PROJECT EXECUTIVE SUMMARY
GEF COUNCIL INTERSESSIONAL WORK PROGRAM SUBMISSION

AGENCY'S PROJECT ID: P077454
COUNTRY: Tajikistan
PROJECT TITLE: Community Agriculture and Watershed Management
GEF IMPLEMENTING AGENCY: World Bank
OTHER EXECUTING AGENCY(IES): Ministry of Agriculture and rural Development
DURATION: 6 years
GEF FOCAL AREA: Multifocal area with strong linkages to Land Degradation and Biodiversity
GEF OPERATIONAL PROGRAM: OP 12 (Integrated Ecosystem Management) with linkages to OP 15 (Sustainable Land Management), OP 4 (Mountain Ecosystems), and OP 13 (Conservation and Sustainable Use of Biological Diversity Important to Agriculture**)**
GEF STRATEGIC PRIORITY: Implementation of sustainable land management practices; mainstreaming biodiversity conservation into community practices
ESTIMATED STARTING DATE: December 2004
IA FEE: $680,000

FINANCING PLAN (IN US$): **GEF PROJECT/COMPONENT**	
Project	4,500,000
PDF A	N/A
PDF B	0.00
PDF C	N/A
Sub-Total GEF:	4,500,000
CO-FINANCING	
IDA Credit	5,000,000
IDA Grant	5,000,000
GoT	900,000
Beneficiaries	2,400,000
Donors	0
Sub-Total Co-financing:	13,300,000
TOTAL Project Financing:	17,800,000
FINANCING FOR ASSOCIATED ACTIVITIES IF ANY:	
LEVERAGED RESOURCES IF ANY:	

*Details provided under the Financial Modality and Cost Effectiveness section

CONTRIBUTION TO KEY INDICATORS OF THE BUSINESS PLAN: land resource management investments and improved land use cover 78,000 ha of degraded sloping lands

RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT(S):
Mr. U. Shokirov, Minister for Nature Protection, Date*: 12/9/2002*
Government of Republic of Tajikistan

Approved on behalf of the *World Bank*. This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for work program inclusion

For Steve Gorman,
Executive Coordinator, The World Bank
Date: 02/09/04

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1. PROJECT SUMMARY

a) Project rationale, objectives, outputs, activities.

Project rationale.

GDP growth, poverty, and agriculture. Tajikistan is a small country in Central Asia, with an area of some 141,000 Km2 of which some two thirds form the foothills and high mountains of the Pamirs. Independence turmoil and civil war left it among the poorest countries in the world, but the economy is now developing. As of 2000 annual per capita income was only around US$180, and some 83% of the population were poor, but during 2000-2003, real GDP growth has ranged from 6% to 10.2% per year. Tajikistan is an agrarian society and agriculture is critical to alleviating this poverty. Some two thirds of its 6.3 million population is directly dependent on Tajikistan's 4.6 m ha of agriculture land, of which only about 850,000 ha are arable lands, and the remaining 3.86 m ha are pasture, fallow lands and meadows.

Highland areas and land degradation. About twenty percent of the population lives in hilly and mountain areas where access to most government services is limited. Most of the 2.5 m ha agricultural land they farm is pasture, only 206,000 ha are in perennial crops and orchards, and there are few significant irrigation systems. Rural poverty, shifts in land management responsibilities, lack of integrated land management, inappropriate agriculture, and poor access to technical support are causing increasing land degradation. Much of the population are now using steep hillsides to grow cereal crops. In turn, land degradation contributes to further impoverishment through mudslides (ruining villages, roads and farmland, and irrigation and water systems), soil-erosion (undermining agricultural productivity) and silting of waterways used for drinking water and irrigation. However, highlands have good productive potential if appropriately farmed. In addition to improving life for people in the highlands, utilizing this potential in sustainable ways will also prevent downstream damage and relieve pressure on the lowlands.

Mountain ecosystems. Tajikistan has globally important mountain ecosystems with diverse flora and fauna, including many of economic importance, and under threat. Pastures, for example, host over 3000 plant species, but face threats from localized over-grazing. The wild-growing fruit plants of Tajikistan represent a unique genetic resource for agriculture. The mountain territories of southern and southeastern Tajikistan are the major regions for conservation of wild-growing fruits (apples, pears, apricots, mulberries, cherry plums and plums, among others), nuts (walnuts and almonds), grapes and berries (currants, sea-buckthorn berries). Forest areas that cover only 3 % of the country's territory, decreased by about 15% due to the need for firewood.

Land tenure. Officially, some 55% of all arable land has been converted into lease farms, joint stock companies and *dekhan* farms. However, in lowland cotton growing areas, farmers are still not free to make their own management decisions, while in highlands they lack the capital needed to exploit the productive potential. Furthermore, there are also large tracts of pasture, formerly under the control of state farms, which are now under the control of jamoats[1]. These pastures face problems of inadequate maintenance as well as arbitrary and inequitable access to grazing rights and land use.

Institutional capacity. In addition to these problems, institutional capacity to appreciate and manage these problems is extremely weak. At both the local and the national levels, the

[1] The jamoat (sub-district) is lowest official government unit, and usually comprises a number of villages.

institutions responsible for biodiversity, land management, and community-oriented sustainable development need to be re-oriented and strengthened.

Project objective.

The project objective is to build the productive assets of rural communities in selected mountain watersheds, in ways which sustainably increase productivity and curtail degradation of fragile lands and ecosystems.

Global Environmental Objective.

The global environmental objective would entail protection of globally significant mountain ecosystems by mainstreaming sustainable land use and biodiversity conservation considerations within agricultural and associated rural investment decisions. This integrated management approach would also provide replicable models for comparable areas throughout the country.

Project activities. The project would take place in four highland watersheds covering catchments of over 36,000 km2, with agricultural areas covering about 690,000 ha, with a population of about 550,000 people (42% of Tajikistan's mountain population). The project would cover 47 of the 64 jamoats in these watersheds, and would expand to the remaining jamoats if additional financing from other donors becomes available, as anticipated, after project inception. Project activities and funding would be distributed relatively evenly within the 47 jamoats, and directly benefit at least half their population. The project activities will comprise: Component I - Rural Production Investments (selected by local communities in a site-specific context and prioritized within formulaic budget constraints): (a) Farm Productivity Improvement; (b) Land Resource Management; (c) Rural Infrastructure; Component II - Institutional Support and Capacity Building: (a) Support for Scientific Research Development and Dissemination; (b) Community Mobilization and Preparation of Investment Plans; and Component III - Project Management and Coordination. Intended results include increased agricultural productivity and associated household incomes, and land and ecosystem rehabilitation. GEF support would especially support the land resource management subcomponent, enabling financing of for investments on some 57,000 ha of the 78,000 ha where groups of at least nine households would adopt more sustainable use of sloping lands in adjoining areas. In addition, GEF would provide support for the scientific and community support as well as the project management and coordination that are associated with the additional land resource management activities (including detailed monitoring and analysis of degradation trends), and also provide support for the preservation of specimens of indigenous plant varieties.

b) Key indicators, assumptions and risks

Outcome indicators. The key outcome indicators would comprise

- High proportion of farm productivity, land management, and rural infrastructure investments are successful according to agreed economic, financial, social, and environmental standards, and are being sustained.
- At least half the households where the project is operating directly participate in some part of the rural production component.
- Reduction in proportion of project participants who are living below the poverty line.
- Women's influence increases, as perceived by local inhabitants
- Land and mountain ecosystem degradation trends halted (GEF)

Output indicators. Implementation will be assessed mainly on the basis of output indicators including:

- Total cumulative investment in agriculture production among project participants (from initial grant, local contributions, and reinvestment) significantly exceeds projection of project-financed grants and capital infusions (implying high participation, desirable social and environmental impacts, high rate of commercial success, high repayment, and high revolving funds use).
- Land management investments cover a significant area and benefit very poor at least in proportionate to their numbers in a community (GEF)
- Number of improved public facilities, disaggregated by type of investment (e.g., village drinking water, roads, and electricity)
- Number of Jamoat Development Committees (JDCs) mobilized and overseeing preparation/ implementation of rural production investments
- Significant proportion of farm production and land management investments apply improved technologies, and receive good access to necessary inputs and knowledge.
- Number of indigenous crop varieties from project area preserved as live specimens (GEF)
- Satisfactory project administration as indicated by Bank supervision ratings and public reputation of integrity

Assumptions and risks Critical risks and possible controversial aspects are presented in the table below.

Risks	**Risk Mitigation Measures**	**Risk Rating with Mitigation**
To project development objective		
Present institutional capacity not adequate	Project design includes in-service training to support program during initial years. Gradual phasing in of watersheds over 3 years	M
Farm productivity investments are not commercially viable	Indicative rates of return assessed, proposals screened for viability, and implementation monitored implementation.	M
Households and common interest groups do not take initiative	Project will include information dissemination and training, as well as arrangements to address to address external constraints	L
Government officials force top-down approach and do not allow communities to drive investment choice	Government officials have role in project but project design grounded in government's decentralization policy, with agreements on well-specified participatory processes and facilitation support.	M
To component results		
Government does not have sufficient funds to provide counterpart budget	Government counterpart minimized, requirement for inclusion as budget line item, and ongoing monitoring by Bank of quarterly releases.	M

Risks	Risk Mitigation Measures	Risk Rating with Mitigation
Lack of household savings precludes required contribution, retained earnings reinvestment, or access revolving funds or credit	Significant portion of contribution provided in form of labor. Project training in cash mobilization skills and opportunities. Beneficiary control creates strong sense of ownership and trust, building willingness to contribute. Training and feasibility criteria foster reinvestment.	S
Arrangements to channel funds to local levels do not function in a timely and transparent manner	Detailed budget and fund flow arrangements specified and applied in ongoing projects, with clear accountability. Credit Agreement will specify financial management system, including fund flow.	L

2. COUNTRY OWNERSHIP

a. Country Eligibility

Tajikistan is eligible for the GEF assistance since it is an active party to the United Nations Conventions: (a) to Combat Desertification (1997) ; (b) on Biodiversity Conservation(1997) : and (c) on Climate Change(1998).

b. Country Drivenness.

Government strategy. The key elements of Tajikistan's Poverty Reduction Strategy Program (PRSP) emphasizes accelerated growth, provision of basic social services, targeted support for the poor, and improved governance. For the agriculture sector, the Government's strategy supports the efficient use of, and access of the poor to land, water, financial and other resources, and eliminating government intervention in private farm decision making. The PRSP also highlights the regional dimension to poverty, with the highlands facing special difficulties, especially in the south-east. For the environment, the PRSP emphasizes addressing natural disasters, water pollution, soil degradation, deforestation and biodiversity conservation. Specific measures related to afforestation, pasture improvements and protection, development of the institutional frameworks, and mainstreaming of sustainable land management and biodiversity conservation in agriculture and forestry are considered government priorities as evidenced in the National Strategy for Combating Desertification (2002), and the National Biodiversity Conservation Action Plan (2003).

Government actions. The Government is trying to implement its agriculture and natural resource management strategy through programs of farm privatization, irrigation and other rural infrastructure, improve technical support services, and improved access to rural finance. However, problems of past reliance on, and vested interests in, top-down control, lack of accountability, lack of familiarity with incentive frameworks (which could address shortcomings of regulatory approaches where enforcement capacity is inadequate and ineffective), and severe fiscal constraints are limiting the extent and the nature of overall program impacts. Bank projects are directly supporting the implementation of the Government's programs focused on agriculture and natural resources, with particular attention to developing new, replicable approaches that address the key implementation and sustainability constraints. Based on this

experience, the Government requested the Bank and GEF to extend their support to highland areas.

3. PROGRAM AND POLICY CONFORMITY

a. Fit To GEF Operational Program and strategic priority

GEF Strategy. The project provides support for all three strategic GEF themes:

- The project supports the *enabling environment* by providing a channel for field level issues to be identified, and if necessary addressed by senior policy makers in the National Level Steering Committee (NLSC)[2]. Under the land resource management subcomponent, it creates new incentive structures through the provision of usufruct rights over sloping lands conditioned on appropriate use and land management. This subcomponent also creates incentives for sustaining the improved land use by combining income-generating investments with soil conservation works to address the interests of local people.
- The project *strengthens the capacity of institutions* to implement integrated ecosystem management approaches. Support under the institutional support and capacity building component will strengthen capacity of households, common interest groups, villages, JDCs, technical agencies, and local and national government officials to address the challenging problems of the fragile mountain areas, taking into account the full range of technical, environmental, social, management, financial, and commercial considerations. The work at the JDC level is particularly significant and ties in with country and Bank priorities to improve local governance, building on initiatives of UNDP and other others.
- The project makes *investments* which simultaneously address integrated ecosystem approaches and global environmental issues within the context of sustainable development. The investments are being undertaken primarily by local people, who are partnering with other stakeholders such as NGOs, other donors, local and national government staff and officials, merchants and other private sector actors, and international experts. The combination of farm productivity, land resource management, and rural infrastructure investments integrates livelihood concerns with sound ecosystem management.

OP 12 (Integrated Ecosystem Management). The project is consistent with OP 12 (Integrated Ecosystem Management) because it brings synergy between *all four* GEF focal areas (land degradation, biodiversity, climate change, and international waters): It has especially strong linkages to, and integration between, the land degradation and biodiversity focal areas, but it also involves the international waters and climate change focal areas. The NLSC will provide a mechanism for senior policy makers to address linkages between highland and lowland areas. The integration of land resource management in combinations with the farm productivity and rural infrastructure subcomponents will increase agricultural production and income under thereby decreasing the pressure on sloping lands and forests. The deteriorating productivity over the past decade and associated poverty contributed to the inappropriate land use. The preparation analysis indicates that agricultural productivity is so low that only slight changes in farm management and investments on arable land will produce significant productivity gains and reduce pressure on fragile land. The farm productivity investments will provide immediate gains, enabling households to wait for the longer-term gains from the land resource investments. The rural infrastructure subcomponent will provide complementary investment addressing

[2] The NLSC is chaired by the deputy prime minister and includes ministerial level representatives, including the most senior official responsible for the environment.

constraints such as marketing and supplemental irrigation. Economic analysis indicates that substantial livelihood opportunities exist within agriculture and related activities, and that the project will have a significant impact on poverty. The inclusion of support for the preservation of specimens of Tajikistan's valuable land race varieties further integrates biodiversity concerns into an operational land management context. A discussion of the how the project relates to specific operational programs in the four focal areas follows.

OP 15 (Land Degradation: Sustainable Land Management). The soils in large portions of the four watersheds are naturally subject to water and wind erosion, which the misuse of sloping lands further exacerbates, causing significant downstream damage in the form of excess runoff, siltation, landslides, and flood damage. Mudflows have become more common. Cereal crops on steep slopes also deplete the soil fertility. Weeds now infest pastures as a result of the disruption of land management arrangements, and trees and bushes have been over-harvested to meet household fuel requirements after the fuel subsidies of the Soviet era collapsed. The land resource management subcomponent would enable local people to adopt more sustainable use of sloping pasture lands. Overall, the 78,000 ha subject to this subcomponent represents about 10% of pasture land in the project jamoats. The subcomponent would rehabilitate degraded sloping land that has been or is currently being used for cereal crops, subject to localized overgrazing, neglect, or other poor land management practices by supporting investments such as contour planning of economically beneficial trees with associated soil and moisture conservation structures, or pasture improvement. In addition to creating an livelihood incentive to sustain investments, the combination of income-generating investments with soil conservation works enhances the organic content of the soil. To provide a further incentive, participants would receive land use certificates after three years of good maintenance, subject to continued good land use. As mentioned above, the farm productivity and rural infrastructure subcomponents complement the land resource management subcomponent. The institutional support and capacity building component will support the nurseries, field trials, technical advice, facilitation, training, and other institutional strengthening required for the overall rural production investment component. The project management and coordination component will include support for policy reform, highland/lowland relationships, and exchanges of international experiences by involving senior government decision-makers. It will also support remote sensing monitoring of land degradation trends. One of the major intended results of the project is the prevention of any additional degradation within the areas where the project is operational, and a readily replicable model to prevent degradation in additional areas.

OP 4 (Biodiversity: Mountain Ecosystems). The project activities highlighted above in the discussion of OP 15 will also benefit mountain ecosystems. Most of the project activities will take place in hilly and mountain areas above 750 meters. The pasture lands and wider watershed basins contain a rich mix of plants including rare and genetically valuable grasses, herbs, bushes, and trees. Red book plants in the four watersheds include the Persian binium, Rozenbakh wild leek, Gissarsky rhubarb, Vavilov almond, and Kayon pear. Other important genetic resources include walnut, plum, Sogdiysky nut, Anzyrsky wild leek, Sievers apple, barberry, Zeravshansky nut, black currents, Altai mountain sheep argali, Pontiysky hawthorn, Real pistachio, Lukovichny barley, Pherula kukhistanskaya, Rea nut, Bukharsky almond, Thick-stalked vetch, Borodavchataya cherry, and blackberry. They also provide habitats for rare and endangered animals such as the Dough eagle, Tien Shan sparrow-hawk, Redheaded peregrine, Middle-Asia otter, kadan, weasel, snow leopard, Siberian wild goat, Zeravshansky pheasant, Black stork, Bearded partridge, Indian porcupine, urial, Marco Polo wild sheep, keklik, boradach, desert

partridge, kustarnisa, and Golden eagle. The prevention of additional degradation would help to address the major threats to this biodiversity. The project addresses land and biodiversity concerns in a well-integrated approach, benefiting both land and biodiversity focal areas simultaneously. The project includes mechanisms for broader landscape considerations to be considered at the jamoat and watershed levels. GEF would also provide support for an additional activity directly relevant to OP4, the preservation of live specimens of indigenous plant varieties, in collaboration with the Consultative Group For International Agricultural Research's Central Asia and Caucasus unit in Tashkent.

OP 13 (Biodiversity: Conservation and Sustainable Use of Biological Diversity Important to Agriculture). Tajikistan is well-known internationally as an important source of land races and wild relatives of domesticated plants. Thus the project also pertains to OP 13, both through its prevention of further degradation of natural setting for these land races and wild relatives, and by preserving live specimens ex situ for international research and benefits, and linking this activity to an operational context. The Pest Management Plan which incorporates integrated pest management approaches, and the Environmental Management Framework, which integrates considerations such as potential impacts proposed investments on rare and endangered species in an integrated fashion with other investment eligibility considerations, will further contribute to OP 13.

OP 9 (International Waters: Integrated Land and Water Multiple Focus Area). Each of the four watershed are sources for important rivers crossing international borders. From the Surkhob valley, located about 200 km east-northeast of Dushanbe and with a catchment including tributaries of about 20,200 km2, the Surkob River flows into Vakhsh river, and at the Afghan-Tajik border merges with the Pyandzh River to become the Amudarya River. The Amudarya then flows through Uzbekistan and Turkmenistan (supplying their irrigation systems), and eventually reaches the Aral Sea. In the Zarafshan Valley, north of Dushanbe with a catchment including tributaries of about 12,500 km, the Zarafshan River flows into Uzbekistan, supplying the water for large irrigation systems. In the Toirsu valley, located about 100 km southeast of Dushanbe, the Toirsu River is 118 km long and encompasses a catchment area of 1860 km^2. It merges with the Kzilsu River to the south, eventually becoming the Pyandzh River on the Tajikistan-Afghanistan border. Further west along the Afghan-Tajik border, the Pyandzh River merges with the Vakhsh river (with its headwaters located in the Surkhob valley) to become the Amudarya River. In the Vanj valley of Gorno-Bodakshan, located about 300 km southeast of Dushambe and with a cachment of about 2100 km2, the Vanj River merges with the Pyandzh River flowing south, toward the Afghani border. Further West, along the Afghani border, the Pyandzh River merges with the Vakhsh River (with its headwaters located in the Surkhob valley) to become the Amudarya River. Tajikistan retains only about 8-10% of the water that falls/melts/flows within its territorial boundaries. The rest flows into the Syr Darya in the north and the Amudarya in the south, where the water is consumed by the much larger and thirstier agricultures in Uzbekistan, Kazakhstan, reducing these two rivers to a trickle when reaching the Aral Sea. The project complements past and ongoing Tajikistan government efforts, including those that have been supported under the GEF financed Water and Environmental Management Project for Central Asia, which helped the Tajikistan Government to develop its national water strategy, and the Bank financed Farm Privatization Support Project, which is now providing support for the development of a national water code that will encompass all aspects of water use, its extraction, and release back into the system. The project is also consistent with the Aral Sea Basin Program, which identified upper watershed management as a priority for its second

phase. The project will reduce the run-off from the catchment areas, which in turn will reduce river siltation and damage to the downstream irrigation works and water reservoirs which are so important to the livelihoods of not only Tajikistan's population, but also the people in other Central Asian countries.

OP 6 (Climate Change: Promoting the Adoption of Renewable Energy by Removing Barriers and Reducing Implementation Costs). The project will support the adoption of renewable energy under the rural infrastructure subcomponent, which includes support for mini-hydro power, and the land resource management subcomponent, which includes support for woodlots. The land resource management subcomponent will also address climate change by increasing vegetative cover on a significant portion of the degraded pasture lands, although such investments are not eligible for support under existing GEF operational programs.

b. Sustainability (including financial sustainability)

Institutional sustainability will be addressed through capacity building of the participating rural population, JDCs, and technical support agencies, and relevant line ministries. The project also introduces an appropriate incentive framework for improved land use to ensure sustainabiliy. Financial sustainability within communities is addressed through community managed investments involving full cost recovery arrangements for ongoing O&M, and in the case of the farm productivity investments, through linkages with credit or revolving funds. In later project years, communities will begin to pay for community and technical services when needed, as part of a strategy to ensure client oriented services and post-project sustainability. Environmental sustainability is addressed through the environment management framework and attention to land and biodiversity management. Social and cultural sustainability at the community levels will be addressed by building on existing community institutional structures and ensuring representation of all key groups in participatory decision making.

c. Replicability

The project as a whole, and land resource management in particular, establishes a replicable model relevant for other mountain ecosystems. The project would cover 47 of the 64 jamoats in the four watersheds, and will expand to the remaining jamoats if additional financing from other donors becomes available, as anticipated, after project inception. The project will cover all villages within the designated project jamoats and at least 50% of the population of those villages. The 64 jamoats cover catchments of over 36,000 km2, with agricultural areas covering about 390,000 ha, with a population of about 550,000 people (42% of Tajikistan's mountain population). Even before the end of the project, it may be possible for donors and/or the government to provide support for comparable programs in the additional watersheds. Within the project area, reinvestment of earnings and the revolving financing mechanism will enable sustainability and further deepening of the program after project completion. The sharing of international experiences under the project management component should facilitate replication of successful aspects of the project in other countries.

d. Stakeholder Involvement

Key stakeholders include community leaders and members, women, raion and jamoat officials, technical government and institute staff, National Steering Committee members, and staff of the PCUs and PMU. Stakeholders have been consulted during preparation through informal discussions, formal workshops, and the social assessment. During project implementation local

people will take the lead in investment decision making and collective action, although other stakeholders will also play a role. All stakeholders will participate in extensive training and capacity-building activities. The project involves close collaboration with NGOs and other donors.

e. Monitoring and Evaluation

The results framework outlines specific benchmarks for the outcome and implementation indicators. Monitoring and evaluation will make use of existing data sources, supplemented by data collection within the project and special survey and assessment updates undertaken by contracted specialists. It will include assessment of mountain ecosystem degradation trends (based on satellite and other data) and of project processes used to consider ecosystem issues. The evaluation of outcomes will make use of baseline measurements from poverty assessments, the social assessment, environmental assessment and analysis of satellite data, and biannual updates data from the project monitoring system, special assessments, and data from other sources. The monitoring of outputs will relay mainly based on simple, participatory quarterly project monitoring and reporting undertaken by JDCs with the support of NGOs, and aggregated by the PCUs and the PMU. A key feature of the system is an emphasis on the use of findings by the entities responsible for project management decisions and oversight. Most the evaluation activities are imbedded into the institutional support and capacity building component. These include participatory monitoring and evaluation activities and progress reporting by the communities themselves, with the support of contracted facilitators and the line agencies. The project management and coordination component includes support for independent contracted evaluation studies that are beyond the capacity of line agencies, a monitoring and evaluation advisor in the PMU, as well as an monitoring and evaluation specialist in each PCU.

4. FINANCIAL MODALITY AND COST EFFECTIVENESS

Financing. The specific investment project will be financed by US$ 5 m International Development Association (IDA) Credit and US$ 5 m IDA grant. Other donors have expressed interest in providing financing but cannot commit prior to project inception. Should additional financing become available the scope of the project would be expanded retroactively to include additional jamoats within the four watersheds.

Co-financing Sources				
Name of Co-financier (source)	Classification	Type	Amount (US$)	Status*
IDA Credit	Implementing Agency	Credit	5,000,000	Subject to Board approval
IDA Grant	Implementing Agency	Credit	5,000,000	Subject to Board approval
Government of Tajikistan	Government	Counterpart funds/in-kind	0,900,000	Confirmed in principle
Beneficiaries		Matching funds/In-kind	2,400,000	Expected
Sub-Total Co-financing			13,300,000	

Economic Analysis. The project is economically and financially viable. At full development, annual incremental gross margins are estimated to increase by about US$210 per household for

farm productivity investments and US$622 per household for land resource investments, both of which are significant increases above the current household income levels, 97% of which fall below the US$1125 poverty line. The overall financial internal rate of return (IRR) is estimated at 24% and economic IRR is estimated at 22% (after taking into account a standard conversion factor of 0.9 for non-tradable commodities), with net present values of US$ 29 m and 24 m respectively. Sensitivity analysis indicates that an ERR below 12 percent would require significant deviations from base estimates such as a decrease in all benefits of 30% together with an increase in recurrent costs of about 30%. Given Tajikistan's economic growth, even without the project the proportion of project area population below the poverty line is estimated to decrease from 97% to 74% by 2011. With the project the proportion of project participants below the poverty line is estimated to decrease further to 55% by 2011. The project would also further increase the average incomes of those above the poverty line, cushioning their vulnerability.

Process Framework for Ensuring Site-Specific Viability. Viability is further ensured through a sub-project preparation and screening process, (not only taking into account economic and financial considerations, but also inclusion of the poor in public good investments, and other technical, environmental and social criteria). The contribution requirement and the selection of subprojects by communities within fixed budget constraints also provides an incentive which encourages prioritization of investments with maximized marginal returns within a site specific context.

Fiscal Impact. The project's net fiscal impact will be positive over the longer term. At prevailing average tax rates the present value of incremental fiscal revenues generated by the project are estimated to be over US$5 m. The project design also includes provisions for cost recovery of O&M costs; and the reliance on grant financing and contributions of local people makes the immediate expenditure burden on government small, only US$0.9 m total over the six years. The post project increase government O&M is only minimal since communities will be responsible for O&M of rehabilitated structures. Anticipated net tax revenues of US$2 m per year would more than offset this plus the repayment of the IDA Credit starting after the 10 year grace period.

Environmental benefits. . The project will have a positive impact on the environment and natural resource base of the project area through increased, organic matter of soils augmenting soil moisture; reduction of sediment loads to the rivers and streams; and a decrease of run-off and soil losses. This would result in three types of economic benefits:

- Agricultural land – soil loss foregone and productive area restored. With the project, run-off from the catchment area would be reduced, in turn reducing soil loss. It is estimated that annual loss of arable land in Tajikistan amounts to 20,000-30,000 ha or about 3% of the total arable area. Hence, arable land losses in the project area account for 2 175 ha a year. Assuming that the project interventions would reclaim one-third of land treated in the project area, the annual savings will be nearly 725 ha or approximately 1% per annum. In the valuation of the economic benefits from land saved, presuming mainly rainfed agriculture would be affected; an average net economic income per hectare of rainfed crops (wheat, potato, barley and forage) has been used. Net benefits accrued from one hectare of land saved are estimated to be TJS 250. In addition to the benefits from land saved, severely eroded land, which at present is abandoned, can be reclaimed in a treated watershed. As this

type of land has limited scope for agricultural use it cannot be valued as the net economic benefit generated by crops on arable land. Therefore, it would be correct to value reclaimed land at the value of grass generated from this land. With an average grass production of 1.2 ton per hectare (dry matter) and the economic price of grass at TJS 90/ ton, the economic benefit per hectare is TJS 108.

- Soil fertility. Soil fertility in the project area would be improved as a result of the land treatment that would bring organic matter back into the eco-system. In addition to this nutrient recovery effect, the process of nutrient recycling would be supported. Based on the estimation of organic matter as equivalent of nitrogen per hectare and the economic price of nitrogen, one could calculate the total economic value per hectare. However, it will be difficult to estimate the build-up of nitrogen or its economic worth, because its build up will be dependent on too many variables such as cropping patterns and vegetation type.
- Increased moisture availability and improved water quality: This benefit is represented at farm level as it is associated with an increase in crop yields as well as surplus water captured for irrigation, animal and other domestic use through water supply and water harvesting structures.
- Downstream benefits. In addition to the local net benefits accounted for in the analysis above, the project is expected to produce environmental benefits that have not been quantified or that are not at present possible to quantify. These include downstream reductions in damage caused by excess runoff and siltation and accompanying reductions in remedial expenditures. Over the last ten years the cost of flood damage downstream has caused lost economic production, repairs to infrastructure and social transfers within Tajikistan. With the project the trend of such costs is expect to decline over time. Also, improvements in the conditions of the watersheds within the project area can be expected to have impacts that extend further downstream of Tajikistan.

GEF Financing. GEF financing will catalyze and expand land resource management subcomponent and other project activities beyond what would be supported by government on purely national grounds. Without GEF, only 21,000 ha would be subject to land resource management investments, and there would be no support for the preservation of indigenous plant specimens and genetic material. With GEF, the land resource management subcomponent could cover 78,000 ha, and the project would include the preservation of the indigenous plant genome. The project would also enable better integration of broad landscape considerations, and more complete monitoring of land and biodiversity degradation trends in the project area.

5. INSTITUTIONAL COORDINATION AND SUPPORT

a. Core Commitments and Linkages

Borrower's Objectives. The project is consistent with the PRSP, and responds to the Government request. Investments will directly contribute to accelerated growth and poverty reduction. The geographical focus targets the disadvantaged. The community driven approaches, integration with local government, capacity development, and project administration address governance and sustainability. The project is also consistent with the borrower's agriculture and environment strategies. The bottom-up approach improves the site-specific allocation and use of resources (land, biological, water, and financial). The project helps foster the enabling environment and avoids inappropriate and ineffective government interventions.

The land management subcomponent will improve land access and tenure security, creating an incentive structure that links rights to responsibilities.

Bank Country Assistance Strategy. The proposed project is a priority in the 2003-2005 Country Assistance Strategy. It meets the Bank's three strategic engagement principles.

- It responds to a "strong client pull" and interest in reform, especially from the district and raion government levels, and targets some of the country's poorest areas.
- It uses a programmatic approach focused on transfer of knowledge and capacity by having communities identify and undertake their own development priorities,
- It works in partnership with NGOs that have acquired significant experience in working in the difficult environment of rural mountain communities.

The project addresses the CAS objective of furthering the Governments poverty reduction and development agenda by (a) improving access to services, especially among the most vulnerable, (b) promoting community based activities to encourage empowerment and social cohesion, and (c) strengthening the framework for agriculture and related agri-business development. It forms a key element of the Bank's vision for community-linked development. The project is also consistent with the Bank's Biodiversity Strategy for ECA, which includes a priority on combining improved ecosystem management with local income generating activities. It addresses the Global Environment Facility (GEF) Operational Program (OP) 12:

b. Consultation, Coordination and Collaboration between IAs, and IAs and ExAs, if appropriate.

Project design. Agriculture support and improving rural livelihoods has become one of most important area of donors support for Tajikistan. Different donors have extended supports to various projects in the country's rural sector and there was extensive consultation with these donors during project preparation. The project is applying best practices and lessons developed by international NGOs, such as the Agha Khan Foundation (AKF), Mercy Corps International (MCI), German Agro Action (GAA), ACTED, and Care International. The project design also builds on United Nations Development Program's (UNDP's) Rural Reconstruction and Development Program (RRDP) initiatives to strengthen governance at the jamoat level. It also incorporates culturally appropriate community managed models developed under Bank projects for allocation of land use rights, establishment of water user associations, technology transfer, and credit. Past Bank support has also demonstrated the use of field level pilot experience to constructively influence crucial policy and legislation. The project design also takes into a wide range of relevant international experience of programs financed by GEF and other donors, e.g., business and market development relevant to rural livelihoods, micro finance, feasibility and operation requirements for rural infrastructure, incentive structures for watershed management, knowledge generation and dissemination, and development of community institutions. The project provides an opportunity to scale up these models in highland areas, and to strengthen linkages with local and national government.

Project implementation. The project will involve ongoing linkages with GEF implementing agencies, other donors, NGOs, and others during implementation. At the local level, where NGOs and other donors have already established community driven programs in the project area, care will be taken consult with these donors to ensure that the project and other support are complementary, do not exceed the absorptive capacity of the community and are not in competition. The project will also collaborate with the UNDP and the Urban Institute who are

working on local governance. At the national level donors and NGO representatives with relevant program experience or project implementation responsibilities, including UNDP, will be able to participate in the NLSC in an ex-officio capacity. There will be ongoing sharing of experiences with relevant programs in other countries as well, although expectations should be kept modest in view of Tajikistan's limited capacity and the high transaction costs that may be involved in some interactions. The sharing of experiences will include links with the UNEP PDF-B grant entitled "In Situ/On Farm Conservation of Agricultural Biodiversity (Horticultural Crops and Wild Fruit Species) in Central Asia, the UNDP project "In-Situ Conservaton of Kazakhstan's Mountain Agrobiodiversity, and the upcoming GEF initiative involving capacity building for addressing desertification issues within Central Asia.

c. Project Implementation arrangements

Local institutions. The project uses and strengthens an existing local institution, the JDC. JDCs comprise the elected representatives of villages plus the government's jamoat official. For the project period, contracted NGOs will (a) help JDCs mobilize households and common interest groups to develop proposals, and villages to develop action plans, (b) guide and assist JDCs in compiling and considering these proposals in consultation with line agency and other specialists, and (c) develop local capacity to manage the implementation of rural production sub-projects. They will help develop local skills, including skills in bookkeeping, infrastructure operations and maintenance, consideration of social and environmental issues, and monitoring. Transparency will be maximized to discourage corruption, and planning and review procedures will be kept simple to address capacity limitations. Even before the project is completed, it is anticipated that the JDC will apply its new found capacity in participatory planning and implementation to non-project activities such as locally initiated and line agency development programs.

Project management. Above the JDC, two committees will oversee and coordinate the project for its duration.

- Watershed Development Committees (WDC), with raion administration(s) representative(s) and elected representatives from the jamoats, will approve or reject subproject proposals which require no more than US$ 5,000, and make recommendations on larger subprojects. Line agency staff will play an advisory role.
- A State level Steering Committee (SLSC), headed by the Deputy Prime Minister and including representatives for line ministries and committees, will be responsible for review and approval of the annual work program and budget, decisions on sub-projects requiring more than US$ 5,000, and coordination of inter-ministerial activities and international linkages. It will also consider policy issues that arise.

Support for secretariat services and project administration will also be provided:

- Project Coordination Units (PCUs) will be established for the project duration in each of the four project areas, with four specialists. The PCUs will provide secretariat support the WDCs, interact with the JDCs and NGO facilitators, foster linkages between JDCs and technical agencies, ensure quality control of subprojects (with expert assistance), organize training programs, and compile progress reports.
- The capacity of the Project Management Unit established for the Farm Privatization Support Project and Rural Infrastructure Rehabilitation Project, located in Dushanbe, will be strengthened. In addition to secretariat support to the SLSC, it will prepare the overall project work plans and budgets, update operational manuals, facilitate inter-ministerial

coordination, and carry out project administration (e.g., procurement, specialist recruitment, disbursement, accounts, audits, monitoring, evaluation, and reporting). The Director of the PMU directly reports to the Deputy Prime Minister.

Annex A: Incremental Cost Analysis

Incremental Cost Analysis and Global Environmental benefits

Overview

The project objective is to build the productive assets of rural communities in selected mountain watersheds, in ways which sustainably increase productivity and curtail degradation of fragile lands and ecosystems. It would undertake this in four watersheds and cover a population of about 360,000 people, or about 29% of the rural people living in Tajikistan's highland areas, with the intention of establishing the foundation for comparable support eventually reaching all the rural people living in Tajikistan's highland areas.

The GEF Alternative intends to protect globally important Tajikistan mountain ecosystems and preventing land degradation by applying an integrated approach and mainstreaming sustainable land use and biodiversity conservation considerations within agricultural and associated rural investment decisions. The total incremental cost will be approximately **US $ 4.5 million** above the estimated baseline.

Context and Broad Development Goals

Mountain land use and degradation. Tajikistan is a mountainous country covering some 141,000 Km2. Independence turmoil and civil war left it among the poorest countries in the world, but the economy is beginning to grow again. About twenty percent of its 6.3 million population lives in hilly and mountain areas where access to most government services is limited. Most of the 2.5 m ha agricultural land they farm is pasture, only 206,000 ha are in perennial crops and orchards, and there are few significant irrigation systems. Rural poverty, shifts in land management responsibilities, lack of integrated land management, inappropriate agriculture, and poor access to technical support are causing increasing land degradation. Much of the population are now using steep hillsides to grow cereal crops. The breakdown of the irrigation systems so necessary in some areas, farmers' limited access to inputs, and uneven distribution of land has led to a collapse of crop yields. This complex of issues has led farmers to attempt cultivation of wheat for subsistence on steeply sloping land. Cultivation has extended to fragile and unsuitable lands; overall, it has extended about 45,000 ha recently as trees have been removed and steep lands cultivated. Some good-quality spring pasture has been converted to crop production. These changes have made soils vulnerable; 60-70 percent of agricultural land is now considered to be affected by severe soil erosion resulting from poor agricultural practices and localized overgrazing. An increase in gullying is evident, as well as in incidence of landslides and increases the risk of flash flooding in downstream areas. While poverty contributes to land degradation, land degradation contributes to further impoverishment through mudslides (ruining villages, roads and farmland, and irrigation and water systems), soil-erosion (undermining agricultural productivity) and silting of waterways used for drinking water and irrigation. However, highlands have good productive potential if appropriately farmed. In addition to improving life for people in the highlands, utilizing this potential in sustainable ways will also prevent downstream damage and relieve pressure on the lowlands.

Mountain ecosystems. Tajikistan has globally important mountain ecosystems with diverse flora and fauna, including many of economic importance, and under threat. The Republic's vegetative cover is very diverse and includes deciduous, tugai, small-leaf, juniper and light xerophilous

forests; thickets of bushes; semi-forest deserts with saxaul, cherkeznik vegetation, semi-bush deserts, thorny-grass steppes, semi-savannas, and meadows.

- Pastures host over 3000 plant species, of which more than 1000 species contribute to the national forage reserve. The most widespread fodder land in Tajikistan is summer pasture, more than 50 percent of all natural pasturable land. These pastures are located in mountain subalpine and alpine zones and are widely represented by tall grass and steppe, meadows prick grasses and deserted pastures.
- The wild-growing fruit plants of Tajikistan represent a unique genetic resource for agriculture. The mountain territories of southern and southeastern Tajikistan are the major regions for conservation of wild-growing fruits (apples, pears, apricots, mulberries, cherry plums and plums, among others), nuts (walnuts and almonds), grapes and berries (currants, sea-buckthorn berries).
- About 1500 of Tajikistan's herb species are used in traditional medicine, and more than 70 in its official medical practice. Medicinal plants face indiscriminate, unscientific, unregulated harvesting, cull and sale.
- Forest areas that cover only 3 % of the country's territory. Starting from the early 90s, there has been substantial cutting of trees for firewood, including fruit trees
- Tajikistan's diversity of fauna is also very rich. Among mammals, the Bukhara red deer, Menzbir marmot and moufflon (urial) are endemic species to Central Asia. The main game species are the wild boar, Siberian ibex, hare and porcupine, as well as the red marmot, muskrat, nutria, fox, stone marten and badger, and some of these species are being over-exploited. Altogether, Tajikistan's Red Data Book includes 58 invertebrates, 4 species of fish, 21 of reptiles, 37 birds, and 42 mammals. Threats include game hunting of wild mammals.

Threats. The major threats to the Tajikistan mountain lands and ecosysstems can be summarized as follows: (a) inappropriate and unsustainable cropping practices on sloping lands; (b) localized overgrazing; (c) deforestation; and (d) over exploitation of biological resources. Rural poverty, lack of integrated land management, inappropriate agriculture, and poor access to technical support are contributing to these threats.

Downstream waters. Tajikistan retains some 8-10% of the water that falls/melts/flows within its territorial boundaries. The great majority of the water is then consumed by the much larger and thirstier agricultures in Uzbekistan, Turkmenistan and Kazakhstan, reducing to a trickle the Amu Darya and Sir Darya. The analytical work conducted under the recently completed GEF-financed Aral Sea Water and Environment Management Project confirmed the role that improved management of the upper watersheds played in better management of the overall river basin. Under the Bank's FPSP, and the effort of the ADB and other international donors involved with supporting government in drafting legislation and regulation that will encompass all aspects of water use, its extraction, and release back into the system. This project will complement this initiative.

Institutional capacity. In addition to these problems, institutional capacity to appreciate and manage these problems is extremely weak. At both the local and the national levels, the institutions responsible for biodiversity, land management, and community-oriented sustainable development need to be re-oriented and strengthened.

Project Area Watersheds. Specific information of the four project area watersheds (Surkhob, Zarafshan, Toirsu, and Vanj) are in the Detailed Project Description Annex. Key feasture include:

- *Land use.* The project would take place in four highland watersheds mostly above 750 meters covering catchments of over 36,000 km2, with agricultural areas covering about 692,000 ha, of which about 597,000 ha is pasture. The watersheds have a population of about 550,000 people (42% of Tajikistan's mountain population). The project would cover 47 of the 64 jamoats in these watersheds, and would expand to the remaining jamoats if additional financing from other donors becomes available, as anticipated, after project inception. Project activities and funding would be distributed relatively evenly within the 47 jamoats, and directly benefit at least half their population. Much of the agriculture has shrunk down to subsistence levels. Three of the four rivers merge into the Amudarya River which then flows into the Aral Sea. Sediment runoff varies between 30 to 2200 t/km2/yr. Mudflows and downstream floods have become more common.
- *Biodiversity.* The pasture lands and wider watershed basins contain a rich mix of plants including rare and genetically valuable grasses, herbs, bushes, and trees. Red book plants in the four watersheds include the Persian binium, Rozenbakh wild leek, Gissarsky rhubarb, Vavilov almond, and Kayon pear. Other important genetic resources include walnut, plum, Sogdiysky nut, Anzyrsky wild leek, Sievers apple, barberry, Zeravshansky nut, black currents, Altai mountain sheep argali, Pontiysky hawthorn, Real pistachio, Lukovichny barley, Pherula kukhistanskaya, Rea nut, Bukharsky almond, Thick-stalked vetch, Borodavchataya cherry, and blackberry. They also provide habitats for rare and endangered animals such as the Dough eagle, Tien Shan sparrow-hawk, Redheaded peregrine, Middle-Asia otter, kadan, weasel, snow leopard, Siberian wild goat, Zeravshansky pheasant, Black stork, Bearded partridge, Indian porcupine, urial, Marco Polo wild sheep, keklik, boradach, desert partridge, kustarnisa, and Golden eagle.

Tajikistan has committed itself to preventing soil degradation and desertification and to conserving biodiversity in its sovereign territory. It is a signatory to several international Conventions: to Combat Desertification (1977); on Biodiversity Conservation (1997); on the Conservation of Migratory Species of Wild Animals (Bonn, 1979), on Climate Change (2000); and, on Wetlands(2000). Soil and biodiversity conservation generally, as well as specific measures related to afforestation, pasture improvements and protection, are considered as priorities for the Government of Tajikistan as evidenced in National Strategy for Combating Desertification (2002) and National Biodiversity Conservation Action Plan (2003). Furthermore, the country's Poverty Reduction Strategy Paper (2002) emphasized the need for adoption of sound agricultural practices, restoration and rational use of natural resources, as well as better management of water resources, as national priorities.

Baseline Scenario

The Baseline Scenario includes: (a) on-going and planned activities undertaken by the Government, in order to improving livelihoods of rural communities while reversing degradation of fragile lands and ecosystems; and (b) the associated contribution by beneficiaries, proportion with this level of external support, and (c) activities and resources being financed by IFIs and other donors.

Government. The Government is trying to implement its agriculture strategy through programs of farm privatization, irrigation and other rural infrastructure, support services for improved agricultural technologies farm and sustainable land management, and improved access to rural finance. However, lack of accountability, inexperience with incentive frameworks and severe fiscal constraints are limiting the extent and in some cases the nature of overall program impacts. Due to very severe budgetary constraints, currently, the Government has not been financing any investment activities in the project area aimed at improving livelihoods or biodiversity and land conservation. It was agreed that the during the project implementation period, Government will cover only a part of the recurrent costs, taxes and duties at the level of **US $ 0.9 million**.

Beneficiaries. It is expected also that the private farmers will contribute to the project financing 20% of subproject costs and to cover the operational and maintenance expenditures of community structures established under the project. In the absence of GEF support this would amount to about **US $ 1.5 million.**

Donors and IFIs. A number of international NGOs (e.g., Agha Khan Foundation, Mercy Corps International, German Agro Action, ACTAED), and other donors (e.g. UNDP multi-donor Rehabilitation, Reconstruction and Development Program) have established small scale community driven programs in the project area. Some level of support is likely to continue, although information on the total value of this support is not readily available, and the existence of the project is not expected to affect the level of this support. Recently IFAD, SIDA and CIDA have also expressed interest in providing co-financing to the Bank/GEF project. If such support is forthcoming, the scope of the project (i.e., number of highland jamoats covered) would be expanded retroactively. The IDA financed components of the current Tajikistan Agriculture and Watershed Project it is proposed to be at the level of **US$ 10 million.**

Baseline Costs. The full Baseline Scenario is therefore estimated to cost **US$ 12.4 million**. It is based on a realistic assessment of financial resources allocated or to be allocated for activities related to livelihoods improvements as well as for the biodiversity conservation and land degradation prevention, and is consistent with the current national development goals and institutional capacity.

Baseline Benefits. The Baseline Scenario outside the social and economic outcomes with regard to land degradation prevention and biodiversity conservation can provide the following:

- Provide support for farm productivity improvements
- Provide support for land resource management covering 21,000 ha. The scale of gully and landslide prevention would be smaller
- Provide rural infrastructure investments
- Support for scientific research, including support for nurseries, field trials, and line agency capacity building. However there would not be sufficient funding to restore Tajikistan's capacity to preserve specimens of indigenous crop varieties.
- Facilitation and planning support necessary to mobilize communities and ensure the feasibility of the rural production investments. Feasibility and eligibility guidelines include communications, group process, organizational and administrative arrangements, contribution requirements, budget limits, institutional capacity, social, financial, commercial, technical, and environmental considerations. However training and dissemination efforts would be limited.

- Project management and coordination, including evaluation. While evaluation would include environmental elements, but the main focus will be on the social and economic indicators. The evaluation of land use trends would be more limited.

The focus of Government and beneficiaries efforts in the above activities would be on those productive activities that improve livelihoods and have clear and immediate poverty benefits, although they would also encourage more environmentally friendly natural resources use. These Baseline Scenario activities would not be sufficient to halt the negative trends of land and biodiversity degradation trends in the project area.

Global Environmental Objectives and GEF Alternative.

Scope. The project global environmental objective is protecting globally important Tajikistan mountain ecosystems by mainstreaming sustainable land use and biodiversity conservation considerations within agricultural and associated rural investment decisions, providing replicable models for comparable areas throughout the country. This GEF objective is mainstreamed into the project overall development objective and outcomes. The project will take an integrated ecosystem management approach to ensure sustainable land and water use and protect Tajikistan important biodiversity, while contributing to improving livelihoods and reducing rural poverty in selected watersheds of the country. It supports the three GEF strategic priorities, creation of an enabling environment, institutional strengthening, and investments. It aims for synergy among several GEF focal area issues, especially those of land degradation and biodiversity, but also including climate change and international waters. optimizing benefits by providing opportunities to address these issues within the context of sustainable development, and thus it addresses the Global Environment Facility (GEF) Operational Program (OP) 12: "Integrated Ecosystem Management", combining the concerns of Land Degradation OP 15: "Sustainable Land Management" Biodiversity OP 4: "Mountain Ecosystems" and OP 13: "Conservation and Sustainable Use of Bilogical Diversity Important to Agriculture", International Waters OP 9 "Integrated Land and Water Multiple Focus Area", and Climate Change OP 6: "Promoting the Adoption of Renewable Energy by Removing Barriers and Reducing Implementation Costs".

GEF Alternative and Benefits. The GEF Alternative will be build on the Baseline Scenario by substantially increasing the land area (and number of households participating in the subprojects) covered under the land resource management subcomponent to 78,000 ha, or about 10% of the total pasture area in the project jamoats. Incentive frameworks will be strengthened by linking conservation activities with livelihood benefits, and by linking usufruct rights with stewardship responsibilities. The GEF Alternative will also restore Tajikistan's capacity to preserve specimens of indigenous crop varieties, in collaboration with the Consultative Group For International Agricultural Research's Central Asia and Caucasus unit in Tashkent. It will strengthen technical and institutional capacity. In addition it will address the public awareness and participation issue by supporting a participatory approach to preventing further land and biodiversity degradation, and improving access to information. Experience will be shared at the local and international levels. The higher quality monitoring of land degradation trends will improve accountability and knowledge. The GEF Alternative provides a channel for field level issues to be identified, and if necessary addressed by senior policy makers in the National Level Steering Committee. It will provide a means to integrate site specific and feasibility considerations into small investment subprojects in ways that also address broader landscape consideration. The project will have a positive impact on the environment and natural resource

base of the project area: increase of organic matter and soil moisture; reduction of sediment loads to the rivers and streams; and a decrease of run-off and soil losses. The reduced run-off from the catchment areas will reduce river siltation and damage to the downstream irrigation works and water reservoirs which are so important to the livelihoods of not only Tajikistan's population, but also the people in other Central Asian countries. The GEF alternative will provide the necessary funds to catalyze a series of coordinated activities addressing mountain ecosystems and in particular sustainable land management and biodiversity conservation beyond the level that would be supported by the government purely on national grounds. Under the GEF Alternative incremental resources will accelerate and expand the investments beyond what could be supported under the baseline scenario.

Cost. The total GEF Alternative cost is estimated for the 6 years period at the level of **US $ 17.8 million.**

The GEF Alternative components are:

- Rural Production Investments (US$ 11.7 million; GEF financing – US $ 3.7 million). This component comprises support for subprojects in farm productivity improvement, land resource management, and rural infrastructure. Financing from GEF, blended with the IDA financing, will accelerate and expand land resource management subcomponent. It will address biodiversity conservation and soil protection through vegetative cover restoration to 78,000 ha, some 57,000 ha above the level that would be supported by the government on purely national grounds. It will promote biological conservation and moisture retention techniques which make the best use of in-situ water and recharge profiles, increase vegetative cover and generally improve soil structure and water holding capacity. In addition, because of the requirement that beneficiaries contribute at least 20% of the subproject investment costs, GEF financing leverages an additional US $0.9 in beneficiary contributions for land resource management subprojects, which would not be forthcoming in the absence of the additional GEF financing.
- Institutional Support and Capacity Building (US$ 3.5 million; GEF financing – US $ 0.5 million): This component will strengthen selected scientific institutions, and include the restoration of Tajikistan's capacity to preserve specimens of indigenous crop varieties, in collaboration with the Consultative Group For International Agricultural Research's Central Asia and Caucasus unit in Tashkent. It will strengthen the capacity for seed and seedling production under the National Agriculture Research System (NARS). It will include training for communities, community based organizations, interest groups and the Jamoat and Watershed Development Committees. It includes initial trust building investments for each participating village. It would also include information and experience sharing on a wide variety of institutional, technical, environmental, financial, and management topics, including monitoring and evaluation. Blended GEF financing will enable additional funding for the extra support required to increase the extent of land resource management investments, information sharing and awareness raising on land degradation and biodiversity conservation topics, as well as specimen preservation of indigenous crop varieties.
- Project Management: (US$ 2.6 million; GEF financing – US $ 0.3 million) The project management component would support the project coordination and administration staff, procurement, disbursement, financial management, reporting, monitoring, and evaluation activities, at the national level and for each of the four project watershed areas. The component would also support the secretariat services to be provided to the national Steering

Committee, and support the Watershed Development Committees to enable them to appraise Jamoat proposals for financing from rural communities in a manner consistent with good practice. Blended GEF financing supports the increased management activities associated with the increased amount of land resource management investments, enables more extensive evaluation of mountain ecosystem degradation trends, as well as exchange of experience both within the country and with other countries, thus further strengthening replication impact.

Incremental cost

The project's incremental cost is **US $ 4.5 million**, - the difference between the Baseline Scenario **(US $ 12.4 million)** and the GEF Alternative **(US $ 17.8 million)**. The details of the Baseline and the GEF Alternative are presented in the attached Incremental Cost Matrix.

Incremental Cost Matrix

Component sector	Cost Category	US$ Million	Domestic benefits	Global benefits
A. Rural Production Investments	Baseline	**7.2**	Increased agricultural production and incomes Increased wood and horticultural products; Increased livestock production; Improved rural infrastructure	Slowing down of negative trends in land and biodiversity degradation, and associated downstream damage in project jamoats
	With GEF	**11.8**		
	Incremental	**4.6**[3]	Improved soil fertility Increase moisture availability and improved water quality Reduced soil loss and restoration of agricultural land Reductions in damage caused by excess runoff and siltation and accompanying reductions in remedial expenditures Increased horticultural, wood, and pasture-based livestock production and income	Halting of negative trends in land and biodiversity degradation, and associated downstream damage in project jamoats. and replicable model relevant for extension in additional areas
B. Institutional Support and Capacity Building	Baseline	**2.9**	Improved access to know-how, agricultural inputs and suppliers; Improved access to livestock services Mobilized and strengthened communities organizations; Increased capacity for environmentally friendly alternative productive activities;	Raised awareness on globally important mountain ecosystems and on sustainable land and biodiversity conservation management
	With GEF	**3.4**		

[3] Includes US $ 0.9 million beneficiary contribution leverage by GEF financing

Component sector	Cost Category	US$ Million	Domestic benefits	Global benefits
	Incremental	**0.5**	Enhanced capacity as required to achieve benefits outlined under component A described above.	Preservation of live specimens of indigenous plant varieties Enhanced capacity as required to achieve benefits outlined under component A described above.
C. Project management	Baseline	**2.3**	Capacity for successful project management and implementation	Limited monitoring of degradation trends
	With GEF	**2.6**		
	Incremental	**0.3**	Increased management activities associated with the increased amount of land resource management investments	Increased capacity for monitoring trends in land and biodiversity degradation Increased exchange of international experience
Total	**Baseline**	**12.4**		
	With GEF	**17.8**		
	Incremental	**5.4**[4]		

[4] Includes US $ 0.9 million beneficiary contribution leverage by GEF financing

ANNEX B: Results Framework and Monitoring

TAJIKISTAN: COMMUNITY AGRICULTURE AND WATERSHED MANAGEMENT PROJECT

PDO	Outcome Indicators	Use of Outcome Information
Build the productive assets of rural communities in selected mountain watersheds, in ways which sustainably increase productivity and curtail degradation of fragile lands and ecosystems GEF Objective: Protect globally important ecosystems by mainstreaming sustainable land use and biodiversity conservation considerations within agriculture and associated rural investments decisions, providing replicable models for comparable areas throughout the country	At least 80% of rural production investments are successful according to agreed standards[5] and are being sustained. Number of participating households in at least one of the types of rural production investment is at least 50% of total project area population and being replicated elsewhere In communities that are participating in project, proportion of people above poverty level increased from 3% to at least 30% In communities that are participating in project, percentage of household heads who perceive that women have some influence in village affairs increased from 43% to at least 60% Negative trends of land and mountain ecosystem degradation halted in project area jamoats	Gauge realism of proposals and effectiveness of selection processes and support, and adjust project design if necessary Gauge scale of coverage and extent of changes in poverty levels, women's influence, and watershed degradation associated with project activities in order to demonstrate impact and to inform plans for extension of program to additional households and in remaining highland areas.

[5] Taking into account economic, financial, social, and environment parameters, and weighted by value of investment

Intermediate Results One per Component	Results Indicators for Each Component	Use of Results Monitoring
Component IA: Investment in farm productivity among project participants (from initial financing, local contributions, and subsequent financing rounds from revolving funds) exceeds projection of capital infusion from project.	**Component IA:** Total value of farm productivity investments to date	**Component IA:** YR2-YR6: Low levels may flag low participation, social or environmental problems, low commercial viability, low repayment rates, low reuse of revolving funds, or unrealistic expectations
Component IB: Land resource management subprojects cover a significant area and benefit very poor	**Component IB :** Area covered by land resource management subprojects, and beneficiaries are very poor at least in proportionate to their numbers in a community	**Component IB:** YR2-YR6: Low levels may flag low participation, problems in certificate issuance, elite capture, or unrealistic expectations.
Component IC: Significant number of public facilities improved (although target numbers not appropriate due to CDD approach).	**Component IC:** Number of improved public facilities, disaggregated by type of investment (village drinking water, roads, and electricity, etc.).	**Component IC:** YR2-YR6: Numbers should indicate community priorities and capacity to plan, select, implement, and maintain facilities
Component IIA Project participants have access to and adopt improved agricultural technologies Indigenous crop varieties preserved	**Component IIA** % of project financed farm production and land management investments applying improved technologies, and receiving good access to necessary inputs and knowledge. Number of varieties preserved as live specimens	**Component IIA** YR2-YR6: Low adoption rate may flag that sources of appropriate seeds, seedlings, livestock breeds, other inputs, pest and disease management support, soil conservation techniques, and associated technical services and knowledge are not established or are not accessible to project participants Numbers indicate this GEF supported activity is functioning
Component IIB JDCs established, and overseeing implementation of rural production subprojects	**Component IIB** Number of JDCs that have been established and are overseeing implementation of rural production subprojects	**Component IIB** **B** YR1-YR3:(# of JDCs established), and YR2-YR6 (# of JDCs implementing action plans) indicate effectiveness of training and facilitation support from contracted NGOs and PCU/PMU, as well as functioning of WDCs and SLSC.
Component III Project administration is satisfactory	**Component III** Bank supervision ratings and reputation for integrity as perceived in public opinion surveys	**Component III** YR1-YR6: Flags administrative or communication problems

Arrangements for results monitoring

		Target Values						Data Collection and Reporting		
Outcome Indicators	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
% of rural production investments are successful according to agreed standards[6] and are being sustained.	NA	-	-	60%		-	80%	Periodic report on cumulative investments that have been completed	Independent evaluation based on sample study and review of project records	Specialist team contracted by PMU and reporting to SLSC
Number of households participating in some part of the rural production component	0	300	1900	4400	14,000	23,000	32,000	Quarterly reports with data [7]	Project records	Collected by JDCs with NGO support, and aggregated by PCUs and PMU
Proportion of population above poverty level in villages that are participating in project	3%	-	5%	-	15%	-	30%	Biannual report	Independent evaluation based on sample study of participating villages	Specialist team contracted by PMU and reporting to SLSC
% of household heads in participating communities perceive that women have some influence in village affairs	43%	-	48%	-	54%	-	60%	Biannual report	Independent evaluation based on sample study of participating villages	Specialist team contracted by PMU and reporting to SLSC
Negative trends of land and mountain ecosystem degradation halted in project area jamoats	YR1 Past 10 year trends	Base-line	-	-	Degra-dation trends halted	-	Restor-ation evident	Periodic report	Satellite data on vegetative cover in project area,[8]	Specialist team contracted by PMU and reporting to SLSC

[6] Taking into account economic, financial, social, and environment parameters, and weighted by value of investment
[7] Disaggregated by investment type, value, and location
[8] Supported by sample ground survey data, data on landslide incidence, and community anecdotes

		Target Values						Data Collection and Reporting		
Results Indicators for Each Component	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
Component IA: Total value in US$ m of farm production investments (regardless of financing source) to date in villages where project is operational	NA	-	0.2	0.6	1.5	2.6	3.8	Quarterly reports	Project records	Collected by JDCs with NGO support, and aggregated by PCUs and PMU
Component IB : Area in ha covered by land resource management subprojects and benefiting very poor at least in proportionate to their numbers in a community	NA		4,500		35,000		78,000	Quarterly reports	Project records	Collected by JDCs with NGO support, and aggregated by PCUs and PMU
Component IC: Number of improved public facilities, disaggregated by type of investment (village drinking water, roads, and electricity).	NA	*	*	*	*	*	*	Quarterly reports	Project records	Collected by JDCs with NGO support, and aggregated by PCUs and PMU
Component IIA % of project financed farm production and land management investments applying improved technologies, and receiving good access to necessary inputs and knowledge.	NA		5	10	20	30	40	Quarterly reports	Project records	PMU, in collaboration with input and service providers
Number of varieties preserved as live specimens	NA	*[9]	*	*	*	*	*			

[9] * indicates target not appropriate but numbers will be monitored

		Target Values						Data Collection and Reporting		
Results Indicators for Each Component	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	Frequency and Reports	Data Collection Instruments	Responsibility for Data Collection
Component IIB Number of JDCs that have been established and are overseeing implementation of rural production subprojects	NA		19	37	45	45	45	Quarterly reports	Project records	Collected by PCUs and aggregated by PMU
Component III Bank supervision ratings	NA	S	S	S	S	S	S	Semi-annual reports	Bank supervision mission review of project	Bank task team
Reputation for integrity as perceived in public opinion surveys	NA	-	S	-	S	-	S	Biannual survey	Public opinion survey of project stakeholders	Specialist team contracted by PMU and reporting to SLSC

*=target not appropriate but numbers will be monitored S=satisfactory rating

ANNEX C: RESPONSE TO PROJECT REVIEWS

a) Convention Secretariat: not applicable

b) Review by expert from STAP Roster

STAP Roster Technical review
Project Title: " Community Agriculture and Watershed Project"
Country/ Region: Tajikistan/ Central Asia
Reviewer: German Kust
Date: 24 December 2003
Introduction and general effect of the project

The main idea of the GEF full-size Community Agriculture and Watershed Management Project in Tajikistan is to provide the indirect influence on the degraded lands and ecosystems in hilly and mountains regions of Tajikistan through support of local communities to increase their ability to reduce critical barriers in rural economy and use of natural resources (land, water, biological). The present overexploitation of natural resources is a result of poverty that in the turn has been resulted after civil war and transition economy. It is necessary to understand that before the break of the Soviet Union Tajikistan as a former soviet republic has been the region with a subsidy economy and after getting independence the domestic activity came down. So, nowadays state authorities are seeking for a new forms of sustainable development that mainly are rooted in the past and traditions and based on the rural activities.

The establishing and development of these new forms during relatively short period of time is impossible without additional financial and technical assistance from the outside. Otherwise, the natural resources of the country will be completely exhausted over extensive economy and lead to the destruction of the ecosystems, most of which are of macro-regional and global importance.

So, the project does not provide scaled direct interventions in the rural activities but more supports capacity buildings for local communities and NGOs in order to make them positive of themselves through the strengthening of local communities, implementation of the community developed local action plans (or management plans), which take into account the local environmental issues as the main conditions for sustainable development. New capacity buildings will promote (at the level of local model) more balanced exploitation of natural resources, reduce the human impact due to the new environmental friendly technologies of land management and create conditions for their conservation and rehabilitation.

In this case, I consider the project to be eligible in the framework of GEF activities (OP 12 and OP 15), even taking into account the possible risk of the negative environment impact as a result of the increase of rural activity in future.

Key issues

SCIENTIFIC AND TECHNICAL SOUNDNESS OF THE PROJECT

Scientific and technical background of the project sounds well. It includes the results of studies of natural and social conditions for project designing, implementation,

sustainability and replicability as well as grounds for the engaging of environmental and land management specialists in the PIU and PMU activities.

I did not find in the project document several things that I think to be important to be reflected:

- As the project is oriented on the experience and knowledge of local communities, the scientific soundness of the prospective activities at this level is weak. Probably, the project team hopes that communities can find the most acceptable decision themselves. Sometimes it could be so especially in the cases of traditional technologies which historically are environmentally oriented. But in cases of use of new techniques and equipment this approach is not right. The better way is if NGOs that work with local communities will offer them to choose appropriate approaches for development from the number of scientifically (ecologically and economically) valid models (desired to be successfully used in resembled conditions). This point proposed a big work on the seeking and verification of such models at the preparatory stage or during the first phase of the project. And here the GEF assistance might be of great importance. Although project contains the mentioning of the "improvements in the productivity of field and horticultural crops… through adoption of advanced technologies developed by CGIAR/TARS", but the mechanisms of their adoption as well as environmental soundness are not clear.
- Here it is necessary to add that scientific soundness of the project could be strengthened if its text (or annex) contain the description of the natural and social mechanisms which help to reduce the impact on the environment. The example of such mechanisms can be cited in the form of principle scheme or in the form of the description of positive effect in similar conditions.

Identification of the global environmental benefits and/or drawbacks of the project

Main global benefit sounds as the improving of mountain ecosystems soil and biodiversity in the ecoregion of global importance. But the direct global environmental benefits of the project seem not to be large either through baseline scenario or GEF alternative. Nevertheless, as the GEF multifocal area project it is supposed to bring regional or local environmental benefits in:

- Reducing land degradation and biodiversity conservation beyond the level that would be supported by the government purely on national grounds
- Protection of natural habitats, especially more effective conservation of globally-significant grassland wild fruit trees species, and of soils
- Contribution to carbon sequestration through conducted afforestation, planting of new fruit trees, mitigating further degradation of vegetation cover and reducing soil erosion.
- Contribution to conservation of regionally important Amu-Darya water basin through reduction of sediment loads to the rivers and streams and a decrease of run-off and soil losses in the upper reaches as a result of the increase of soil moisture, leaf litter, grass biomass and organic matter of soils;

At the same time the special targeted efforts made on conservation and protection issues are poorly described in the project, although there are pointed in the GEF alternative as: rehabilitation of the pasture and degraded fragile lands in the mountain slopes, enhancing of soil and moisture conservation efficiency with greater wood lot and ground cover, further explore of the possible assistance in ensuring that areas of significant biodiversity importance within the watersheds including existing parks remain preserved with the necessary institutional support to ensure safeguard, etc.

How the project fits within the context of the goals of GEF, as well as its operational strategies, programme priorities, GEF Council guidance and the provisions of the relevant conventions

As it was mentioned above, the project is closely corresponds to the main GEF objectives, and especially to the Land Degradation focal area. At the same time it follows the goals of the Biodiversity, International Waters, Climate Change and Multifocal focal areas. Proposed activities are mainly under the operational programmes # 12 (Integrated Ecosystem Management) and # 15 (Sustainable Land Management) as well as associated with the purposes of OP#1 (Arid and Semi-Arid Zone Ecosystems), OP#4 (Mountain Ecosystems), and correspond to OP # 13 (Conservation and Sustainable Use of Biological Diversity Important to Agriculture), OP#9 (Integrated Land and Water Multiple Focal Area Operational Program).

The project expected the GEF assistance to strengthen public policy and enabling environment for addressing land degradation, including facilitating integrated and cross-sectoral approaches to natural resource management. As the project formally meets the requirement of generating global environment benefits in two of the GEF focal areas addressing land degradation, it could be considered to be eligible (especially if the global benefits requirements would be strengthened and emphasized in the project proposal).

The project meets the goals of several relevant international Conventions and the country is a signatory to them: UNCCD (1997), CBD (1997) and UNFCCC (2000).

It is necessary to underline, that GEF participation in the project will mainstream the environment importance of the baseline scenario, that is more socially and economically oriented as well as promote the more careful monitoring and evaluation of land management practices. In other words, the attracting of the GEF incremental costs obliges the project itself to be more environmentally oriented. And this is very important in such kind of the investment projects.

Regional context

The project document contains very good description of political, economical, social and legislative specifics of the country. This ensures the prospective success of the proposed activities. As I've mentioned above, the project is more regionally oriented and in this case regional context of the project is the most attractive field for GEF activities. GEF activities will support project component focusing on land conservation techniques and activities as well as integrating sustainable biodiversity management into community priorities. A major focus of the GEF regional activities is to ensure that soil and land conservation techniques are mainstreamed in local agricultural practices. Also GEF

component will study the possibility to assist the protection of the regions of significant biodiversity importance including existing protected areas.

The proposed role of regional NGOs in the project is very high. They proposed to be responsible for monitoring and evaluation, for training and gathering on-ground information and for many other things. But the capacities of NGO community in Tajikistan are not described. What are their positive and negative experiences? Are they ready to play the provided role?

Replicability of the project (added value for the global environment beyond the project itself)

Firstly it is necessary to underline that the project approaches themselves replicate the positive Bank's experience in Armenia and Turkey that promote the execution and adaptation of these approaches through their application to the new territories. In Tajikistan the project will involve up to 40% of population of mountain regions. Future replication of the programme helps to extend the programme to other mountain areas in the country and abroad (e.g. in Kazakhstan, Kyrgizstan, Uzbekistan et al.). Implementation of farm productivity improvements activities, of community plans on land improvements, as well other successful investments in rural infrastructure, ensures that the results and conclusions of this project will go beyond the experimental sites.

Sustainability of the project and risks.

The proposal contains enough information to analyze project sustainability and risks. Mainly they are connected with the specifics of government at different levels and with unstable economy, lack of banking facilities. For example, the authors of the project proposal understand that "Community involvement needs to be inclusive to minimize the risk of capture by the local elite". Although sustainability analysis takes the big part of the proposal and sounds in different forms throughout the text, I think it is necessary to enlarge it, taking into account all possible negative alternatives. It is more important for such country as Tajikistan, as there has been negative experience during implementation of another endorsed GEF project in the former Soviet Central Asian republics (e.g. "Water and Environmental Management in the Aral Sea Basin").

I see the following *additional* organizational and environmental causes of those possible risks that have not been pointed in the table of risks or in the commentary:

1) "There is no coherent national water strategy" (may cause the risk of unsustainable water management at the local level in future. Can project build capacities for the creation of the strategy?)
2) "CAP proposals serve to decentralize government services, and increase the capacity of local communities to take an active role in local development… …This concept reduces the role of government line agencies to that of serving farmer interests, rather than controlling resources from a centralized and distant location. This concept is in accord with the Government's policy on decentralization and poverty alleviation" (may cause the risk of the delay of the development of mentioned government's policy in comparison with the increase of local communities independence. What are the governmental obligations and insurance arrangements on this issue? Is it possible to include them in the project

agreement? How project will "reduce inappropriate and ineffective government interventions"?)

3) "Community involvement needs to be inclusive to minimize the risk of capture by the local elite" (this idea sounds in differing forms in the different parts of the project text). Elite and local officials may not be ready for that the project will bring additional funds and facilities for communities. This may cause the risk that local elite representative will be elected as the chairperson of the community and get “official permission” to spend loans non-purposely. From the other hand, local superiors potentially can counteract project activities and its main idea – to work using community capacities – as it would decrease the abilities of their influence over the decision making. As it is pointed in the project, the Bank has an experience to work in these conditions in the country and first steps are effective. But it is not clear from the project text that the scheme of financing is clarified and local communities and NGOs have a possibilities to control disbursements.

4) In this case the suggestion to organize the “micro-grant” system limited by 200-250 US dollars per family looks very attractive as it helps to plan expenditures. But I did not understand if this sum is a real money for distribution among participating families or it will be a kind of voucher which can be used only for community activities. Both variant seem to be risky as the first does not exclude the spending of money for personal current objectives, and second does not exclude the creation of CAPs under the pressure of local authorities.

5) I think that in the whole the project suggestions to minimize the risks of the category discussed in the above pp. 2-4 are satisfactory. But I want to make 2 additional suggestions which can help this. First is to create the Internet based Information and Analytical Centre under PMU, which should gather and represent all the information about project implementation in available form. After finalization of the project such centre can support governmental and community structures on the follow-up issues. Also such centre can be responsible for the dissemination of the project results and organize current discussions (not only in the Internet). Second is to establish the position of independent and internationally selected General Consultant who can be responsible for the M&E plans and consultation on the minimizing of risks during project implementation. My own experience shows the efficiency of this kind of work

Secondary issues

LINKAGES TO OTHER FOCAL AREAS

As it was said above, the project is closely corresponds to the main GEF objectives, and especially to the Land Degradation focal area. At the same time it follows the goals of the Biodiversity, International Waters, Climate Change and Multifocal focal areas.

LINKAGES TO OTHER PROGRAMMES AND ACTION PLANS AT REGIONAL OR SUB-REGIONAL LEVELS

The project is closely linked with National Strategy for Combating Desertification (2002), National Biodiversity Conservation Action Plan (2003), and with the country's Poverty Reduction Strategy Paper (2002) that emphasized the need for adoption of sound

agricultural practices, restoration and rational use of natural resources, as well as better management of water resources, soil and biodiversity conservation, specific measures related to afforestation, pasture improvements and protection as national priorities.

Degree of involvement of stakeholders in the project

Project defines key stakeholders as village leaders and village members, women, local government representatives, technical staff of the line ministries located primarily at the raion level, National Steering Committee members, staff of the PIUs and PMU and NGOs.

Local people seemed to play the leading role in the project implementation. The role of the governments (state and local) is not clear enough. The project states that their role will be reduced to the end of the project but I am not sure this to be attainable. The role of women traditionally is weak but it hopes to grow.

As I pointed above, the proposed role of regional NGOs in the project is very high. But the capacities of NGO community in Tajikistan are not described.

Capacity-building aspects

The capacity building efforts in different economical, environmental and social aspects are the main idea of the project. So, the project strives in using as much as possible of local resources, in terms of knowledge and capacity, providing training and information to further strengthen that capacity. To my mind, the capacity building aspects description is the best that is made in the project proposal and I can suggest nothing except mentioned above in the upper text. All possible sides of capacity lack and ways to increase it, including:

- developing skills in bookkeeping, infrastructure operations and maintenance, consideration of social and environmental issues, and monitoring,
- capacity building of local common interest groups, local development committees, development of government capacity in providing advice and oversight, and existing administrative and organizational structures to manage activities, as well as acquisition of land use rights and the capacity development in community mobilization and decision making
- strengthening of local technical capacity through training, improvement of farming technologies, providing of improved economic infrastructure to stimulate production, marketing and trading, strengthening the capacity of local Research Center for seeds and seedlings improvement
- greater support for development and capacity building for more remote communities, preserving environmental conditions and conservation measures to ensure sustainable livelihood to the local population, etc.,

are well thought over and developed.

Innovativeness of the project.

I did not find any peculiar innovations in the project concerning environmental facilities. Nevertheless, the project proposes to find new approaches in the management of

degraded mountain regions in arid and semi-arid conditions that hope to be used in similar regions in other countries.

On the other hand, the suggested mechanism of disbursement in the conditions of weak developed banking system can be consider as innovation for the application in the countries with transition economy.

Other comments and questions:

A number of acronyms are missed in the list of them. A few of them are not defined completely: PIU or PCU? Implementation or coordination unit? What is correct?

Annex 4, part "Zarafshan Valley.Land use", 1 Para.

Milk is not a crop. Dark gray sierozem soils are not "desert soils". They are specific loss soils on the hills

Questions to the annex 6

- How many PIUs will be organized? Four or two? The organizational diagram describes 4 and the text – only 2 of them. I think 4 are better because although some districts are close to the capital, somebody must work “in the field”.

Questions to the organizational diagram:

- What do different arrows mean? Management, subordination, transfer of the information?
- Lateral contacts are not anticipated.
- Where are VDC, which are mentioned in the text?

Prof. German S. Kust. Deputy Director.
Institute of Soil Science of Moscow State University
and Russian Academy of Sciences

Bank's response to STAP Reviewer

#	STAP reviewer comments	Responses
A. Key issues		
1.	As the project is oriented on the experience and knowledge of local communities, the scientific soundness of the prospective activities at this level is weak. *(page 2, bullet 1, first sentence)*	Communities will be supported by facilitators (NGOs) to prepare technically viable and environmentally sound project proposals. They will also be receiving guidance and support from the government line ministries and scientific institutions that are expected to comment on each proposed project. This mechanism will ensure that that the technical (scientific) aspects are given adequate attention and longer-term sustainability of the investments is assured.
2.	Although project contains the mentioning of the "improvements in the productivity of field and horticultural crops… through adoption of advanced technologies developed by CGIAR/TARS", but the mechanisms of their adoption as well as environmental soundness are not clear. *(Page 2, bullet 1, last sentence)*	The CGIAR is an international agricultural research body that has vast experience in researching and promoting environmentally sustainable cropping and farming practices with a half dozen research centers spread across the globe covering most agro-climatic and environmental variations. CGIAR's most recent emphasis under its CAC program has been in developing sustainable agro-practices in dry areas with a focus on minimization of biomass loss and maintenance of landscapes and preservation of local species and varieties. Dissemination of the new technologies will be undertaken by training of participating farmers, the adoption of demonstration parcels. Dissemination will be tied into the RIAS (Rural Information and Advisory System that has been established under the FPSP. The mechanisms of environmental assessment are stipulated in two special papers, attached to the project documents: (a) Environmental Management Framework; and (b) Pest Management Plan.
3.	Scientific soundness of the project could be strengthened if its text (or annex) contain the description of the natural and social mechanisms which help to reduce the impact on the environment. *(Page 2, bullet 2)*	The project Environmental Management Framework identifies the likely activities to be financed within the project, and specifies simple mitigation and monitoring measures to be applied for each type of anticipated activity. Temporary minor impact (dust, minor soil loss) can be expected from planting activities, building construction and other works, and where such works are contracted this will be addressed through standard contractual guidelines. Care will be taken to preserve indigenous crop and livestock varieties. Since some of the potential agricultural investments will involve pest management a special Pest Management Plan was prepared that contain sustainable pest control strategies and skills.
4.	The special targeted efforts made on conservation and protection issues are poorly described in the project, although there are pointed in the GEF alternative. *(Page 3, first Para)*	Since this is a CDD project, at the initial project implementation stage local communities will prepare their own Action Plans, describing all activities, including conservation measures that will be reviewed on environmental soundness and technical feasibility. The project facilitators will support communities in developing adequate activities in this regard.

#	STAP reviewer comments	Responses
5.	The proposed role of regional NGOs in the project is very high, but the capacities of NGO community in Tajikistan are not described. What are their positive and negative experiences? Are they ready to play the provided role? *(Page 4, second para)*	The selection of participating NGOs will be based on a set of demonstrated technical qualifications and capacity criteria. In our view, at the very least in the early stages, it is quite likely that facilitators will be mostly in international NGOs that have already the required experience and proven mechanisms in working with communities and access to the necessary technical know-how. Qualifying criteria have been developed that will be part of the operational manual for this project.
6.	It is necessary to enlarge the sustainability analysis, taking into account all possible negative alternatives, including the negative results of the WB "Water and Environmental Management in the Aral Sea Basin" project. *(Page 4, forth Para)*	The sustainability analysis is build upon the experience (both positive and negative) gained under several project in the country and in the region(see P. B. 5 of the PAD), including mentioned project. In this regard among proposed risk mitigation measures are the following: (a) timely and appropriate information dissemination and training; (b) early on community all other interested stakeholders involvement.
7.	There is no coherent national water strategy" (may cause the risk of unsustainable water management at the local level in future). Can the project build capacities for preparing of a such strategy? *(Page 4, fifth Para, point 1)*	Tajikistan already has a national water strategy, which was developed with the support of the GEF financed Water and Environmental Management Project for Central Asia. The Bank financed Farm Privatization Support Project is now providing support for the development of a national water code that will encompass all aspects of water use, its extraction, and release back into the system. In addition to complementing these efforts, the project is consistent with the Aral Sea Basin Program, which identified upper watershed management as a priority for its second phase. However, it is important to keep potential impacts in perspective. The Tajikistan retains only about 8-10% of the water that falls/melts/flows within its territorial boundaries. The rest flows into the Syr Darya in the north and the Amudarya in the south, where the water is consumed by the much larger and thirstier agricultures in Uzbekistan, Kazakhstan, reducing these two rivers to a trickle when reaching the Aral Sea. While having a coherent water strategy is important, the net benefit of Tajikistan's water strategy for the recharging of the Aral Sea can almost be considered negligible, especially in the current and foreseeable socio-economic context. With increasing prices of water, and the energy necessary to pump it (the government's strategy), the abuses of water as they were practiced under the old system are likely to die out by themselves
8.	What are the governmental obligations and insurance arrangements on this issue(decentralize government services, and increase the capacity of local communities to take an active role in local development) (?) Is it possible to include them in the project agreement? How project will "reduce inappropriate and ineffective government interventions"?) *(Page 4, fifth Para, point 2)*	The management of financial resource will take place between the PMU and the communities exclusively. No money will flow through the government administration, precisely for the reasons mentioned here. However, while government will not be directly be handling the money, line ministries will be involved through consultation, and will benefit from some capacity building through TA and some minimal goods to help officers better perform their services. To a large extent the project will help local government and line ministries to develop a customer service attitude responsive to the local population yet representing national government policy. The clearing system at various levels (JDC, WDC, SSC) is expected to help resolve problems of inappropriate holding back of proposals by public officials and ensure that proposals adhere to national policy.

#	STAP reviewer comments	Responses
9.	It is not clear from the project text that the scheme of financing is clarified and local communities and NGOs have possibilities to control disbursements. *(Page 5, point 3)*	As indicated above, the communities will be expect to open their own project accounts where project money will be deposited in accordance with schedules and milestones submitted along with proposals. Communities will receive payments in tranches paid out against performance milestones.
10.	The suggestion to organize the "micro-grant" system limited by 200-250 US dollars per family looks very attractive as it helps to plan expenditures, but it is not clear if this sum is a real money for distribution among participating families or it will be a kind of voucher which can be used only for community activities. *(Page 5, point 4)*	This is an average sum that the project expects to disburse by household. The mechanism is not the same for each activity. For productivity improvements such as small scale processing a maximum up to this threshold may be provided to an individual family. In the case of natural resources management and introduction of new cropping models, the project foresees that at least 9 families would have to agree to work together to reach a critical mass before they can jointly apply make a proposal. This is meant in particular in the case of contour planting, orchards, and in the case of pasture land management.
11.	Propositions : (a) to create the Internet based Information and Analytical Centre under PMU, which should gather and represent all the information about project implementation in available form and be responsible for the dissemination of the project results. After finalization of the project such centre can support governmental and community structures on the follow-up issues; (b) to establish the position of independent and internationally selected General Consultant who can be responsible for the M&E plans and consultation on the minimizing of risks during project implementation. *(Page 5, point 5)*	This may be possible. At present under two previous World Bank projects, an information dissemination unit (RIAS) has been developed. It may be possible to expand this unit, that currently mostly focuses on agricultural productivity improvement to include sustainable mountain range land management, including species preservation and developing an understanding of the value of biodiversity among the local population. Regarding Monitoring and Evaluation, the PMU will include an M&E Advisor, and each PCU will also have an M&E specialist.
B. Secondary issues		
12.	The role of the governments (state and local) is not clear enough. The project states that their role will be reduced to the end of the project but I am not sure this to be attainable. *(Page 6, second para)*	The project aims to work with JDCs that are elected registered bodies the local government level. The WDCs and SSC are bodies that will be established for the duration of project. The purpose of these bodies is the project clearance process, and to a large extend, and to get ownership by the various government authorities in the project concept. They are co-terminus with the project. Once the project ends the line ministries, who will have received TA during the course of the project, will take on their regular role in providing guidance, supervising and reporting on local activities.
C. Other comments and questions		

#	STAP reviewer comments	Responses
13.	A number of acronyms are missed in the list of them. A few of them are not defined completely: PIU or PCU? Implementation or coordination unit? What is correct? (*Page 7, first Para)*	They should be all PCUs, there is some inconsistency in our text that we are in the process of correcting.
14.	Annex 4, part "Zarafshan Valley.Land use", 1 Para. Milk is not a crop. Dark gray sierozem soils are not "desert soils". They are specific loss soils on the hills *(Page 7)*	Soil descriptions were revised in the main text.
15.	Questions to the annex 6 How many PIUs will be organized? Four or two? The organizational diagram describes 4 and the text – only 2 of them. I think 4 is better because although some districts are close to the capital, somebody must work "in the field". *(Page 7)*	There will be one PCU in each watershed to serve as secretariat to the WDCs and help with general project coordination. This in part explains the relatively high project management costs of this project.
16.	Questions to the organizational diagram: What do different arrows mean? Management, subordination, transfer of the information? Lateral contacts are not anticipated; Where are VDC, which are mentioned in the text? *(Page 7)*	Arrows represent flow of information There will not be many lateral contacts across watershed unless a specific issue would require it. The watershed as the name suggests is the geographic limitation of project activities. JDCs were bodies organized with the assistance of a UN program, the Aga Khan Foundation that is another major donor in this country has organized similar bodies but calls them Village Development Committees – for our intents and purposes they are the same.

c) Response to comments from Secretariat and other Agencies

GEFSEC's recommendations for Work Program Inclusion made at Pipeline Entry

PROJECT DESIGN

Expected at Work Program inclusion:

Identify clearly all project components and how these are integrated to achieve the project results**.**

The project scope, design and structure have been developed and described in detail in the Project Brief.

SUSTAINABILITY:

Expected at Work Program inclusion:

Document measures that will be taken to ensure sustainability of project activities beyond project period.

The project sustainability is ensured in two ways, (i) the project provides considerable training at the local government level and the various line ministries involved with providing advice and ensuring policy enforcement,(ii) it will further support sustainability by supporting the establishment of member owned credit facilities at the local level that will help farmers maintain their investment between crops and increase productivity by stimulating local processing of produce and fruits for marketable value added.

REPLICABILITY:

Expected at Work Program inclusion:

A well documented plan for replication of project results should be put in place.

Unlike many community driven project that have been implemented in Tajikistan where longer term sustainability and replicability can be a problem, this project takes direct steps to involve line ministries as well as raion administrators to build capacity to replicate this model in other areas of the country if desired so by government.

STAKEHOLDER INVOLVEMENT:

Expected at Work Program inclusion:

Stakeholder involvement plan including budget to achieve the intended consultations and involvement.

The second component of the project deals exclusively with just that point, community mobilization, training, TA, training of NGOs and capacity building at local as well as line ministry government level.

MONITORING & EVALUATION:

Expected at Work Program inclusion:

Monitoring and evaluation plan should be in place including verifiable indicators.

See Project Brief main text under monitoring evaluation section and Result Framework in Annex. In addition, to track the evolution of land degradation and land use patterns, satellite photography has been purchased and is being digitized for baseline purposes.

FINANCING PLAN:

Expected at Work Program inclusion:

An adequately developed financing plan for all components:

Preliminary project cost tables are complete and define allocation of resources by component. Some donors have made verbal commitments to co-finance but the agreements are still being discussed and are expected to be finalized by mid-February and in any case before CEO endorsement.

CONSULTATION, COORDINATION, COLLABORATION BETWEEN IAs, AND IAs AND EAs, IF APPROPRIATE.

Expected at Work Program inclusion:

Coordination plan for all collaborators.

The project has been extensively discussed with all major players in Tajikistan, including UND, UNEP, EU and Asian Development Bank. International NGOs will undertake a major role in implementation by providing expertise and Technical assistance to communities. To participate in the project as contractors they will be requested to submit bids as required under the Bank's procurement procedures.

Response to GEF Secretariat Comments
At Work Program Inclusion (January 2004)

There is a better need to define the systems boundaries and the specific ecological systems being targeting.	GEF financing will almost quadruple the land area that will be subject to land resource management activities. It will also include further ecological details on the four project areas, and that under the process framework design, landscape factors will be considered by JDCs and WDCs. Revised documentation provides details.
The global importance and benefits are not well articulated	See response #1 to UNDP comments. The revised documents explains and further specify the global importance and benefits
There is a need for better description of the biodiversity of global importance and how the project will contribute to its conservation.	The project will conserve biodiversity in two main ways: It will help to prevent *additional* degradation of sloping pastrure lands (with their indigenous grasses and trees), and it will provide support for the preservation of live specimens of indigenous crop varieties and other plants in these highland areas. Revised documentation provides details.
We will require more details on the operational program fit and the linkages between ecological systems. The relationship between the highland and the lowlands needs to be better documented and how the project will assist in managing those linkages.	The project ties into sustainable land management while also addressing biodiversity. The project also provides benefits in terms of climate change and international waters. The National-Level Steering Committee will help senior policy makers address linkages, within what is realistic in the context of Tajikistan's limited capacity. Documentation revised.
The watershed function of these highlands need better document and how the project will enhance these.	The environmental portion of the economic analysis explain downstream benefits within the country. Tajikistan also plays a role as a reservoir of Central Asia's water resources. The land resource management subcomponent will cover 78,000 ha, which represents a significant portion of the most degraded sloping lands. In addition, the project will reduce the run-off from the catchment area, which will in turn reduce soil loss. Documentation revised.
UNDP Comments	Covered in a separate table
STAP Comments	Revised to clarify

UNDP Comments and Bank Response at Work Program Inclusion

#	UNDP comments	Response
A. General Issues		
1.	The GEF objective requires more detailed justification and description. How will this be done? Will the agricultural development efforts really translate into environmental and biodiversity benefits?	*The increased income and food resulting from the farm productivity subcomponent will reduce the pressure to use sloping land for cereal crops. The land resource management subcomponent will improve land use and establish sustainable vegetative cover, while providing incentive for local people to sustain the improved land use by providing livelihood and usufruct benefits. The community facilitation support and scientific research will disseminate information and improve capacity in environmentally sound agricultural practices. The project will also include support for preserving specimens of indigenous crop varieties.* *The project areas represent cover about 29% of Tajikistan's population living in highland areas (above 750 meters), and the project activities will be spread evenly throughout, benefits at least 50% of the population in the project area.* *The project uses a process-oriented approach grounded in site-specific investments selected by local people, which are further considered at the subdistrict and watershed level, and subject to a range of feasibility and eligibility considerations. The results framework year-by-year parameters.* *Documentation revised accordingly*.
2.	A related potential problem not clarified in the documents is: If the majority of the local population is indeed interested in agriculture as a main source of income, are the available agricultural resources (e.g. pasture and arable land) sufficient for this over the long term or must alternative economic activities become more important to reverse land-degradation in these areas?	*The preparation work and economic analysis indicates that substantial livelihood opportunities exist within agriculture and related activities, and the project will have a significant impact on poverty. Current agricultural productivity is so low that only slight changes in farm management and investment will produce significant productivity gains and reduce the pressure on fragile land.* *The project envisages that a portion of the income resulting from the project will be reinvested through existing or newly established credit and revolving fund mechanisms, and that these may provide a source of capital for a wider range of investments over the longer term. In the short term, however, the focus should be on agriculture – which in addition to addressing incomes also takes into account the pragmatic project design requirement of ensuring the development of adequate technical support capacity and screening.*
3.	An additional factor not mentioned and not addressed is the rapid growth of the human population in Tajikistan and the tendency for farmers from densely populated and heavily irrigated areas in the plains to settle in the mountains, supported by government programs.	*Actually, a significant portion of Tajikistan's highland population was forcibly resettled to the lowlands during the soviet period, which has contributed to ethnic tension and conflict. The people who are now returning have historic roots in the highland areas; they do not and will not include new migrants who have no community ties. Their return should help restore the human capital and revitalize the project area. Even with the support provided by this project, highland areas will receive far less development and recurrent service support form government than irrigated lowlands.*

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4.	The GEF alternative is vaguely explained, lacking detailed description of the baseline situation in the proposed project sites in terms of land-degradation and biodiversity, including justification of the global environmental importance. The activities leading to concrete impacts on globally important environmental values are very weakly described.	*GEF will finance 58% of the land resource management subcomponent, or 73% of all the external financing for this subcomponent. Hence the GEF contribution will enable the project to cover some 57,000 ha of the 78,000 ha that would be treated. It also will enable the facilitation and technical support required for this additional area of land resource management investments, as well as supporting the restoration of facilities that preserve live specimens of indigenous crop varieties and associated collaboration with the Consultative Group for International Agricultural Research's Central Asia and Causcasus unit at Tashkent. GEF also supports a small portion of the project management, coordination, and evaluation activities. Documentation revised accordingly*
5.	OP 12 projects should be able to show synergies. In other words, activities that benefit BD should also benefit LD, and vice versa. This direct synergistic link is not made explicitly.	*The misuse of sloping lands is degrading both the land itself and the biodiversity. The land resource management subcomponent and associated community and investment planning support will prevent degradation of more sloping lands within the project areas and thus will affect both land management and biodiversity simultaneously. The increased vegetative cover will address climate change, and the improved watershed management will also benefit international waters, since the Tajikistan highlands are a reservoir several of Tajikistan's major river systems. The preservation of live specimens of indigenous crop varieties under the scientific subcomponent integrates a key biodiversity conservation element into a broader agricultural research agenda, and links it to an operational context. Documentation revised accordingly*
6.	Scope: there is no clear idea of the project scope i.e. what locations, number of communities, etc.	*The description of the project sites, including information about the number of communities, population, as well as number of households, kolkhozes is presented in Project Brief Annex 4(see table 1). Further details, including estimates of the sloping land area subject to improved land resource management interventions, are in the revised results framework and incremental cost analysis.*
7.	Maps: related to the above is the lack of any maps. Maps potentially could greatly assist in describing important geographical, biological, land use and social factors key to the project and provide a basis for the systematic and transparent selection of sites.	*The four project watershed were chosen because they are major valleys that have significant potential for agriculture. The project will cover all 404 villages within the 47 project area jamoats and at least 50% of the population of those villages. These jamoats cover 29% of Tajikistan's highland population. The project design does not entail geographic targeting within the project area. Although additional financing is not in hand in time for project appraisal and Board presentation, it is anticipated that one or more bilateral donors is likely to provide additional financing within the next year or so, which would enable an additional 17 jamoats in the four watersheds to be covered (raising the percentage of highland population covered up to 42%). If successful, it is anticipated that the project approach would also be replicated in additional watersheds, with adjustments as necessary to take into account the lower agricultural potential.* *The final version of the Project Brief will include a basic country map showing the locations of the four watershed. Additional detailed maps exist with the project management unit. Further maps reflecting remote sensing data on land use trends on sloping lands over the last decade will be developed during the first year of the project.*

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B. Specific comments		
8.	It is important that the project takes aspects of economic viability into consideration from the very beginning. On the other hand there is a danger that the aspects of biodiversity conservation and sustainable nature resource management will get comparably little attention, especially if these efforts cannot provide short or even mid-term direct financial returns. (See 4. Financial Modality and cost effectiveness)	*Biodiversity considerations are integrated into the subproject planning and screening processes and eligibility criteria through a simple pragmatic framework that is achievable even within the capacity constraints that exist in Tajikistan. Further consideration of the entire mix of subprojects at the jamoat (subdistrict) and watershed levels enables landscape factors to also be taken into consideration and will build capacity in this regard. The project does not include parks or sanctuaries nor involve activities in their vicinity. As explained in existing project documentation, the focus on income generation and integration of physical approaches of soil conservation with livelihood investments under the land resource management subcomponent will enhance the organic content of the soil and create incentives for sustainable land use by better addressing the interests of local people.*
9.	a. In the Incremental Cost Analysis, "Context and Broad Development Goals," the global importance of the area is very vaguely justified on a national but not on a site-specific level. b. Natural disasters " are a result of the other threats and not a category of threat in itself.	*a. The incremental cost analysis will provide further details, and additional information which is provided in the Detailed Project Description Annex. .* b. *Agreed. In the revised text this is edited*
10.	The "GEF Alternative and Benefits" section shows very vaguely the global benefits to be achieved through GEF financing. How will the success of the project be measured in concrete terms?	*The revised results framework annex shows yearly benchmarks .*

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11.	Proposed GEF components: A. Rural Production Investments: To justify the incremental cost of USD 3.8 M the component lacks sufficient detail. The plantations of walnut and willow are not appropriate forms of erosion barriers on slopes because of their growth habit and ecological potential. B. Community and technical support: The description of the component is quite vague, though it is possible to imagine what might be approximately done and achieved. C. Project Management: It is rather unusual to include "evaluation of mountain ecosystem degradation trends, as well as exchange of experience" into the project management instead of designing adequate technical activities for these. This is especially problematic in the frame of a GEF Full Size Project with considerable financing but unclear global environmental benefits.	*A. The planting of walnuts and willow will represent only one option which would be selected after taking into consideration the site-specific conditions, and then further screened to ensure feasibility and eligibility. Furthermore the planting of such trees will be coupled with appropriate soil and moisture conservation structures such as min-terracing using natural hedges and basis and contour drainage channels.* *B. The revised project documentation will include further information on this component.* *C. Most the evaluation activities are imbedded into the community and technical support component (now renamed institutional support and capacity building component). These include participatory monitoring and evaluation activities and progress reporting by the communities themselves, with the support of contracted facilitators and the line agencies. The project management and coordination component includes support for independent contracted evaluation studies, such as mapping and analysis of land use trends, the independent survey of subproject results, and social assessment and poverty updates. The project management and coordination component also includes support for a monitoring and evaluation advisor in the PMU, as well as an monitoring and evaluation specialist in each PCU.*