potential yield. About 260,000 people live in some 1,750 mountain villages in the area. Most are employed in agriculture, forestry and related industries (including about 640 sawmills), and have incomes considerably lower than the national average.

Project Description

37. The project, which constitutes an integrated investment program, includes the following components: forest roads and equipment for road and machine maintenance, logging equipment, tree nurseries and industrial plantations, pilot range management, fire protection equipment and facilities, worker housing and transport facilities, village development and technical assistance. Details of the project are provided in the Loan and Project Summary and in a Staff Appraisal Report entitled, "Greece - Integrated Forestry Development Project" (No. 2425-GR) dated May 7, 1979, distributed separately to the Executive Directors, and are summarized below. A Supplementary Project Data Sheet is also attached as Annex III hereto.

38. The construction of roads to provide access and the provision of additional logging equipment can themselves lead to increased wood production. However, these steps will not be fully successful or lead to further sustainable increases over the long term, unless complemented by changes in forest management, planning, worker training, and living conditions.

39. The project's industrial plantation component provides for accelerating the planting of fast growing industrial species from the current rate of 1,000 ha/year to 4,600 ha/year by 1984, or a total of about 16,000 ha. This, in turn, will permit increased extraction from existing over-mature forests without long-term ill effects. The pilot plantation research program supports this effort by identifying areas for planting, developing more efficient methods of planting and testing appropriate species. About 10 man-years of technical assistance and 12 man-years of training are required in support of this program, of which about 6 man-years of technical assistance and 8 man-years of training are expected to be financed by UNDP. Arrangements for obtaining the additional technical assistance will be completed by March 31, 1980 (Loan Agreement, Section 3.05(b)(ii)).

40. The pilot range management and fire protection components will reduce damage to the forests respectively from overgrazing and fire. The former will test, on about 20,000 ha, the feasibility of various approaches to the problem of harmonizing livestock and forestry development. A survey will determine how the findings can be extended to other parts of Northern Greece. About 6 man-years of technical assistance and training are provided for this component. The fire protection component provides about 5 watch towers, 500 fire breaks, 200 fire tracks, 30 water reservoirs and about 30 fire and tanker trucks and other equipment to improve fire protection in the project area.

41. The logging training and demonstration component will ensure that the full benefits of the new equipment and techniques are realized. Short practical courses will be offered each year to about 100 staff, operators and contractors in the use, operation, and repair of mechanized skidding and logging equipment. The project provides equipment, about 3 man-years of consultants' services and about 6 man-years of training abroad.

42. The forest and forest industry sector development strategy study, for which about 5 man-years of consultant services are provided, will develop the planning and management framework for accelerated forestry and forest industry development. The study will review stocking and growth patterns, analyze pricing, taxing and subsidy policies, investigate forest management and harvesting practices, explore options for forest development to the year 2000, examine the preliminary economic viability of major new forest based industries, particularly the proposed chemical pulp mill, and recommend appropriate changes in policies and practices.

43. The village development component will construct or improve connection roads and streets, water supply, drainage and sanitation systems, street lighting, community centers and other infrastructure facilities in about 37 villages (with a total population of about 20,000) selected from over 100 potential villages on the basis of population trends, amount of forestry employment and location in relation to forests (Map 14162R) The investments

are similar to those being financed under the Evros Development Project (Loan 1457-GR) and would be a pilot for investments in other forest villages. Location, phasing and design standards for these investments, stressing simple construction, have been agreed upon.

44. The regional development study would assist in formulating a plan for the development of western Greece up to the year 2000, but its primary purpose is to assist the Government in identifying and preparing specific viable investments which could be a basis for financing by external sources, such as the European Investment Bank as well as by the Greek Government and private sources. While not limited to forestry, it would address the major problem of long-term development in a region of the project area which is one of the poorest in Greece and which has substantial development potential in forestry and other sectors, such as livestock and tourism. The study has been designed to create an ongoing capability in Greece to manage the process of identifying, financing and implementing such projects in the future. About 6 man-years of long-term consultants, about half locally recruited, and a \$2.4 million revolving Fund for short-term specialist services are provided for this component.

Project Costs and Financing

45. Total project cost (including an average 32 percent price and 11 percent physical contingency) is estimated at about \$145 million. It includes about \$23 million of taxes and duties. The foreign exchange component is estimated at \$49 million, or 34 percent of total cost. Costs of expatriate consultants have been estimated at \$7,000 per man-month on average. The proposed Bank loan of \$25 million will finance 21 percent of the total costs net of taxes and duties, or 51 percent of the foreign exchange component. Government has selected the commercial banks to finance the balance of the foreign exchange, and are now negotiating the final terms. The Government will contribute about \$87 million and the Agricultural Bank of Greece (ABG) about \$2 million of local costs. Greece will be the Borrower of the Bank loan, onlending about \$1.2 equivalent to ABG on terms similar to that of the Bank loan; ABG, in turn, will relend these funds to logging cooperatives and individual operators (see paragraph 54). The Government will bear the foreign exchange risk.

46. At least twelve foreign banks, several new to Greece, made specific offers to finance the remaining foreign exchange needs of the project. Most of these offers were on a floating LIBOR basis and equal to the best terms available on the Eurodollar market. There were also several fixed term offers. The terms obtained from the commercial banks selected, and which the Government is endeavoring to improve, are a maturity of 12 years, including 6 years grace, at 1/2 percent over LIBOR for the first three years and 5/8 percent over LIBOR thereafter. The several attractive offers received, and the very favorable one selected and being finalized, demonstrate the current availability of LIBOR funds, as well as the effect of the Bank project in interesting new lenders in Greece.

Project Implementation and Sublending Arrangements

47. The forestry components of the project will be implemented by the Directorate General of Forests (DGF) in the Ministry of Agriculture, primarily through its existing organization in the 42 Forest Districts in the project area. Onlending for logging equipment will be the responsibility of the Agricultural Bank of Greece (ABG), which is the implementation agency under the Vegetable Production and Marketing Project (Loan-1588). The village infrastructure development component and the regional development study will be implemented by the Regional Policy and Development Service (RPDS) of the Ministry of Coordination, which is responsible for the Evros Development Project (Loan-1457).

48. Within DGF, a Project Planning and Management Office will be established to coordinate the activities of the several relevant Directorates and Districts responsible for the forestry components. This DGF Project Office will supervise the preparation of project operational plans, prepare project progress reports for the Bank, monitor and evaluate progress in the Forest Districts concerned, and identify problems for higher authority. It will also handle procurement and withdrawal documentation and submit a proposed annual program of works to the Bank for approval by December 1 of each year (Loan Agreement, Section 3.05(b)(i)). As mentioned earlier, DGF has a demonstrated implementation capacity and is considered well-qualified to undertake an increased work program envisaged under the project.

49. The DGF Project Office will be headed by an experienced forester assisted by at least two other foresters, two forest technicians, an accountant and other support staff, all assigned full-time to the project. Establishment and provision of at least two staff for the DGF Project Office is a condition of effectiveness of the proposed loan. In addition, assurances were obtained that the Forest District offices in the project area will be kept adequately staffed and expanded as required during project implementation, and, in particular, that each Forest District with an industrial plantation program will have at least one specialized forester responsible for planting operations (Loan Agreement, Schedule 5, Part B2).

50. The forest sector development strategy study, the pilot range management program, and the logging training and demonstration program will all be carried out under arrangements acceptable to the Bank. Detailed proposals for the training, pilot plantation and range management programs will be submitted to the Bank for comment by March 31, 1980 (Loan Agreement, Section 3.05(b)(ii)). Essentially, appropriate officials in DGF will be designated responsible for each program and supported by the requisite technical and support staff and the necessary facilities, equipment and vehicles.

51. To ensure appropriate revision of forest management policies and achievement of project production targets, assurances were obtained that DGF will change current timber allocation systems to allow larger-volume, longer-term logging contracts, and will see that all management plan revisions in project area forests after July 1, 1979 take account of the production targets under the project, which targets were agreed during negotiations (Loan Agreement, Section 3.08). In addition, DGF will review the findings of the forest

sector development strategy study with the Bank, and taking the Bank's comments into account, take appropriate measures to implement the findings, including appointing 10 teams within six months of the study's completion to revise the management plans for all the Forest Districts in the project area (Loan Agreement, Section 3.05(b)(iii) and Schedule 5, Part B3(c)).

52. The Regional Policy and Development Service (RPDS) will implement the village infrastructure development component and the regional development study. The majority of the works will be carried out under the overall direction of four RPDS regional project offices to be set up in each of the regions (comprising, in all, nine prefectures) covered by the village development component, under the supervision of nine prefectural coordination committees chaired by the governor. Each office will have a full-time staff of at least two professionals and a technician. The RPDS regional project office in Ioannina would also be responsible for implementing the regional development study covering Ioannina and six additional prefectures, with assistance from consultants, and will be provided with additional staff of at least 8 multidisciplinary professionals for this purpose. Studies and surveys financed from the revolving fund will be selected under criteria acceptable to the Bank and reviewed and approved by the prefectural coordination committee in the relevant prefecture. Those costing more than \$200,000 equivalent will require the prior approval of the Ministry of Coordination and the Bank, which in any case, will receive a justification for all studies (Loan Agreement, Schedule 5, Part C4).

53. Actual planning, design and supervision of construction of village project works will be carried out in the local departments of the technical ministries concerned, coordinated by the regional project office. A project office in RPDS' Athens headquarters, headed by a project coordinator and assisted by two engineers will provide technical support for the regions and prefectures. RPDS will establish the regional and central project offices, appoint the project coordinator and accountant in Athens and at least one staff member for each regional office by March 31, 1980 (Loan Agreement, Schedule 5, Parts C1 and C3). The exact nature and phasing of works under the village development component would be determined on the basis of an annual program to be submitted by RPDS to the Bank for comment and approval by December 1 of each year (Loan Agreement, Section 3.05(b)(i)). Charges will be levied sufficient to at least cover the operating and maintenance costs of the water supply and sanitation facilities provided by the project (Loan Agreement, Section 4.05).

54. ABG will onlend the proceeds of the loan for the logging equipment credit component (about \$1.2 million) to sub-borrowers through its existing branch network in the project area. Subloan appraisal procedures and criteria used will be similar to those under the Vegetable Production and Marketing Project (Loan-1588); preference would be given to logging operators who have received training under the proposed project's training program. ABG will appoint a full-time credit officer by March 31, 1979 to monitor progress under the credit component and to prepare withdrawal applications and progress reports. Subloans to beneficiaries will be made at ABG's normal interest rate of 7.5 percent per annum for individuals and 7.0 percent for cooperatives (plus 0.5 percent appraisal fee), for a maximum term of eight years and with a

subborrower contribution of 20 percent of the investment costs; such contribution may be reduced for subborrowers with incomes less than one third the national average. Since ABG's income from subloans will not fully cover its administrative and financial costs, the Government will compensate it for any deficits. Assurances were obtained that the subblending arrangements will be satisfactory to the Borrower and the Bank (Loan Agreement, Section 3.02(a) (ii)).

55. To coordinate the activities of the various agencies, an overall Project Steering Committee will be established, headed by a Director General of the Ministry of Coordination and including representatives from DGF, RPDS, ABG, and the Ministries of Agriculture, Public Works and Interior. The Committee will meet at least quarterly to review project progress. Assurances were also obtained that the consultants will be hired under terms and conditions acceptable to the Borrower and the Bank, and, in particular, that the consultants for the forestry sector study and for the regional development study would be employed no later than March 31, 1980 (Loan Agreement, Section 3.03).

Procurement and Disbursement

56. Equipment and machinery costing a total of about \$10 million will be bulked and procured by DGF and RPDS under international competitive bidding (ICB) in accordance with Bank guidelines. Local manufacturers will be allowed a margin of preference of 15 percent or the applicable customs duty, whichever is less. Equipment costing less than \$50,000 up to an aggregate limit of \$1.5 million will be procured under local competitive bidding procedures, acceptable to the Bank. Foreign firms are well represented in Greece and would be allowed to participate in local competitive bidding. Logging equipment (costing about \$4 million) will be procured by the beneficiaries of sub-loans under the supervision of ABG (and on the basis of standard criteria to be agreed with the Bank) through regular commercial channels, since bulk procurement of this equipment will be impractical and there is an adequate choice among local and foreign suppliers.

57. Civil works for contractable items in the forestry component, mainly roads and workers housing, and for all the village works (costing a total of about \$70 million) will be contracted on the basis of local advertising according to competitive bidding procedures, which are acceptable to the Bank. International bidding is not suitable for these civil works due to the wide dispersion of the facilities, the different types of construction required, the phasing of contracts over 5-1/2 years, the relatively small size of each contract and the short construction season. The remaining civil works (costing about \$50 million) will be carried out on force account with contracted labor and equipment and financed from sources other than the Bank loan. The force account work is economical, since due to the short construction season, the remoteness of location and the small size of contracts, there is likely to be insufficient contractor interest to warrant tendering and contractor prices would have to be higher to compensate for these disadvantages. Also, as a result of contracting difficulties, it would be more difficult to reach wood production targets.

58. The Bank loan will be disbursed against: 20 percent of the total expenditures for civil works; 37 percent of the sub-loan amounts disbursed for logging equipment; 100 percent of foreign expenditures, 100 percent of local expenditures ex-factory if manufactured locally, and 75 percent of local expenditures if purchased from local suppliers for equipment; 50 percent of disbursements under the revolving Fund, 87 percent of expenditures for consultants' services; and 100 percent of foreign expenditures for fellowships.

Production and Markets for Project Products

59. At project completion in 1985, Greece's annual consumption of industrial roundwood is projected at an equivalent of about 5.9 million m³(r). Domestic production is projected to provide only 1.4 million m³(r), of which the project area will produce 0.8 million m³(r), or 55 percent of total production and 13 percent of total demand. By 1995, when full production is reached in the project area, demand for industrial roundwood is projected to be 8.6 million m³(r) and total production 3.0 million m³(r), of which project area production would be 1.7 million m³(r).

60. Sawlog production from the project area will be processed by existing saw mills located in or near the forests until at least 1985. Pulp wood production, which currently accounts for about 20 percent of total wood production, will largely be available for use in new industries. Since deficits of nearly 150,000 tons per annum of chemical pulp are expected by 1985, an assured market exists for the output of a chemical pulp mill of this capacity which could almost fully absorb the 650,000 m³(r) pulp wood production from the project area expected in 1995. The forest sector development strategy study under the project will provide a wood extraction program and preliminary economic analysis needed to induce private investment in such a pulp mill.

61. Wood output from the project area is expected to be sold in open auction and, as in the past, with minimum floor prices adequate to cover extraction and overhead costs. Domestic sawnwood and lumber prices are currently 25-30 percent above international prices reflecting the protection afforded by duties and taxes on imports. With entry into the EEC, a downward adjustment in tariffs would be mandatory, which, together with an expected real price increase in international lumber of about 1.5 percent per annum, would result in a balance between domestic and international prices by 1985.

62. Stumpage revenues (auction prices net of extraction costs) received by DGF from State forests in the project area are expected to average \$29 million annually in constant prices over the project development period through 1995 (an average increase of about \$13 million over current levels) and will be sufficient to fully recover administrative and investment costs, including interest on the loans. At the present time, stumpage revenues are paid into a general revolving fund for agriculture and then allocated to the budget of DGF to cover a portion of its expenses. Assurances were obtained that project area stumpage revenues will continue to be used to cover at least DGF's administrative expenditures in the project area, and, in addition, project investments operating and maintenance costs (Loan Agreement, Section 4.03).

Benefits and Beneficiaries

63. The project would contribute to tripling the annual rate of industrial wood extraction in the project area from about 550,000 m³(r) to 1.7 million m³(r) by 1995, resulting in better industrial capacity utilization and in net foreign exchange savings of about \$180 million by 1995. Because of the value of the additional wood sales, the Government would expect to realize nearly \$200 million of additional revenues between 1980 and 1995.

64. The economic rate of return, excluding the village infrastructure component and the two planning studies whose benefits are difficult to quantify, is estimated at 21 percent. Including the cost of the components whose benefits are non-quantifiable, the rate of return would be 18 percent. If production increases were delayed by one year with no corresponding delay in cost, the rate of return would be 17 percent. The economic net present value of the project, assuming a cost of capital of 12 percent, exceeds its investment, operating and maintenance costs by about \$44 million.

65. The main quantifiable benefits of the project would accrue to: (a) the Government; (b) more than 20,000 non-State forest owners, including communities, organizations and private individuals; and (c) about 30,000 forest villagers, logging cooperative members and equipment operators in the project area. About 60 percent of the last group of beneficiaries and 35 percent of all beneficiaries are estimated to have present incomes below the relative poverty level of \$936 per capita, and would receive about 10 percent of the project's quantifiable benefits and most of the non-quantifiable benefits from the village component. Nearly all beneficiaries have incomes below the national per capita income. About 1,500 new jobs are expected to be created, with additional wages of about \$2,200 per worker. All workers would benefit from a doubling of the logging season to at least 150 days (due to mechanized methods, all-weather roads, better housing and transport facilities). Project works will employ an additional 400,000 man-days of labor during the five-and-half years of project implementation.

66. In addition, major non-quantifiable benefits include strengthening Greece's institutional capability to manage its forest resources so as to achieve increased and sustainable yields without damaging the long-term ecosystem and viability of the forests; setting the stage through industrial plantations for significant future increases in the annual allowable cut from forests; providing the wood supply foundation for the subsequent development of a domestic chemical pulp industry, which could lead to significant additional import savings in future; and controlling soil erosion and damage to the forests from fire and grazing. The regional development study would build up local project preparation and planning capabilities and prepare a regional development project for financing by other external agencies. Finally, project works, particularly the village infrastructure development component, would directly address the problem of improving living standards in the poor rural regions of Greece, thereby improving labor availability.

Risks

67. The project faces no special risks, although the speed of introduction of the new forest management policies may be slower than projected.

Attention has been taken to avoid the problems leading to slow physical implementation in some other Greek projects. The project organization is based upon either an existing administrative structure (the forestry components) or on a framework which has been successfully introduced in other Bank projects (the village development and credit components). Adequate staff have been provided to allow for the additional work being undertaken. The technology involved in construction, operation and maintenance of project works is not new to Greece. While some of the project benefits depend upon the response of private logging operators in adapting to new and more efficient methods, this is not expected to be a problem, in view of increasing labor shortages, the introduction of new contracting methods, and the improved availability of credit under the project.

PART V - LEGAL INSTRUMENTS AND AUTHORITY

68. The draft Loan Agreement between The Hellenic State and the Bank, and the Report of the Committee provided for in Article 3 Section 4 (iii) of the Articles of Agreement are being distributed to the Executive Directors separately. The draft Agreement conforms generally to the normal pattern for loans for forestry projects. Features of the Loan Agreement of special interest are referred to in the appropriate paragraphs of this Report and in Annex III. Since the agreement must be ratified by Parliament, the Loan Agreement provides for a date of effectiveness 180 days after signing.

69. Special conditions of loan effectiveness are: (a) the DGF Project Office has been established and the two key staff have been appointed; and (b) the subsidiary loan agreement between the Borrower and ABG is in effect (Loan Agreement, Section 5.01).

70. I am satisfied that the proposed loan will comply with the Articles of Agreement of the Bank.

PART VI - RECOMMENDATION

71. I recommend the Executive Directors approve the proposed loan.

Robert S. McNamara
President

by I. P. M. Cargill

Attachment
May 22, 1979
Washington, D.C.

TABLE 3A
GREECE - SOCIAL INDICATORS DATA SHEET

LAND AREA (THOUSAND SQ. KM.)	GREECE			REFERENCE GROUPS (ADJUSTED AVERAGES)		
				- MOST RECENT ESTIMATE /a		
	1960 /b	1970 /b	MOST RECENT ESTIMATE /b	SAME GEOGRAPHIC REGION /c	SAME INCOME GROUP /d	NEXT HIGHER INCOME GROUP /e
TOTAL	131.9					
AGRICULTURAL	91.6					
GNP PER CAPITA (US\$)	510.0	1350.0	2810.0	1898.8	2839.0	5835.1
ENERGY CONSUMPTION PER CAPITA (KILOGRAMS OF COAL EQUIVALENT)	460.0	1222.0	2090.0	1869.3	2376.4	4296.1
POPULATION AND VITAL STATISTICS						
TOTAL POPULATION, MID-YEAR (MILLIONS)	8.3	8.8	9.2	.	.	.
URBAN POPULATION (PERCENT OF TOTAL)	57.0	62.6	64.8 /f	43.0	..	73.9
POPULATION DENSITY						
PER SQ. KM.	63.0	67.0	70.0	81.4	55.8	91.6
PER SQ. KM. AGRICULTURAL LAND	93.0	96.0	100.0	135.2	83.6	153.7
POPULATION AGE STRUCTURE (PERCENT)						
0-14 YRS.	26.7	24.9	24.2	26.2	40.0	24.1
15-64 YRS.	65.1	64.0	63.8	63.4	55.3	63.4
65 YRS. AND ABOVE	8.2	11.1	12.0	9.9	3.8	11.0
POPULATION GROWTH RATE (PERCENT)						
TOTAL	1.0	0.6 /g	0.5	0.8	2.9	0.8
URBAN	2.1	1.5	..	2.2	..	1.0
CRUDE BIRTH RATE (PER THOUSAND)	19.4	18.1	15.4	19.2	31.7	17.3
CRUDE DEATH RATE (PER THOUSAND)	7.3	8.0	9.4	9.0	7.9	10.4
GROSS REPRODUCTION RATE	1.1	1.0	1.0	1.3	1.6	1.2
FAMILY PLANNING						
ACCEPTORS, ANNUAL (THOUSANDS)	..	..	..	.	.	.
USERS (PERCENT OF MARRIED WOMEN)	..	..	..	38.0	..	..
FOOD AND NUTRITION						
INDEX OF FOOD PRODUCTION PER CAPITA (1970=100)	62.0	100.0	117.6	113.7	114.7	103.1
PER CAPITA SUPPLY OF CALORIES (PERCENT OF REQUIREMENTS)	120.0	116.0	132.0	127.4	113.4	126.8
PROTEINS (GRAMS PER DAY)	99.0	99.0	102.0	92.8	89.9	90.7
OF WHICH ANIMAL AND PULSE	39.0	48.0 /h	50.0	39.3	48.0	54.3
CHILD (AGES 1-4) MORTALITY RATE	..	0.9	0.8	1.6	..	0.8
HEALTH						
LIFE EXPECTANCY AT BIRTH (YEARS)	68.0	70.9	71.8	68.9	60.2	72.4
INFANT MORTALITY RATE (PER THOUSAND)	40.1	29.6	24.1	34.5	22.1	14.3
ACCESS TO SAFE WATER (PERCENT OF POPULATION)						
TOTAL	..	..	..	68.3	83.0	..
URBAN	..	..	..	74.3	100.0	..
RURAL	..	..	..	64.4	..	..
ACCESS TO EXCRETA DISPOSAL (PERCENT OF POPULATION)						
TOTAL	..	..	..	94.0	57.8	..
URBAN	..	..	..	94.0	99.3	..
RURAL	..	..	..	93.0	..	..
POPULATION PER PHYSICIAN	790.0 /i	620.0	500.0	686.5	976.9	669.4
POPULATION PER NURSING PERSON	2081.0 /j	1530.0	1360.0	339.0	676.1	259.9
POPULATION PER HOSPITAL BED						
TOTAL	170.0	160.0	160.0	178.0	325.8	101.6
URBAN	..	..	..	70.0	250.0	..
RURAL	..	..	..	1770.0	770.0	..
ADMISSIONS PER HOSPITAL BED	..	17.0	17.0	15.3	18.7	14.1
HOUSING						
AVERAGE SIZE OF HOUSEHOLD						
TOTAL	3.8	3.3	..	..	..	3.3
URBAN	3.6	3.2	..	..	..	3.3
RURAL	4.1	3.5	..	..	..	3.7
AVERAGE NUMBER OF PERSONS PER ROOM						
TOTAL	1.5	0.9	..	0.9	..	1.1
URBAN	1.4	0.9	..	0.8	..	1.1
RURAL	1.6	1.0	..	1.0	..	1.1
ACCESS TO ELECTRICITY (PERCENT OF DWELLINGS)						
TOTAL	53.2	88.0	..	57.5	..	..
URBAN	81.5	97.6	..	99.0	..	..
RURAL	13.5	77.0	..	..	..	..

TABLE 3A
GREECE - SOCIAL INDICATORS DATA SHEET

	GREECE			REFERENCE GROUPS (ADJUSTED AVERAGES)		
	1960 /b	1970 /b	MOST RECENT ESTIMATE /b	- MOST RECENT ESTIMATE) /a		
				GEOGRAPHIC REGION /c	SAME INCOME GROUP /d	NEXT HIGHER INCOME GROUP /e
EDUCATION						
ADJUSTED ENROLLMENT RATIOS						
PRIMARY: TOTAL	105.0	110.0	106.0	108.0	104.1	105.6
FEMALE	103.0	107.0	104.0 /h	99.5	120.3	104.7
SECONDARY: TOTAL	41.0	69.0	79.0	62.8	44.7	80.9
FEMALE	32.0	59.0	66.0 /h	63.6	46.0	75.9
VOCATIONAL (PERCENT OF SECONDARY)	17.0	20.0	23.0 /h	28.2	18.7	18.5
PUPIL-TEACHER RATIO						
PRIMARY	40.0	31.0 /i	..	24.9	30.6	22.8
SECONDARY	26.0	35.0	..	17.3	16.3	15.6
ADULT LITERACY RATE (PERCENT)	81.0	84.0	..	88.3	..	99.0
CONSUMPTION						
PASSENGER CARS PER THOUSAND POPULATION	5.0	26.0	42.0	90.4	53.4	232.1
RADIO RECEIVERS PER THOUSAND POPULATION	85.0	111.0	279.0	199.0	195.5	377.7
TV RECEIVERS PER THOUSAND POPULATION	..	31.0	106.0	132.5	108.4	260.1
NEWSPAPER ("DAILY GENERAL INTEREST") CIRCULATION PER THOUSAND POPULATION	121.0	79.0	107.0	97.1	108.0	313.7
CINEMA ANNUAL ATTENDANCE PER CAPITA	6.0	15.0	..	6.6	..	2.8
EMPLOYMENT						
TOTAL LABOR FORCE (THOUSANDS)	3600.0 /j	..	3300.0	..	..	..
FEMALE (PERCENT)	31.1	32.4	32.9	32.4	26.9	35.0
AGRICULTURE (PERCENT)	54.0	46.0	34.0	32.8	25.7	10.4
INDUSTRY (PERCENT)	19.8	24.1	..	..	..	..
PARTICIPATION RATE (PERCENT)						
TOTAL	45.0	42.7	42.3	39.1	40.1	42.4
MALE	63.5	59.1	58.3	56.7	55.8	58.8
FEMALE	27.4	27.0	27.1	29.7	24.7	27.9
ECONOMIC DEPENDENCY RATIO	0.9	..	1.1 /f	0.9	1.6	0.8
INCOME DISTRIBUTION						
PERCENT OF PRIVATE INCOME RECEIVED BY						
HIGHEST 5 PERCENT OF HOUSEHOLDS	18.7 /k	..	..	31.9	..	..
HIGHEST 20 PERCENT OF HOUSEHOLDS	44.7 /k	..	..	59.7	..	..
LOWEST 20 PERCENT OF HOUSEHOLDS	6.3 /k	..	..	4.0	..	..
LOWEST 40 PERCENT OF HOUSEHOLDS	17.4 /k	..	..	12.9	..	..
POVERTY TARGET GROUPS						
ESTIMATED ABSOLUTE POVERTY INCOME LEVEL (US\$ PER CAPITA)						
URBAN	..	..	..	..	..	..
RURAL	..	..	435.0	194.9	..	..
ESTIMATED RELATIVE POVERTY INCOME LEVEL (US\$ PER CAPITA)						
URBAN	..	..	..	295.1	..	..
RURAL	..	..	936.0	309.2	..	..
ESTIMATED POPULATION BELOW POVERTY INCOME LEVEL (PERCENT)						
URBAN	..	..	..	18.2	..	..
RURAL	..	..	45.0	24.2	..	..

.. Not available
. Not applicable.

NOTES

- /a The adjusted group averages for each indicator are population-weighted geometric means, excluding the extreme values of the indicator and the most populated country in each group. Coverage of countries among the indicators depends on availability of data and is not uniform.
- /b 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 1977.
- /c Europe; /d High Income (over \$2500 per capita, 1976); /e Industrialized Countries; /f 1971; /g Due to emigration, population growth rate is lower than rate of natural increase; /h 1972; /i 1962; /j Excluding persons in compulsory military service; /k 1957-58, urban only.

DEFINITIONS OF SOCIAL INDICATORS

Note: The adjusted group averages for each indicator are population-weighted geometric means, excluding the extreme values of the indicator and the most populated country in each group. Coverage of countries among the indicators depends on availability of data and is not uniform. Due to lack of data, group averages for Capital Surplus Oil Exporters and indicators of access to water and excrta disposal, housing, income distribution and poverty are simple population-weighted geometric means without the exclusion of extreme values.

LAND AREA (thousand sq. km)

Total - Total surface area comprising land area and inland waters.

Agricultural - Most recent estimate of agricultural area used temporarily or permanently for crops, pastures, market and 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 (1975-77 basis); 1960, 1970, and 1977 data.

ENERGY CONSUMPTION PER CAPITA - Annual consumption of commercial energy (coal and lignite, petroleum, natural gas and hydro-, nuclear and geothermal electricity) in kilograms of coal equivalent per capita.

POPULATION AND VITAL STATISTICS

Total population, mid-year (millions) - As of July 1; if not available, average of two end-year estimates; 1960, 1970, and 1977 data.

Urban population (percent of total) - Ratio of urban to total population; different definitions of urban areas may affect comparability of data among countries.

Population density

Per sq. km. - Mid-year population per square kilometer (100 hectares) of total area.

Per sq. km. agriculture land - Computed as above for agricultural land only.

Population age structure (percent) - Children (0-14 years), working-age (15-64 years), and retired (65 years and over) as percentages of mid-year population.

Population growth rate (percent) - total, and urban - Compound annual growth rates of total and urban mid-year populations for 1950-60, 1960-70, and 1970-75.

Crude birth rate (per thousand) - 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) - 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.

Gross reproduction rate - Average number of 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.

Family planning - acceptors, annual (thousands) - Annual number of acceptors of birth-control devices under auspices of national family planning program.

Family planning - users (percent of married women) - Percentage of married women of child-bearing age (15-44 years) who use birth-control devices to all married women in same age group.

FOOD AND NUTRITION

Index of food production per capita (1970=100) - Index number of per capita annual production of all food commodities.

Per capita supply of calories (percent 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 percent 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 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.

Child (ages 1-4) mortality rate (per thousand) - Annual deaths per thousand in age group 1-4 years, to children in this age group.

HEALTH

Life expectancy at birth (years) - Average number of years of life remaining at birth; usually five-year averages ending in 1960, 1970, and 1975.

Infant mortality rate (per thousand) - Annual deaths of infants under one year of age per thousand live births.

Access to safe water (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) with reasonable access to safe water supply (includes treated surface waters or untreated but uncontaminated water such as that from protected boreholes, springs, and sanitary wells) as percentages of their respective populations. In an urban area a public fountain or standpost located not more than 200 meters from a house may be considered as being within reasonable access of that house. In rural areas reasonable access would imply that the housewife or members of the household do not have to spend a disproportionate part of the day in fetching the family's water needs.

Access to excreta disposal (percent of population) - total, urban, and rural - Number of people (total, urban, and rural) served by excreta disposal as percentages of their respective populations. Excreta disposal may include the collection and disposal, with or without treatment, of human excreta and waste-water by water-borne systems or the use of pit privies and similar installations.

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, practical nurses, and assistant nurses.

Population per hospital bed - total, urban, and rural - Population (total, urban, and rural) divided by their respective number of hospital beds available in public and private general and specialized hospital and rehabilitation centers. Hospitals are establishments permanently staffed by at least one physician. Establishments providing principally custodial care are not included. Rural hospitals, however, include health and medical centers not permanently staffed by a physician (but by a medical assistant, nurse, midwife, etc.) which offer in-patient accommodation and provide a limited range of medical facilities.

Admissions per hospital bed - Total number of admissions to or discharges from hospitals divided by the number of beds.

HOUSING

Average size of household (persons per household) - total, urban, and rural - A household consists of a group of individuals who share living quarters and their main meals. A boarder or lodger may or may not be included in the household for statistical purposes. Statistical definitions of household vary.

Average number of persons per room - total, urban, and rural - Average number of persons per room in all, urban, and rural occupied conventional dwellings, respectively. Dwellings exclude non-permanent structures and unoccupied parts.

Access to electricity (percent of dwellings) - total, urban, and rural - Conventional dwellings with electricity in living quarters as percentage of total, urban, and rural dwellings respectively.

EDUCATION

Adjusted enrollment ratios

Primary school - total, and female - Total and female enrollment of all ages at the primary level as percentages of respectively primary school-age populations; normally includes children aged 6-11 years but adjusted for different lengths of primary education; for countries with universal education enrollment may exceed 100 percent since some pupils are below or above the official school age.

Secondary school - total, and female - Computed as above; secondary education requires at least four years of approved primary instruction; provides general vocational, or teacher training instructions for pupils usually of 12 to 17 years of age; correspondence courses are generally excluded.

Vocational enrollment (percent of secondary) - Vocational institutions include technical, industrial, or other programs which operate independently or as departments of secondary institutions.

Pupil-teacher ratio - primary, and secondary - Total students enrolled in primary and secondary levels divided by numbers of teachers in the corresponding levels.

Adult literacy rate (percent) - Literate adults (able to read and write) as a percentage of total adult population aged 15 years and over.

CONSUMPTION

Passenger cars (per thousand population) - Passenger cars comprise motor cars seating less than eight persons; excludes ambulances, hearses and military vehicles.

Radio receivers (per thousand population) - 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.

TV receivers (per thousand population) - TV receivers for broadcast to general public per thousand population; excludes unlicensed TV receivers in countries and in years when registration of TV sets was in effect.

Newspaper circulation (per thousand population) - Shows the average circulation of "daily general interest newspaper", defined as a periodical publication devoted primarily to recording general news. It is considered to be "daily" if it appears at least four times a week.

Cinema annual attendance per capita per year - Based on the number of tickets sold during the year, including admissions to drive-in cinemas and mobile units.

EMPLOYMENT

Total labor force (thousands) - Economically active persons, including armed forces and unemployed but excluding housewives, students, etc. Definitions in various countries are not comparable.

Female (percent) - Female labor force as percentage of total labor force.

Agriculture (percent) - Labor force in farming, forestry, hunting and fishing as percentage of total labor force.

Industry (percent) - Labor force in mining, construction, manufacturing and electricity, water and gas as percentage of total labor force.

Participation rate (percent) - total, male, and female - Total, male, and female labor force as percentages of their respective populations. These are ILO's adjusted participation rates reflecting sex-sex structure of the population, and long time trend.

Economic dependency ratio - Ratio of population under 15 and 65 and over to the labor force in age group of 15-64 years.

INCOME DISTRIBUTION

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

POVERTY TARGET GROUPS

Estimated absolute poverty income level (US\$ per capita) - urban and rural - Absolute poverty income level is that income level below which a minimal nutritionally adequate diet plus essential non-food requirements is not affordable.

Estimated relative poverty income level (US\$ per capita) - urban and rural - Relative poverty income level is that income level less than one-third per capita personal income of the country.

Estimated population below poverty income level (percent) - urban and rural - Percent of population (urban and rural) who are either "absolute poor" or "relative poor" whichever is greater.

GREECE: ECONOMIC DEVELOPMENT DATA SHEET

	1970	Actual		Prov. 1977	Est. 1978	Projected			Average Annual Growth Rates			Share of GDP 1978
		1974	1976			1979	1980	1982	1970 1974	1974 1978	1978 1982	
A. NATIONAL ACCOUNTS (1970 = 100; billion drachmas)												
GDP (at market prices)	298.9	360.5	405.9	420.2	446.2	474.0	502.2	562.9	4.8	5.5	6.0	100.0
Exports (g+nfs)	30.0	65.8	78.3	80.9	86.0	93.5	101.8	120.9	21.7	6.9	8.9	19.3
Imports (g+nfs)	-55.0	-100.1	-110.8	-114.1	-116.2	-123.1	-130.4	-146.2	16.2	3.8	5.9	26.0
Resource Balance	-25.0	-34.3	-32.5	-33.2	-30.2	-29.6	-28.6	-25.3				6.8
Consumption	244.1	301.1	339.1	357.0	373.8	391.3	409.2	445.5	5.4	5.6	4.5	83.8
Government	37.7	50.1	58.9	62.8	64.7	68.6	72.9	82.2	7.4	6.6	5.9	14.5
Private	206.4	251.0	280.2	294.2	309.1	322.7	336.3	363.3	5.0	5.3	4.1	69.3
Total Investment	84.0	97.1	99.2	102.9	99.2	106.9	115.2	133.8	3.7	0.5	7.8	22.2
Fixed Investment	70.7	74.5	79.8	86.6	91.1	98.4	106.3	123.9	1.3	5.2	8.0	20.4
Domestic Savings	59.0	57.5	77.7	78.4	82.4	91.6	102.2	126.6	-0.6	9.4	11.3	18.5
National Savings	74.7	79.3	100.1	103.0	92.4	101.1	110.9	134.0	1.5	3.9	9.7	20.7
GDP (current prices)	258.0	507.3	727.2	846.5	1005.4	1193.4	1390.3	1886.9	18.4	18.6	17.1	
Fixed Investment (current prices)	70.7	125.5	175.0	222.3	269.6	326.1	390.9	551.7	15.4	21.1	19.6	
Fixed Investment/ GDP current prices)	27.4	24.7	24.1	26.3	26.8	27.3	28.1	29.2				
B. SECTOR OUTPUT (Percentage Share of GDP (Factor Cost) at 1970 Prices)												
Agriculture	18.2	16.6	15.6	14.1	14.1	13.9	13.6	13.0				
Industry	31.4	31.5	32.7	33.2	33.5	33.6	34.3	35.7				
Services	50.4	51.9	51.7	52.7	52.4	52.5	52.1	51.3				
C. PRICES (1970 = 100)												
Export Price Index	100.0	177.0	215.5	236.6	250.4	266.4	284.2	324.3	15.4	9.1	6.7	
Import Price Index	100.0	195.4	259.8	272.4	305.5	324.8	346.1	394.4	18.2	11.8	6.8	
Terms of Trade Index	100.0	90.6	83.0	86.7	82.0	82.0	82.2	82.3	-	-	-	
GDP Deflator	100.0	156.9	202.2	228.4	256.3	287.1	318.7	385.6	12.0	13.1	10.8	
Average Exchange Rate (\$1 = Drs.)	30.0	30.0	36.6	36.8	36.6							
D. Public Finance (Central Government)(Percent of GDP at Current prices)												
			Prov.	Prov.								
Current Revenue	18.2	18.9	21.1	21.0								
Tax Revenue	17.9	17.4	20.2	20.3								
Current Expenditure	16.0	19.5	22.4	23.0								
Government Savings	2.2	-0.6	-1.3	-2.0								
Capital Expenditure	5.0	4.6	5.5	5.4								
E. SELECTED INDICATORS												
	1965-73		1976-82									
Incremental Capital/Output Ratio	3.0		4.4									
Import Elasticity	1.2		1.2									
Average National Savings Rate	16.7		22.8									
Marginal National Savings Rate	24.2		21.6									
Imports/GDP	24.0		26.5									
F. LABOR FORCE												
									1971		1975	
									Labor Force (m)	3.39	3.30	
									Unemployment (m)	0.11	0.10	
									(% of LF)	(3.2)	(3.0)	
									Employment (m)	3.28	3.20	
									% share of:			
									Agriculture	40.5	34.0	
									Industry	25.6	30.0	
									Services	33.9	36.0	

GREECE - BALANCE OF PAYMENTS AND EXTERNAL ASSISTANCE
(in current US \$ millions)

ANNEX I
Page 5 of 6

	Actual			Est. 1978	Projected		
	1974	1976	1977		1979	1980	1982
A. SUMMARY OF BALANCE OF PAYMENTS 1/							
1. Exports (Goods and NFS)	3443	4330	5016	6014	6884	8000	10846
2. Imports (Goods and NFS)	5232	6123	7071	8122	9056	10218	13056
3. Resource Balance	-1789	-1793	-2055	-2108	-2172	- 2218	- 2210
4. Total net factor income	576	692	787	839	752	779	866
a. Interest and profits (net) 2/	- 97	- 111	- 138	- 152	- 260	- 314	- 409
b. Workers' remittances	674	803	925	991	1012	1093	1275
5. Net transfers	-	9	1	-	-	-	-
6. Balance on current account	-1213	-1092	-1267	-1269	-1419	- 1439	- 1344
7. Direct Foreign Investment 3/	293	346	437	466	476	518	616
8. Net Private Borrowing 4/	200	307	329	344	321	264	150
Disbursements	(283)	(352)	(437)	(380)	(400)	(400)	(400)
Amortization	(- 82)	(- 45)	(- 108)	(- 36)	(- 79)	(- 136)	(- 250)
9. Net Public Borrowing 5/	333	- 110	147	233	258	284	220
Disbursements	(432)	(174)	(438)	(533)	(866)	(946)	(1038)
Amortization	(- 98)	(- 284)	(- 291)	(- 300)	(- 608)	(- 662)	(- 817)
10. Foreign Exchange Deposits 6/	196	545	632	650	425	400	400
11. Other Items n.e.i. 7/	81	- 11	- 130	- 315	110	166	210
12. Increase in Reserves (- = increase)	110	6	- 137	- 109	- 170	- 194	- 252
13. Official Reserves (and year)	936	925	1062	1171	1341	1535	2009
B. LOAN COMMITMENTS							
1. Total public M & LF loans	221.0	225.7	334.6				
a. IBRD	110.0	30.0	71.0				
b. EIB	56.7	-	-				
c. Others	54.3	195.7	263.6				
2. Total public commercial loans	361.8	247.6	383.6				
C. MEMORANDUM ITEMS							
1. Grant element of total commitments	- 0.6	12.3	8.6				
2. Average interest (percent)	10.5	7.1	8.1				
3. Average maturity (years)	9.6	9.9	10.6				

- 1/ Data for 1974-78 are estimated in dollars on the basis of current exchange rates.
 2/ Includes net direct investment income and net dividends.
 3/ Includes direct investment under Law 2687/53, real estate investment and other net private investment.
 4/ Includes loans to private corporations, net suppliers credits and loans to private banks.
 5/ Borrowing by the Bank of Greece and other public agencies.
 6/ Foreign currency deposits of Greek nationals abroad with Bank of Greece and local commercial banks.
 7/ Residual balancing items including errors and omissions.

EMENA Region
CPD II-A
May 2, 1979

GREECE - EXTERNAL DEBT AND CREDITWORTHINESS

	<u>1974</u>	<u>1976</u>	<u>1977</u>
A. <u>MEDIUM AND LONG-TERM DEBT</u> (disbursed only)			
(millions of US dollars)			
1. Public debt outstanding (DOD; end of period)	2037	2377	2635
2. Including undisbursed	2763	3044	3495
3. Public debt service (Interest)	330 (143)	487 (177)	533 (169)
B. <u>DEBT BURDEN</u> (percentages)			
1. Debt service ratio (exports incl. NFS)	9.6	11.2	10.6
2. Debt service ratio (exports incl. NFS & workers' remittances)	8.0	9.5	9.0
3. Debt service/GDP	2.0	2.5	2.3
4. Public debt service/Government revenue	11.2	12.7	12.0
5. Total DOD/GDP	12.0	12.0	11.5
C. <u>TERMS</u> (percentages)			
1. Interest on total DOD/total DOD ^{1/}	9.3	6.9	7.1
2. Total debt service/total DOD ^{1/}	21.4	19.1	22.4
D. <u>DEPENDENCY RATIOS FOR M&LT DEBT</u> (percentages)			
1. Gross disbursements/imports (incl. NFS)	12.2	4.2	7.7
2. Net transfer/imports (incl. NFS)	8.7	- 0.9	2.5
3. Net transfer/gross disbursements	70.8	-21.1	32.8
E. <u>EXPOSURE</u> (percentages)			
1. IBRD disbursements/Total disbursements	2.4	7.5	3.6
2. IBRD DOD/Total DOD	3.0	3.4	3.5
3. IBRD debt service/Total debt service	2.5	3.0	3.5
F. <u>PUBLIC EXTERNAL DEBT</u>			
(disbursed only)			
	<u>Outstanding December 31, 1977</u>		
	<u>Amount</u>	<u>Percent</u>	
1. IBRD	91.2	3.5	
2. Other Multilateral	141.9	5.4	
3. Governments	470.0	17.8	
4. Financial Institutions	1702.7	64.6	
5. Suppliers Credit	100.7	3.8	
6. Others	128.9	4.9	
TOTAL	2635.4	100.0	
G. <u>DEBT PROFILE</u>			
Total debt service 1978-82/Total DOD end-1977 (percent): 117			

^{1/} DOD at end of previous year.

THE STATUS OF BANK GROUP OPERATIONS IN GREECE

A. STATEMENT OF BANK LOANS (As of April 30, 1979)

<u>Loan Number</u>	<u>Year</u>	<u>Borrower</u>	<u>Purpose</u>	US\$ Million Amount	
				<u>(Less Cancellation)</u>	<u>Undisbursed</u>
Five loans fully disbursed				96.6	-
711	1970	Hellenic State	Education	13.8	.2
754	1971	Hellenic State	Irrigation	25.0	6.1
859	1972	Hellenic State	Education	23.5	19.0
991	1974	Hellenic State	Irrigation	30.0	28.0
1134	1975	Hellenic State	Education	45.0	45.0
1165	1975	Hellenic State	Irrigation	40.0	39.0
1240	1976	Hellenic State	Highway	30.0	22.0
1345	1977	Hellenic State	Sewerage	36.0	36.0
1457	1977	Hellenic State	Evros	35.0	34.8
1539 ^{1/}	1978	Hellenic State	Education	60.0	60.0
1588 ^{1/}	1978	Hellenic State	Vegetable Production	30.0	30.0
TOTAL				464.9	230.1
of which has been repaid				<u>53.7</u>	
Total now outstanding				411.2	
Amount sold			42.4		
of which has been repaid			13.0	<u>29.4</u>	
Total now held by Bank				381.8	
Total undisbursed					230.1

^{1/} Not yet effective and not included in total undisbursed.

B. STATEMENT OF IFC INVESTMENTS (As of April 30, 1979)

<u>Fiscal Year</u>	<u>Obligor</u>	<u>Type of Business</u>	<u>Amount in US\$ Million</u>		
			<u>Loan</u>	<u>Equity</u>	<u>Total</u>
1962	Aevol Industrial Company Organic Fertilizers, S.A.	Fertilizers	0.60	-	0.60
1965	"Titan" Cement Company, S.A. I	Cement	1.00	0.50	1.50
1966	NIBID	Industrial Finance	-	0.72	0.72
1966	General Cement Company, S.A.	Cement	3.50	-	3.50
1966	"Titan" Cement Company, S.A. II	Cement	-	0.03	0.03
1970	Aluminium de Grece, S.A. Industielle et Commerciale I	Aluminum	3.50	5.10	8.60
1972	Aluminium de Grece, S.A. Industielle et Commerciale II	Aluminum	-	0.05	0.05
1975	Hellenic Food Industries, S.A.	Food Processing	1.00	0.13	1.13
1977	Hellenic Food Industries, S.A.	Food Processing	-	0.11	0.11
1977	NIBID	Industrial Finance	40.00	-	40.00
1979	Hellenic Food Industries, S.A.	Food Processing	-	0.08	0.08
	Total Gross Commitments		49.60	6.72	56.32
	less cancellations, terminations, repayments and sales		45.74	5.72	51.46
	Total Commitments now held by IFC		3.86	1.00	4.86
	Total undisbursed		-	-	-

C. PROJECTS IN EXECUTION 1/

Loan No. 711 - First Education Project; \$13.8 million Loan of November 5, 1970; Effectiveness Date: March 31, 1971; Closing Date: June 30, 1979.

The five project post secondary technical schools (KATEs) are completed. Procurement of the remaining furniture and equipment is expected to be completed during 1979. Most of the funds have been disbursed and the balance will be fully absorbed as this remaining procurement is completed. Despite delays in construction and procurement, the higher technical education program has been in operation since 1974, both in temporary facilities and in the partially-finished project schools. At present, about 9,000 students are enrolled in the program, or more than 45 percent above original design capacity.

Loan No. 754 - Groundwater Development Project (Irrigation); US\$25 million Loan of June 21, 1971; Effectiveness Date: November 15, 1971; Closing Date: June 30, 1981.

Implementation of this project has been slow due to delays in contract awards, changes in design of the distribution network following consultants' recommendations, technical problems in well drilling and a protracted search for a satisfactory solution, found in December 1973, to the question of farmers' contributions to the capital cost of the project. Meanwhile, project costs have increased substantially. The Government proposals to phase the construction of the permanent irrigation network through 1985 were approved by the Executive Directors on November 10, 1977 ((R77-275). Drilling of the wells is completed, about 60 percent are in operation, irrigation has started on about 22,000 ha of the 40,000 ha using temporary facilities and good yields have been obtained in these areas. The substantial cost overruns are being borne by the Government. Sand has infiltrated into about 25 percent of the wells and a program of rehabilitation is underway.

Loan No. 859 - Second Education Project; \$23.5 million Loan of October 2, 1972; Effectiveness Date: March 30, 1973; Closing Date: December 31, 1981.

Architectural designs for all of the 31 project institutions are completed. 22 construction contracts have been awarded and another 5 are expected to be awarded soon. Procurement of equipment for existing schools has started and some 19 contracts have been awarded. However, due to initial delays in preparing designs and bidding documents, project completion is now expected only in 1981. These delays, together with changes in educational and

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.

technical designs, have led to cost increases about 70 percent above the appraisal estimates, for which the Government is providing funds. Meanwhile, \$13.8 million of the loan has been committed. Agreements have been reached to revise the administrative and related arrangements, which should ensure improved implementation of this, as well as the Third and Fourth Education Project.

Loan No. 991 - Yannitsa Irrigation Project: \$30.0 Million Loan of June 3, 1974; Effectiveness Date: July 29, 1975; Closing Date: December 31, 1979.

Because of political changes in 1974/75, delays were experienced in completing the conditions of effectiveness and project costs increased significantly. Project implementation has however begun; the first (of three) contracts was awarded in September 1976, the second in December 1977, and the third is expected shortly. Construction began in June 1977 and completion is expected by December 1981, about 1-1/2 years later than appraisal estimates. Due to delays, costs have increased substantially.

Loan No. 1134 - Third Education Project; \$45 million Loan of June 27, 1975; Effectiveness Date: April 29, 1976; Closing Date: December 31, 1980.

Start up has been quite slow; architects were selected only in October 1977 to design the project schools but preliminary designs for all of the 17 institutions are now completed and 7 approved. Agreements have been reached on revisions to the administrative and related arrangements, which should ensure improved implementation of this, as well as the Second and Fourth Education Project. Design finalization and review is being shortened to 21 months. The Government has passed the legislative framework for reforms in technical education. Some delay resulted from having to reflect these developments, which do not affect enrollments or costs, in the project school designs.

Loan No. 1165 - East Vermion Irrigation Project: \$40.0 Million Loan of October 3, 1975; Effectiveness Date: August 12, 1976; Closing Date: December 31, 1980.

Progress is slow and completion is now expected to be about three years behind schedule. Two (of three) contracts have been awarded and construction started. The tender documents have been issued for the third contract. A Project Manager and a steering committee have been appointed and are functioning.

Loan No. 1240 - Highway Project: \$30.0 Million Loan of May 24, 1976; Effectiveness Date: January 5, 1977; Closing Date: December 30, 1980.

Progress is satisfactory; most of the road maintenance equipment has been delivered; the road maintenance directorate is now operating but remains short of staff although this is improving and 234 staff are being recruited. Construction is underway on the project road and is proceeding satisfactorily. Consultants for transport planning have been hired. Construction and equipment costs are below estimate, due to favorable prices received on bidding.

Loan No. 1345 - Salonica and Volos Sewerage Project: \$36 Million Loan of February 3, 1977; Effectiveness Date: November 30, 1978; Closing Date: June 30, 1982.

The draft law for the Volos Authority has passed Parliament in March 1979. Final designs are completed for Volos and nearly completed for Salonica, although the latter still faces technical issues. A project manager has been appointed and staff are being recruited.

Loan No. 1457 - Evros Development Project: \$35 Million Loan of June 27, 1977; Effectiveness Date: October 19, 1978; Closing Date: December 31, 1982.

The project is now fully operational with a competent project manager and staff. All subprojects are either underway or in the final design stage. Procurement arrangements have been satisfactorily worked out. Priorities have been set for the road subprojects but costs for roads are higher than estimated. The specifications for the flood control works have been reviewed and are satisfactory.

Loan No. 1539 - Fourth Education Project: \$60 Million Loan of April 14, 1978; Effectiveness Date: Not yet effective; Closing Date: December 31, 1982.

Design development is underway but behind schedule. About 17 additional staff are being recruited to accelerate progress. Effectiveness is awaiting Parliamentary ratification of the Loan Agreement.

Loan No. 1588 - Vegetable Production and Marketing Project: \$30 Million Loan of July 10, 1978; Effectiveness Date: Not yet effective; Closing Date: June 30, 1983.

Effectiveness is awaiting Parliamentary ratification of the Loan Agreement. The project unit is fully operational in the Agricultural Bank and project implementation is proceeding well. Lending has commenced for greenhouses and about 100 ha of the 900 ha under the project are under construction. Consultants are being recruited and marketing companies are being formed.

SUPPLEMENTARY PROJECT DATA SHEET

Section I - Timetable of Key Events

- (a) Time taken by the country to prepare the project: Nine months (March to November 1978)
- (b) Agency which prepared project: Directorate General of Forests (DGF) assisted by consultants and Regional Policy and Development Service (RPDS)
- (c) Date of first presentation to Bank: Draft preparation report submitted August 1978
- (d) Bank missions:
 - (i) Identification November 1977 and January 1978
 - (ii) Preappraisal September 1978
 - (iii) Appraisal November/December 1978
- (e) Date of negotiations: April 1979
- (f) Planned date of effectiveness: December 1979

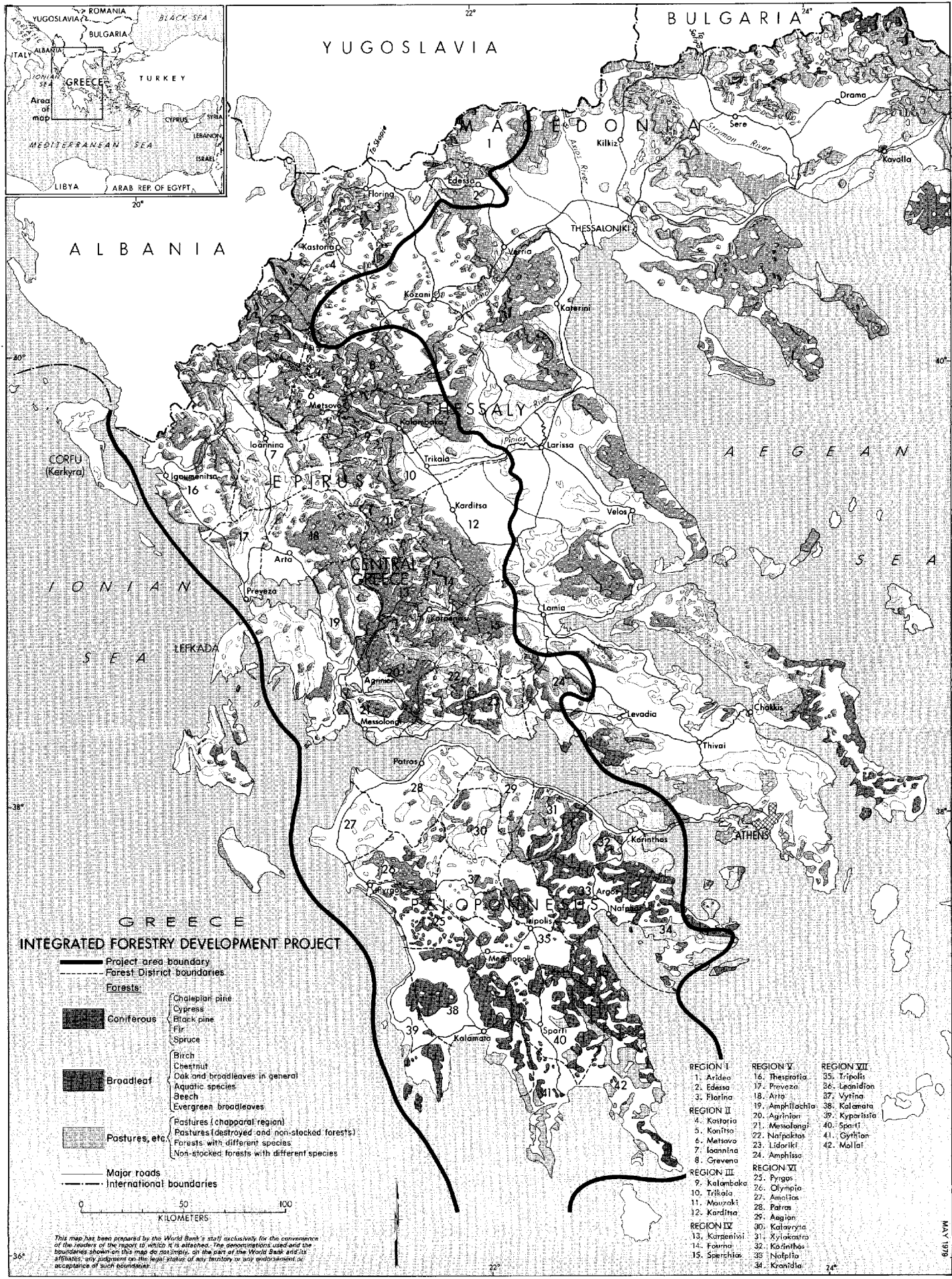
Section II - Special Bank Implementation Actions

None

Section III - Special Conditions

- (a) DGF has agreed to ensure that all management plan revisions after July 1, 1979 for the project area take account of accelerated wood production targets and to implement necessary changes in timber allocation and contracting procedures from the 1980 logging season (para. 51, Loan Agreement, Section 3.08);
- (b) DGF has agreed to employ before March 31, 1980 consultants to assist in carrying out the forestry sector development strategy study and, on its completion and taking into account the Bank's comments, to carry out appropriate measures for accelerated forest and forest industries development (paras. 51 and 55, Loan Agreement, Sections 3.03 and 3.05(b)(iii));
- (c) The Government has agreed to continue to use project area stumpage revenues to cover at least DGF's administrative expenses in the project area and, in addition, project investments operating and maintenance costs (para. 62, Loan Agreement, Section 4.03);

- (d) RPDS has agreed to establish the four regional and one central project offices and appoint the regional project coordinator and accountant and at least one staff member each in the regional offices by March 31, 1980 (para 53, Loan Agreement, Schedule 5, Part C1 and 3);
- (e) RPDS has agreed to appoint consultants before March 31, 1980 to carry out the regional development study working with a local team of at least 8 experts (para. 52, Loan Agreement, Section 3.03 and Schedule 5, Part C);
- (f) RPDS and DGF have agreed to submit for review and approval by the Bank a detailed annual program of works proposed for their components in the following year by December 1 of each year (para. 53, Loan Agreement 3.05(b)(i)).

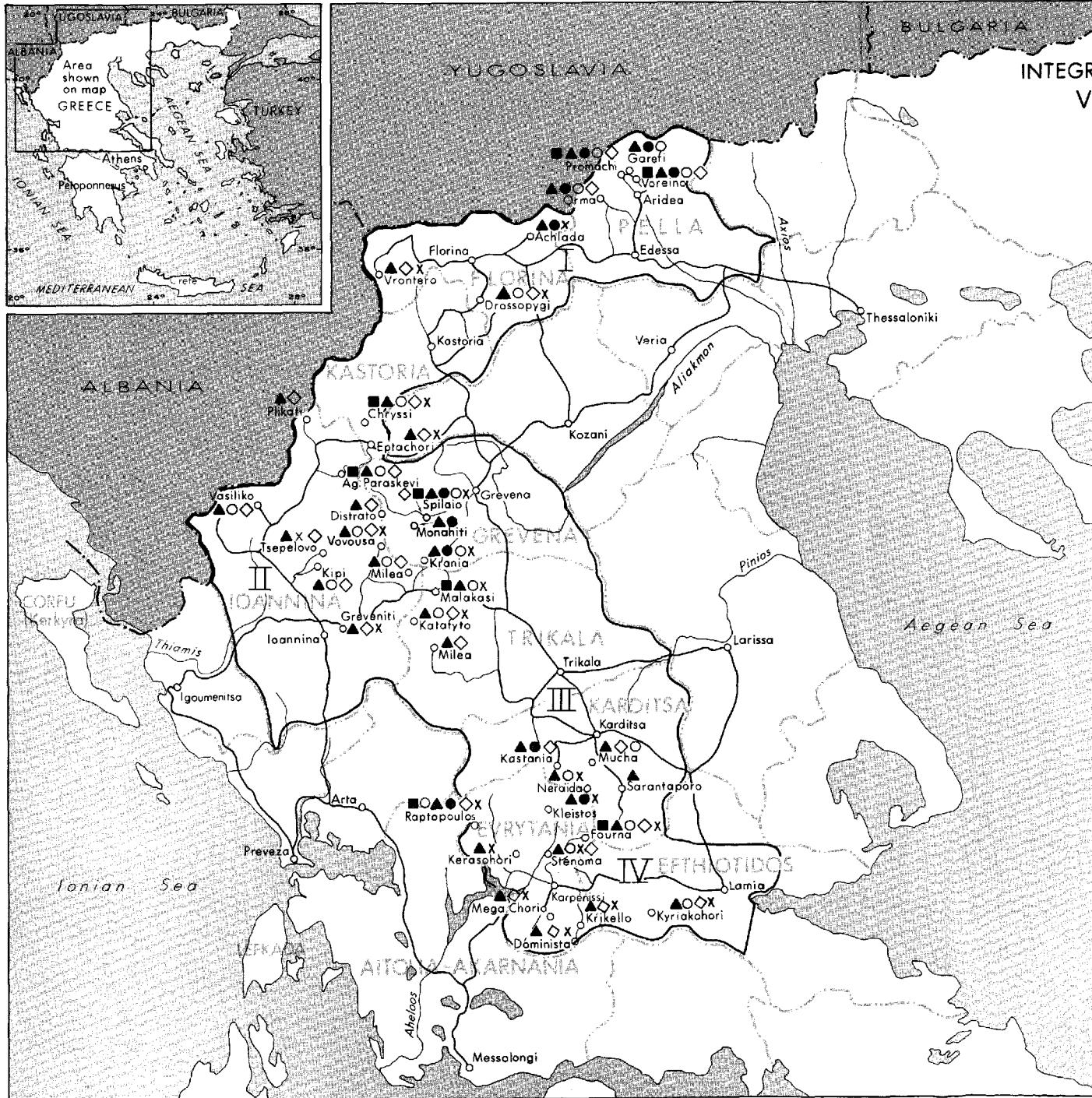
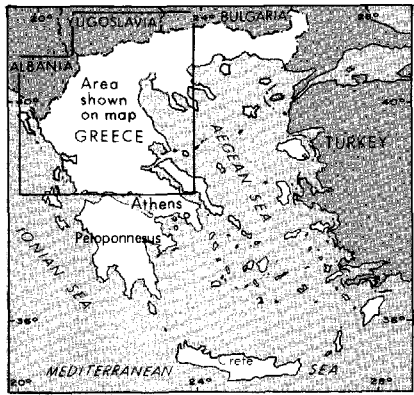


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GREECE

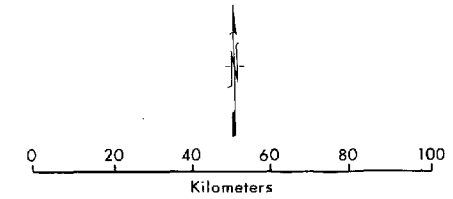
INTEGRATED FORESTRY DEVELOPMENT PROJECT

Village Infrastructure Development



- Plikati Project villages
- Project area boundary
- Connection roads
- ▲ Community facilities and streets
- Agricultural access roads
- ◇ Water supply
- Drainage / sanitation
- X Electricity
- Nomos boundaries
- Main asphalted roads
- Non-asphalted roads
- . - International boundaries

- Region I : MACEDONIA
 - Nomos: Pella, Florina, Kastoria, Grevena
- Region II : EPIRUS
 - Nomos: Ioannina
- Region III : THESSALY
 - Nomos: Trikala, Karditsa
- Region IV : CENTRAL GREECE
 - Nomos: Evrytania, Eftthiotidos



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