1. Country and Sector Background

Timor-Leste faces the double challenge of cementing its new political and socio-economic structure while meeting the rising expectations of its people. Nearly 40 percent of the population remains poor, and 54-68 percent of the rural households suffer from chronic food insecurity. These problems are partially natural – caused by periodic droughts and floods – and partially institutional: a legacy of the disempowerment and dependency that prevailed during the Indonesian administration. Despite rehabilitation of much of the infrastructure destroyed in 1999, employment in rural areas remains scarce (especially for the youth), markets are under-developed, and prices have fallen for major agriculture commodities, such as rice and coffee. This places considerable pressure on the new Ministry of Agriculture, Forestry and Fisheries (MAFF) which now operates with a staff of 180 and an annual budget of just US$1.8 million.

MAFF’s goals are closely aligned with those of the 2002-07 National Development Plan: to reduce poverty in all sectors and regions, and to promote equitable and sustainable growth. In order to halve poverty within 25 years, Timor-Leste will need to achieve agricultural growth rates close to 6 percent a year, promote broad-based participation in economic opportunities, and reduce population growth. To address these challenges and encourage further national stability, MAFF prioritized all its programs in 2003 according to the “Road Map for Implementation of NDP Programs”. The Road Map assigned highest priority to policy development; natural resources legislation and strategies; support to rural communities; information services; and coordination with donors and nongovernmental organizations (NGOs). The Third Agriculture Rehabilitation Project (ARP III) was designed in accordance with these priorities as well as lessons learned from previous ARP implementation phases.
2. Objectives

The first *Agriculture Rehabilitation Project* (ARP I; 2000-02; US$6.9 million) focused primarily on the rapid restoration of agriculture assets, irrigation infrastructure and restoration of vaccination services.

The *Second Agriculture Rehabilitation Project* (ARP II; 2002-2004; US$8.9 million) continued irrigation rehabilitation, but also piloted a program of assistance to upland and coastal farmers, and expanded services to farmers in information dissemination, animal health and farmers associations. It also supported policy studies and capacity building for MAFF staff.

The proposed Third Agriculture Rehabilitation Project aims to *strengthen the capacity of the Ministry of Agriculture, Forestry and Fisheries and its development partners to assist rural communities in increasing their production and income in a sustainable way.*

The project was designed as ARP’s consolidation phase, with an emphasis on sustainability of activities, impact of achievements, and quality of outputs. The estimated total costs are US$11.4 million equivalent, including €6.8545 million (US$6.9 million equivalent) from the European Commission (EC), US$3.0 million from the Trust Fund for East Timor (TFET), and US$1.5 million from the Government of Timor-Leste. Key project outcomes will be measured through the following major impact indicators:

- All major project activities integrated into MAFF programs and funded by the Government by the end of the project.
- Average rice yields in rehabilitated irrigated areas increasing from 1.5 to 2.0 metric tons per hectare per crop by the end of the project (EOP); Cropping intensities in Caraulun scheme at 160% by EOP.
- 70 percent of farmer beneficiaries satisfied with the services received.

The sustainability and integration of project activities into MAFF will be assessed through the FY08 budget allocation. MAFF is conducting a crop yield survey which would serve as a baseline to determine the impact of irrigation schemes. MAFF will also design a farmer servicing survey to measure a satisfaction index for services provided.

Timor-Leste’s agriculture goals are (a) *to attain food security and improve self-sufficiency;* and (b) *to generate rural employment and increase income, through farming system diversification and agro-industrial development.* The project would contribute to these goals by strengthening MAFF’s main programs of assistance to rural communities, while delivering essential services in the areas of agriculture information, animal health, and agri-business support. Together with other donor-funded projects, ARP III would also help MAFF develop key agricultural and natural resources policies and strategies needed to clarify the roles of the government, rural communities and civil society in the sustainable management of the sector.

3. Rationale for Bank Involvement

This project is the third phase of the Agriculture Rehabilitation Program in Timor-Leste, a US$17.8 million grant from TFET executed by MAFF and supervised by the International Development Association (IDA) of the World Bank. ARP has been the major program of donor assistance to MAFF since 2000, starting with the then-Division of Agriculture Affairs. By emphasizing flexibility and periodic adjustments based on lessons learned, ARP helped MAFF adjust to the challenges posed by the reconstruction phase (ARP I), transition phase (ARP II) and now the sustainability phase of post-conflict recovery (ARP III).
Since early 2001, donors such as AusAID, UNDP/UNOPs, FAO, Portugal, Japan, GTZ, CIDA and USAID initiated programs in rural development, specializing by district and/or topic, and operating generally within a programmatic framework discussed annually during Joint Donor Missions. Total donor commitments to rural development in FY03 amounted to close to US$24 million. This provided a much needed supplement to MAFF’s limited budget (US$1.8 million in FY04), but has also stretched its capacity and raised the need for further donor coordination. By pooling EC and TFET resources under the ARP program umbrella, the project will further help build staff capacity, coordinate donor assistance, and institutionalize key priority programs within the Ministry.

4. Description

The project will include four major components:

- Participatory Development and Natural Resources Management (US$1.3 million)
- Irrigation Rehabilitation and Management (US$3.5 million)
- Services to Farmers (US$4.2 million)
- Program Management (US$2.4 million)

The first component would be funded fully by TFET. The remaining components would be co-financed by EC and TFET, with TFET covering the first year’s activities, and EC expected to cover years 2 to 3.

**Component 1 – Participatory Development and Natural Resources Management.** It will support MAFF’s main assistance program to *upland and coastal communities*. It will promote improved self-reliance and natural resources management to strengthen communities’ resilience and make them less vulnerable to external shocks (such as periodic droughts and chronic food insecurity). It targets an estimated 50 villages in seven districts1 – Dili, Lautem, Liquiça, Manufahi, Covalima, Baucau, and Oecussi, or approximately 10,000 rural households (8 percent of Timor-Leste’s rural families). About 30 percent of direct beneficiaries are expected to be women.

The project will finance small village group grants, services, training for farmer groups, MAFF staff, facilitators and partner NGOs, workshops and cross visits, vehicles, office equipment, and incremental operating costs in support of the following activities:

- Continuing technical and facilitation support to 30 pilot villages initiated during ARP II
- Expansion to about 20 new villages, including provision of small village grants.

**Component 2 – Irrigation Rehabilitation and Management,** will support MAFF’s main assistance program to *farmers in lowland irrigated areas*, based on procedures developed during ARP I and II. The component will target about 4,000 rural families in all 13 districts. About 20 percent of members of Water User Associations (WUAs) are expected to be women.

The project will finance civil works, construction supervision, services, training, cross visits, farming inputs, office equipment, vehicles, and incremental operating costs in support of:

- Community rehabilitation of small irrigation schemes and rural access roads;
- Rehabilitation of the Caraulun irrigation scheme in Manufahi district;
- Support to Water User Associations (WUAs) and capacity building for MAFF staff;
- Survey and mapping of irrigation schemes.

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1 Similar programs are being implemented by UNDP/UNOPs, AusAID and Portugal in the remaining six districts.
Component 3 – Services to Farmers, will help institutionalize three basic MAFF services to farmers: Information, Animal Health, and Agri-Business support.

Sub-Component 3.1. Information to Farmers, will increase MAFF’s capacity to provide information to farmers (targeting most of the 450,000 people with radio access), and foster two-way communication with rural areas. The project will fund technical assistance, information materials and programs, equipment, small works, training and cross visits, translation services, and incremental operating costs in support of:

- Information programming, including face-to-face communication and mass media.
- Support to MAFF’s Liaison Secretariat with the Consultative Group of International Agricultural Research (CGIAR) and other international centers of expertise.
- Pilot community-based information networks at the district level.
- Rehabilitation of a network of automated agro-meteorological stations and rain gauges.

Sub-Component 3.2. Sustainable Animal Health Services, will target the estimated 567,000 rural people living in households which own livestock, a major determinant of rural incomes. The project will finance technical assistance, vaccines and veterinary supplies, equipment, vaccination campaigns, vehicles, training and cross visits, and incremental operating costs for:

- National vaccination campaigns
- Replacement of cold chain equipment.
- Training and regulatory support to a network of private Village Livestock Workers (VLWs).
- Capacity building for livestock staff.

Sub-Component 3.3. Support to Agri-businesses, will strengthen MAFF’s advisory services to rural producer organizations, as well as help promote key niche markets targeting some 1,200-1,500 grain seed growers (mostly rice and maize), and about 210 farming families involved in niche market commodities (such as candlenut and coconut oil production). The project will finance technical assistance, small works, agriculture and office equipment, farm inputs, training, and incremental operating costs for:

- Support to seed producers.
- Support to priority niche market commodities.
- Strengthening of agri-business support services in MAFF.

Component 4 – Program Management, will help MAFF to manage the project, continue to develop key national policies, and strengthen the Ministry’s managerial and technical capacity.

Sub-Component 4.1. Policy and Strategy Development, will fund high-level advisors and consultative workshops to help MAFF develop priority sectoral and institutional policies and strategies.

Sub-Component 4.2. Project Management and Capacity Building, will provide technical assistance, office, computer equipment and furnishings, workshops, training, study tours, and incremental operating costs in support of the following activities:

- Priority equipment and furnishings for District, Regional and Central Agricultural Offices;
- Priority management and technical training for MAFF staff; and
- Project management support, including auditing of project accounts.

Though the project is complex, the activities are for the most part a consolidation of previous ARP phases, for which there is already experience in MAFF. Continuation of support is justified given the long lead time needed to institutionalize programs within an emerging institution.
5. Financing

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<tr>
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<td>EUROPEAN COMMISSION (IN EUROS)</td>
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<td>SPECIAL FINANCING (TFET)</td>
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<td><strong>Total</strong></td>
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6. Implementation

The project will promote several partnerships: MAFF will involve Non-Governmental Organizations (NGOs) in implementation of the Participatory Development and Natural Resources Management component, and establish a Natural Resources Management Steering Committee with interested donors and NGOs to share lessons of experience. An Irrigation Network will also be promoted to share experiences in irrigation. Under Information to Farmers, MAFF will further strengthen partnerships with international research organizations and re-activate the Information Forum; under Support to Agri-Business, MAFF is expected to partner with ACIAR/Seeds for Life for provision of certified seeds, and with GTZ for support to coconut and candlenut oil production. A Policy Advisory Group, Agri-Business Consultative Group and Livestock Network are also expected to be established with interested partners. A project indicator has been adopted to monitor the progress of these partnerships.

MAFF will be the executing agency. Project components are already being implemented by different MAFF Divisions, thus reducing the number of activities each Division is responsible for. The only new activities considered (see above) will be contracted out or, in the case of agri-business support, implemented by trained MAFF staff and advisors.

To further institutionalize the program, the Project Management Unit formed under ARP I and II will be absorbed into the MAFF structure. The Project Director (currently the Permanent Secretary of MAFF) will be responsible for project management and coordination, supported by a Deputy Project Director, and Project Management Advisor, and Financial and Procurement Advisors assisting the MAFF’s Budget and Procurement Units. The MAFF Management Team (comprising all Director Generals and Directors) will continue to be responsible for policy and managerial decisions.

Project activities will be implemented at 3 levels: at the village level, by the village/sub-village (suco/aldeia) and farmers’ groups; at the district level by district agricultural staff and their partners (e.g. NGOs); and at the central level by the MAFF divisions responsible for each program.

MAFF has recruited a total of 180 national and district staff, and plans to increase its staff to 261 in 2004-05. Many have received training under various donor-funded projects. However, their capacity needs to be further strengthened, particularly in technical, managerial and facilitation skills. To supplement their capacity, international advisors will be contracted in specialized areas, and evaluated periodically with emphasis on their effectiveness in capacity transfer.

The financial management, fund flow, procurement and reporting would follow Government and IDA procedures already tested and established during ARP I and II, with further refinements to the Operational Manuals to reflect lessons of experience. MAFF has recruited full-time financial and procurement staff, and will appoint a monitoring and evaluation specialist prior to project effectiveness.
7. Sustainability

MAFF designed the project based on its past ARP experience and its emerging priorities. The Ministry earmarked US$1.5 million in counterpart funding to the project (about 29% of its annual budget) as a sign of its continuing commitment and integration of ARP activities in its core programs. Recurrent costs were realistically estimated and agreed with MAFF management.

The project was designed with a focus on sustainability. Grant funding for national vaccination campaigns, community irrigation and roads, and incremental operating costs will be progressively phased out: EC/TFET will fund them at a declining rate of 75%, 50% and 25%, during years 1 to 3 of the project, with the Government funding the remaining expenditures. Component 1, though initially reliant on contracted facilitators, will progressively devolve responsibilities to local NGOs and extension staff to build permanent capacity within MAFF. Reliance on external technical assistance is also expected to decline as the pilot projects mature and technical manuals are prepared. The budget for the component is consistent with a planned post-project expansion of 10-13 villages a year (1 per district).

Component 2 places a strong emphasis on WUAs to help ensure future operation and maintenance. Repairs of the major irrigation scheme (Caraulun) will only proceed after a network of WUAs is established. The estimated recurrent cost burden to the Government is being incorporated into forward budget estimates.

Component 3 – particularly the VLW and communication activities – was designed to meet MAFF’s severe extension constraints. By training a network of private VLWs to provide simple animal health services to farmers for a fee, MAFF will help address its critical staff shortages. By establishing partnerships with CGIAR centers and investing in radio and e-mail communication, MAFF also hopes to access global specialized advice on a least-cost basis. Fully automated agro-meteorological equipment was selected to minimize operating costs.

Sub-Component 4.1 (Policy and Strategy Development) will help MAFF formulate a long-term sectoral strategy and exit strategy for the ARP program. Reliance on foreign advisors remains a risk to sustainability, but the project will invest heavily on capacity building and on-the-job training of counterpart staff.

8. Lessons Learned from Past Operations in the Country/Sector

ARP III is based on key lessons from ARP I and II and from the reconstruction period (2000-01):

- **The need for flexibility and periodic evaluations.** In a fluid, post-conflict environment, there is a need to adopt a phased, flexible approach to implementation, with periodic evaluations to document lessons of experience and adjust the program to emerging conditions.

- **A ‘Farmer First’ approach.** Since the needs of rural households are diversified and not focused on any single sub-sector, service delivery must respond to their multiple needs in a timely and effective manner. This ‘farmer first’ approach emphasizes inter-sectoral, demand-based assistance, and further strengthening of farmers’ groups and community-based organizations. As an example, rehabilitation of larger irrigation schemes under ARP I and II proved insufficient to raise yields without parallel WUA and extension support to farmers.

- **Balanced investments between irrigated and upland areas.** While ARP I focused primarily on irrigated areas, subsequent assessments stressed the need to also assist upland areas and promote food security through farm system diversification and strengthened self-reliance.
Direct grant assistance to communities. During the rehabilitation phase (2000-01), MAFF faced major difficulties distributing a small number of valuable inputs to a large number of needy farmers. By contrast, community irrigation, which relied on contracts with farmers’ groups, was well received and helped foster local ownership. The 2001 Donors’ Mission recommended a shift from input provision to direct grant assistance to rural communities.

Ensuring sustainability. Many donor-funded projects during the rehabilitation phase paid high wages for rural labor. While this may have been necessary to help create cash-earning opportunities in rural areas, it also promoted further dependence on external assistance. Lessons learned point to a need to promote further community self-reliance, and not pay for activities that communities are expected to maintain or support on their own once the project ceases.

Policy and strategy support. ARP II has proved the value of reserving a pool of funds for MAFF to contract high-level policy advisors. However, the scope of advisory services needs to remain flexible to meet evolving needs.

Monitoring droughts and floods. The chronic effects of droughts and floods on food security makes it important for MAFF to collect reliable agro-meteorological data and strengthen its contacts with international monitoring systems, as well as promote ‘no regrets’ adaptation practices amongst vulnerable communities.

Capacity building. Lessons from ARP I and II indicate that foreign advisors may be needed for longer periods than originally envisaged, particularly in specialized fields such as project management, procurement and financial management. In addition, capacity transfer cannot be ensured by single training events, as staff turn-over is high. Sectoral and farmer training are also best left to MAFF divisions to closely integrate with their operational programs.

9. Safeguard Policies (including public consultation)

The project’s Environmental Screening Category is B. The project’s Safeguard Screening Category is S2. A few safeguard policies are triggered, but effects are limited in their impact and are technically and institutionally manageable.

Aside from OP 4.01 (Environmental Assessment), the project triggers the following safeguard policies: (a) Natural Habitats; (b) Forests; (c) Pest Management; (d) Involuntary Resettlement; and (e) International Waterways.

Natural Habitats: All community based irrigation and farm-to-market access roads proposed for rehabilitation under the project will be located outside protected areas (one of the criteria used in their selection). Component 1, however, may be carried out in and around natural habitat areas. The negative list excludes any activity which may impact adversely on important or critical natural habitats, including those at altitudes above 2000 meters, in mangrove areas, wetlands, or coral reefs.

Forests: Component 1 will include community-based forest management activities, such as reforestation of community-owned forest land, and sustainable utilization of non-timber forest products in natural forests within village boundaries (e.g. bamboo or honey). It will not involve harvesting timber from natural forests.

Pest Management: This policy may be triggered in limited occasions. Under the Irrigation Rehabilitation component, and Agri-business support to seed producers, it is possible that farmers may use limited amounts of pesticides to control pests or diseases. In case pesticides need to be provided by the project in

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2 “No regrets” adaptation are measures – such as watershed management – that decrease local vulnerability against climatic events, and which are beneficial regardless of the exact impact of the event in that location.
support of these activities, MAFF will exclude all Class I toxic pesticides and Class II moderately hazardous pesticides. MAFF will also provide training on principles of Integrated Pest Management and safe application and disposal of pesticides.

**International Waterways.** Some small irrigation schemes proposed for rehabilitation may be located in the six international waterways which Timor-Leste shares with Indonesia. Given that the rehabilitation works would not involve any major additions or alterations of existing schemes, and that no impacts are foreseen on the quantity or quality of water to/from Indonesian riparians, an exception to the requirement to inform Indonesian riparians was granted on September 17, 2003. During implementation, any proposed community schemes that may potentially fall under the policy will be reviewed in consultation with IDA to ensure that they qualify for the exception. The need for notification will be reconsidered if required under future treaties with Indonesia.

**Involuntary Resettlement.** No involuntary resettlement or land acquisition which results in loss of income is expected to take place as a result of project activities. However, as small amounts of community land may be required for community-based and owned activities under Components 1 and 2.1 (Community Irrigation and Roads Rehabilitation), *Policy Guidelines for the Negotiations over the Use and Development of Land for ARP III* were adopted for the project to ensure that voluntary land donations are not made under duress, and that appropriate compensation is provided from within the community. In the rehabilitation of the Caraulun irrigation scheme, there is a remote possibility that small areas of land around the existing intake and canals may need to be acquired by the Government. Should this be needed, the Guidelines provide for state compensation. In case communities in Caraulun decide to establish tertiary canals under community irrigation contracts, the same procedures as for sub-component 2.1 would apply. Agro-meteorological stations and rain gauges will be located in government land.

During pre-appraisal, IDA conducted a field review to assess how environmental safeguards were applied to ARP II activities. This review confirmed the absence of major environmental impacts under the ARP program and was used to adjust the environmental mitigation measures already adopted under the program, in order to improve their applicability. ARP II also funded a major feasibility study in Caraulun, which included an environmental and social analysis. This was reviewed by IDA at pre-appraisal. The environmental mitigation measures proposed will be incorporated into the bidding documents and terms of reference of the supervisory engineering overseeing the scheme’s rehabilitation. Mitigation measures for other project activities are being incorporated into the respective Operational Manuals.

MAFF will be responsible for supervising the environmental mitigation measures and social safeguards, with assistance from the Division of Environment (DoE) whenever necessary. The bi-annual progress reports will include a section on environmental and social issues, a copy of which will be provided to DoE.

The social appraisal, environmental analysis, and *Policy Guidelines for the Negotiations over the Use of and Development of Land for ARP III* have been disclosed in-country and are available publicly at InfoShop and the Project Information Center in Dili. Other assessments – including the Feasibility Study for Major Damaged Irrigation Schemes – are available at MAFF’s office in Dili. Past ARP supervision reports are summarized in the publicly available TFET Report to the Trustee. MAFF will ensure adequate public disclosure of project activities, and availability of relevant documents in publicly accessible locations.
10. List of Factual Technical Documents

Analysis of Timor Lorosa’e Household Survey for Ministry of Agriculture, Forestry and Fisheries, March 2002.


The Road Map (for the implementation of the National Development Programs), Republica Democratica de Timor-Leste, Dili, April 15, 2003.


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