AZERBAIJAN
Shah-Dag Rural Environment Project

Project Concept Document

Europe and Central Asia Region
ECSSD

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Project ID: P066199	**Sector(s):** VM - Natural Resources Management
Lending Instrument: Specific Investment Loan (SIL)	**Theme(s):** Environment; Energy
	Poverty Targeted Intervention: N

Program Financing Data

[ ] Loan [X] Credit [X] Grant [ ] Guarantee [ ] Other:

For Loans/Credits/Others:

Total Project Cost (US$m): $14.00 **Cofinancing:** Yes

Total Bank Financing (US$m):

Has there been a discussion of the IBRD financial product menu with the borrower? ☐ **Yes** ☒ **No**

Proposed Terms (IDA): Standard Credit

Financing Plan (US$m): Source	Local	Foreign	Total
BORROWER/RECIPIENT	1.00	0.00	1.00
IDA	7.00	0.00	7.00
GLOBAL ENVIRONMENT FACILITY	5.00	0.00	5.00
BILATERAL AGENCIES (UNIDENTIFIED)	1.00	0.00	1.00
Total:	14.00	0.00	14.00

Borrower/Recipient: AZERBAIJAN REPUBLIC

Responsible agency:

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Project implementation period: 5 years

A. Project Development Objective

1. Project development objective: (see Annex 1)

The development objective is for mountain communities and local authorities in the Shah Dag Greater Caucasus area to adopt environmentally responsible practices of forestry, grazing, and energy consumption. This will serve as a demonstration for how environmentally responsible natural resource management can improve living conditions in rural communities.

The global objective is to conserve biodiversity *in situ*, reverse land degradation, and improve energy supply and efficiency in the Shah-Dag area of the Azerbaijan Caucasus Mountains. This would be achieved through promoting the adoption of integrated ecosystem management (IEM) concepts in policy, planning, and implementation of development activities (GEF OP 12).

Background

Azerbaijan is a mountainous country of 86,600 km2 and a population of 7.5 million people. It lies on the western coast of the Caspian Sea among the mountain ranges of the Greater and Lesser Caucasus and the Talish mountains. The country ranges in elevation from 27 meters below sea level, near the Caspian Sea, to 4,466 meters above sea level at Mount Bazardyouru and near Mount Shakh Dag in the Greater Caucasus Mountains. Azerbaijan is bounded by Armenia to the west, Georgia and Russia to the north, the Caspian Sea to the east, and Iran to the south. Mountains cover about 44 percent of the territory and forests cover about 11%. This puts Azerbaijan in the group of forest-poor countries compared to neighbor countries such as Russia and Georgia, where forest cover is 34% and 40% of land area, respectively.

In 1991 Azerbaijan became independent and embarked on a transition towards a market economy. Poverty has increased despite positive developments in some sectors. The oil sector of the economy has experienced a steady growth, but has contributed little to employment generation. At the same time, agricultural and industrial production sharply declined and un-employment and under-employment increased. According to the Interim Poverty Reduction Strategy paper (I-PRSP) released in 2001, 90% of the population suffered a decline in their mean monthly expenditures between 1995 and 1999. Only the top 10% income bracket were able to increase their income. An estimated 60% of the population lives below the poverty line. This rate is higher in rural areas and secondary towns, and lower in the Greater Baku area, the capital city.

Living conditions have become more difficult in rural areas. A recent household survey on rural infrastructure found that in addition to unemployment, households are particularly affected by the deterioration of energy services. Before 1991, about 80% of households were connected to a gas and electricity network and enjoyed a reliable and highly subsidized supply of energy. From 1993 to 1999, the gas supply in nearly all regions was stopped with exception of Baku City and the Apsheron Peninsula, as gas imports from Russia drastically declined. From 1999 on, imports resumed and gas was again supplied to few selected regions located in the Northeast, but typically only to about 20 % of households located in the town centers and few selected villages. Electricity supply in rural areas has also become unreliable as a result of gas shortages since most of Azerbaijan's power plants used to be gas fired. The inconsistent supply of gas and electricity has forced households to switch to less convenient and more polluting sources of energy. For heating, households near forest areas have typically turned to fuel wood. Before independence, Azerbaijan could rely on cheap wood imports from Russia, but today fuel wood comes exclusively from local forests, resulting in alarming rates of deforestation. Based on a preliminary estimate, demand for fuel wood exceeds sustainable annual fuel wood yields in certain areas by up to ten times.

Pressure on forests pose a threat to Azerbaijan's globally significant biodiversity, which is part of the Caucasus Ecoregion and one of 25 hotspots of highest importance. The Mount Shah Dag region, Azerbaijan's second highest mountain and the focal area of the proposed project, is part of Azerbaijan's territory within this ecoregion, and contains some of its highest biodiversity values. This watershed also provides much of the water for Baku City and Apsheron Peninsula where 27% of the population lives. Deforestation is considered the principal threat to biodiversity in this area, adding to pressures coming from overgrazing and unregulated hunting.

Azerbaijan is committed to protecting biodiversity as stipulated by the Biodiversity Convention which it ratified in May 2000. However, protection of biodiversity will not be possible without addressing the underlying threats, rooted in part in poverty and in part in inadequate management of natural resources.

Azerbaijan has therefore requested Bank and GEF assistance to create the country's first national park in the Shah Dag, and to simultaneously initiate a development process in the surrounding buffer zones. This development process would create opportunities for the local population to engage in environmentally sound uses of natural resources, such as eco-tourism services, community forests for fuel wood production, and local generation of energy from mini-hydros. It would also provide attractive alternatives to unsustainable fuel wood use, such as switching to cleaner heating fuels (natural gas, LPG) and use of more efficient stoves.

This project is being developed in close communication with the local population. If successful, it will showcase sustainable natural resource management practices and convincingly demonstrate tangible local benefits, such that the local population will be motivated to adopt and replicate these practices.

2. Key performance indicators: (see Annex 1)

The key performance indicators of project impact are:

- Significant reduction in poor environmental practices associated with the use of forestry, grazing and energy resources by households, businesses and government units within the project area.
- Significant increase in the adoption of environmentally responsible practices by households, businesses and government units within the project area
- Improved livelihood and employment generation in selected communities (indicators to be identified during preparation)
- Selected communities meet an increasing share of their fuel wood needs from sustainable community forests
- Participating households and public buildings have installed higher efficiency stoves and adopted Demand Side Management practices.
- Stable or increasing numbers of 2-3 indicator species (flora & fauna, to be identified during preparation)
- Gradually improved status of forest cover within the Shah Dag protected area.

B. Strategic Context

1. Sector-related Country Assistance Strategy (CAS) goal supported by the project: (see Annex 1)
Document number: IDA/R99-157 **Date of latest CAS discussion:** September 14, 1999

The CAS objective is to help Azerbaijan establish an appropriate institutional and policy framework for a broad-based economic development to reduce poverty through reform of public sector institutions and improved governance;and improved business environment for sustainable private sector development (PSD)

(particularly in the non-oil sectors); and investment in social development. At the sector level, the CAS is calling for environmentally sustainable development and GEF supported protection of biodiversity.

The Project will support these CAS goals by improving living conditions in selected rural communities near protected areas through the introduction of environmentally responsible natural resource management. The project will achieve this goal through (i) strengthening the Government's capacity and public participation in natural resource management; (ii) creating an enabling environment for local private business to develop income generating eco-tourism services, and (iii) improving welfare of mountain communities through improved access to clean energy. The project would also contribute to the public sector reform by assisting the newly created Minsitry of Environment and Natural Resources in separating regulatory from commercial functions, specifically in the forestry sector.

Poverty Reduction Strategy Paper.The Project will contribute to two priorities identified in the I-PRSP: (i) sustainable managment of natural resources and environmental protection, and (ii) improvement in the reliability of the country's energy supply. Project preparation is closely linked with preparation of the environment input to the full PRSP, with Shah Dag serving as one of the pilot areas for the analysis of the poverty-natural resource management linkages. An UK DFID funded report was presented by the Bank to the Government in September 2001. The report identifies clean energy, sustainable management of bio-resources, specifically of forests, and improved management of water and drinking water quality as priority interventions.

Environment Strategy. The proposed project is consistent with the goals of the Bank's new environment strategy, in particular in regard to addressing local and global environmental issues in an integrated manner, and focusing on improving rural livelihoods of the poor.

1a. Global Operational strategy/Program objective addressed by the project:

Operational Program

The cross sectoral approach for integrated ecosystem management in the Shah Dag region would have multiple benefits: the conservation of globally significant biodiversity, reduction of net emissions and increased storage of greenhouse gases in terrestrial and aquatic ecosystems, and conservation and sustainable use of the Shah Dag watershed and related sections of the Caspian coastal zone.

The proposed project is consistent with the GEF Operational Program #12: Integrated Ecosystem Management in its support for the conservation and sustainable use of biodiversity, reduction of net emissions and increased storage of greenhouse gases in a terrestrial ecosystem, and improved watershed protection with effects on international waters. It will achieve that goal through the protection of critical mountain biodiversity in Azerbaijan's Greater Caucasus area and the reduction of deforestation by removing barriers to energy efficiency and conservation in rural areas and by improving forest management. The project's proposed interventions follow the OP's guidance by emphasizing the creation of an enabling environment for biodiversity conservation, forest and rangeland management, the strengthening of institutional capacities at local, regional and national levels as well as investments in sustainable natural resource management and energy efficiency.

The proposed project focuses on the Shah Dag region, part of the Greater Caucasus ecosystem in northeastern Azerbaijan. The region covers 300,000 hectares, with an elevational gradient of more than 4500 meters from the highest peaks of the Greater Caucasus (Mount Bazardyouru, 4466 m and Mount

Shah Dag, 4252 m) to the Caspian Sea (-27 m). The ecosystem is a mosaic of natural habitats, with settlements supporting about 600,000 people, concentrated in the foothills and middle elevations.

The natural habitats, which consist of broadleaf forests (200,000 ha) and rangeland (50,000 ha), play a critical role in watershed protection, and contribute to local economy and subsistence. Only sanitary felling of forest trees is allowed under the Forest Code, but in recent years large areas of woodlands have been depleted as a result of uncontrolled fuelwood harvesting by local communities as a result of disruption or discontinuation of district heating systems and electricity. The rangelands support about 1 M sheep and goats, some of which are moved seasonally between winter to summer pasture, but many of which are grazed year-round near the villages.

Azerbaijan is at a critical stage in its efforts to protect and sustainably use its natural resources. While the energy crisis is causing significant encroachments on the country's timber resources, the general economic decline has relieved some other pressures resulting from large-scale development activities. The proposed project would cover two focal areas, biodiversity conservation and energy efficiency, which must be addressed in an integrated fashion to promote conservation of the Shah Dag ecosystem.

Biodiversity Conservation. The Caucasus region which includes Azerbaijan has been identified by the World Wide Fund for Nature as a Global 200 Ecoregion, based on selection criteria such as species richness, levels of endemism, taxonomic uniqueness, unusual evolutionary phenomena, and global rarity of major habitat types. Conservation International identified the region as a global "hotspot" -- one of the 25 most globally vital ecosystems. The Shah Dag region comprises two ecosystems of global significance: the forest ecosystems of the Greater Caucasus mountains and the Caspian Sea (see Annex 4 for additional information).

Climate Change. The inefficient use of wood fuels in Azerbaijan contributes to greenhouse gas emissions and deforestation. The poor supply and efficiency of energy is a major contributor to rural poverty and a root cause of degradation of the ecosystems in the Caucasus mountain and Caspian ecosystems.

International waters. Mitigating the on-going serious problem of pollution in the Caspian Sea will require adopting integrated management practices for the coastal zone. The proposed Shah Dag national park includes up to 25 km of relatively undeveloped coast line along the Caspian, the managed use of which would be one of the objectives of the proposed park.

2. Main sector issues and Government strategy:

Rural Energy. While rich in oil and natural gas reserves, Azerbaijan's population suffers from unreliable and insufficient energy supply. Particularly in rural areas, energy supply as actually declined over the last decade, less than half the population previously connected to natural gas being completely cut off, and with electricity being available in many areas for only several hours a day. Non-payment for energy is wide spread, both at institutional level between users of gas (state electricity and gas company) and gas supplier (SOCCAR state oil company) and at the consumer level. Energy infrastructure has deteriorated for lack of new investments and adequate maintenance. The sector also lacks competition, and tariffs for households have been set without regard for the cost of energy supply. Highly subsidized cheap energy combined with laax payment enforcement has provided little incentive to improve energy efficiency from its low levels under the Soviet system. Inconsistent gas and electricity supply has forced household to shift towards fuel wood, in areas near forests, and kerosene, in forest poor regions.

The Shah Dag area belongs to the few regions located along the gas pipeline which transports gas from

Russia, where gas supplies were partially resumed in 1999. However, within these regions, only the town centers, such as Gusar and Kachmaz, and few selected villages are being served; e.g. in the case of Gusar only 2 out of 19 villages.

The Government strategy is to improve energy supply to its population through (i) increased supply of gas, in the short term with the help of supplementary imports from Russia, and in the medium term through the development of the Shag Deniz gas field and recovery of flared gas; (ii) increased competition in the energy sector by inviting the private sector to participate in energy distribution, initially, and gas distribution in the medium term. Former monopolistic state companies will be privatized or will have to compete with new market entrant; (iii) to ensure a level playing field, regulatory functions have been separated from the state enterprises and transferred into a newly created Ministry of Energy; (iv) measures are already being taken to improve payments from household through more frequent dis-connection, and budget allocations to public institutions to pay their energy bills; (v) enegy tariffs will have to be revised to better reflect the cost of energy supply. In that regard, the Government is aware that a sudden increase of natural gas tariffs in rural areas to a cost recovery level would not be affordable by most rural poor and could even further increase fuel switching towards fuel wood. Tariff adjustments need therefore take into account both affordability by poor households and the external costs of switching to more polluting fuels. So far, no specific strategy has been elaborated for energy supply in rural areas and secondary towns.

Unsustainable forest and range use, and loss of biodiversity. The overuse of forest and range resources, especially tree felling for fuelwood, overgrazing as a result of overstocking and lack of adherence to pasture rotation, and unmanaged hunting of large game, is the result of increased reliance of rural communities on forest and range for subsistence, weakened public sector management, and the lack of financing and "know-how" for piloting and replicating balanced community based/public sector approaches to improved resource management.

Government Strategy: The Government recognizes the negative trend in natural resources management, and has prepared analyses and actions plans to address them in the 1998 National Environmental Action Plan, and in the Biodiversity Strategy and Action Plan (BSAP), currently under preparation. In addition to these priority setting and consensus building activities, the GoA has taken several additional steps, including: (i) creation of the Ministry of Environment and Natural Resources, which was recently elevated from state committee status, as a means to integrate forestry, range management, and protected areas management functions; (ii) collaborating with FAO, and with projects and counterparts in Turkey and Georgia as a first step in understanding how other countries in the region are dealing with these problems. On forestry issues, GoA is receiving limited technical assistance in forest management planning from the Government of Turkey. The GoA has also been sending natural resources specialists to study the Bank-financed Eastern Anatolia Watershed Management Project in Turkey as a first step to applying the lessons learned to similar problems of land and resource degradation in Azerbaijan; (iii) piloting innovative leasing arrangements for forests and hunting lands as a way to harness private sector investments in improved resource management; and (iv) initiating discussions and technical studies for the creation of Shah Dag National Park, to demonstrate multiple use resource management.

3. Sector issues to be addressed by the project and strategic choices:

Rural Energy. The project would complement ongoing efforts by the Bank and ESMAP to support energy sector reform in Azerbaijan and concentrate on assisting Azerbaijan develop an energy strategy for its rural areas. The project would focus on the Shah Dag area as a pilot area with special emphasis on fuel wood and deforestation issue. Elements of such strategy are likely to include (i) an analysis of environmental externalities of different rural heating options, and how to take them into consideration when setting rural energy tariffs and determining the boundaries of an economically viable gas distribution network. (ii) the development of attractive clean fuel alternatives to fuel wood consumption in off-network locations and their viability under different price and subsidy scenarios; this could include Liquified Petroleum Gas (LPG) and renewable energies (bio-digester, hydro power), (iii) improved energy efficiency through more efficient equipment, such as stoves; and price incentives. The Project team would rely on the SAC II and the ESMAP funded work to drive the macro economic and energy sector restructuring dialogue.

Unsustainable forest and range use and loss of biodiversity. There are two main strategic choices reflected in the design at this stage. First, the project supports investments and incentives at three levels: (i) communities and user groups; (ii) public sector departments, such as forest districts, at the local level, and (iii) public sector departments at the national level. This balance is needed to ensure that communities, user groups, and governmental agencies are empowered enough to have ownership at the level of the project site, and that investments in human resources and policies at the national level create the enabling environment. Second, the project would pilot the use of a specific protected area (a national park), focusing on one area. Several areas were visited during the identification mission, and Shah Dag was selected because it was identified as a national priority for piloting multiple use protected areas management during preparation of the NEAP and BSAP. The use of the national park as an instrument for promoting sustainable natural resources management will help simplify cross sectoral planning and decision making. The project would rely on existing IFAD and IDA funded agricultural projects to address agriculture and livestock isues, and only focus on selected issues not covered elsewhere (e.g. grazing in protected areas).

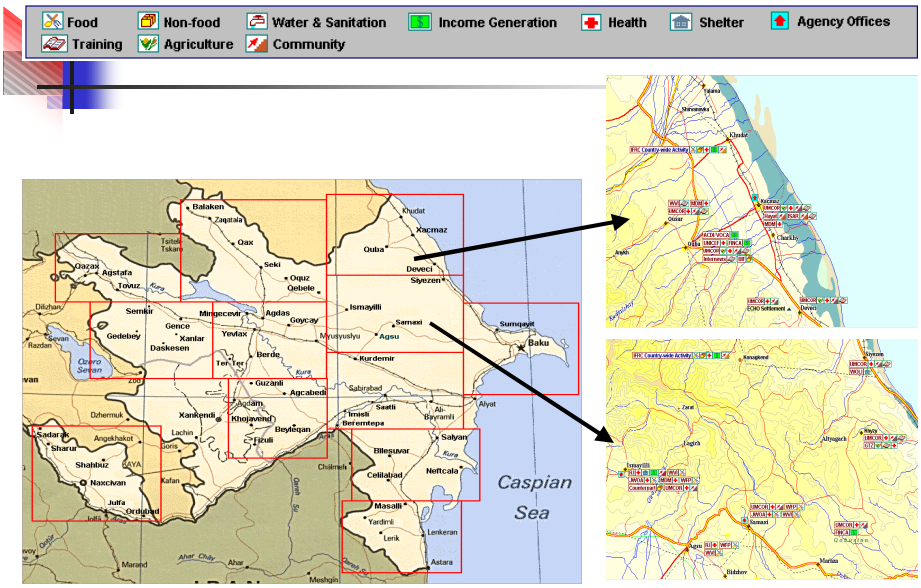
C. Project Description Summary

1. Project components (see Annex 1):

The project would support integrated ecosystem management in the Shah Dag area including investments in forest, range and protected area management, support for rural energy supply and conservation, capacity building, and project management.

The proposed project area is located in northeastern Azerbaijan in a watershed that drains to the Caspian Sea. In its center is the Greater Caucasus Mountain Range, with Shah Dag as its highest peak on Azeri territory. To the East lies the Caspian Sea, to the North it borders with the Russian Federation, to the West and to the South it reaches down to the foot hills of the Greater Caucasus Mountains. The proposed park and its surrounding buffer zones are situated in the territories of Gusar, Guba, Divichi, Khachmaz, Ismailli and Shemakha districts. An estimated 75 to 100 000 people live in 51 villages close to or within the future park boundaries, which still need to be elaborated as part of the planning process supported by the project. Towns like Guba and Gusar will be part of the buffer zone, with an estimated total population of 500,000. The proposed park and buffer zone forms a microcatchment which serves as a conservation unit containing essential elements of the Caucasus mountain ecosystem.

Map



The project includes the following components:

Component 1: Support Integrated Forest, Range, and Protected Areas Management. This component supports conservation and sustainable use of forest, range, and bioresources in the Shah-Dag mountain region through support to: (i) protected areas management activities and (ii) improved forest and range management in and around the protected area.

i) **Improved protected areas management**. This activity would support improved protected areas management in the Azeri Caucasus Mountains ($0.0 million IDA, $ 2.5 million GEF, $0.4 million other). The project activities are as follows:

(a) **Technical and social studies and consultations** for the creation and gazettement of the proposed Shah Dag National Park area. The proposed park would be created around five existing protected areas (Ismailli and Gusar national reserves and Ismailli, Pirkuli and Altiagaj state sanctuaries). Preliminary studies have been carried out on the areas of highest biodiversity value and threat, and have recommended that the park cover the altitudinal gradient from Shah-Dag Peak to the Caspian Sea, comprising an area of over 100,000 hectares. However, further work and consultations are needed to define the boundaries of the proposed park.

(b) **Participatory protected areas management plan and establishment of Shah Dag National Park.** The project would prepare and implement a management plan to improve protection and sustainable use of biodiversity in the proposed Shah Dag National Park through: (1) improved public sector management of biodiversity from technical, social, and financial perspectives; (2) support to community-based user groups serving as operational focal points for collaborative protected areas management and capacity building exercises; (3) sustainable uses within the national park and a transparent system for their regulation; (4) capacity building in various aspects of protected areas management, (5) investments in infrastructure to support park management and visitors; and (5) piloting a

revenue generation system for financing recurrent costs.

(c) **Protected area plan for the Azeri Caucasus.** The project would finance technical studies and consultations needed to prepare and adopt a landscape level network plan for protected areas in the Azeri Greater Caucasus. The network plan would propose the locations and management prescriptions for habitat connections between existing and proposed protected areas. The project would finance key elements of the plan in the Shah Dag region, including activities related to the creation and operation of Shah Dag National Park (Components 1a, 1b) and prescriptions for improved forest and range management in habitat corridors identified in the Shah Dag region. Network planning would be coordinated on the regional level with proposed activities in Georgia and Armenia.

ii) **Improved forest and range management**. The project would finance targeted investments to improve productivity of forest and range management in and around the proposed Shah Dag National Park ($ 1.95 million IDA, $0.4 million GEF, $0.2 million other). These would include:

(a) Update and implement management plans for forest and range land management. The Department of Forestry and local/regional governments manage 150,000 hectares of state forest lands and 100,000 ha of rangelands, respectively, in five districts surrounding the proposed Shah Dag National Park. The project would finance investments needed to improve productivity and ensure a sustainable supply of fuelwood and summer pasture and fodder, and other ecological services (e.g., non-wood forest products and watershed protection). These investments would be implemented through: (1) support to the Department of Forestry; (2) support to pilot community based management of former kolkhoz forests, involving community groups, municipalities, and private leasors; and (3) small grants to community groups and user groups in exchange for afforestation and other works. (GEF funds not requested for this sub-component)

(b) Promote land and forest and range resource use tenure. The project would develop and implement mechanisms to improve access and transparency of leasing arrangements by local communities to forest and range resources outside of the proposed Shah Dag National Park, and for sustainable use zones inside the park. GEF funds would be used for surveys and consultations necessary to identify forest stands and pastures with high biodiversity values which should receive special management considerations for their use.

iii) **Eco-tourism Development.** Eco-tourism has the potential to generate local employment and to contribute to the sustainable financing of the national park. The project would help create favorable conditions for the development of the eco-tourism potential for the Shah Dag area through financing an eco-tourism strategy, capacity building for local tourism, nature guides, and handicraft production and marketing, and basic tourism infrastructure. The project will closely work with the private sector and NGOs already active in this field, as well as the Ministry of Tourism and the Cultural Heritage Project which supports sites near the project area. ($ 0.5 million IDA, $0.5 million GEF, $0.1 million other)

Component 2. Support to Rural Clean Fuel Supply and Energy Conservation.

This component supports measures to reduce unsustainable fuel wood use by creating an enabling environment for switching to cleaner fuels and using energy more efficiently. The component will finance the (i) preparation of a rural energy strategy and public awareness campaign, (ii) implementation of demonstration projects to introduce LPG and other clean fuels in off-NG network locations, (iii) higher efficiency wood and gas stoves for rural home owners; and (iv) a public-private partnership to build and operate a mini-hydro.

i) Develop Rural Energy Strategy and public awareness campaign. This activity would support the preparation of a rural energy strategy for the project area, led by the Ministry of Energy and involving local authorities, energy suppliers, and consumers. The strategy would provide guidance, inter alia, on fuel wood markets (demand, supply, local income, and relative share in forest degradation), rural household energy consumption patterns, economic and financial analysis of various alternatives to fuel wood under different price and subsidy scenarios, environmental externalities, and how to take them into consideration when setting rural energy tariffs and determining the boundaries of an economically viable gas distribution network. The strategy should also recommend demand side management measures, including tariff adjustments and energy efficiency measures. Key messages would be translated into a public awareness campaign directed to the rural population in the project area using a range of media, including TV, radio, newspaper, and a rural distance learning center. The Project team would rely on the SAC II and the ESMAP funded work to drive the macro economic and energy sector restructuring dialogue. The process of strategy formulation will help build institutional capacity at national and local level needed to implement the project and ensure its sustainability in the operational phase. (IDA $250,000/GEF $100,000)

ii) **Introduce clean heating fuels, such as LPG, in off-network locations.** The project would finance measures to create an enabling environment for households and public entities to switch from fuelwood as their principal source of heating energy to cleaner fuels. In locations where centralized distribution of Natural Gas through a network is not economically feasible, the project would focus on the introduction of decentralized distribution of LPG or other clean fuels identified during preparation. Specifically, the project would provide matching grants to households and public entities to convert building to the use of LPG or other clean heating fuels. It will also provide matching funds to build local storage infrastructure, such as gas storage tanks, in a number of pilot communities that show an active interest in participating. The demonstration project would be based on a market assessment of potential demand and supply of clean fuels and extensive consultations with potential users and suppliers of LPG. Production and distribution of LPG and other clean fuels is expected to be undertaken by the private sector. (IDA US$2 million)

iii) **Improve energy efficiency through higher efficiency stoves and demand side management**. The project would help create demand for improved energy efficiency in households and public buildings through public information and financing of demonstration projects in the project area. Specifically, the project would provide matching grants to households and public entities: (a) in communities not connected to the natural gas network, to replace inefficient wood stoves with energy efficient ones. This would potentially reduce the cost of energy for poor households, the time household members spend collecting fuelwood, and reduce fuelwood demand; and (b) in communities served by the natural gas network, to replace old inefficient, and unsafe gas furnaces and appliances with more efficient ones. In these areas, the project would also provide matching funding for demand side management measures, such as the introduction of gas metering and transition towards consumption based payment for natural gas. During project preparation, agreement would be reached on an appropriate level of grant funding to households and to public entities based on expected environmental benefits, incremental costs, and affordability. GEF funding for capital costs would only be in form of time-limited subsidies for initial demonstration, necessary to promote acceptance of technologies, with the expectation that these subsidies must decline over time and that markets for higher efficiency stoves or DSM measures would be sustainable after the project without subsidies. It is expected that the improved stoves would be manufactured in Azerbaijan, possibly locally as a means of economic development. The project would provide technical assistance to support transfer and adaptation of energy efficiency technology to Azerbaijan and to prepare a bankable investment proposal for the manufacturing of energy efficient stoves in Azerbaijan, possibly for financing under an IFC small credit program. (GEF US$ 1 million)

iv) **Promote private-sector participation in the generation and distribution of clean energy from mini-hydropower plant.** The project would finance technical assistance to develop the regulatory and contractual framework for private sector participation in the construction and operation of a mini-hydro power plant. The project could also help finance part of the investment cost (IDA). GEF support in form of a loan guarantee will be considered to enhance the credit worthiness of the project proponent when seeking a commercial credit. During project preparation, the proposal will be carefully reviewed as to its financial and technical viability, to ensure that such investment would remain viable even when the current gross deficiencies in the power generation and distribution sector have been resolved. **(**GEF$0.5 million and IDA 0.5 million)

Component 3. **Environmental Management Capacity Building and Environmental Education.** This component would assist the newly created Ministry of Environment and Natural Resources to establish capacity in three areas: (i) protected area management, (ii) forestry management, and (iii) environmental management, including review of EAs. Sustained improvements in the environment can only be achieved if the public is aware of environmental problems and possible solutions. The project would therefore, in close collaboration with the Education Project, (i) support the development of environmental education programs and their integration into the primary and secondary school curriculum and (ii) support the establishment of a rural distance learning center in the project area, for the capacity building of local authorities, park administrators, and community leaders, and to complement college level education in the field of environment. The center would be based in a local learning institution to be selected during preparation. (IDA US$1.0; GEF US$ 0.2)

Component 4. Project Management and Monitoring. The project will finance the operation of a central PIU. This PIU has already been established under the Ministry of Environment for the implementation of the Urgent Environmental Investment Project. It is experienced with Bank financial and procurement procedures but will need to expand its capacity in the area of Natural Resource Management. The Project would also finance the establishment and operation of a local Project Coordination Unit (PCU) that will be located in the project area and will be responsible for day-to-day implementation of the project and monitoring of project performance. The PCU would have experts for both the natural resource and the energy aspects of the project. It would report to the PIU for administrative purposes (disbursements, procurement, reporting and would coordinate with respective local and national natural resource management and energy authorities on policy matters. (IDA US$0.8; GEF US$0.2)

Component		Indicative Costs (US$M)	% of Total	Bank-financing (US$M)	% of Bank-financing
Support Integrated Forest, Range, and Protected Areas Management		6.55	46.8	2.45	35.0
Support to Rural Clean Fuel Supply and Energy Conservation		4.65	33.2	2.75	39.3
Build Environmental Management Capacity		1.80	12.9	1.00	14.3
Project Management and Dissemination		1.00	7.1	0.80	11.4
Total Project Costs		14.00	100.0	7.00	100.0
Total Financing Required		14.00	100.0	7.00	100.0

Component (US mill)	IDA	GEF	GoA	Co-Financing	Total
1. Support Integrated Forest Range and Protected Areas Management	2.45	3.40	0.50	0.20	6.55
2. Support to Rural Supply and Conservation	2.75	1.20	0.40	0.30	4.65
3. Environmental Management Capacity Building and Environmental Education	1.00	0.20	0.10	0.50	1.80
4. Project Management and Monitoring	0.80	0.20	0.00	0.00	1.00
Total	7.00	5.00	1.00	1.00	14.00

2. Key policy and institutional reforms to be sought:

Integration of Natural Resource and Environmental Management Functions. In May 2001, Azerbaijan established a new Ministry of Environment and Natural Resources, which brings together five formerly independent entities responsible for environment, forestry, fisheries, geology, and meteorology (hydromet). The project would support the development of institutional capacity at the MNRE for integrated eco-system management in order to overcome the institutional fragmentation which has existed so far. The project would concentrate on protected area, forestry, and environmental management. test their application to the Shah Dag project area.

Adaptive public sector management of forest and pasture resources. Like other countries of the FSU, Azerbaijan faces the challenge of adapting its public sector institutions to the new social and economic conditions. In the case of natural resources, this requires moving away from centralized "command and control" management to greater autonomy at the local and regional levels, with substantive involvement of communities and user groups in establishing and implementing policy changes. In the case of forestry and protected areas management, this will involve greater autonomy of local administrative units (i.e., leskhoz and national park) in managing human and financial resources for long term sustainability. For forest, rangeland and protected areas management, this will involve developing innovative and transparent leasing arrangements for access and natural resources uses. The project would also help the new MENR separating regulatory responsibilities (to remain in the public sector) from commercial functions which were previously combined in Azerbaijan's forestry authority.

3. Benefits and target population:

The target population are the local communities, user groups, and individuals living around the proposed Shah Dag National Park, and government staff of national, regional and local governments responsible for natural resource and energy uses. The benefits include:

Environmental: The Shah Dag protected area has been established with improved protection and sustainable use of over 200,000 hectares of mountain forests and rangelands in the Greater Caucasus. Globally relevant biodiversity including threatened and endemic species in one of the world's 200 top biodiversity hotspots will be protected. A package of incentives and other measures will be available in

rural communities encouraging community forestry, fuel switching to less polluting fuels, and adoption of more efficient heating technology. Pressure on forests in protected areas is expected to drop while also contributing to reduced emission of green house gases.

Social: Households will have an option to switch to more convenient heating fuels which are less burdensome in terms of handling and in-door pollution. The project would support land and resource tenure rights and opportunities of local communities, user groups, and individuals.

Institutional: An adequate legal framework will have been established for protected area management and the Ministry of Environment and Natural Resources will have developed capacity for integrated eco-system management. Local authorities and communities in the project area will have developed an increased awareness for the benefits of sustainable resource management through active participation in the planning process.

Economical: direct economic benefits include employment generation linked to the Shah Dag national park and related business such as eco-tourism. Investments in cost-effective energy efficiency measures would reduce heating bills of private households. As energy enterprises will start enforcing payments for energy consumption in public buildings, reduced heating bills could mean significant savings for local authorities. Indirect economic benefits would include an improved business environment as a result of a more reliable energy supply in the selected project communities.

4. Institutional and implementation arrangements:

Lead responsibility for implementation would be with the Ministry of Environment and Natural Resources, in close coordination with rayon governments and other stakeholders such as local communities and NGOs. The Ministry of Energy would be responsible for the rural energy development. Project preparation and implementation will be supported by an existing project implementation unit (PIU) under the Ministry of Environment and Natural Resources (currently responsible for implementation of the Urgent Environmental Investment Project). It is envisaged to set up a local Project Coordination Unit (PCU) in the Shah Dag region to oversee project preparation and implementation in close liaison with local authorities and communities. Implementation of energy related activities, including outreach to communities, selection of pilot communities, procurement, and monitoring of results will be supported by an expert group, possibly a local or international NGO specialized in this field. Similarly, implementation of the community forestry activities would be supported by an expert group.

The project would offer assistance to access credit facilities, such as the one to be developed under the Rural Finance Project, IFAD, and IFC. Allocation of matching grants would be responsibility of a local steering committee and would be supervised by the local PCU.

D. Project Rationale

1. Project alternatives considered and reasons for rejection:

Project alternatives were considered in terms of location and nature of intervention.

- Several geographic areas of Azerbaijan (North, Kura River, South) for which the client had requested assistance in terms of natural resource management were considered. The Shah Dag area in the Greater Caucasus was selected as project site because of its high biodiversity value, the strong commitment by Government and local authorities to create a national park in the Shah Dag area and the severe threat

from increased fuel wood consumption for the proposed protected area. The option of a multi-area project was rejected because of the complexity to implement and supervise a project in several locations.

- The separation of the natural resource management aspects and the energy aspects into two separate projects was considered in order to simplify the project. However, this option was rejected because sustainable natural resource management and creation of a protected area in Shah Dag would not be feasible without addressing the energy related deforestation which is largely a result of increased use of fuel wood for heating. Such cross sectoral approach to eco-system manageement is fully consistent with GEF's operational guideline OP 12. Separation into different projects would make it uncertain whether theses issues are addressed in an integrated and simultaneous fashion.

- A micro-credit component to finance community level investments was considered for the project. This option was rejected because of the complexity of establishing a new finanacial mechanism consistent with Bank's guidelines, and the opportunity to use facilities which are soon to be under implementaion.

2. Major related projects financed by the Bank and/or other development agencies (completed, ongoing and planned).

Sector Issue	Project	Latest Supervision (PSR) Ratings (Bank-financed projects only)	
		Implementation Progress (IP)	Development Objective (DO)
Bank-financed			
Environmental Management in Azerbaijan	AZ - Urgent Environmental Investment Project	S	S
Rural Finance	AZ - Rural Finance Project		
Protected Area Management	Georgia - Protected Areas Management Project		
Forests Development	Georgia Forests Development Project		
Natural Resource Management	Turkey Eastern Anatolia Watershed Protection Project	S	S
	Armenia - Natural Resouce Management Project		
WWF/World Bank Alliance for Sustainable Forest Management			
Energy Efficiency, GEF non-grant financing	Croatia - Energy Efficiency Project		
Other development agencies			
IFAD	Mountain Region ...		

IP/DO Ratings: HS (Highly Satisfactory), S (Satisfactory), U (Unsatisfactory), HU (Highly Unsatisfactory)

3. Lessons learned and reflected in proposed project design:

Based on experience with similar projects in the Europe/Central Asia Region and elsewhere, the following lessons have been incorporated into the project design: (i) involve key stakeholders early in the project design and in the preparation phase to ensure ownership and to ensure that the design and specific investments make sense in the country and local contexts. The project initiated a household survey and focus group as early as the identification in order to better understand the incentives and constraints which determine household energy consumption in rural areas; (ii) Focus the project design in terms of geographic area to pilot new approaches before mainstreaming them at national level. The Project will focus on the Shah Dag mountain area; it will involve national authorities to the extent that this is necessary for the creation of an adequate legal framework, and the subsequent dissemination of best practices; (iii) strenghten the linkage between global and local (environmental) benefits in order to motivate local population to sustain efforts to achieve global environmental goals. The Project uses an IDA/GEF blend to finance investments which will generate both global benefits (primarily biodiversity) and local benefits

4. Indications of borrower commitment and ownership:

Azerbaijan has a track record of addressing environmental concerns and collaborating with IDA. In 1996, it started preparing a National Environmental Action Plan (NEAP) with Bank asistance. IN 1998, the country not only adopted the NEAP, but proceeded to implement four of the NEAP's top priorities with the help of the IDA financed Urgent Environmental Investment Project and substantial local couterpart financing (over US$3 million). Azerbaijan has also demonstrated its committment to address global environmental problems: in October 1995, the Government ratified the Climate Change Convention. In 2000, Azerbaijan ratified the Biodiversity convention, and is currently preparing a National Biodiversity strategy with UNDP assistance. Creation of a new Ministry of Environment and Natural biodiversity strategy with UNDP assistance. Ceration of a new Ministry of Environment and Natural Resources in May 2001 can be seen as further evidence for Azerbaijan's efforts to strengthen environmental and natural resource management. The ministry is now also involved in mainstreaming environment into the PRSP process, and the environment - PRSP working group, with support from the Bank and the UK, is one of the most active contributors to the PRSP process.

The project concept which evolved from the identification mission in may 2001 was built on broad support from national and local government, academe, and citizen groups. Written endorsement was received from the MENR, as well as the Minister of Tourism, emphasizing the link of environmental objectives and local growth in the project area. Concern was expressed by some officials that too much borrowed IDA resources would go towards technical assistance instead of "hard investments". During project preparation a mutually acceptable balance will be sought between TA and investments.

5. Value added of Bank support in this project:

Global Support: GEF's leading role in the project is critical to put in place a protected management area system to protect globally important biodiversity and to overcome barriers to improved energy efficiency. Without GEF, Azerbaijan's biodiversity efforts would likely be implemented at a much slower pace and irreversible damages could not be prevented in time. Also, without GEF participation, Azerbaijan would lack resources to build knowledge among households and local authorities about potential energy savings from improved efficiency. Barriers to investment in energy efficiency would remain high.

Bank Support: The Bank also adds value through its experience and ongoing collaboration with the Government of Azerbaijan on environment, poverty reduction, and other issues.

The Bank has extensive experience in the Europe/Central Asia Region with projects that emphasize cross sectoral linkages between natural resources management, biodiversity conservation, and poverty reduction. There are five such Bank-managed projects under preparation or implementation in the region: (i) in Turkey: the 115M Eastern Anatolia Watershed Rehabilitation Project and the US$8M Biodiversity Conservation Project; (ii) in Georgia the US$9M Georgia Protected Areas Development Project and the proposed US$20M Forests Development Project; and (iii) In Armenia the proposed US$20M Natural Resources Management and Poverty Reduction Project.

The Bank will ensure coordination among the portfolio of natural resources management projects and investments in energy supply and energy policies in the Caucasus Region, for example through development of regionally compatible standards for forest and range management, regionally compatible protected area planning networks, and sharing of lesson learned.

E. Issues Requiring Special Attention

1. Economic

☒ Summarize issues below ☐ To be defined ☐ None

Economic evaluation methodology:

● Cost benefit

○ Cost effectiveness

○ Other (specify)

A cost-benefit analysis will be carried out as part of project preparation and an incremental cost analysis will be undertaken for all GEF financed activities.

Economic issues to be considered include: (i) price distortions in the rural energy sector, with large subsidies to network supplied natural gas and absence of a legal fuel wood market. The project will help create conditions for consumption- based gas tariffs by installing meters, but will rely on energy sector restructuring TA (ESMAP) to conduct the dialogue on subsidies; (ii) possible over-extension of the natural gas network. The project would help determine what is the economically viable extension of the network in the project areas, considering the network operation and maintenance costs, as well as the environmental benefits of natural gas compared to less clean fuels, such as wood. (iii) economic cost of deforestation as a result of increased fuel wood consumption. So far, this cost has been largely neglected. The project would help to estimate this cost and incorporate it into the economic analysis of different heating options. This analysis would also help to better understand the full cost of switching to 'dirty fuels' such as wood.

2. Financial

☒ Summarize issues below ☐ To be defined ☐ None

A financial analysis will be developed to determine the viability of investments in community forestry; clean fuel options, energy efficiency, and mini-hydro power generation.

Issues which will need to be addressed during preparation will include: (i) how project beneficiaries will be able to access credit facilities created under other projects to finance their share of investment costs; (ii) how a GEF partial risk guarantee would need to be designed in order to enable the private sector proponents of the mini-hydro power plant to access commercial credit financing; and (iiii) the financial sustainabilty of energy efficiency measures beyond the project horizon.

3. Technical

☒ Summarize issues below ☐ To be defined ☐ None

The project would use proven, internationally commercially viable technologies for heating, energy efficiency, and mini-hydro construction.

Issues to be addressed during project preparation include: (i) the performance of such technologies under Azeri condidtions, specifically with regard to potential energy savings, equipment maintenance, and user friendliness; (ii) safety concerns for the transport, storage, and use of LPG for heating purposes, since so far LPG has only been used in smaller quantities for cooking.

4. Institutional

4.1 Executing agencies:

While both the Ministry of Environment and Natural Resources and the Ministry of Energy are new and have little practical experience with implementing IDA financed projects, the project will benefit from the extensive experience of an existing environmental PIU which has been implementing the UEIP for the last three years. While not always easy, the UEIP demonstrated that it is feasible to have component implemented by different executing agencies (State Committee for Ecology and SOCCAR) if implementaton rules are clear and mutualy agreed.

4.2 Project management:

Project management capacity in the project area needs to be developed. A preliminary agreement has been reached with local authorities to set up a local project coordination unit in Guba.

During project preparation various options for implementing the energy related activities will be explored, ranging from a for-profit energy services type business, to a NGO experienced in rural development and rural energy, or a consulting firm assisting the PCU.

4.3 Procurement issues:

t.b.d.

4.4 Financial management issues:

Financial management of the project will be simplified by using existing credit and micro-credit facilities. Project preparation will focus on elaborating mechanisms for allocating matching grant funds and for enabling beneficiaries to access credit.

5. Environmental

5.1 Summarize significant environmental issues and objectives and identify key stakeholders. If the issues are still to be determined, describe current or planned efforts to do so.

5.2 Environmental category and justification/rationale for category rating: **B - Partial Assessment**

The project's outcomes of biodiversity conservation and sustainable use of natural resources are environmentally positive. The project is classified as Environmental Category B, and an environmental management plan would be prepared during project preparation to address the following issues:

- small scale construction of buildings and visitor use facilities, and recreational activities within the proposed Shah Dag National Park;
- rehabilitation of a rural mini-hydro power station (less than 1 MW);
- small scale construction of clean fuels (e.g. LPG) distribution and storage infrastructure at the village level;

- small scale improvements in forest management infrastructure including field offices and rehabilitation or maintenance of existing access roads

Due to the lack of the scale of environmental impacts of infrastructure developments the environmental category rating should be revisited following pre-appraisal.

5.3 For Category A and B projects, timeline and status of EA

EA start-up date: Jan 02
Date of first EA draft: May 02
Expected date of final draft: June 02

5.4 Determine whether an environmental management plan (EMP) will be required and its overall scope, relationship to the legal documents, and implementation responsibilities. For Category B projects for IDA funding, determine whether a separate EA report is required. What institutional arrangements are proposed for developing and handling the EMP?

An EMP will be prepared as part of project preparation. A preliminary list of issues to be addressed is identified in section 5.2 above. The Borrower will prepare an Ea and associated EMP, acting through its Project Preparation Unit.

5.5 How will stakeholders be consulted at the stage of (a) environmental screening and (b) draft EA report on the environmental impacts and proposed EMP?

Project preparation will rely strongly on consultation and collaboration with the range of stakeholders at the national, regional, and local levels. Early in preparation a consultation plan for project preparation will be agreed upon with the Borrower. This plan will include the environmental review process.

5.6 Are mechanisms being considered to monitor and measure the impact of the project on the environment? Will the indicators reflect the objectives and results of the EMP section of the EA?

The project performance indicators include both local and global environmental aspects. Project monitoring will regularly report on these indicators, as well as on the implementation of the EMP.

6. Social

6.1 Summarize key social issues arising out of project objectives, and the project's planned social development outcomes. If the issues are still to be determined, describe current or planned efforts to do so.

Social issues that may arise from the project include the exclusion of households that depend on the protected area for a living and in-appropriate fuel switching behavior. The project design addresses these issues directly and they will be followed up a social assessment that will be completed prior to appraisal.

The proposed protected area will minimize the number of villages inside the area, in an effort minimize the constraints placed on local resource use such as grazing animals and collecting fuel wood. Where these activities do exist in the protected area boundary traditional natural resource user rights will be recognized and rationalized. If rationalization imposes transactions costs on households, these costs will be financed under the project. Individuals that engage in activities that pose a direct threat to the biodiversity of the park, such as hunting, and depend on this activity for their livelihood, will be offered training as wildlife guides and other alternative income earning opportunities.

The formation of the protected area is also expected to result in a stabilization of land tenure patterns. Currently there is local resource uses face considerable danger in terms of loss of access to resources because of privatization of land to businessmen from Baku. The protected area will provide a basis for local resource users to continue to access the land.

If the gas supply and infrastructure continue to degrade at their current rate, it is expected that problems of

deforestation will increase as more households consume wood to satisfy their heating and cooking needs. The project will specifically try and offset these problems by introducing more efficient wood burning technology. This intervention will reduce the amount of time households are expected to spend collecting wood (primarily the responsibility of men). Wood efficiency interventions are expected to reduce women's exposure to indoor air pollution during cooking.

6.2 Participatory Approach: How will key stakeholders participate in the project?

Consultations with local communities and stakeholders were initiated during the project identification mission, through focus groups and town hall meetings. This participatory approach would be further developed during preparation, including detailed household surveys.

6.3 How does the project involve consultations or collaboration with NGOs or other civil society organizations?

The project would be developed by the main stakeholders, including those that participated in development of the National Environmental Action Plan. The stakeholders will include local communities, user groups, NGOs specializing in environment, poverty and gender issues, national and local Government, and academia. Project preparation would include a social assessment. The environmental review procedures of Azerbaijan also require public consultations before project approval.

6.4 What institutional arrangements are planned to ensure the project achieves its social development outcomes?

A public information campaign and a monitoring and evaluation system will be sued to support project implementation. The public information campaign ensures that the local population is fully aware of project activities and the opportunities that are available to them through the project and builds ownership and committment. The monitoring and evaluation sytem ensures that project components can be adjusted mid-stream if they are not achieving their intended social development objectives.

6.5 What mechanisms are proposed to monitor and measure project performance in terms of social development outcomes? If unknown at this stage, please indicate TBD.

Project preparation includes a survey to evaluate household behavior in response to proposed project interventions. The survey will be conducted in the early fall in order to collect the maximum amount of information possible on household preferences for energy consumption and energy conservation behavior. The survey will contain some of the same income and expenditure questions as the recently completed LSMS survey so that the results from the two surveys are comparable. The results from this survey and possible follow up surveys during project implementation may also be used to monitor and evaluate project interventions.

7. Safeguard Policies

7.1 Do any of the following safeguard policies apply to the project?

Policy	Applicability
Environmental Assessment (OP 4.01, BP 4.01, GP 4.01)	● Yes ○ No ○ TBD
Natural Habitats (OP 4.04, BP 4.04, GP 4.04)	○ Yes ● No ○ TBD
Forestry (OP 4.36, GP 4.36)	○ Yes ● No ○ TBD
Pest Management (OP 4.09)	○ Yes ● No ○ TBD
Cultural Property (OPN 11.03)	○ Yes ● No ○ TBD
Indigenous Peoples (OD 4.20)	○ Yes ● No ○ TBD
Involuntary Resettlement (OD 4.30)	○ Yes ○ No ● TBD
Safety of Dams (OP 4.37, BP 4.37)	○ Yes ● No ○ TBD
Projects in International Waters (OP 7.50, BP 7.50, GP 7.50)	○ Yes ● No ○ TBD
Projects in Disputed Areas (OP 7.60, BP 7.60, GP 7.60)*	○ Yes ● No ○ TBD

7.2 Project Compliance
(a) Describe provisions made by the project to ensure compliance with safeguard policies which are applicable.

(b) If application is still to be determined, describe current or planned efforts to make a determination.

8. Business Policies
8.1 Check applicable items:
☐ _ Financing of recurrent costs **(OMS 10.02)**
☐ _ Cost sharing above country 3-yr average **(OP 6.30, BP 6.30, GP 6.30)**
☐ _ Retroactive financing above normal limit **(OP 12.10, BP 12.10, GP 12.10)**
☐ _ Financial management **(OP 10.02, BP 10.02)**
☒ _ Involvement of NGOs **(GP 14.70)**

8.2 For business policies checked above, describe issue(s) involved.
Project has started to involve local NGOs during project preparation, building on collaboration initiated under the PRSP - environment working group. So far, collaboration has included NGO SANIYA, Ecological Union of Azerbaijan, ECORES NGO.

F. Sustainability and Risks

1. Sustainability:

Sustainability of the project outcomes, i.e. improved natural resource management and environmentally responsible practices of forestry, grazing, and energy use, will depend on having appropriate incentives in place, as well as institutional capacity and confidence in the viability of these new practices. The project is designed to achieve sustainability through several means:

(1) *incentives* - by actively involving communities in the buffer zones and demonstrating local benefits which can result from environmentally responsible practices. The project will support the creation of local income generating activities, which offer viable alternative livelihoods, such as eco tourism, or offer tangible benefits, such as community forests which would reduce the cost and uncertainty of fuel wood supply. The project will therefore pay particular attention to the financial viability of proposed measures and the rural energy strategy will address the issue of relative fuel prices and subsidies which may prevent the adoption of energy savings measures.

(2) *capacity building* - is a critical component of the project and is not only directed towards national and local government entities, but will reach out through environment education and awareness campaigns to rural communities. By the end of the project, local authorities would be capable to implement and further replicate natural resource managment practices. The basic infrastructure would exist to enforce regulations, e.g. around the newly created park. A body of local experts will exist to design and implement rural energy projects. Enhanced public awareness of the cost of continued degradation and potential benefits would strenghten local interest in sustaining the efforts.

(3) *reducing risks* - by pilot testing new practices and technologies is a primary objective of the project. While only proven technologies will be used, many have not been applied under Azeri conditions. The project will pay particular attention to the monitoring of the demonstration projects and the dissemination of results to households and authorities facing similar problems as the project area today.

2. Critical Risks (reflecting the failure of critical assumptions found in the fourth column of Annex 1):

Risk	Risk Rating	Risk Mitigation Measure
From Outputs to Objective		
Ministry of Environement may lack adequate resources to sustain the newly created capacity for protected area and forestry management.	M	Help identify supplementary financing sources for management of nal. park and forestry management. Assist MENR in its restructuring effort and budget allocation process.
Incentives and supply infrastructure may be inadequate for households to switch to cleaner fuels or adopt energy efficiency measures.	M	Project would undertake careful financial and social analysis to identify a priori pilot test
From Components to Outputs		
Participating communities and households may not have access to credit to finance their share of project cost.	S	Close collaboration with existing credit facilities operating in project area to ensure that appropriate delivery mechanism, terms and conditions, and technical capacity for credit review exist.
Clean Fuels, such as LPG may not be available in adequate quantity and at an attractive price	S	Close collaboration during Project Preparation with oil companies, potential distributors, and the Ministry of Energy to ensure feasibility of clean fuel supply.
Investment climate may not be acceptable for private sector investment in rural energy production	S	Work with project proponent and financial institutions to mitigate risks to an acceptable level through GEF guarantees, purchase agreements or other means.
Overall Risk Rating	S	

Risk Rating - H (High Risk), S (Substantial Risk), M (Modest Risk), N(Negligible or Low Risk)

G. Project Preparation and Processing

1. Has a project preparation plan been agreed with the borrower (see Annex 2 to this form)?

☒ Yes - date submitted: 06/21/2001 ☐ No - date expected:

2. Advice/consultation outside country department:

☒ Within the Bank: ECSCS (Charles Chandler, Project Design, Logframe), ECSIN (Energy),
☒ Other development agencies: UNDP; IFAD

3. Composition of Task Team (see Annex 2):

Konrad von Ritter	TTL, Economist
Philip Brylski	Biodiversity and NRM
Alan Townsend	Energy Sector Restructuring
Julian Lampietti	Social Analysis
Samir M. Suleymanov	Implementation Plan
Gulana Hajiyeva	Environment, Local Coordinator
Rohan Selvaratnam	Project Costs
Naushad Khan	Procurement
Junko Funahashi	Lawyer
Hannah M. Koilpillai	Disbursement
William Porter	Energy (Oil and Gas)
Tjaart Schillhorn	Rural (Livestock)
t.b.d	Financial Management
Phyllis Harrison	Team Assistant

4. Quality Assurance Arrangements (see Annex 2):

Quality assurance is being provided by:
* Jane E. Holt (environment),
* Marjory-Ann Bromhead (natural resource management)
* Peter Thomson (energy)
* Kathy MacKinnon (Senior Biodiversity Specialist)
* Gozalo Castro (Senior Biodiversity Specialist)
* Mahesh Sharma (Climate Change GEF thematic specialist)

Project Design advice was provided by:
* Charles Chandler, ECSCS (project design, logframe, monitoring)

Peer Reviewers are:
* Charles Feinstein, ESMAP, (Energy) (t.b.c.)

A Quality at Entry review is planned, once an advanced PCD based on a preparation mission is available.

5. Management Decisions:

Issue	Action/Decision	Responsibility

Total Preparation Budget: (US$000) 740,000 **Bank Budget:** BB 250,000 **Trust Fund:** 490,000 PHRD
Cost to Date: (US$000) 61,000 (BB, excluding about 40,000 spend prior to March 01 on the Az Environment and Investment Project which was dropped)
☒ **GO** ☐ **NO GO** **Further Review** [Expected Date]

Konrad Von Ritter	Jane E. Holt	Judy M. O'Connor
Team Leader	**Sector Manager**	**Country Manager**

Annex 1: Project Design Summary

AZERBAIJAN: Shah-Dag Rural Environment Project

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Sector-related CAS Goal: Environmentally responsible natural resource management improves living conditions in rural communities. **GEF Operational Program:** Integrated Ecosystem Management (OP12) to protect critical mountain biodiversity and reduce deforestation through energy efficiency and conservation.	**Sector Indicators:** ● Reduction of poverty and increased new employment in environmentally sensitive mountain areas within Azerbaijan. ● Share of clean energy use for heating has increased and share of fuel wood has decreased nationally.	**Sector/ country reports:** ● Poverty Study (occasional), ● ESW (occasional); ● government statistics	**(from Goal to Bank Mission)**
Project Development Objective: Mountain Communities and local authorities in the Shah Dag Greater Caucasus area adopt environmentally responsible practices of forestry, grazing, and energy consumption.	**Outcome / Impact Indicators:** ● Significant reduction in poor environmental practices associated with the use of forestry, grazing and energy resources by households, businesses and government units within the project area. ● Significant increase in the adoption of environmentally responsible practices by households, businesses and government units within the project area ● xx communities meet xx% of their fuel wood needs from sustainable community forests ● ___ participating households and public buildings have installed higher efficiency stoves and adopted DSM ● Improvement in livelihood and employment generation in selected communities (indicators to be identified during	**Project reports:** ● Household survey reports; business survey reports; government unit survey reports (baseline, mid-term & final);	**(from Objective to Goal)** ● Experience and practices from Shah Dag are being replicated in other parts of Azerbaijan.

Global Objective: Conservation of biodiversity and sustainable use of bio resources in the Shah Dag area.	preparation) ● Stable or increasing numbers of 2-3 indicator species (flora & fauna, to be identified during preparation) ● Gradually improved status of forest cover within the Shah Dag protected area.	● Project monitoring reports; supervision mission reports; evaluation mission reports (mid-term & ICR). ● Forestry mapping studies (baseline, mid-term & final)	

Hierarchy of Objectives	Key Performance Indicators	Monitoring & Evaluation	Critical Assumptions
Output from each Component:	**Output Indicators:**	**Project reports:**	**(from Outputs to Objective)**
1. Integrated Forest, Range, and Protected Areas Management: Shah Dag protected area established; adequate institutional capacity in place to facilitate participatory management planning and enforce necessary regulations; local private sector made aware of opportunities for eco-tourism.	• Park boundaries established and park administration staffed and operating. • Area covered by managed grazing areas increased (__ ha by 20__; __ ha. by 20__, etc.) • Area covered by managed community forest increased (__ ha by 20__; __ ha by 20__)	• Government Resolution gazetted; • Supervision mission reports; • Evaluation mission reports (mid-term & ICR).	• Adequate resources available to sustain newly created capacity for protected area and forestry management.
2. Clean Fuels and Energy Efficiency in Rural Areas: Package of incentives and other meaasures made available to rural communities and public institutions to encourage fuel switching (from wood to cleaner fuels, e.g., LPG) and to adopt more efficient heating technology.	• Ministry of Energy endorsed rural energy strategy for Shah Dag. • Public information on energy efficiency and clean fuels has reached ...% of communities.	• Strategy report and official endorsement	• Households repond favorably to package of incentives offered.
	• One pilot mini-hydro plant constructed and operated with private sector participation		
3. National Capacity Building, Min. of Envir. & Nat. Resources: Adequate legal framework established and necessary institutional capacity available within MENR for integrated eco-system management and environmental awareness raising.	• National institutional capacity developed as planned; • Mechanism for collaboration between various NRM and environment departments established		
	• National legal framework in place for EA review, NR management, and forestry		
	• Environmental education curriculum approved for	• Government Approval	

	primary and secondary school. ● One distance learning facility established		
4. Project Management and Monitoring: Project implementation successfully completed; project results adequately monitored and reported.	● Timely submission of quality reporting, as required.	● PIU Progress reports (quarterly); supervision mission reports; evaluation mission reports (mid-term & ICR)	
Project Components / Sub-components:	**Inputs: (budget for each component)**	**Project reports:**	**(from Components to Outputs)**
1. Integrated Forest, Range, and Protected Areas Management: 1.1 Creation of Shah Dag National Park; local institutional capacity development. 1.2 Improved Forest and Range Managment 1.3 Eco-tourism development	$ 2.45 million IDA $3.4 million GEF $0.7 million other	● PIU Progress reports (quarterly); supervision mission reports; evaluation mission reports (mid-term & ICR); financial audit report (annual)	● Participating households and communities have access to credit, where required.
2. Clean Fuels and Energy Efficiency in Rural Areas: 2.1 Clean fuels for heating 2.2 Energy efficiency and demand side managment 2.3 Mini-hydro power (guarantee only)	$ 2.75 million IDA $ 1.2 million GEF $0.7 million other		● Clean fuels are available from suppliers in adequate quantity and at an attrictive price ● Investment climate favorable for private sector investment in mini-hydro.
3. National Capacity Building, Min. of Envir. & Nat. Resources:	$1.0 million IDA $ 0.2 million GEF $0.6 million other		
4. Project Management and Monitoring:	$0.8 million IDA $0.2 million GEF		

Annex 2: Project Preparation Plan

AZERBAIJAN: Shah-Dag Rural Environment Project

A. Core Project Preparation Team

Name	Bank Unit	Borrower Agency	Role/Responsibility
Konrad von Ritter	ECSSD		Task Team Leader, Economist
Phillip Brylski	ECSSD		Biodiversity and NRM
Alan Townsend	PSAPP		Energy Sector Restructuring
Julian Lampietti	ECSSD		Social Analysis
Samir Suleymanov	ECSSD		Implementation Plan
Gulana Hajiyeva	ECSSD		Environment, Local Coordinator
Rohan Sevaratnam	ECSSD		Project Costs
Naushad Khan	ECSSD		Procurement
Junko Funahashi	LEGEC		Lawyer
Hannah M. Koilpillai	LOAG1		Disbursement
William Porter	ECSIE		Energy Sector (Oil and Gas)
Tjaart Schillhorn	ECSSD		Rural (Livestock)

B. Project Preparation Activities

Key Outputs	Prepared by	Responsibility	Cost	Appraisal Requirement	Target Date
Feasibility Studies					
Protected Areas and Forestry Plan	Consultants	MENR	0.4 million	Draft Report	June 02
Rural Energy Options	Consultants	MEnergy, MENR	0.3 million	Draft Report	June 02
Mini-hydro	Consultants	Project Proponent	0.1million	Final Report	April 02
Environment Assessment					
Env. Assessment	Consultants	MENR	0.15	Final EA Approved	June 02
Social Assessment					
Household Surveys Community Focus Groups	Consultants	MENR	0.1	Final	June 02
Institutional Assessment					
MENR Capacity Needs	Consultants	MENR	0.05	Draft Report	June 02
Local Authorities Implementation Capacity Assessment	Consultants	MENR	0.05	Draft Report	June 02
Project Implementation Plan (PIP)					
Draft PIP	PIU	MENR	-	Draft	May 02

C. Specialist Tasks

Specialist Area	Level of analysis /Tools	Skills Needed	Key Output Document	Bank Review Target Date
Rural Energy Efficiency and Renewable Energy	Feasibility and Cost-effectiveness study	Energy,	FS	Feb 02

Eco Tourism	Int'l and domestic tourism industry analysis	Cross country Eco - tourism expertise	FS	June 02
Incremental cost analysis	Project cost analysis using GEF guidelines	Economist	Incremental Cost Annex	Feb 02

Annex 3: Project Processing Timetable

AZERBAIJAN: Shah-Dag Rural Environment Project

Project ID: P066199		Key Dates	
Timetable step	Original	Plan	Actual
Concept Review	01-Jun-00	10-Oct-01	-
RVP/ROC/OC Sign-off	-	-	-
PID to Infoshop	-	-	-
PID received by Infoshop	-	-	-
Begin Preparation	-	-	-
Decision Meeting	-	-	-
Auth Appr/Negs (in principle)	-	15-May-02	-
Update PID to Infoshop	-	-	-
Update PID received by Infoshop	-	-	-
EA Received in Infoshop	-	-	-
Begin Appraisal	01-Dec-00	15-Jul-02	-
Send Notice/Issue Invt Neg	-	-	-
Begin Negotiations	-	-	-
Obtain Clearance of Docs	-	-	-
Bank Approval	03-Apr-01	03-Dec-02	-
Completion Note	-	-	-

Annex 4: Azerbaijan Biodiversity

Global Significance

Azerbaijan lies at a biogeographic crossroads where the flora and fauna of three biogeographic provinces converge, resulting in high levels of biodiversity. This region contains species typical of Europe (e.g., bear, lynx, chamois, red deer), Central Asia (e.g., wild goat, leopard), and Asia Minor (e.g., striped hyena, Persian gazelle). Many of these species are threatened elsewhere in their ranges. There are about 4,200 species of vascular plants, 600 species of vertebrate animals, and 14,000 species of insects are known to be from Azerbaijan. 270 plant species (7% of the floras) are endemic to Azerbaijan, and a much larger percentage of the flora and fauna are unique to the Caucasus region.

The Caucasus region which includes Azerbaijan has been identified by the World Wide Fund for Nature as a Global 200 Ecoregion, based on selection criteria such as species richness, levels of endemism, taxonomic uniqueness, unusual evolutionary phenomena, and global rarity of major habitat types. Conservation International identified the region as a global hotspots one of the 25 most globally vital ecosystems.

The Greater Caucasus (northeast Azerbaijan, 20 % of the republic) and Lesser Caucasus mountains (Garabakh Mountains and Nakhchivan territory of west Azerbaijan, 25 %). The Greater and Lesser Caucasus includes four main communities:

(i) mountain forests of oak (*Quercus iberica* and *Q. macranthera*), hornbeam (*Carpinus orientalis*), and Caucasian lime (*Tilia caucasica*) at lower elevations, and beech (*Fagus orientalis*), maple (*Acer trautvetteri*), and birch (*Betula litwinowii*) at mid to high elevations. Pine forests (mainly *Pinus sosnovsky*) are restricted to several areas in the Belokany district in eastern Azerbaijan. The mountain zone also contain Caucasian pear (*Pyrus caucasicum*) and Oriental apple (*Malus orientalis*), which are wild tree relatives of horticultural species.

(ii) the subalpine zone, which includes regionally endemic birch species (*Betula medwedewii* and *B. megrelica*) and Pontic oak (*Quercus megrelica*).

(iii) the alpine zone (2,500 to 3,000 m) dominated by short-grass meadows, alpine meadows, and Rhododendron (*Rhododendron caucasicum*); and

(iv) the sub-nival zone, with more than 300 plant species, many associated with rock and talus substrates.

The Kour-Araz Valley and Floodplain (central, 35 % of the republic). The Kour-Araz ecoregion has an arid subtropical climate and includes semi-desert and lowland steppe habitats. The mouth of the river is one of the major natural spawning zones for sturgeon fishes.

The Talysh-Lenkoran Zone (southeast, 10 % of the republic). This zone includes the lowland area (Lenkoran) at the western coast of the Caspian and the Talysh mountains, which rise sharply from 50 to 2,436 m. The forests of the Talysh Mountains are of particular importance to Azerbaijan and to global biodiversity. The Talysh (or Hircan) floristic region is unique for the Caucasus, possessing subtropical forests.

The Caspian Zone, covering the coastal area (7 % of the republic) and open waters of the Caspian Sea. The Caspian Sea is the largest inland body of water in the world, with a total surface area of 400,000 km2. More than 800 km of the shoreline is in Azerbaijan. The Caspian's unique aquatic environment, which includes about 400 endemic species, of which at least one endangered marine mammal species, is derived from the long history of the sea's isolation. The Caspian Sea coast is a key north-south migratory corridor for mammals, as well as an important destination area, for wintering-over, breeding and nesting.

Threats to Azerbaijan's Biodiversity

Deforestation. Deforestation is occurring at an alarming rate. Azerbaijan was a major importer of wood from the USSR, but current economic and political relations with Russia and Georgia limit imports of commercial timber. Imports have declined substantially, dramatically increasing pressure on local forests. Furthermore, Approximately 1 million hectares (11 % of the republic) are under forest or shrub cover, although actual numbers are probably substantially lower. Forest ecosystems are being impacted by widespread illegal harvesting of timber and uncontrolled fuelwood exploitation.

While the relative inaccessibility of many mountain areas together with the strict protection status of the zapovedniks have helped to keep biodiversity loss so far at a modest level, these bio-resources are now threatened, among other causes, by increased fuel wood consumption and unsustainable deforestation as a result of energy shortages in rural areas of Azerbaijan. A rough comparison between the estimated annual total fuel wood yield and demand shows an excess demand of up to a factor of 10. Despite this calculation, there has been so far little evidence for large-scale deforestation possibly because the deforestation occurs on already degraded former Kolchoz and municipal lands. Azerbaijan now has an opportunity to reverse an unsustainable trend of fuel wood extraction before irreversible damage has been done to the Greater Caucasus eco system.

Habitat Loss and Fragmentation. Wetland habitats have suffered from drainage for agricultural and urban development, oil exploration, peat extraction, and gravel mining. In addition to their unique plant and animal communities, wetlands provide critical habitat for migratory and wintering birds. Easily accessible forests, such as those in mountain river valleys and riparian forests, dominated by *Quercus longipes* and *Ulmus carpinifolia* with a mixture of *Celtis caucasicum*, have suffered significant destruction and degradation.

Unsustainable Agricultural Practices.. Agricultural biodiversity has been impacted by decades of intensive farming and grazing. In particular the cotton production, with long-term reliance on agro-chemicals and irrigation practices, had negative effects on agricultural biodiversity, and has left an estimated 1.2 million hectares affected by excessive salinity, especially in the Kour-Araz lowland.

The rangelands (alpine meadows and lowland steppe communities) of the Eastern Caucasus have been overgrazed by sheep. Unsustainable range management, mainly by overstocking, has been intensified by the repopulation of high mountain villages, starting in the late 1980s. In subalpine meadows, overgrazing and associated disturbance is contributing to declines in wild goats (*Capra* spp.) and chamois (*Rupicapra rupicapra*). In the lowland grasslands, where the same domestic sheep move to winter pasture, severe overgrazing is significantly impacting the

endemic flora and fauna of steppe communities. Such competition for grazing has contributed to the decline of Persian gazelle (*Gazella subgutturosa*) and, indirectly, the striped hyaena (*Hyaena hyaena*). Traditionally, sheep were grazed on alpine meadows, with subalpine meadows reserved for fodder production and used during the winter months. Currently, traditional grazing grounds in the north Caucasus (Dagestan, Georgia) are no longer accessible, and livestock is kept nearer to villages all year round, resulting in overgrazing of the subalpine meadows as well as degradation of fragile subalpine woodland ecosystems.

Areas affected by War. The war with Armenia seriously impacted the forest ecosystems of the Lesser Caucasus, where about 260,000 ha of forests in occupied zones (more that 25% of total forest cover) were harvested. Also, more than 1 million displaced persons and refugees live in encampments and rely on fuelwood for heating cooking. The shortage of gas and oil products also lead to use of fire-wood by a great part of the rural population more broadly.

Illegal Hunting. Little data exist on the impact of illegal hunting, although data indicate significant declines in the populations of large mammals, particularly ungulates and predators such as wolf, lynx, and brown bear. The impact of illegal hunting on these declines is thought to be significant, although other factors such as habitat loss and competition with domestic livestock are also critical. One of the major illegal hunting problems is sturgeon pouching for caviar production. While officially Azerbaijan exports four tons of surgeon fish caviar per year, Traffic International estimates the illegal caviar exports at twenty tons.

Industrial Pollution of the Caspian Sea. Oil exploration and production have dominated Azerbaijan's economy since the early 19th century. As onshore deposits were exploited, infrastructure for production, refinement, and transport significantly effected the littoral ecology of Azerbaijan's Caspian shoreline, particularly around Baku. Today, the legacy of decades-old inefficient production systems and crumbling infrastructure can be seen in the effects of widespread and severe oil pollution. In the post-Soviet era, western oil companies have invested primarily offshore (at least 50 km) and have adopted modern environmental control and monitoring procedures. Public awareness of this situation was raised in the late 1980s by the plight of the Sumgayit terminal area, which was declared a "dead zone." Efforts to mitigate environmental pollution in Sumgayit, Baku, and elsewhere have increased in recent years, but the magnitude of the problem remains severe and the costs of rehabilitation are dauntingly high. In addition to oil pollution in the Caspian Sea itself, high levels of nutrients from agricultural runoff and indiscriminate industrial and municipal discharges into those rivers (notably the Kour river) which empty into the Caspian Sea also contribute to increased pollution levels in the Sea.

Protected Areas. The protected area network includes 15 strict nature preserves, 20 conservation management areas and 2 hunting reserves, with a total area of 478,000 hectares (5% of the country). All strict preserves, with the exception of the Gobustan Archeological Preserve, are managed by the SCE. Some of the other conservation areas or reserves are managed autonomously; some through regional, inter-regional or municipal Committees on Ecology and Nature Use Control.

Inadequate protected area management and support. The protected areas network is too small and fragmented to conserve the Republic's most important biodiversity, and is incomplete with respect to certain ecosystems and other priorities. State support for biodiversity conservation is weak in relation to pressures on biodiversity inside and outside

protected areas, as a result of subsistence uses, commercial exploitation; and pollution from agriculture and industrial sources. The threats to Azeri biodiversity include: (i) food and fuel subsistence needs of refugees, farmers, and others; (ii) declining ability of management authorities to stop poaching of rare animals and illegal logging and (iii) human encroachment through development on plant and animal habitats. Lack of adequate funding hinders staff efforts to mitigate these problems, and limits the proper management of existing protected areas.

Linkages to National Priorities and the Bank Program

National Biodiversity Strategy/Action Plan. Azerbaijan ratified the Convention on Biological Diversity in March 2000 and the Ministry of Environment and Natural Resources is preparing a National Biodiversity Strategy and Action Plan in cooperation with various stakeholders inside and outside government, with UNDP support. Based on consultations with the MENR and other key stakeholders engaged in preparation of the BSAP, the strategy/ action plan is under preparation, but the biodiversity conservation priorities identified in the National Environmental Action Plan are expected to remain relevant. These include strengthening of the protected area network, especially through: (i) the adoption of national parks as instruments for the sustainable use of biodiversity, to complement the existing protected area network which emphasizes strict nature reserves; (ii) creation of new protected areas, the highest priority of which is the proposed Shah-Dag National Park, which would be financed under the proposed project; and (iii) the implementation of pilot projects in sustainable uses of biodiversity which address rural poverty as a root cause of biodiversity degradation and loss. The proposed project would implement these priorities already defined by the working groups for the BSAP. The project would conserve biodiversity in the Caucasus Mountains, one of the region's highest priority ecosystems.

Azerbaijan ratified the Climate Change Convention in January 1995. In 1997, the State Commission of Climate Change was established and the Initial National Communication to the of Parties was presented in Hague in November 2000. This Communication highlights: (i) the need to reduce the extreme energy intensity, and as a consequence, carbon intensity of Azerbaijan's economy (it uses 3.2 toe per US$ 1GDP compared to 1.7 toe in Russia and 0.25 toe in the EU); (ii) the need for energy efficiency measures in the residential and commercial sector which is a major and growing energy consumer. While the population increased by 5% between 1990 and 95, energy consumption increased fourfold; (iii) the inefficiency of the country's heating system and the lack of natural gas supply to rural areas as a principal concern; and (iv) the potential role mini-hydros and other sources of renewable energy could play in rural electricity supply. The proposed project would help develop a rural energy strategy, identify cost-effective energy efficiency and renewable energy measures, and implement demonstration projects, and thereby contribute to the reduction of CO 2 emissions.

Poverty Reduction Strategy Paper. Azerbaijan's greatest challenge is to reduce poverty by generating growth and employment in the non-oil sector. The Government has undertaken a number of steps in this direction, including the preparation of a PRSP and reforms of the public sector. The Government also has developed a National Environment Action Plan and signed international environmental conventions because it is aware that a sustainable use of the country's natural resources and environmental protection are critical for sustaining livelihoods, particularly in the rural areas, and protecting the health of its population.

As a first step in developing a poverty reduction strategy the Government has prepared an Interim-Poverty Reduction Strategy Paper (I-PRSP), submitted by the Prime Minister to the Fund and the Bank on May 24, 2001. On this basis, the Government plans to develop a full PRSP by the end of 2001. The State Committee of Ecology initiated preparation of an environment contribution to the PRSP with support from the Bank and DFID and a first environment-PRSP workshop was held in May 2001. This contribution will identify principal poverty-environment linkages and propose policies with the aim of improving environmental protection for the poor, who are often disproportionately affected by environmental degradation. Critical areas which have been identified so far include supply of rural areas with clean energy, sustainable management of bio-resources, specifically of forests, and improved management of water resources and quality for drinking water and agricultural use.

National Environmental Action Plan (NEAP). The Government of Azerbaijan, with the assistance of the World Bank, completed a National Environmental Action Plan, which was formally adopted in November, 1998. The proposed project builds on the following priorities identified in the NEAP:

- Strategic plans for biodiversity hotspots should be designed, biological inventories need to be completed and updated;
- Reduce the demand for wood as an energy source by increasing the availability and affordability of cooking gas and electricity in rural areas, particularly in the areas with large displaced populations and areas adjacent to the forests;
- A long-term strategic objective in biodiversity conservation is to increase financial resources available for nature reserve management and expansion. To reduce the cost of maintaining protected areas, alternative management arrangements should be explored in which government agencies, non-governmental institutions, and local communities form reserve management partnerships;
- Develop realistic, ecologically-driven and participatory forest management plans. Plans could include actions such as the allocation of certain areas over given time periods for fuel-wood gathering by private citizens and replanting programs paid for by the local farmers or users;
- Review and revise the legal and regulatory framework to support these objectives.

Link to Bank Program and Priorities:

CAS and PRSP. The most recent CAS (1999) emphasizes improvements in governance, private sector development, Social Development and Sustainable Growth. It make provision for an environmental investment and management project and foresees GEF activities, in addition to the Caspian Environmental Management Project, once Azerbaijan has signed the Biodiversity Convention.

Since development of the PRSP has started, the strategic focus on poverty reduction has been sharpened. The Bank is supporting the preparation of an environment contribution to the PRSP through workshops for local experts and decision makers (the first one was completed in May 2001), and analytic work funded by UK DFID. Findings from the PRPS-environment work will help design effective poverty reduction interventions to be supported under the proposed project. They are likely to include improvements in energy efficiency, village infrastructure, and income generating activites, such as ecotourism.

The proposed project would contribute to poverty reduction, particularly in rural areas while also contributing to global environmental objectives related to biodiversity and climate change.

Bank Environment Strategy. The proposed project would directly support two priorities of the Bank's new environment strategy in an integrated fashion: to enhance the livelihoods of the poor through natural resource management and to address global environmental problems.

GEF Priorities. The project would conserve biodiversity in the Caucasus Mountains, one of the region's highest priority ecosystems. The project would be an IDA/GEF blend and address root causes of biodiversity loss and climate change through the multiple focal area operational program. The proposed project addresses global benefits under three operational program: biodiversity conservation, climate change, and international waters. The project is consistent with the Integrated Ecosystem Management Operational Program (OP 12).

Regional Caucusus Priorities. In addition to being a national priority, as identified in the PRSP and NEAP, the project is an important part of the ECA natural resources program for the Caucasus Mountains. There are projects on poverty reduction and improved natural resources management (including biodiversity conservation) under implementation or preparation in three other countries of the Caucasus region: Georgia (Forests Development Project, Protected Areas Development Project), Armenia (Natural Resources Management and Poverty Reduction), and Turkey (Turkey Biodiversity and Watershed Management Project). Azerbaijan presents many of the same issues which led to the development of projects in these other countries. There is an opportunity to approach a regional agenda for natural resources management and promote regional cooperation through this portfolio of projects.

These regional priorities have also been documented in the recently published WWF 'Biodiversity of the Caucusus Ecoregion' Report. The proposed project would support three of the principal recommendations of this report: (i) creation of a Shak Dag national park, (ii) promotion of eco-tourism in protected areas; and (iii) environmental education and public awareness for biodiversity conservation.

Synergies with related Bank Projects.

Urgent Environment Investment Project (UEIP). The proposed project would build on the UEIP, the first IDA financed environment project under implementation in Azerbaijan. The UEIP supports four top priorities of the NEAP: construction of a sturgeon hatchery, mercury clean up in Sumgayit, demonstration of on-shore oil clean up, and modernization of environmental management. The proposed project would address additional NEAP priorities which have not been covered so far: biodiversity protection and rural energy. The new project would benefit from the implementation capacity created in the Project Implementation Unit under the Ministry of Environment.

GEF Caspian Sea Program. The five Caspian riparian countries have been implementing the CEP since 1998 to protect and use wisely the Caspian marine environment. The main project under the CEP is the UNDP-managed GEF project for the transboundary diagnostic analysis of environmental issues and the associated EU-TACIS Caspian Environment Project. These projects primarily address institutional and capacity-building issues in the Caspian region that would facilitate preparation and implementation of environmental policies and investment projects. There is no duplication between the CEP and proposed project. The project

preparation team will coordinate with the Caspian Regional Thematic Center (CRTC) for Preservation of Biodiversity, which provides technical support for protection of the biodiversity of the Caspian Sea. During project preparation, the team will also explore possible collaboration on coastal zone management, since the proposed protected areas would reach all the way to the Caspian Sea.

Similar to the Farm Privatization and Irrigation Projects, the proposed project would focus on rural areas, however in geographically distinct areas, except for the rehabiliation of the Samur - Absheron canal in the Guba/Guzar area. The project team will evaluate the experience with community based activities under the irrigation project (e.g. water user associations) as a possible model for implementing community development actions.

The proposed project will address rural energy constraints, which was identified by the Rural Infrastructure Study as the number one concern of the rural population. In parallel, a study financed by the Public-Private Infrastructure Advisory Facility identified institutional constraints in the energy sector which contribute to the rural energy crisis, including high levels of natural gas subsidies and pervasive non-payment issues between SOCAR, Azerigas, and Azerienergo. A follow up study to be funded by ESMAP and PPIAF will recommend reforms in the energy sector to enhance the financial viability of utilities, increase private participation, and ensure adequate energy supply on the domestic market. Preparation of the proposed project will generate input for the ESMAP work with regard to rural energy and recommendations could be piloted under the proposed project (e.g. private participation in mini-hydros).

The proposed project would support the agenda of the forthcoming SAC II in two respects: (i) help implement the public sector reform in the field of environment, and (ii) help develop environmentally sound rural energy solutions, as part of energy sector reforms. The project would benefit from progress which could be achieved under SAC II in terms of tariff reforms, specifically with regard to reducing natural gas subsidies. In principle, a reduction of subsidies is desirable as an incentive for more efficient energy use. However, there is a risk that sudden energy price increases would cause unbearable social hardship to selected poor households or would trigger unintended fuel switching towards fuel wood with high external costs. The project team has been asked by the Country Director to work with the SAC team to minimize this risk.