

# Scientific and Technical Advisory Panel

The Scientific and Technical Advisory Panel, administered by UNEP, advises the Global Environment Facility  
(Version 5)

## STAP Scientific and Technical screening of the Project Identification Form (PIF)

Date of screening: September 15, 2014

Screeners: Virginia Gorsevski

Panel member validation by: Brian Child  
Consultant(s):

### I. PIF Information *(Copied from the PIF)*

**FULL SIZE PROJECT GEF TRUST FUND**

**GEF PROJECT ID:** 6949

**PROJECT DURATION :**

**COUNTRIES :** Tajikistan

**PROJECT TITLE:** Conservation and Sustainable Use of Pamir Alay and Tian Shan Ecosystems for Snow Leopard Protection and Sustainable Community Livelihoods

**GEF AGENCIES:** UNDP

**OTHER EXECUTING PARTNERS:**

**GEF FOCAL AREA:** Multi Focal Area

### II. STAP Advisory Response *(see table below for explanation)*

Based on this PIF screening, STAP's advisory response to the GEF Secretariat and GEF Agency(ies):  
**Minor issues to be considered during project design**

### III. Further guidance from STAP

1. STAP welcomes the submission of this important and timely proposal to promote the conservation and sustainable use of PAs and buffer zones in Tajikistan to contribute to global snow leopard conservation and locally to sustainable community livelihoods. The PIF presents a comprehensive project that integrates BD, SFM and SLM. Overall, the project seeks to 1) strengthen existing PAs, 2) expand conservation efforts outside of PAs and support alternative local livelihoods, and 3) provide support to national institutions to participate in related transboundary conservation efforts. To strengthen what is an excellent proposal, we provide one key suggestion, and two areas of the concept that need to be strengthened:

2. First, consideration should be given to developing PAs as cost centers using performance based management systems so that they achieve management effectiveness as well as biodiversity coverage.

3. Second, the PIF/PPG needs to develop a realistic case for the integration of the bio-experience economy into local livelihoods. Here, it is highly likely that the management and governance of high-value hunting (amongst other uses) needs to be optimized to flip the economy towards 'natural' uses. The development of natural resource use, especially high value hunting, which require governance arrangements that maximize the flow of (hunting) revenues and benefits to "producer communities".

4. Third, the major weakness of the PIF project concept is that it depends heavily on community buy in, but gives little consideration to how communities are to be empowered, organized and capacitated. This is necessary as social sustainability (justice) requires genuine participation and equitable benefit sharing including of women and other marginalized groups. In many ways the suggestions in the PIF reflect the early emergence of CBNRM in southern Africa. As it stands, the PIF reflects outdated thinking that district councils could act as the mechanism for land use planning and benefit sharing (e.g. Project WINDFALL in Zimbabwe). This failed, including in many forest projects globally (Ribot, Agrawal et al. 2006). It only succeeded with genuine devolution towards an ideal state where community groups (e.g. village companies, Martin (1986) are:

- delineated at the scale where they can interact face-to-face (Murphree 1994),
- are accorded full proprietary rights (to use, manage, sell and protect and exclude others from their resources (Schlager and Ostrom 1992))

- adhere to governance guidelines that ensure participation, transparency, accountability and equitable benefit sharing at micro-level (Child and Wojcik, 2014), and
- monitor aspects of resource use and management (e.g. the Namibian Management Orientated Monitoring Systems or MOMS (Stuart-Hill, Diggle et al. 2005). Note that adaptive capacity is an emergent property from use of such data in multi-stakeholder forums.

5. The final concern to be addressed at PPF stage is to match the scale of the project (i.e. incremental gains and indicators) realistically to budgets and capacities.

## PART 1: PROJECT FRAMEWORK

Project Objective: Is the objective clearly and consistently related to the problem diagnosis?

The project objective is clearly stated and globally relevant.

Expected Outcomes. Do the outcomes encompass important global environmental benefits? And are these global environmental benefits likely to be generated?

In brief the outcomes are:

- Increased protection of Snow Leopard habitat
- Improved capacities of park and community managers
- Integrated land management outside parks
- International standards for monitoring, research and law enforcement

1. The outcomes represent important global benefits through the conservation of key species, parks and community lands. The combination of outcomes is a logical, innovative and comprehensive towards park, landscape, community and species conservation over a large area of mountains. However, the challenge is whether these can be achieved within the budget and time frame of a single project.

2. Expected Outputs. Is the sum of the outputs likely to contribute to the outcomes?

The combination of outputs is logical. However, the indicators may be over-optimistic – 100,000 hectares within project time frame, and 900,000 ha by 2025.

3. Project component. Do the project activities / components support the project objective, and reflect key overall objectives in the GEF strategy for focal areas?

4. Component 1 is sound in combining protected area expansion and capacity-building including business plans. However, the gains of "upgrading" protected areas from IUCN VI to IUCN I must be weighed against limitations this placed on revenue generation. For example, there is evidence at a global (reference) and a regional (e.g. South Africa) scale that species utilized through high value hunting are more persistent on average than other species. This area contains species that could provide significant benefits to parks and communities at low offtake rates (2-3%) through high value trophy hunting, as has provided the economic foundation for community involvement in CBNRM in southern Africa. This is emphasized in the Global Snow Leopard and Ecosystem Protection Program (refer), which calls for reform of hunting laws and formation on an enabling environment for community-based wildlife organizations so that processed from hunting are distributed in an equitable and transparent manner (p31, 65).

5. It is recommended that the PPG consider the strategy of developing protected areas as devolved cost centers that use performance based management to plan, track and report on performance in terms of (1) resource protection and monitoring (2) tourism (3) infrastructure and equipment (4) community development and buffer zone management and (5) financial and HR effectiveness and efficiency. This applies especially to performance based law enforcement and even performance-based pay in law enforcement monitoring systems, with a good example being the law enforcement management information system developed for the Norway/World Bank SEED Project in Kafue National Park Zambia.

6. The PPG may also need to reduce these aspirations according to what is realistic with a GEF budget of \$1.7m and co-financing of \$4m. It is anticipated that the PPG will give careful consideration to budgeting the training and salaries of staff, to ensuring that these are at least matched by operational financing, and that this is sustainable in the long term. Consideration should be given to systems of law enforcement in which communities play significant or even major roles (e.g. Village Scouts in Zambia, or community protection in

Namibia) as these can be cheaper than state-based systems if implemented carefully and rigorously, and in the long term may be more sustainable.

Maps of this region are difficult to obtain, and the PIF would be considerably strengthened by including a clear geographic representation of its goals.

7. Component 2 is mostly well conceptualized though it is recommended that the use of remote sensing, GIS, and economic models be combined with participatory methods to develop management plans. Careful thought should also be given to the local governance arrangements necessary for implementation, especially given the likelihood that traditional systems were undermined by soviet collectivization, and that local systems of collective action may need to be developed. It should not be assumed that district-level land use zonation will be effective unless this is embedded in highly participatory processes at the very local level. Indeed, such programmes seldom work unless local communities are genuinely empowered with proprietorship including rights of use, management, benefit sharing and exclusion and the capacities to exert these rights (Ostrom 1990, Ribot, Lund et al. 2010).

8. The implementation of "alternative livelihoods activities" is not well defined and may be insufficient given the high dependence of people on the land for survival. Tajikistan is one of the poorest countries in the world. Of the ~6 million total population, about 75% live in rural areas. Since independence, the people have suffered through civil conflict, a food crisis and reoccurring drought (no mention is made that this is a post conflict intervention). In addition, they have to farm on mountainous terrain and live with the legacy of the Soviet system of collectivized land geared toward cotton production (Clifford et al., 2009). Only 7 % of the land is arable, but agriculture sustains over 60% of the population. 80% of people live below the poverty line (Columbia Earth Institute, November 2001). If only 15% of communities in and around the targeted PAs will be supported through micro-crediting programs, will this be sufficient to deter people from utilizing forest and NTFPs from within the PAs?

9. Regarding outcome 2.1.5, consideration should be given to the practicality and viability of these alternative livelihoods and the time it takes to develop new technologies, farming systems and markets; many projects fail by promoting enterprises that are well-meaning but, in the end, unviable and impractical. A notable exclusion from this list is high value trophy hunting which has a proven ability to generate significant and sustainable incomes almost immediately, because development costs are low and global markets are sophisticated. The challenge with trophy hunting is to establish governance systems that ensure local control and benefits and that avoid elite capture. Again, considerable knowledge about setting up such systems is available from southern Africa.

10. This project is linked to three SFM objectives; however, the PIF doesn't provide much if any detail about how it will reduce the main drivers of deforestation – fuelwood consumption for energy and construction material – apart from excluding some areas from human use with the creation of new PAs (?) and limited efforts to support income generation through micro-credit. Are there plans to support alternative energy sources to alleviate pressure on the forest? How will people satisfy their demand for energy services if they don't have access to fuelwood?

11. STAP recently published a document entitled "Assessing the Effects of Terrestrial Protected Areas on Human Well-Being." In it, recommendations were made "to improve the design of future studies to focus specifically on the rich portfolio of GEF terrestrial protected area projects to better understand the empirical evidence of impacts of PAs on human well-being and to develop a streamlined methodology for PA projects in the GEF portfolio to be tested in GEF-6, with the goal of improving their overall effectiveness and post-project sustainability (Pullen et al, 2014)." Will there be any attempt to put in place a system for tracking the impact of the newly created PAs on human well-being from this project that could inform this project as it progresses and future projects with similar objectives? Perhaps during the collection of socio-economic data in Component II?

12. Component 3 conflates international cooperation with local monitoring and research (3.1.1) and training (3.1.2) which appear to be already covered under outcome 2.1. Supporting Tajikistan to participate meaningfully in the Global Snow Leopard CP (?) process is important. However, transboundary arrangements need to be carefully designed to avoid absorbing significant revenues without concomitant conservation returns, or bureaucratizing arrangements and centralizing them even further away from local people and park managers. Careful consideration needs to be given to maintaining functions at the lowest scale possible (the principle of subsidiarity) and focusing transboundary mechanisms on the fewest possible functions that have genuine economies of scale (Patterson 2011).

13. The PIF could be strengthened by additional clarity on whether the three components are intended to occur simultaneously or are sequential. For example, Component III discusses the creation of a detailed map and database of snow leopard distribution. This is indeed important for the purposes of international cooperation (the goal of Component III); however, it is even more critical for the first two components. Will the project rely on existing maps of SL distribution in Central Asia or conduct independent field work specific to Tajikistan to record the presence of SLs or use other data to determine habitat suitability for the SL and its prey and how this relates to human settlement patterns? What is the scientific method to be used to redraw the lines of existing PAs and to develop new conservation areas?

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## PART 2: PROJECT OVERVIEW

Is the problem statement well defined and supported by a verifiable baseline?

1. The problem statement and barriers are, as a whole, well argued.
2. The global value of conserving Tajik fauna and flora is worthwhile, but this section would be stronger if citations were provided to support the statements about GEBs.
3. Para 2 in the introduction discusses human wildlife conflict regarding snow leopards. It should be noted that in southern Africa the killing of elephants, leopards and cheetahs by farmers was greatly reduced by giving them a high value through trophy hunting, and by creating a sense of local responsibility by devolving proprietorship of these species to landholders and communities. The same can be said for other species such as buffalo where carefully controlled trophy quotas (where communities get significant income and the meat is delivered to them) were used to displace uncontrolled, low value uses such as Bushmeat hunting.
4. The underlying problem appears to be one of open-access, with paragraph 3 of the introduction in the PIF listing the symptoms where benefits that are privatized to individuals but costs which are externalized to society, i.e. a tragedy of the commons (Hardin 1971). As we have learned with REDD and SFM, long term solutions to tragedies of the commons invariably lie in governance reforms based on strengthened local proprietorship and even title (ITTO 2009, Porter-Bolland et al 2013). These critical issues are not discussed by the PIF, yet are presumably the foundation of interventions that involve communities.
5. The barriers identified include:
  - a. The need to expand the PA system geographically, and the need to develop a modern protected area management systems for which the current budget of \$400,000 is insufficient.
  - b. The PIF or at the very least the PPG needs to be clearer about which parks are involved (a map?!), which uses are allowed in the PAs, and whether people live in them or have traditional access for various uses.
  - c. The replacement of sustainable traditional systems of land use with demographically driven open access regimes and associated land degradation including the annual loss of 2.7% of forests.
  - d. Information on the geographic size of these areas and the number of users and inhabitants would assist in assessing the scale of project interventions required.
  - e. The absence of knowledge bases and management systems at international standards regarding ecology, protection and utilization of wildlife and PAs.

The problem and barriers are thus clearly identified, but their magnitude is significant relative to a \$4.1m 5-year intervention.

Baseline scenario and any associated baseline projects

1. The PIF refers to the Global Snow Leopard Ecosystem Conservation Programme (GSLECP) as the baseline upon which this project will be built. Presumably this is the same as the "Global Snow Leopard & Ecosystem Protection Program", which is an exceptionally strong document. The PIF would be strengthened by outlining the commitments made by Tajikistan in this document including prioritized activities, budgets, timeframes and geographic scope.

A summary of baselines is:

- Protected Areas- 3,100,000 ha, annual budget of \$500,000 (>40% for salaries) plus an (additional?) \$2m for Tajik NP over 7 years.
- Forest restoration - \$6m (GoT), plus \$20m (German), plus \$?? UNDP.
- Micro-credit - \$120m (GoT)
- Livestock and sustainable pasture management â€“ in planning stage

This suggests that the baseline is in place, but the PPG will be required to provide more detail regarding PAs, corridors and restoration areas including areas, maps, habitat types, etc.

#### Proposed alternative scenario

1. The PIF is recommended for its comprehensive approach to landscape and snow leopard conservation. It is difficult to assess the detailed recommendations on PAs in component 1 without maps, and it is assumed this deficiency will be addressed in PPG stage. The list of activities (border demarcation, patrolling, zoning, business plans for PAs, better logging and forestry practices including monitoring) is comprehensive, though perhaps more could be made of the value of ecosystem services, a theme throughout the Global Snow Leopard & Ecosystem Protection Program, and also values of wild relatives of cultivate crops such as walnuts (see p ix). It is recommended that the PPG refers specifically to best practices in many of these spheres as identified in the GSLEPP and elsewhere.

2. Component 2 plans to map ecosystems, threats, land use practices and conflicts using GIS technology and participatory methods. It will support improved management and rehabilitation of pastures and forests, and integrate these spatially and temporally with snow leopard migration corridors. It will also seek alternative livelihoods, largely through micro-credit and sustainable natural enterprises. The technical proposals for zoning are strong, but the feasibility and methods of increasing livelihoods by 15% may be optimistic. However, the biggest gap here is institutional. How exactly will communities be organized and empowered to implement these zones and plans while avoiding elite capture?

3. Similarly, new financing and harvesting or production techniques in the absence of institutional control systems (e.g. community-based tenure and capacities) reflect the economic conditions of a frontier economy, and are likely to exacerbate not reduce resource destruction. The PIF needs to give more consideration to regulatory systems in the form of community governance and land use plans, much as suggested in broad terms by the GSLEPP. This component of the Project is likely to sink or swim depending on whether it can get sound institutions in place, either through state run PAs or genuinely devolved and capacitated community based resource management.

4. Component 3 seeks to link Tajikistan to regional best practice and into global snow leopard management. This is highly justifiable.

#### A comment on hunting:

In amending hunting regulations, consideration should be given to maximizing high value, low impact uses (trophy hunting) to maximize the competitive value of wildlife, and critically to maximizing the retention of this income by "producer communities". Best practice is that communities should set their own quotas (with technical oversight in the short term), have full rights and capacity to exclude other users, sell quotas competitively to outfitters, and retain 100% of the proceeds from wildlife on their land. It is very easy to rapidly increase wildlife populations where the main value is in trophy hunting because offtake rates are well below population growth rates. The same cannot be said when wild animals are used for meat, a low value use which is a real threat to sustainability. Presumably the over-harvesting of species mentioned in the PIF is largely for (relatively low value) local uses in open-access property situations. Further, the primary threat to wildlife is very often competition for land with domestic stock, and is best combatted by combining local proprietorship and giving wildlife the highest value possible. In other words, the knee-jerk reaction to stop/reduce high value hunting where species are struggling to survive may be intuitive, but for economic reasons it is very often counter-productive to desired conservation outcomes.

5. Incremental cost reasoning and expected contributions from the baseline, and GEF

The proposed incremental activates for component 1 are comprehensive and will potentially lead to the delivery of global environmental benefits. The targets are perhaps conservative, but as noted above the scale of inputs and outputs needs to be judged in more detail in the PPG.

6. Also as noted above, the incremental activities for the Sustainable Land Management Component are strong in terms of technical activities (e.g. planning), but need to elaborate how micro-credit and production interventions will link to more sustainable modes of production. Critically, the whole aspect of designing institutions for effective community participation and benefit sharing (e.g. CBNRM) is an oversight that must be corrected.

7. Likewise, the underlying causes of (un) Sustainable Forest Management are institutional (i.e. open access exacerbated by poverty and population growth), and the comprehensive technical activities described are only likely to be successful if institutional issues are addressed. With this strengthening of the incremental activities, the global environmental benefits that are explicitly defined are likely to be delivered and are important. The combination of improved technology and information proposed in the PIF, plus face-to-face learning at local (participatory), national and regional (transfrontier) level are important attributes of adaptation mechanisms.

Innovativeness, sustainability and potential for scaling up

1. The project aims to establish and strength BD, SLM and SFM in an integrated system of protected areas and off-reserve conservation strategies. The strategy will move PAs and buffer zones towards sustainability and towards better practice, but the interventions are unlikely to be sustainable within the short period of a project cycle. They will contribute spatially and provide lessons for regional conservation.

2. Identify key stakeholders and describe how they will be involved in project preparation

The project has the potential to incorporate five public agencies into P and sustainable land management, along with provincial and local government agencies (these are miscategorised as NGOs in the PIF, p11) and communities. It is laudable that local communities will be engaged in PA management boards, but the stakeholder analysis reinforces the concern that the exact mechanisms for community organization and engagement have not been thought through. The participation of NGOs (Panthera) and research (Academy of Science) provides some balance to a project that is (unavoidably?) state heavy.

Risk/assumption identification and management in project design?

1. The biggest risks to this project appear to be two-fold: the ability of the project to make the case for PAs and especially SFM/SLM at local (financial) and national (economic level), and the commitment of five public agencies to work on the project in a coordinated manner. The first is addressed in part in the PIF (risk 2 and 3) and needs to be carefully (not hopefully) analysed at PPF, while the latter also needs to be carefully assessed at PPG, with a key success factor being the identification of a champion/s to lead this well-conceived project. Experience from implementing previous UNDP GEF Sustainable Management of Agro-Biodiversity and lessons for how to work most effectively with the public sector need to be incorporated realistically into project design.

2. Also, the risk of climate change is documented as 'low.' However, according to one study, "Russia, Sweden, Finland, Estonia, Latvia, Iceland, Kyrgyzstan, Tajikistan, and Georgia all have more than half of their existing habitat at risk from global warming, either through outright loss or through change into another habitat type." (Malcolm J.R. and A. Markham, 2000). Other studies have found a steady warming trend in this region (Lioubimtseva et al., 2005).

Socio-economic and gender issues

1. Gender issues are well elaborated, but the PIF/PPG needs to be strengthened by briefly describing how community engagement will encourage participation and benefit sharing, including with women and other marginalized groups. The importance of community participation and organization has been noted above.

Coordination with other related activities and learning from other projects

1. The project dovetails with the well-conceived Global Snow Leopard and Ecosystem Protection Program (UNDP-GEF) which also has the commitment of most/all regional governments. The PPG should definitely integrated the project with the potentially synergistic and complimentary World Bank GEF Community Agriculture and Watershed Management and Sustainable Land Management Projects, as well as building on the UNDP GEF Sustainable Management of Agro-Biodiversity project.

2. A previous GEF-funded project called "Sustainable Land Management in the High Pamir-Alai Mountains in Central Asia" (GEF ID 2377) included similar components as are in this project. Are there lessons learned that could be applied to this PIF going forward?

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<i>STAP advisory response</i>	<i>Brief explanation of advisory response and action proposed</i>
<b>1. Consent</b>	<p>STAP acknowledges that on scientific or technical grounds the concept has merit. However, STAP may state its views on the concept emphasizing any issues where the project could be improved.</p> <p>Follow up: The GEF Agency is invited to approach STAP for advice during the development of the project prior to submission of the final document for CEO endorsement.</p>

<p><b>2. Minor revision required.</b></p>	<p>STAP has identified specific scientific or technical challenges, omissions or opportunities that should be addressed by the project proponents during project development.</p> <p>Follow up: One or more options are open to STAP and the GEF Agency:</p> <p>(i) GEF Agency should discuss the issues with STAP to clarify them and possible solutions.</p> <p>(ii) In its request for CEO endorsement, the GEF Agency will report on actions taken in response to STAP's recommended actions.</p>
<p><b>3. Major revision required</b></p>	<p>STAP has identified significant scientific or technical challenges or omissions in the PIF and recommends significant improvements to project design.</p> <p>Follow-up:</p> <p>(i) The Agency should request that the project undergo a STAP review prior to CEO endorsement, at a point in time when the particular scientific or technical issue is sufficiently developed to be reviewed, or as agreed between the Agency and STAP.</p> <p>(ii) In its request for CEO endorsement, the Agency will report on actions taken in response to STAP concerns.</p>