

PROPOSAL FOR POVERTY AND ENVIRONMENT PROGRAM

A. BASIC DATA

1. **Activity Title:** Pilot Rehabilitation of Agent Orange Affected Forestlands in Quang Tri Province of Viet Nam
2. **ADB Officer:** Javed Hussain Mir, Senior Natural Resources Specialist (Forestry), MKAE
3. **Request Date:** September 2004
4. **Implementing Organization:** Quang Tri Province Sub-Department of Forest Protection; Management Board for Forestry Projects of the Ministry of Agricultural and Rural Development (MARD).
5. **Types of Interventions** Pre- and post-intervention ground and surface water supply monitoring, selected targeted interventions to increase forest cover and improve community water supply, training, capacity building, and community organization development.
6. **Amount of Request:** US \$230,000
7. **Period this funding request will cover:** 18 months (June 2005-November 2006)
8. **Region/Country** Selected communes in Cam Lo and Gio Linh districts, Quang Tri Province, Viet Nam

B. DESCRIPTION OF IMPLEMENTING ORGANIZATION

The Sub-Department of Forest Protection (S-DFP) of Quang Tri Province of the Ministry of Agricultural and Rural Development (MARD) will implement the proposed project. The MARD is responsible for forestry activities in Viet Nam, and S-DFP undertakes the provincial level implementation responsibilities related to forest protection. The S-DFP Quang Tri DARD has since 1998 been the provincial project management unit (PPMU) for the implementation of the ADB Forestry Sector Project (Loan 1515-VIE). For measurements of ground and surface water quality, the Department for Natural Resources and Environment (DONRE) of Quang Tri province will be involved. Participating commune administrations and local community groups will take a leading role in planning and implementation, financial management, monitoring, and evaluation on the operational level.

C. PROPOSED PROJECT

1. Background and Rationale

About 80 million liters of herbicides including Agent Orange are believed having been sprayed during the 1961-1971 war. More than 20,000 hamlets with a population of over 2 million were sprayed upon. The Government of Viet Nam has been focusing on human and ecological restoration of the Agent Orange affected communities and lands. In 1998, a national project was set up by the Red Cross of Viet Nam, which provides USD 2.6 million in medical check-ups, orthopedic operations and other physical treatments for 200,000 patients.¹

The total area of land affected by the herbicides amounts to 2.6 million hectares, including adjacent areas in Cambodia and Lao PDR. Frequency of spraying varied between 1 – 10 times; about 35% of the area was sprayed more than 5 times. Large areas of forestland were affected

¹ Viet Nam News. Thursday, June 5, 2003. Agent Orange haunts third generation.

and have not rehabilitated since. The immediate effects of spraying of herbicides were later aggravated by soil erosion and fire. Rehabilitation of such areas has mainly been tackled by donor-funded projects.

The ADB-Forest Sector Project (loan VIE 1515) has successfully piloted reforestation of agent-orange affected areas in Quang Tri Province: the forestland can be rehabilitated and put under a forest cover fairly quickly if fire and grazing by buffaloes are controlled. Furthermore, by reducing the surface runoff of water and soil leaching, these reforestation efforts may also reduce the flow of harmful dioxins into lowlands, particularly local water sources, which in turn is believed to help reducing the health risks to people who live near Agent Orange affected areas. While the approach applied by the Forest Sector Project emphasized a careful planting design making full use of micro-site conditions and existing forest succession as well as participatory approaches, it had to stay short of assessing the effects on ground and surface water improvement.

2. Objectives and Outputs

Overall objective of the proposed TA is to pilot a community-based approach to Agent Orange-affected forestland rehabilitation linked to local water supply improvement. Specific objectives include: (i) increase forest cover in selected districts, which contributes to rehabilitation of agent-orange affected forest lands, biodiversity conservation and rural wage generation, and (ii) improve local water supply. Expected outputs include:

1. Increased and diversified forest cover in selected Agent Orange-affected forest lands,
2. Agent-Orange affected forest/watershed rehabilitation technologies for surface and ground water supply improvement, and
3. Initiation of decentralized forestland rehabilitation and water quality maintenance regimes.

The proposed TA will focus on selected communes in Cam Lo and Gio Linh districts in Quang Tri province. Both districts have been involved in the ADB Forestry Sector Project [Loan: 1515-VIE: Forestry Sector Project (FSP)] and are therefore well acquainted with the approaches and methodologies applied in that Project. Communes to participate in the Project will be selected by the Project Preparation Management Unit (PPMU) Quang Tri, based on needs, relevance for watershed rehabilitation and counterpart budget availability. Target groups are households in the selected communes and commune administrative units. Selected households in the communes will be direct beneficiaries of the implementation of pilot interventions. The Quang Tri (S-DFP), the commune administrations, and the commune councils of the selected communes will be the major stakeholders. The proposed TA will also explore if national sources (e.g. 661-programme) or carbon sequestration programs can be tapped for funding of protection and maintenance of the newly established watershed protection forests.

3. Scope of Work/Description of Proposed Approaches and Activities

Output 1: Increased and diversified forest cover in selected Agent Orange-affected forest lands

- 1.1 Conduct Participative Rural Appraisal (PRA) and land use planning,
- 1.2 Prepare commune proposal for land allocation,
- 1.3 Identify sites for tree planting,
- 1.4 Conduct site-species matching and prepare technical and cost standards,

- 1.5 Provide seedlings,
- 1.6 Conduct tree planting,
- 1.7 Assist local communities in preparing long-term forestland development/rehabilitation and forest resource management plans, and
- 1.8 Prepare implementation/output report.

Output 2: Identification and piloting of appropriate forest/watershed vegetation cover rehabilitation technologies for improved surface and ground water quality.

- 2.1 Review experience from ongoing projects in Viet Nam and other relevant parties,
- 2.2 Consult with DONRE and involved communities to identify suitable approaches to beneficiaries-based water quality measurement and monitoring,
- 2.3 Prepare guidelines for measuring and monitoring water quality with particular focus on dioxin levels,
- 2.4 Conduct training for relevant DONRE staff, commune administrations and beneficiary-based monitoring groups,
- 2.5 Establish water quality/dioxin and biodiversity benchmarks in pilot micro-watersheds,
- 2.6 Establish water quality/dioxin benchmarks in selected micro-watersheds already planted under the ADB Forestry Sector Project in Quang Tri,
- 2.7 Assess water quality improvement impact in terms of reduced health risk in the selected communes,
- 2.8 Assist local communities in setting up long-term water quality monitoring arrangements.

Output 3: Initiation of decentralized forest land rehabilitation and water quality maintenance regimes

- 3.1 Consult with local communities and local administrations on suitable approaches, implementation and management arrangements for effective forest protection including fire prevention/fire fighting and water quality measurement and monitoring,
- 3.2 Review experience from ongoing projects in Viet Nam, and other relevant parties,
- 3.3 Prepare draft proposal for the establishment of local community organizations for sustainable forest and water quality monitoring covering planning, implementation, and financing,
- 3.4 Undertake participatory appraisal of the draft proposals involving local communities and administrations,
- 3.5 Conduct training for staff of relevant government institutions and commune administrations,
- 3.6 Identify means and ways by which outputs of the TA will be integrated and incorporated in district and provincial district development plans such as 5 Million Hectare Reforestation Program (5MHRP) and/or Government's poverty reduction programs (program 135).
- 3.7 Identify means and ways by which outputs of the TA can be linked to externally aided programs with particular focus on ADB's on-going or planned natural resource and rural development sector investments in the central region.
- 3.8 Assist involved commune administrations and government line agencies in the establishment and operationalization of community-based forest and water quality rehabilitation and management.

For forest rehabilitation the proposed TA will use the technical approaches piloted under the FSP, which include PRA, participatory land use planning, land allocation, and careful planting design making full use of micro-site conditions and existing forest succession, which naturally occurs in bomb holes and along small watercourses. Tree species selected for planting

will be pioneer species, which are suited to degraded site conditions (e.g. Pine, Acacia), which will be raised in decentralized nurseries directly at the site. For water supply measurements, the TA will rely on experience of MONRE/DONRE and other relevant parties, but intends to simplify methods in such a way as to maximize learning effects in involved communities and low-level administrations. As for approaches to local communities organization development, the proposed TA will follow the design and objectives of the intended "Forests for Livelihood Improvement in the Central Highlands" project prepared under the recent PPTA 3818, particularly for aspects of decentralized funding and financial management. The TA will explore possibilities for further conceptual improvements arising out of ongoing policy reviews such as the issuance of a new forest law scheduled for November 2004, and the new National Forest Development Strategy which is at present under preparation.

4. Work Plan and Inputs

Work Plan

Activity	2005			2006			
	6	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Qtr 3	Qtr 4
Recruitment of consultants	X						
Workshops							
- Inception	X						
- Mid-Term				X			
- Final							X
Field work							
<i>Forestry</i>							
PRA and land-use planning	X	XXX					
Training		XXXXX					
Seedling production		XXXXXXXX	XXXXXX				
Site preparation				XXXX			
Planting					XXXX		
Forest resource planning						XXXXXX	
Reporting							XX
<i>Water</i>							
Literature review	XX	XX					
Consultations			X				
Preparation of guideline, training			XXX				
Measurements in new sites			XXXX				
Measurements in ADB FSP sites				XXXX	XXXXXX		
Economic valuation				XXXX			
Water resource planning						XXXXXX	
Reporting							XX
<i>Community Organizations</i>							
Initial consultations		XX					
Literature review		XXXXX					
Preparation of draft proposal			XXXX				
Training			XXXX	XX			
Establishment					XXXXXX	XXXXXX	
Reporting							XX
Reporting							
Quarterly reports by EA		X	X	X	X	X	X
Technical reports by Consultants							
- Inception	X						
- Mid-Term				X			
- Final							XX

Inputs:**Consultants²**International Consultant

Team Leader/Watershed and rural development specialist - 2 person-months

Local Consultants

Forester cum land-use planner - 4 person-months

Water resources specialist - 4 person-months

Economist – 2 person-months

Other Inputs:

Participatory planning

Land use planning and allocation

Training

Capacity building

Selected interventions in forestry and water resource rehabilitation and maintenance

Performance/output indicators:

- 250 hectares of Agent Orange affected forestland reforested/rehabilitated.
- Wage generating opportunities created for at least two communes.
- Water quality measurement and monitoring capacity established in at least two communes
- Potential health care cost savings estimated for at least one commune.

D. COST ESTIMATE

Item	Partner Contribution	Requested	Total	Disbursement
Consultants		70,000	70,000	
International (2 pm)		40,000		
Local (10 pm)		30,000		
Travel		9,000	8,000	
Regional		1,500		
Local		7,500		
Pilot Interventions		100,000	135,000	
Rehabilitation		80,000		
Water quality measurement protocols		20,000		
Equipment		15,000	15,000	
Others		26,000	71,000	
Regional workshop		5,000		
Maps/reports		5,000		
Field-surveys / stakeholder consultations		6,000		
Water quality monitoring		10,000		
Office space, personnel time, equipments and transport	79,000			
Contingencies		10,000	10,000	
Total	79,000	230,000	309,000	

² Terms of references are given in appendix.

E. PROPOSED PROJECT MANAGEMENT SYSTEM

The Sub-Department for Forest Protection of Quang Tri Province will manage the proposed TA. This office has been involved in the management of the ADB Forestry Sector Project (Loan-VIE 1515). The EA will be requested to provide a project officer and one assistant staff for the implementation as well as office space, computer facilities, staff time for field study implementations, and vehicles. The project will provide traveling allowance and subsistence allowance for project staff while the government will provide their salary. The project pays for the fuel. Consultants will be recruited by the ADB and will report to the project officer.

The project officer is responsible for preparation of quarterly progress reports. The ADB project officer is responsible for monitoring and evaluation of the project progress.

Terms of References for Consultants

The proposed research requires a country team consisting of a forester, a water resource specialist, and an economist. A international team leader with experience in community development/rural development and natural resource management will lead, guide, coordinate, and take the overall responsibility of the study. These consultants will be hired on an individual basis.

A. TEAM LEADER/Watershed and Rural Development Specialist (2 person-months, international)

Qualifications: (i) Higher degree in Forestry or Agriculture and a minimum of 10 years of experience in rural development, community development, and forestry; (ii) Interdisciplinary background with emphasis on both rural/community development and natural resource management; (iii) Working experience in watershed rehabilitation and poverty alleviation in Mekong region, preferably Viet Nam; (iv) Proven management and leadership qualities.

Tasks:

- Overall responsibility of TA implementation,
- Provide intellectual leadership to the team,
- Review relevant national and international experience in community organizations development,
- Train and coordinate the team,
- Integrate intermediate reports and produce final report, and
- Liaise and coordinate with relevant local, national and international stakeholders.

B. FORESTRY SPECIALIST (4 person-months; domestic)

Qualifications: Higher degree in forestry, at least 10 years of experience in afforestation in watershed/protection forest areas. Country experience in participatory approaches such as PRA and land use planning related to poverty/livelihood issues required. Exposure to project planning, monitoring, and evaluation as well as institutional analyses desired. English working knowledge required.

Tasks:

- Responsible for forestry component of the study, including land use planning and land allocation,
- Assess needs and options for community organization development in view of sustainable forest resource management, covering aspects of planning, implementation, financing, and monitoring & evaluation, and prepare a draft proposal,
- Consult the draft proposal with local communities and administrations,
- Conduct training for staff of involved government institutions and commune administrations,
- Assist involved government institutions and commune administrations in the establishment and operationalization of local community organizations for sustainable forest and water resource management,
- Assist local communities in preparing long-term water resource development and utilization plans,
- Provide inputs to the water resources management specialist and the economist as and when needed,
- Contribute to inception, mid-term, and final reports,

- Other duties commensurable with function and duties as requested by the Team Leader.

C. WATER RESOURCES MANAGEMENT SPECIALIST (4 person-months; domestic)

Qualifications: Higher degree in Geography, Biology, Chemistry or related field with five years of experience in water resource protection and management. Experiences with quantitative and qualitative water supply measurements in forest areas required. Working experience with rural communities desired. Relevant country experience in protected area and watershed management issues desired. English working knowledge required.

Tasks:

- The water resources management specialist is responsible for the water resource component of the study.
- Review relevant national and international experience in water supply measurement.
- Elaborate methodology for measuring and monitoring water quality on a micro watershed level with special attention to dioxins.
- Organize and oversee the conduction of water supply measurements in selected sites earmarked for tree planting under the proposed TA, and representative sites planted under the ADB Forestry Sector Project in Cam Lo and Gio Linh districts in Quang Tri province
- Assess needs and options for community organization development in view of sustainable water resource management, covering aspects of planning, implementation, financing, and monitoring & evaluation, and prepare a draft proposal,
- Consult the draft proposal with local communities and administrations,
- Conduct training for staff of involved government institutions and commune administrations,
- Assist involved government institutions and commune administrations in the establishment and operationalization of local community organizations for sustainable water resource management,
- Assist local communities in preparing long-term water resource development and utilization plans specifying water resources used for home consumption, economic activities, and unused resources (downstream effects),
- Provide inputs to the forestry specialist and the economist as and when needed,
- Contribute to inception, mid-term, and final reports,
- Other duties commensurable with function and duties as requested by the Team Leader.

D. ECONOMIST (2 person-months)

Qualifications: A higher degree, preferably a Ph.D., in Economics with proven experience in project analysis, particularly in projects related to natural resource management and poverty alleviation. English working knowledge required.

Tasks:

- Assess the poverty impact of the identified interventions,
- Assess the value of improved water supply originating from afforestation in terms of water resources used for home consumption, economic activities, and potential health care savings due to reduced dioxin levels,
- Provide inputs to the forestry specialist and the water resources management specialist as and when needed,

- Other duties commensurable with function and duties as requested by the Team Leader.