Final Evaluation

Atlas Project ID: 00049805; PIMS: 1278

In Situ Conservation of Kazakhstan's Mountain Agrobiodiversity

Michael J.B. Green & Natalya Panchenko

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ACKNOWLEDGEMENTS

Appreciation and thanks are due to the many people who willingly and enthusiastically spared their time to meet with the Evaluators, often at short notice, and share their experiences and observations, all of which helped to inform this evaluation. Details of those officially met and interviewed are given in the **Annex 2** but there were many others, particularly while visiting the protected areas, who gave their time and hospitality.

The mission was hosted by the Project Implementation Unit, based in Almaty. Particular thanks and gratitude are owed to Kuralay Karibayeva (National Project Manager) and members of her team (Arkadiy Rodionov, Anatoliy Miroschnichenko, Lina Valdshmit, Almara Kalipanova and Alexander Gorlanov) for arranging and fully supporting this evaluation mission – a very time-consuming and tiring exercise which they undertook generously, graciously and with good humour. Stanislav Kim and Aliya Akhmetova, within UNDP Energy & Environment Unit, also welcomed and assisted us.

The opinions and recommendations in this report are those of the consultants and do not necessarily reflect the position of the Committee of Forestry & Hunting and its agencies, GEF or UNDP. The consultants are responsible for any errors or omissions.

Front cover: variety of *Malus sieversii* (© Rustem Vagapov)

ACRONYMS AND ABBREVIATIONS

APR	Annual Progress Report
CIS	Commonwealth of Independent States
CO	Country Office
CWR(s)	Crop Wild Relative(s)
FHC	Forestry and Hunting Committee
GEF	Global Environment Facility
GIS	Geographic Information System
GoK	Government of Kazakhstan
ha	Hectare(s)
IUCN	International Union for the Conservation of Nature and Natural Resources
LFM	Logical Framework Matrix
M&E	Monitoring and Evaluation
MEP	Ministry of Environmental Protection
METT	Management Effectiveness Tracking Tool for PAs (World Bank/WWF)
MLF	Micro Loan Fund
MoA	Ministry of Agriculture
MTE	Mid-term Evaluation
NCC	National Coordinating Committee
NEX	Nationally Executed Project
NGO	Non-governmental Organisation
NP	National Park
NPM	National Project Manager
NSAPCSUBD	National Strategy& Action Plan on Conservation & Balanced Use of Biodiversity
PA(s)	Protected Area(s)
PDF-A/B	Project Development Facility – Block A/B
PIR	Project Implementation Report
PIU	Project Implementation Unit
PSC	Project Steering Committee
RTA	Regional Technical Advisor (UNDP – Global Environment Facility)
SNR	State Nature Reserve (English term for *zapovednik*)
SPA	Specially Protected Area
STAP	Scientific Technical and Advisory Panel (GEF)
ToR	Terms of Reference
TRAC	Target for Resource Assignments from the Core
UNDP	United Nations Development Programme
UNEG	United Nations Evaluation Group
US$	United States Dollar

EXECUTIVE SUMMARY

PROJECT DETAILS

UNDP/GEF Project Title:	***In situ* Conservation of Kazakhstan's Mountain Agrobiodiversity**
GEF Project ID No:	**Atlas Project ID: 00049805**
UNDP Project ID No:	**PIMS: 1278**
Evaluation Time Frame:	**21 – 29 November 2011 (Mission)**
Date of Evaluation Report:	**June 2012**
Region and Countries included in the Project:	**Central Asia, Kazakhstan**
GEF Focal Area:	**Biodiversity**
GEF Operational Program:	**13 (Conservation and Sustainable Use of Biological Diversity Important to Agriculture)**
GEF Strategic Program:	**1 (Catalysing sustainability of protected areas[1])**
Implementing Agency	**UNDP Kazakhstan**
Executing Agency:	**Forestry & Hunting Committee, Ministry of Agriculture**
Project Partners:	**Ministry of Ecology (Coordinating Agency)**
Evaluation Team Members:	**Michael J.B. Green & Natalya Panchenko**

Brief description of Project

In situ conservation of Kazakhstan's Mountain Agrobiodiversity is a full-sized UNDP-GEF project that officially commenced on 22 December 2005, when the Project Document was signed. Actual implementation on the ground began on 1 March 2006.

The **goal** (development objective) of the Project, as defined in the Project Document, is:

> "The conservation of key habitats and ecosystems of globally significant mountain agrobiodiversity in Kazakhstan."

The immediate **objective** towards achieving this goal is:

> Stakeholders conserve agro-biodiversity in two priority sites within Kazakhstan's Tien Shan Mountains by developing and applying new methods and tools for conservation, including partnerships among conservation and land-use agencies, SPAs, local governments, local communities and the private sector.

In order to achieve this objective, the Project was designed to address current weaknesses and gaps in the baseline conditions by focussing on policy reform, effective management of protected areas (PAs) and the development of sustainable and/or alternative livelihoods for communities living in close proximity to PAs.

[1] Originally, an SP2 Tracking Tool for Biodiversity was submitted to UNDP-GEF in late 2005. During the Inception Workshop, however, it was agreed that the Project is more closely aligned to SP1; hence, an SP1 Tracking Tool for Biodiversity was created in March 2006 to replace the SP2 Tracking Tool.

The Project area lies in the mountains of S.E. Kazakhstan, which are renowned for their wild natural fruit forests dominated by apple (*Malus sieversii* Ledebour) and apricot (*Armeniaca vulgaris* Lam.) beneath a canopy of hawthorns (*Crataegus*). Kazakhstan is the world's centre of wild apple biodiversity and this south-eastern part of the country is not only the centre of diversity for *Malus sieversii*, *M. baccata* and *M. niedzwetzkyana but* also home to numerous other important fruit Crop Wild Relatives, such as pear (*Pyrus*), mountain ash (*Sorbus*), hawthorn (*Crataegus*), Cotoneaster, and quince (*Cydonia*), wild species of apricot, cherry, and plum (*Prunus*), together with small berry plants, such as bilberry and cranberry (*Vaccinium*), blackberry and raspberry (*Rubus*), gooseberry (*Ribes*), grape (*Vitis*), and strawberry (*Potentilla*, including *Fragaria*)[2].

The global importance of the Project area for biodiversity is reflected in a number of comprehensive assessments. It falls within the Middle Asian Montane Steppe and Woodlands (Ecoregion No. 111), one of the Global 200 ecoregions[3] identified by WWF as a priority for conserving all of the world's ecosystems and associated exceptional concentrations of species and endemics. It also lies within the Mountains of Central Asia, an area defined by Conservation International as one of 34 global biodiversity hotspots[4] and also identified as a Centre of Plant Diversity[5].

Context and purpose of the evaluation

Terminal Evaluation is an integral part of the UNDP GEF project cycle. Its purpose is to provide a comprehensive, systematic and evidence-based account of the performance of the completed Project by assessing its design, process of implementation, achievements (outputs, outcomes, impacts and their sustainability) against project objectives endorsed by the GEF (including any agreed changes in the objectives during project implementation) and any other results. It is intended to enhance organizational and development learning; enable informed decision-making; and create the basis of replication of successful project outcomes.

Evaluation approach and methods

This Terminal Evaluation was carried out by external international and national consultants in November 2011 – June 2012. It included 7 days in-country (22-29 November) meeting and interviewing stakeholders in Almaty, Astana and the Project area (Ile Alatau National Park, Almaty State Nature Reserve and Dzhungar National Park), following which a large amount of time was spent in collection, collation and analysis of information, report writing and following up on comments received in mid-April 2012 on the draft report.

Key stakeholders included state, regional and local government officials, protected area managers and their staff, NGOs, and a few local community members. Preliminary findings were shared with UNDP at a meeting in Astana on 28th November. Unfortunately, there was no opportunity to present initial findings to a meeting of key stakeholders (Implementing and Executing agencies, PIU and partners) due to time and logistic constraints, given that the two agencies are based in Astana while PIU and most partners are located in Almaty and the Project sites. It was also not possible to visit the Project sites due to winter snow conditions.

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2 Nigel Maxted (2009), *In situ* Conservation of Kazakhstan's Mountain Agro-biodiversity: Mission Report.

3 The analysis actually yielded 238 ecoregions which, effectively conserved, would safeguard the most outstanding and representative habitats for biodiversity on the planet. This set of ecoregions is referred to as the Global 200 (Olson, D.M. and E. Dinerstein, 2002. The Global 200: Priority Ecoregions for Global Conservation. *Annals of the Missouri Botanical Garden* 89: 199–224).

4 Mittermeier, R.A., Gil, P.R., Hoffman, M., Pilgrim, J., Brooks, T., Mittermeier, C.G., Lamoreux, J. and da Fonseca, G.A.B (2005). *Hotspots revisited: Earth's biologically richest and most threatened terrestrial ecoregions.* Conservation International, Washington D.C. 392 pp.

5 Almost 250 sites have been prioritised for the global conservation of higher plants in *Centres of Plant Diversity: A Guide and Strategy for their Conservation* (WWF and IUCN, 1994-1995).

In addition to a descriptive assessment, Project achievements (outputs and outcomes), sustainability of outcomes, monitoring and evaluation system (design and application), were rated with respect to **either** the level of satisfaction achieved **or** the likelihood of various dimensions of the outcomes being sustainable at Project termination. Also, three criteria (relevance, effectiveness and efficiency) were used, as appropriate, to evaluate the levels of achievement attained with respect to the Project objective and outcomes in accordance with GEF requirements.

Main conclusions, recommendations and lessons

Overall, the Project is evaluated as **Satisfactory**, which means that it has only minor short-comings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency. This is good result for such a challenging Project by virtue of breaking new ground for the first time in Kazakhstan in the field of agrobiodiversity conservation. It represents an 'above average' accolade for those involved in the Project's formulation and implementation, being the second highest of six possible scores awarded to GEF projects, the highest being Highly Satisfactory in the case of a project that has no short-comings.

Notable achievements include:

- The establishment of Dzhungar Alatau National Park (356,022 ha), the first of its kind in Kazakhstan that focuses primarily on conserving mountain agrobiodiversity.
- Management plans for the three target PAs developed, adopted and under implementation, with some good examples of stakeholder involvement in PA management in Dzhungar Alatau and Ile Alatau national parks (community grazing plan, bee-keepers use Local Community Committee to influence outcome of management zone policies).
- Completed full inventory of wild fruit forests in the Project sites, along with DNA analyses of samples of genetic material, to identify clusters of pure genotype as well as hotspots of cultivated ingressions. The results of these analyses have informed adjustments to the delineation of management zones within two existing PAs and the demarcation of such zones of the new PA, as well as the creation of seven genetic reserves (covering a total area of 560 ha) in Dzhungar Alatau and Ile Alatau national parks.
- Establishment of the first field gene bank in the Ile Alatau National Park to conserve the genetic diversity of wild apple and wild apricot, following FHC Ordinance of October 2011.
- Successfully pioneered *ex situ* conservation techniques for wild apples and apricots that enable their genotypes to be replicated and, thereby, enable pure wild genotypes to be conserved for the immediate future (in evolutionary terms).
- New draft Law on Flora, with provisions for agrobiodiversity conservation, and 11 other bylaws approved.
- Impressive awareness-raising programme of published materials, high profile events and educational opportunities for school children. Examples include: Almaty annual Apple Festival, illustrated monograph on Kazakhstan's tulips; video about Kazakhstan's agrobiodiversity, series of booklets on agrobiodiversity for young children learning to read; and forestry schools in Dzhungar Alatau and Ile Alatau national parks.
- Strong partnership between Implementing Agency (UNDP) and Executing Agency (Forestry & Hunting Committee), serviced by competent, diligent and committed Project Implementation Unit. This underpinned the very good relationships developed between the Project and its many stakeholders among government agencies, protected area administrations, NGOs and local communities.
- Very cost-effective Project, compared to many other GEF projects that delivered a lot for US$ 2.77 million. This is largely attributable to very high levels of co-financing secured (US$ 32.7 million).

Such achievements are reflected in the **Highly Satisfactory** ratings for Outcome 3 (effective legal framework for conservation and rational use of agrobiodiversity) and Outcome 5 (awareness of the values of agrobiodiversity and support for its conservation). There are also significant improvements in Project performance, from **Satisfactory** to **Highly Satisfactory,** since the 2009 Mid-Term Evaluation in the case of Technical Capabilities, Partnership Creation and Involvement/Support of Government agencies. Further details of ratings of Project results, Project performance and Outcome performance indicators can be found in **Sections 3.2-3.3**, **Annex 9**, and **Annex 10**, respectively.

The main short-comings are summarised as follows:

- Weaknesses in Project design, with a flawed Outcome 3 in terms of certain 'outputs', an overambitious set of outputs for Outcome 4 (too many and insufficiently focused on the agrobiodiversity interests), and some performance indicators that fall a long way short of meeting SMART criteria.
- An initially cumbersome management structure and deployment of PIU staff in two different cities locations. This undermined the Project's overall efficiency and, arguably, should have been addressed during the Inception phase.
- Observed inconsistencies in planning and reporting on some Project Outputs made it particularly difficult to track progress in their implementation and tracing them back to the original design in the Project Document.
- Management plans for Trans-Ile PAs that lack clear objectives and priorities for improving the understanding and conservation of agrobiodiversity in the wild (*in situ*).
- Insufficiently robust technical oversight and monitoring by the Implementing Agency (UNDP CO) with respect to the management response to the Mid-Term Evaluation Report and the recommendations in the Mission Report of the international agrobiodiversity expert. This relates principally to concerns about why there is little or no regeneration in wild fruit forests and the priority need to identify, manage and monitor the threat(s).
- The winter timing and relatively short duration of the Final Evaluation mission constrained made it unnecessarily difficult to gain a thorough insight of the Project, with respect to seeing what had actually been done in the field and meeting with stakeholders from local communities.

Opportunities **to consolidate and reinforce** the benefits from the Project include the following:

i. Knowledge about Kazakhstan's wild fruit forests and best practice developed for their management developed and applied by the Project, which is currently available only in Russian for the benefit of those managing the Project sites, should be distilled and clearly articulated in bilingual guidelines (Russian and English) for much wider dissemination among other protected area managers in Kazakhstan and elsewhere, including Central Asia. Such guidance should include prescriptions for a range of scenarios, including: wild fruit forests that show little or no signs of regeneration; minimising risks of genetic contamination from nearby landraces and modern cultivated varieties of fruit trees; establishment of genetic reserves for i*n situ* conservation in perpetuity; and *ex situ* conservation of living collections and seed banks.
ii. Institutionalise training in agrobiodiversity conservation and PAs management.
iii. The new law on Flora Law, which introduces the concept of agrobiodiversity and genetic reserves for its conservation, should be taken to its final stage of approval as soon as practicable. There is also a potential opportunity to pilot some of the provisions of this Law, once adopted, within UNDP-GEF biodiversity projects and, as necessary, propose further refinements.
iv. Promote alternative (sustainable) livelihoods initiatives further by helping to secure funds from the Small Grants Programmes of GEF and the World Bank. The micro-credit scheme should also be reviewed with this in mind.

v. Tarbagatai, an agrobiodiversity stronghold of wild fruit forests lying in the Tien Shan of north-eastern Kazakhstan, is scheduled for establishment as a national park in late 2012. It is an obvious priority candidate for replication of the experience gained from this Project. Tarbagatai's 'Outstanding Universal Values' should also be identified in the management planning process, with a view to its potential candidature for inclusion in a World Heritage serial nomination (see below for more details).
vi. Address present constraints on tourism in security zones within PAs bordering international boundaries. This is necessary if tourism is to financially benefit PAs and their local communities.

In addition, new ground needs to be broken on a number of fronts **to build** on the Project's achievements. Priorities for agrobiodiversity and its *in situ* conservation within Kazakhstan's PAs system should include the following:

vii. **Develop a National CWR Strategy for Kazakhstan**, building on the work of the Project on *Malus sieversii* and *Armeniaca vulgaris* and its contribution to a regional strategy for the conservation and use of plant genetic resources. This would also provide a sound basis for the development of a World Heritage nomination of a serial agrobiodiversity property (recommended below).
viii. **Continue to inform and develop the *in situ* conservation of wild fruit forests** in the Project target sites and elsewhere, as appropriate. Priorities include the following:
    - Implement the three-year research study (2012-2015) funded by FHC on natural regeneration of wild apricot and apple forests.
    - Depending on the precise nature of the above research, it may be necessary to complement it with an adaptive management experimental approach to understanding why there is no natural regeneration taking place in many wild fruit forests.
    - Identify agrobiodiversity species most likely to be threatened by climate change in semi-arid regions, assess the risks and undertake and monitor short-term conservation measures.
ix. **World Heritage serial nomination for agrobiodiversity hotspot.** Given the global importance of Kazakhstan's mountain agrobiodiversity, its remaining disparate distribution in different parts of the country, and that Central Asia is a global hotspot for agrobiodiversity within which Kazakhstan is one of several epicentres, there is very strong potential for a serial nomination, comprising several sites of 'Outstanding Universal Value'.
x. **Ecotourism.** Currently, with relatively low numbers of people visiting PAs, there exists a window of opportunity to lay the foundations for appropriate forms and levels of tourism, before Kazakhstan becomes an international destination for tourism and unsustainable levels of consumerism take hold of development. Kazakhstan needs to develop a sustainable tourism or ecotourism policy, of which agrobiodiversity is an important component, and a strategy for its delivery in the regions. Almaty is well placed to take a lead, given that it is already well know for its Apple Festival and lies in reasonably close proximity to a number of important PAs.

UNDP Kazakhstan is well respected and in a strong position to encourage government to move forward in these directions, while offering to provide technical assistance, coordination and facilitation as appropriate.

Lessons to be learned from this Project identified during the Mid-Term and Final evaluations are summarised below.

- Two of the lessons arising from the Mid-Term Evaluation relate to time scales and the importance of taking a systematic approach to conservation that considers the present in the context of the evolutionary and more recent historical past.
    - Thus, interventions are necessarily undertaken with an incomplete knowledge of the system. Hence, there is a need for an adaptive management or experimental

approach to fast-track the understanding and begin to attempt to 'fix things' according to the agreed management objectives.

- The second lesson concerns the likelihood that people would have selected fruiting trees and transported them to their farms and kitchen gardens, giving rise to land races. These land races represent not only an important component of agrobiodiversity but they are also important symbols of cultural heritage, as well as offering conservation and development opportunities for their utilitarian values without threatening the genetic resource reserves.
- A third lesson relates to alternative livelihoods and their inclusion in the Project strategy. Such an approach is entirely valid, provided the assumptions and risks have been carefully assessed, but equal weight should also be given to sustainable use approaches to conservation management.

- Other lessons identified from this Final Evaluation as follows:
  - The very high level of co-financing committed to the Project has resulted in a noticeable sense of sustainability beyond the life of the Project, minimising dependencies on the Project following its completion.
  - The effectiveness of the Project Implementation Unit can be attributed to its core staff having high levels of technical competence, good diplomatic skills, strong leadership and, most importantly, a common vision and good working relations with the Implementing Agency (UNDP Country Office) and the client (Forestry & Hunting Committee). The chairing of the Steering Committee by the same person throughout the Project was also of very significant benefit to the Unit and the Project.
  - A potential lesson, yet to be substantiated, is to support the development of sustainable and/or alternative livelihoods through a combined grant/micro-credit funding programme. This could provide potential clients with the option of securing a grant for new initiatives and enterprises, or a loan tried and tested ventures.

1. INTRODUCTION

1.1 PURPOSE OF THE EVALUATION

The GEF Monitoring and Evaluation Policy[6] has two overarching objectives at the project level, namely: to promote accountability for the achievement of GEF objectives through the assessment of results, effectiveness, processes and performance of the partners involved in GEF activities; and to improve performance by the promotion of learning, feedback and knowledge sharing on results and lessons learned among the GEF and its partners, as a basis for decision-making on policies, strategies, programme management, projects and programmes.

The Terminal Evaluation is an integral part of the UNDP/GEF project cycle. Its purpose is to provide a comprehensive and systematic account of the performance of the completed Project by assessing its design, process of implementation, achievements (outputs, outcomes, impacts and their sustainability) against project objectives endorsed by the GEF (including any agreed changes in the objectives during project implementation) and any other results.

Terminal evaluations have four complementary purposes:

i. To promote accountability and transparency, and to assess and disclose levels of project accomplishments.
ii. To capture and synthesize lessons that may help improve the selection, design and implementation of future GEF activities, as well as to suggest recommendations of replication of project successes.
iii. To provide feedback on issues that are recurrent across the portfolio and need attention, and on improvements regarding previously identified issues.
iv. To contribute to the GEF Evaluation Office databases for aggregation, analysis and reporting on effectiveness of GEF operations in achieving global environmental benefits and on the quality of monitoring and evaluation across the GEF system.

To this end, the Terminal Evaluation is intended to:

i. enhance organizational and development learning;
ii. enable informed decision-making; and
iii. create the basis for replication of successful project outcomes.

1.2 KEY ISSUES ADDRESSED

The evaluation objectives are outlined in Part II of the Terms of Reference (**Annex 1**) and focus on Project indicators, implementation, outcomes (including their sustainability) and impacts, of outcomes. Particular consideration has been given to adaptive management applied, for example, to the PIU's response to recommendations of the MTE. Other aspects identified in the ToR for consideration are summarised below.

- **Progress towards achievement of expected results**, including responses to questions that relate to changes in development conditions.
- **Adaptable project management structure**, as related to monitoring systems, risk management, working planning and reporting.
- **Fundamental factors** beyond the direct control of the Project that may have influenced its final outcome.
- **UNDP's contribution** in accordance with the requirements identified in the UNDP *Handbook on Planning, Monitoring and Evaluating for Development Results* (2009).

[6] *The GEF Monitoring and Evaluation Policy 2010*, Evaluation Document November 2010, No. 4. 32 pp.

- **Partnership strategy** with respect to their involvement in selection of performance indicators, utilisation of existing data, and determination of the Project's strategy.

The Mid-Term Evaluation (MTE) concluded that the Project was progressing well, with a number of successes, but express some concerns about its sustainable impact, given the Project's focus on *in situ* conservation and, therefore, the effective management of protected areas (PAs) in which lie these genetic reserves of wild fruit trees. Effective management demands understanding the ecology of wild fruit trees and having the resources (staff, equipment and time) to undertake the interventions deemed necessary to enhance their protection and future survival in the wild. It is this issue, therefore, to which the Evaluation Team has attached most importance.

1.3 METHODOLOGY OF THE EVALUATION

This Final Evaluation follows the aforementioned GEF and UNDP guidance and the new *UNDP Evaluation Guidance for GEF-Financed Projects,* 2012 which updates to a significant extent the Terms of Reference (**Annex 1**) with respect to the structure of this Final Evaluation Report. The findings and recommendations of the MTE are also taken into particular account.

The evaluation process is independent of UNDP, GEF, Forestry & Hunting Committee (FHC) and Project partners. The opinions and recommendations in this Terminal Evaluation are those of the Evaluation Team, comprising one international and one national consultant, and do not necessarily reflect the position of UNDP, GEF, FHC or any other Project stakeholders. Once accepted, the Terminal Evaluation becomes a recognised and publicly accessible component of the Project's documentation.

The Terminal Evaluation is an evidence-based assessment of the Project concept and design, its implementation and its outputs, outcomes and impacts as documented in the Project Logical Framework (LFM), which provides indicators and targets for measuring success in implementation. It has been undertaken in line with GEF principles concerning independence, credibility, utility, impartiality, transparency, disclosure, ethical, participation, competencies and capacities[7].

The Terminal Evaluation was carried out by the Evaluation Team in November 2011 - June 2012. The field mission comprised: 8 days in-country (22-29 November inclusive) meeting and interviewing partners and other stakeholders in Almaty, Astana and in the field at the two Project sites. Details of the in-country itinerary, including field visits, and stakeholders met are provided in **Annex 2**.

The approach was based on the Terms of Reference in **Annex 1**. It included:

- desk review of project documents and relevant related literature (**Annex 3**);
- interviews with major stakeholders, including Project donors, implementing partners and Steering Group members, government agencies and administrations, and non-governmental organisations; and
- field visits to the two project sites (Trans-Ili Alatau and Dzhungar Alatau mountain ranges in S.E. Kazakhstan), in which lie the three Project demonstration PAs (Ile Alatau National Park, Almaty State Nature Reserve[8] and Dzhungar Alatau National Park), to interview key stakeholders (PA managers and their staff, local administrations, community representatives). There was no opportunity to visit any of the PAs due to winter snow having arrived and limiting access.

The use of questionnaires was limited to the Management Effectiveness Tracking Tool (METT) for PAs, which were completed under the supervision of the Project Implementation Unit (PIU) at

[7] *The GEF Monitoring and Evaluation Policy*, 2010.

[8] Almaty is legally designated as a *Zapovednik*, which in English is equivalent to a State Nature Reserve.

the beginning, mid-term and end of the Project. These scorecards were then examined by the Evaluation Team in the case of Ile Alatau National Park and Almaty State Nature Reserve.

The evaluation was undertaken in as participatory a manner as possible in order to build consensus on achievements, short-comings and lessons learnt. Interviews with stakeholders were conducted informally, with the help of interpretation as necessary. Interviews focused on the strengths and weaknesses of the Project and how things might be done differently in future (lessons learned). Evidence was cross-checked (triangulation) between as many different sources as possible to confirm its veracity.

Opportunities were taken to acknowledge, challenge and encourage the PIU and partners in an open, objective manner on the basis of preliminary findings from Project reports and interviews, before committing these to paper. Initial findings were shared at a meeting with UNDP in Astana on 28th November 2011. Unfortunately, there was no opportunity to present initial findings to the Implementing and Executing agencies, PIU and partners due to time and logistic constraints, given that the two agencies are based in Astana while PIU and most partners are located in Almaty and the Project sites.

Table 1.1 Ratings and their scales for different evaluation criteria[9]

<table>
<tr><th>Outcomes, Effectiveness, Efficiency, M&E, I&E Execution</th><th>Sustainability</th><th>Relevance</th></tr>
<tr><td rowspan="3">6. Highly Satisfactory (HS): no shortcomings
5. Satisfactory (S): minor shortcomings
4 Moderately Satisfactory (MS): moderate shortcomings
3. Moderately Unsatisfactory (MU): significant shortcomings
2. Unsatisfactory (U): major shortcomings
1. Highly Unsatisfactory (HU): severe shortcomings</td><td>4. Likely (L): negligible risks to sustainability
3. Moderately Likely (ML): moderate risks
2. Moderately Unlikely (MU): significant risks
1. Unlikely (U): severe risks</td><td>2. Relevant (R)
1. Not relevant (NR)</td></tr>
<tr><td>Other</td><td>Impact</td></tr>
<tr><td>Not Applicable (N/A)
Unable to Assess (U/A)</td><td>3. Significant (S)
2. Minimal (M)
1. Negligible (N)</td></tr>
</table>

Table 1.2 Definitions of ratings of levels of satisfaction (*Guidelines for GEF Agencies in Conducting Terminal Evaluations,* 2008)

Rating	Definition
Highly Satisfactory (HS)	The project had **no shortcomings** in the achievement of its objectives in terms of relevance, effectiveness, or efficiency.
Satisfactory (S)	The project had **minor shortcomings** in the achievement of its objectives in terms of relevance, effectiveness, or efficiency.
Moderately Satisfactory (MS)	The project had **moderate shortcomings** in the achievement of its objectives in terms of relevance, effectiveness, or efficiency.
Moderately Unsatisfactory (MU)	The project had **significant shortcomings** in the achievement of its objectives in terms of relevance, effectiveness, or efficiency.
Unsatisfactory (U)	The project had **major shortcomings** in the achievement of its objectives in terms of relevance, effectiveness, or efficiency.
Highly Unsatisfactory (U)	The project had **severe shortcomings** in the achievement of its objectives in terms of relevance, effectiveness, or efficiency.

[9] *UNDP Evaluation Guidance for GEF-Financed Projects,* 2012

In addition to a descriptive assessment, Project achievements (outputs and outcomes), sustainability of outcomes, monitoring and evaluation system (design and application), were rated with respect to **either** the level of satisfaction achieved **or** the likelihood of various dimensions of the outcomes being sustainable at Project termination. Also, three criteria (relevance, effectiveness and efficiency) were used, as appropriate, to evaluate the levels of achievement attained with respect to the Project objective and outcomes in accordance with GEF requirements. The different scales for rating various criteria are shown in **Table 1.1**, and further defined in **Table 1.2** (level of satisfaction scale) and **Table 1.3** (likelihood of sustainability scale).

Table 1.3 Definitions of levels of risk to sustainability of Project outcomes (*UNDP Evaluation Guidance for GEF-Financed Projects*, 2012)

Rating	Definition
Likely (L)	**Negligible risks** to sustainability, with key outcomes expected to continue into the foreseeable future.
Moderately Likely (ML)	**Moderate risks**, but expectations that at least some outcomes will be sustained.
Moderately Unlikely (MU)	**Substantial risk** that key outcomes will not carry on after project closure, although some outputs and activities should carry on.
Unlikely (U)	**Severe risk** that project outcomes as well as key outputs will not be sustained.

Thus, the Project objective and outcomes were rated according to their respective measurable indicators, as well as for each of its components, using these different scales (**Annex 9**).

UNDP CO and PIU were provided with a draft report in mid-March 2012 and their comments were reviewed by the Evaluators in mid-April, contributing to significant improvements in this final version of the report. The completed METT was received by the Evaluators in late May 2012, after which the report was finalised. In a number of cases where the Evaluators have taken a different view to those of PIU, the views of the latter have been presented as footnotes along with the response of the Evaluators.

1.4 STRUCTURE OF THE EVALUATION

The structure of this Final Evaluation report follows the latest guidance outlined in the 2012 *UNDP Evaluation Guidance for GEF-Financed Projects* (see TOR Annex F). This first introductory chapter describes the purpose of evaluation and methods used. Chapter 2 describes the Project and its objectives, within the development context of Kazakhstan. Findings from the evaluation are presented in Chapter 3, focusing in turn on the formulation, implementation and results (outputs, outcomes and impacts) of the Project. Aspects of each of these three components of the project cycles were assessed using the rating systems outlined above in Table 1.1. Conclusions are drawn in Chapter 4, highlighting the strengths, weaknesses and outcomes of the Project. Lessons learned from the experience are identified, along with practical, feasible recommendations that build on the Project's interventions.

1.5 EVALUATION TEAM

The Evaluation Team comprised one male international and one female national consultant, both with previous experience of evaluating UNDP-GEF projects, as well as other aspects of the GEF project cycle (formulation, inception and implementation). The international consultant is a specialist in biodiversity conservation and protected areas management, with previous experience of Central Asia and more extensive experience of working in South Asia and Eastern Europe. The national consultant is a specialist in environmental management, with extensive experience on working in Kazakhstan on inception, fundraising for and monitoring of projects relating to biodiversity and land conservation, water resources and forestry management.

1.6 ETHICS

The consultants have signed the Evaluation Consultant Agreement Form (**Annex 4**), thereby agreeing to abide by the UNEG Code of Conduct in the UN System (2008).

2. PROJECT DESCRIPTION AND DEVELOPMENT CONTEXT

2.1 PROJECT START AND DURATION

Implementation of this UNDP/GEF full-size project entitled *In situ conservation of Kazakhstan's Mountain Agrobiodiversity* officially commenced on 22 December 2005, when the Project Document was signed. Actual implementation on the ground began on 1 March 2006, following the first disbursement of funds registered on 13 February 2006. The original duration of the Project was 6 years, the planned closing date being December 2011. The closing date was subsequently extended to 31 March 2012 to accommodate the three month delay in the actual start of implementation.

The Project has had a very long gestation, dating back to initiatives taken by the Ministry of Ecology in cooperation with the Institute of Botany that resulted in the UNDP Country Office (CO) in Kazakhstan submitting a request to the GEF in 1997 for a project to address agrobiodiversity conservation at a period when the *National Strategy and Action Plan on the Conservation and Balanced Use of Biological Diversity,* and *National Environmental Action Plan* were being developed. GEF responded positively and a PDF A was signed on 7 October 1998 (costing US$ 22,000), followed by the approval of a PDF B in July 2000 (costing US$ 230,976). A national team was put in place and a short-term international technical consultant engaged, culminating in the production of a Project Document in March 2001. Two revisions of the Project Document proved necessary, including transferral of the Project from GEF Operational Programme (OP) 4 *Mountain Ecosystems* to OP 13 *Agrobiodiversity*, for reasons that are described in the MTE.

UNDP/GEF submitted a finalized Project Document, endorsed by the Government on 28 February 2003 and approved by UNDP on 2 April 2003, to the GEF May Work Program (15 May 2003). The Project Document received extensive comments from US, France, Germany, Switzerland, and later Germany that required its further revision and resubmission. The Project Document was resubmitted in December 2004 and UNDP/GEF received the CEO endorsement letter for the Project on 23 February 2005. UNDP/GEF delegated authority to UNDP CO on 2 March 2 2004 to implement the Project. Meanwhile, the Government of Kazakhstan had changed its rules for technical assistance projects, requiring project proposals to be sent first to the Ministry of Economy before a project document can be signed by government counterparts, in this case the FHC. This policy change further delayed the actual start of the Project.

2.2 PROBLEMS THAT THE PROJECT SEEKS TO ADDRESS

The famous Russian academician and geneticist, Nikolai Vavilov (1887-1943), identified Central Asia as one of eight global centres of origin for cultivated plants. Kazakhstan has since become renowned for being the global centre of wild apple diversity, as reflected in the name of its largest city, Almaty, meaning 'place of apples'. It also harbours the genetic base for numerous other traditional fruit crops, such as apricots, gooseberry, grape, currant and buckthorn.

The wild apple (*Malus sieversii*), from which the domestic apple (*Malus domestica*) is believed to have originated, is found in the Tien Shan Mountains of Kazakhstan and China where entire valleys are forested with apple trees. It is thought that travellers along the Silk Road carried seeds with them, spreading the apple westward to the Middle East, Europe and beyond, where new varieties adapted to local conditions.

Wild fruit forests have declined dramatically by 70% in Zailiyskiy Alatau[10] and by 50% in the more remote forests of Dzhungar Alatau since 1960 (**Figure 2.1**). These two areas lying within Almaty

[10] Zailiskiy Alatau (Russian), also referred to as Trans-Ile Alatau in English and Ile Alatau in Kazakh, denotes an area in the Northern Tian Shan Mountains of Kazakhstan and Kyrgyzstan. Zailiskiy Alatau, which tends to be used in international publications, is adopted in this report, except in the LFM where the original reference to Trans-Ile is maintained for consistency.

Oblast (region) were identified at a workshop in 2000, during the preparatory period of this Project, as being the most important of Kazakhstan's mountain ranges for conserving agrobiodiversity on account of:

- harbouring high concentrations of mountain agrobiodiversity (apple, apricot and others);
- high degree of threats and high probability of being able to address such threats; and
- maximum demonstration value of project results addressing a range of threats to agrobiodiversity.

Threats and root causes of loss of mountain agrobiodiversity were identified as being predominantly anthropogenic and due to: habitat destruction (caused mainly by overgrazing); overharvesting for fuel wood and food, especially by collective farms during former Soviet times (nowadays, wild fruit forests comprise a very small proportion of local livelihoods needs); pest and disease, arising from human interventions in orchards and plants introduced to dacha gardens; and genetic erosion resulting from consistent pollination of native trees by cultivated varieties.

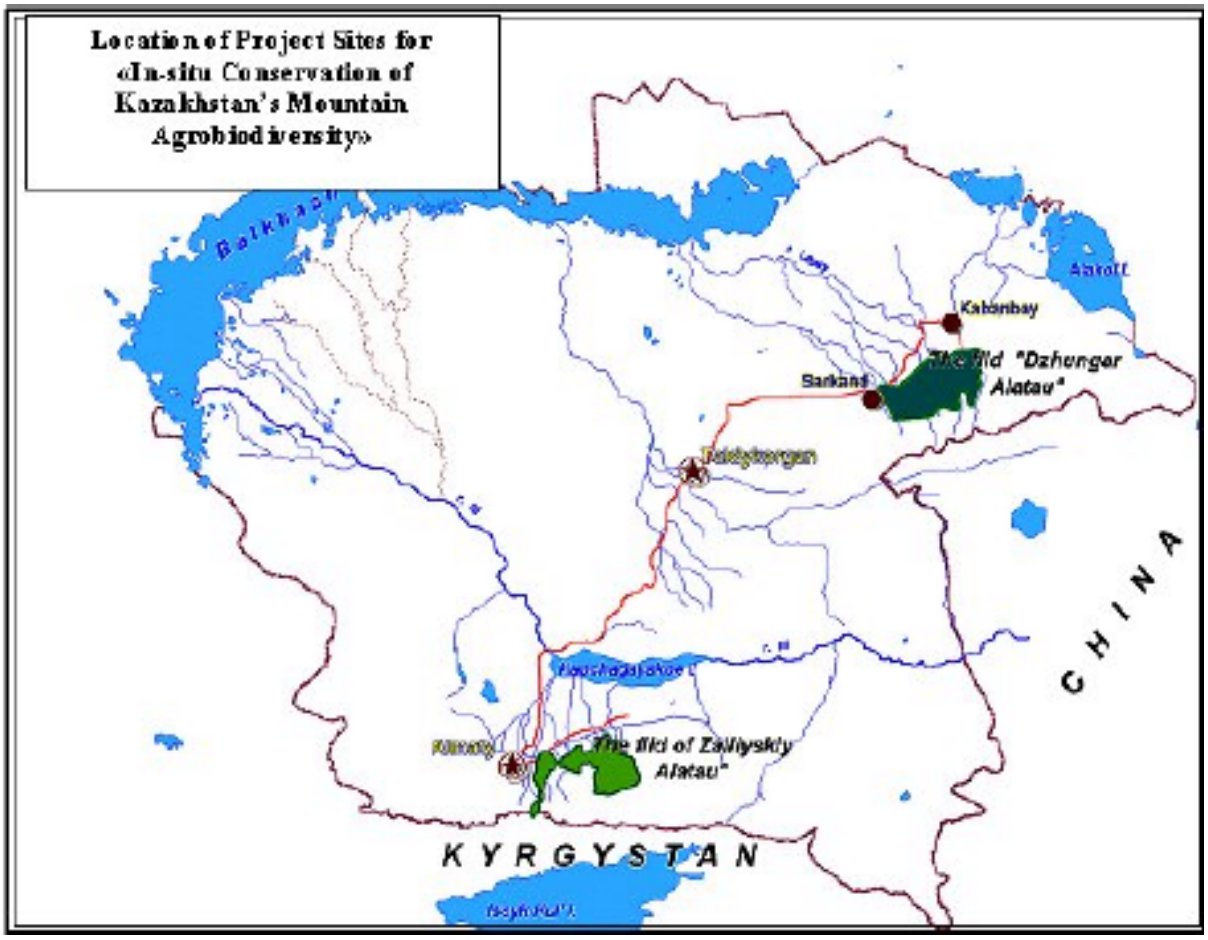

Figure 2.1 Location of Project sites, Zailiyskiy Alatau and Dzhungar Alatau area

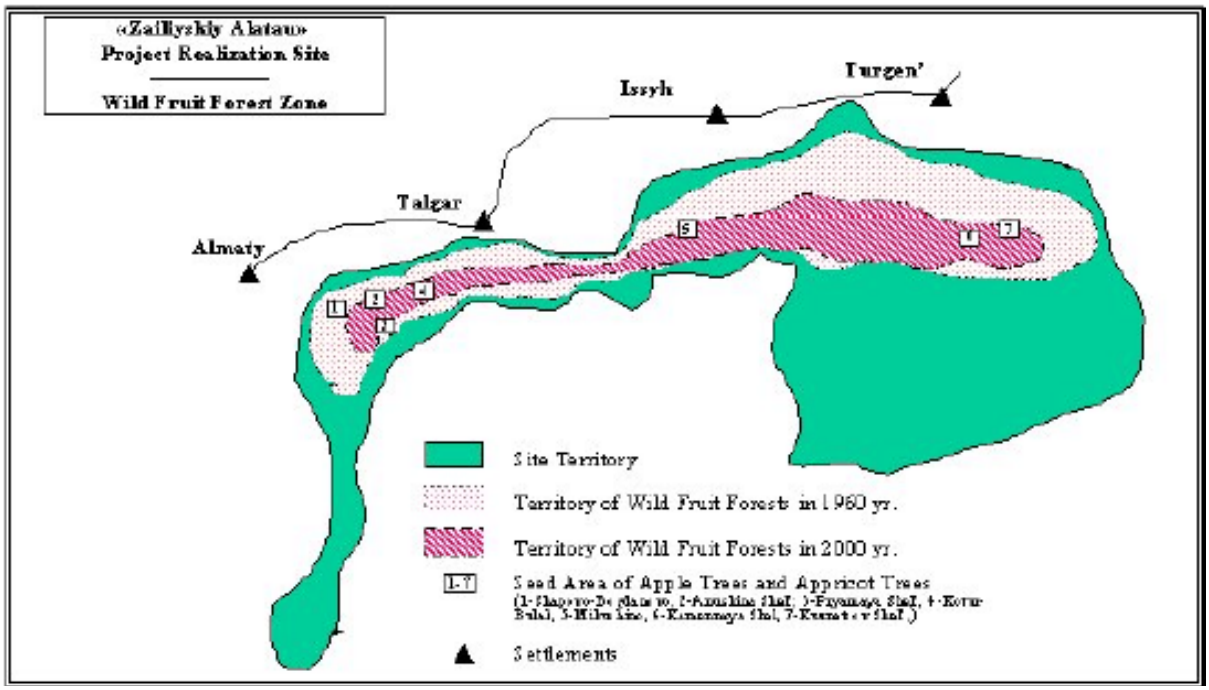

Figure 2.2 Distribution of wild fruit forests in Zailiyskiy Alatau, showing 70% decline in 40 years

These threats were framed within a wider, national context:

- A steady decline in socio-economic conditions since Soviet times in rural Kazakhstan, where inhabitants have little 'know how' to take advantage of opportunities within an emerging free-market economy.
- An inadequate and uncoordinated management system for conserving these areas, due to lack of relevant, adequate experience among decision-makers and managers and to inadequate legislation.
- Inadequate State financial support to PAs and to the scientific research necessary to inform PAs management.
- Lack of other financial mechanisms to generate revenue for PAs.

The Project Document provides a convincing case for intervention to prevent further loss and reverse historical losses of its globally important agrobiodiversity, focussing on two regions that harbour 87 varieties of plants that constitute 43% of identified native agrobiodiversity in Kazakhstan. Project activities are concentrated primarily on two remaining intact wild fruit forests of 1,300 ha in Zailiyskiy Alatau and 3,800 ha in Dzhungar Alatau, within established PAs, as follows:

- **Zailiyskiy Alatau** - apple and apricot forests in the eastern part of Ile Alatau National Natural Park (1,645 km^2), just south of Almaty, as well as the adjacent Almaty State Nature Reserve.
- **Dzhungar Alatau** – apple forests in the proposed Dzhungar National Park (200,000 ha)[11].

A key planned initiative is to establish buffer zones around these forests to prevent genetic drift from domestic fruit trees to wild cultivars.

2.3 IMMEDIATE AND DEVELOPMENT OBJECTIVES OF THE PROJECT

The **goal** (development objective) of the Project, as originally defined in the Project Document, is:

[11] Government's commitment in 2003 to establish Dzhungar Alatau National Park was predicated on leveraging GEF assistance through this Project. At the time of project preparation, these apple forests were located in Lepsinskiy and Sarkandskiy State Forestry Management Divisions.

The conservation of key habitats and ecosystems of globally significant mountain agrobiodiversity in Kazakhstan.

The immediate **objective** towards achieving this goal is:

Stakeholders conserve agro-biodiversity in two priority sites within Kazakhstan's Tien Shan Mountains by developing and applying new methods and tools for conservation, including partnerships among conservation and land-use agencies, SPAs, local governments, local communities and the private sector.

In order to achieve this objective, the Project addressed current weaknesses and gaps in the baseline conditions by focussing on policy reform, effective management of PAs and the development of sustainable and/or alternative livelihoods for communities living in close proximity to PAs (**Section 2.6**).

Five outcomes were identified in the Project Document to achieve the immediate objective through the implementation of a set of inter-related and mutually supportive activities and tasks. These were subsequently reviewed during the inception phase of the Project, resulting in some minor changes that are documented in Table 1 of the Inception Report[12]. It should also be noted that activities were re-labelled as outputs and tasks as activities. Outcomes, with their respective outputs, are shown in **Table 2.1**.

Table 2.1 Project outcomes and their respective outputs, as specified in the Project Document and subsequently modified in the Inception Report (*changes shown in italics*).

Project Outcomes	Project Outputs
Outcome 1: Ecosystem-based conservation and management of wild crop relatives at two project sites	**Output 1.1** Baseline description of project sites *and specific land use categories within each site*
	Output 1.2 Establish Dzhungar Alatau National Park and Specially Protected Seed Sites.
	Output 1.3 Build partnerships with local communities for agrobiodiversity conservation on adjacent private lands.
	Output 1.4 Sector specific sub-plan development *(scientific research and monitoring, ecological restoration, tourism regulation and development, agrobiodiversity conservation on adjacent private lands)*
	Output 1.5 ~~Development~~ *Identification and analysis* of key management objectives *and components* for project sites
	Output 1.6 Final~~ize~~ management plans *assembly, participatory review and agreement*
	Output 1.7 Pilot phase implementation of management plan *and sub-plans and periodic adaptation to incorporate lessons learned*.
Outcome 2: Strengthened institutional, technical, and financial framework for agrobiodiversity conservation	**Output 2.1** Conservation agency and SPA institutional restructuring
	Output 2.2 Training and capacity development of managers and staff of SPAs and other conservation institutions
	Output 2.3 Identification and development of viable long-term financing mechanisms for agrobiodiversity conservation within Kazakhstan
Outcome 3: An effective legislative framework for the conservation and rational use of agrobiodiversity resources	**Output 3.1** Develop long-term policy for agrobiodiversity, conservation and sustainable use *in Kazakhstan*.
	Output 3.2 Identify key legislative and regulatory changes

[12] *In situ* Conservation of Kazakhstan's Mountain Agro-biodiversity: Inception Report. March 2006.

Project Outcomes	Project Outputs
	required *at national, SPA and local level* to support agrobiodiversity management *plans and initiatives.*
	Output 3.3 Develop *new or adapted draft legislative acts* ~~national~~ ~~legislation and regulations, local level by-laws~~, create clear guidelines and instructions on the practical implementation ~~guidelines~~ of legislation, and clarify the rights and obligations of stakeholders *in agrobiodiversity conservation area.*
	Output 3.4 Consult *with all* stakeholders *to ensure agreement* on legislative and regulatory changes.
	Output 3.5 Submit legislation *projects* for official review and approval *according to required procedures, and undertake lobbying and follow-up to ensure timely results.*
Outcome 4: Alternative livelihoods benefiting local communities in project sites, reducing natural resource use pressure on mountain agrobiodiversity	**Output 4.1** ~~Socio-economic and natural resource use strategies at each project site~~ Developing alternative kinds of activities development at project areas concept for population living standards improvement, conservation and stable agrobiodiversity resources usage.
	Output 4.2 Demonstration/pilot projects for alternative livelihood development
	Output 4.3 Long term *technical,* business *and organizational* support services for *appropriate* small-scale farmers and relevant private sector
	Output 4.4 *Assistance in* ~~Development of a~~ micro-credit facility *development to support sustainable alternative livelihood activities for small-scale farmers and businesses in project sites.*
	Output 4.5 *Initiation of activities to* create economic incentives to encourage sustainable use of natural resources *and to discourage activities with negative impacts on agrobiodiversity on national and local level.*
Outcome 5: Awareness and support at all levels regarding the values and need to conserve Kazakhstan's mountain agro-biodiversity increased.	**Output 5.1** *Activities on strengthening and* development of Biodiversity Awareness and Education Centres *in each project site to act as a focal point for awareness and education campaigns.*
	Output 5.2 ~~Support local NGOs and institutions to undertake ABD education and awareness activities~~ Development of cooperation with funds for project activities implementation
	Output 5.3 Awareness building and training on *ecological and nature conservation* ~~new/adapted~~ legislation
	Output 5.4 General public awareness campaign on the importance of ~~Kazakhstan's~~ natural environment *conservation* and *country* agrobiodiversity gene pool ~~resources~~
	Output 5.5 Local-level awareness campaign for natural resource users on *value of* agrobiodiversity resources and *carrying capacities of* local ecosystems
	Output 5.6 Awareness building with *important* national and local authorities, *project partners* on *global values and economic importance of* agrobiodiversity conservation
	Output 5.7 International networking and partnership development for agrobiodiversity conservation

2.4 MAIN STAKEHOLDERS

The main stakeholders identified in the Project Document, all of whom are potential beneficiaries, are as follows:

- Forestry and Hunting Committee (FHC) of the Ministry of Agriculture (MoA), the Ministry of Environmental Protection (MEP);
- Specially Protected Areas of Ile Alatau National Park and Almaty State Reserve;
- Sarkand and Lepsinsk State Forestry Management Divisions;
- Almaty Oblast Akimat;
- local communities situated in the vicinity of the Project sites;
- private sector engaged in agriculture, fruit-processing industry and rural tourism within the Project sites; and
- the global community.

At the governmental level, Project oversight and active participation involved representatives of the Ministry of Environmental Protection, the Forestry, Fishery, and Hunting Committee of the Ministry of Agriculture, Ministry of Economy, regional akimat and district authorities, and various local agencies. In addition, the Republic of Kazakhstan's Academy of Science oversaw scientific and research activities and solicited input from numerous other research institutions, as well as experts from forest protection and national park agencies. NGOs, including Farmers of Kazakhstan, Kazakh Republic Society of Beekeepers, and Green Salvation contributed substantially to the design and implementation of the Project by voicing agrobiodiversity conservation issues on the ground, providing technical expertise (e.g. selection of project sites, land resources assessment, etc.), and facilitating interactions with local and professional communities in target areas. (See **Section 3.1.4** for more details about stakeholder involvement in the Project's formulation.)

A significant omission from this list, as noted in the MTE, are the various national and international fruit growing or plant breeding interests who might reasonably expect to utilize the benefits of agrobiodiversity conservation in the future to develop new varieties of fruit crops and extract specific genotypes for the improvement of fruit crops in a rapidly changing environment.

The preparatory phase also enabled a multi-stakeholder strategy to be developed for the implementation of the Project. The development of an integrated management plan for each site was considered to provide the framework for engaging stakeholders in agrobiodiversity conservation and its sustainable use. The strategy also provided for the creation of the following institutional structures:

- *National Coordinating Committee* to ensure overall leadership, coordination, and policy, legislative, and financial support for the Project, and to act as a liaison between the Project and other national and international programs, organizations and donors.
- At the site level, will be *a Site Project Support Council (SPSC)* consisting of representatives from all key site stakeholder groups and chaired by the PA Director. For the first time, locally interested parties will be able to participate management planning and decision-making at the project sites. Under the remit of the SPSC will be three other bodies:
    - *Mountain Agrobiodiversity Conservation Teams*, working within the PA administration and responsible specifically for agro-biodiversity management issues.
    - *Site Land-User Associations* comprising representatives of relevant stakeholder groups within the productive areas adjacent to the PA. These organizations, through an executive board (including the PA director) and a small executive team, will support implementation of management plan components focused on their productive areas.
    - *Public Committees* which will facilitate general public participation, through NGOs and local authorities and associations, in PA management.

3. FINDINGS[13]

3.1 PROJECT FORMULATION

3.1.1 Analysis of Logical Framework

The Project concept emanated from Kazakhstan's National Strategy and Action Plan on Conservation and Sustainable Use of Biodiversity, which identified mountain agrobiodiversity ecosystems as one of seven priority ecosystems in Kazakhstan; its National Environmental Action Plan, which highlighted the importance of sustainable use of biodiversity resources; and the National Biodiversity Action Plan that specifically prioritized Kazakhstan's mountain agro-biodiversity in the context of *in situ* conservation of mountain wild fruit forests. As such, the overall goal of the Project was aimed at:

> *"… conservation of globally significant mountain agrobiodiversity in Kazakhstan, with a focus on in situ conservation of two priority wild fruit forest ecosystems"* [14] in the Tien Shan Mountains.

by expanding and strengthening the country's PAs system to include critical agrobiodiversity habitat. As such, the Project's design is rationale and comprehensive, embracing the twin identified key threats of habitat degradation and unsustainable exploitation of wild fruit resources, and focuses on five inter-dependent outcomes:

i. demonstrating an ecosystem-based approach to conservation and management of wild crop relatives at two project sites;
ii. strengthening institutional, technical, and financial framework for agrobiodiversity conservation;
iii. development and implementation of an effective legislative framework for the conservation and rational use of agro-biodiversity resources;
iv. nurturing the development of alternative livelihoods benefiting local communities in project sites to reduce pressure on mountain agro-biodiversity resources; and
v. raising awareness among all stakeholder groups to ensure adequate understanding, support and commitment to agrobiodiversity conservation and sustainable use.

As stated in the MTE, the Project Document lays out a reasonable strategy by focusing "on the *genetic reserve conservation* approach […] to conserve the wild agrobiodiversity in the form of *crop wild relatives* within their naturally occurring ecosystem and subject to natural environmental and biological processes and evolutionary selection." This *in situ* genetic reserve conservation approach, designed to restore degraded *in situ* wild fruit forests, was complemented by an *ex situ* programme (for living collections) as a precautionary measure to overcome the lack of natural recruitment within wild populations of fruit trees.

Despite this well-formulated, logical approach, the Project was hugely ambitious at a time when agrobiodiversity conservation was in its infancy and the concept and principles were poorly understood and not well-rehearsed globally, let alone within Kazakhstan and other Central Asian countries. Given that agrobiodiversity research and conservation efforts in Kazakhstan had focussed on improving the vigour and quality of cultivated varieties of fruit trees through selection of 'wild' characters in cultivated varieties, crossing cultivated varieties with wild relatives and also grafting cultivated varieties onto wild stock, it is perhaps unsurprising in retrospect that *ex situ* conservation efforts were likely to prevail over *in situ* efforts at the outset of the Project because of the mindset of leading national academicians and the government of the day. Thus, the PIU had a major challenge in promoting awareness and understanding from the Project onset in order

[13] The ToR specifies certain aspects of the Project, all of which are covered in this section of the Final Evaluation Report, which require rating. The relevant subsections are marked by an asterisk and the rating and its justification are provided immediately at the beginning of the subsection, followed by the evidence.
[14] Refer to Project Executive Summary (p.24).

to shift the emphasis from *ex situ* to *in situ* interventions. This challenge was still ongoing by the time of the MTE and vestiges of these older attitudes remained apparent during this Terminal Evaluation (see **Section 3.2.1** and **3.2.3B**).

The Logical Framework Matrix (LFM) in Annex II of the Project Document is reasonably clear and sound in outline with respect to the Goal, Objective and Outcomes but weak with respect to SMARTness[15] of its original performance indicators. Some lack specificity[16], others are unrealistic[17]. It is also acknowledged that some shortcomings in the LFM stem from the on-going transition of both GEF and UNDP to results-based approaches in project management at the time this Project was formulated. Some of these flaws were addressed during the Project Inception stage by making targets more specific and realistic. The MTE (2009) resulted in a further round of changes to the LFM, abolishing outstanding indicators irrelevant to the Project's objective and modifying others to make them attainable (e.g. year of creation of Local Consultative Committees, number of microcredits awarded, number of alternative income-generating initiatives adopted[18]).

3.1.2 Assumptions and risks

A number of risks and assumptions concerning Project interventions were identified in the Project Document[19]. The main assumptions are:

- frequent changes of key senior GoK personnel will not adversely impact project implementation;
- GoK support for the strengthening and upgrading of the PAs will continue;
- required adaptations and new legal instruments will be viable within the context of Kazakhstan legal system;
- the approval process for critical legal instruments will occur in a timely manner;
- individual stakeholders do not overly dominate and monopolize private sector development of fruit sector; and
- greater awareness at state decision making levels will result in increased political and financial support for agro-biodiversity conservation.

Six risks were identified in the Project Document as follows:

- climate change;
- worsening macro-economic indicators;
- changes in governmental priorities and frequent changes in governmental personnel;
- inability to achieve adequate consensus and cooperation among stakeholders;
- inability to change mindset and traditional practices sufficiently in order to enable effectively develop integrated conservation and sustainable use of mountain agrobiodiversity; and
- delays in or absence of key legislative changes.

These risks were assessed in the Project Document as being "… low to medium and depend on how robust the assumptions in the log frame prove to be. Assumptions related to biological issues

[15] **S**pecific, **M**easurable, **A**chievable, **R**ealistic and **T**imely (UNDP-GEF 2012, *Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-Financed Projects*)

[16] For example, 'trainings in conservation biology, forest ecology and participatory management' and 'legislation, by-laws, regulations for conservation and sustainable management of agrobiodiversity' as indicators of enhanced capacities and legal framework under Outcomes 2 and 3, respectively, are not very specific.

[17] For example, alternative livelihood indicators (Outcome 4) included: '60 community members in Ile Alatau site and 60 community members in Dzhungar Alatau site' deriving primary income from alternative livelihoods as the Project's final target; and '100 stakeholders in project site areas accessing micro-credit for small-scale business loans' by the Project's mid-term. These targets were over ambitious from the outset.

[18] For example, cheese making, felt production, and cultivation of herbs and flowers, originally recommended in the Alterative Livelihoods Report (Annex XI of the Project Document) as traditional handicraft and food products for development, were subsequently abandoned because they did not directly address threats to mountain agrobiodiversity, as stressed in the 2009 MTE.

[19] Refer to the Project Document (p. 24 of Project Executive Summary and pp. 38-39 of Project Brief).

have been carefully assessed during the PDF-B process and are based on best practices and best available knowledge. Assumptions regarding the willingness of other to cooperate with and support project objectives, and to assimilate and apply lessons from the project, is also considered robust based on consultations during the PDF-B and significant co-financing and participation envisioned during the Full Project."

Risks to Project implementation were revised during the Inception stage in the light of the improving economic situation within the country; and an additional risk was identified stemming from enactment of new Land and Forest codes that, respectively, allow for private ownership of agricultural and forest lands. Privatization of such lands is unlikely to pose a direct risk to wild fruit forests of high conservation value, as there is no intention or opportunity for them to be transferred by the State. However, lands within and bordering PAs have been privatized and, therefore, are no longer subject to the Forest Code. This means that cultivated varieties of wild fruit trees can be introduced (increasing risks of genetic contamination of wild crop relatives) and that any unproductive wild fruit trees surviving in these lands can be removed. The Project's mitigation strategy was revised accordingly to address perceived increased risks to agrobiodiversity.

The evaluation of assumptions and risks was broadly endorsed in the MTE (2009). However, it highlighted the failure of the initial threat analysis to challenge the assumption of current and historical over-exploitation by local communities being the root cause of the lack of natural regeneration in wild fruit forests[20]. The MTE advocated that PIU adopt an adaptive management approach by 'setting in place a number of management experiments to either confirm or dismiss the hypothesis' to which the management response appears to have been affirmative[21]. However, such experimental approaches were not followed up because the PIU felt this was too big an undertaking within the limited timeframe and resources of the Project and that the task should fall to FHC and the target PAs. With this in mind, PIU successfully lobbied government to fund a three-year study (2012-2015) of how to optimise natural regeneration of wild apricot and apple forests. Research will include investigations into the causes of no or slow natural vegetative and/or seed recruitment. Importantly, wild apple and apricot forests were comprehensively inventoried in Ile-Alatau and Dzhungar Alatau, where natural regeneration was observed to be occurring in some areas though the scale and origin (vegetative or seed) of recruitment were not determined.

In general, the Evaluation Team is in agreement with the risks and assumptions identified and the measures taken to mitigate them. However, there are two concerns as follows:

i. The risk posed by climate change was not directly addressed by any mitigation strategy that might include, for example, identifying agrobiodiversity species most likely to be threatened by climate change in target semi-arid regions and undertaking short-term conservation measures, together with monitoring. This is partly a design issue as more attention should have been given to assessing potential impacts of rising temperatures, for example, on CWRs remaining in forest refugia. However, this issue was the subject of a major recommendation from the International Consultant hired by the Project to "... assist with developing various aspects of the genetic reserves and plant genetic conservation *per se*" and this was not directly addressed. The recommendation states:

[20] Refer to MTE (2009): "The threat from ingression of genetic material was clearly identified and some reasonable steps have been taken to address this issue. But there still remains the question of why there is no natural regeneration taking place and therefore the assumption that replanting using material from wild plants will resolve this issue remains just that – an untested assumption."

[21] Refer to Recommendation 14, Annex 8 of this Final Evaluation Report: "The PIU will develop technical recommendations and approves technologies of cultivation of apple and apricot planting stock using root shanks and method of green cutting, and will carry out development works to promote natural recovery of apple-trees at different sites.

As with all genetic reserves currently being established there is a need prior to establishment to review the potential impact of climate change on both the genetic reserve site and the target taxon within the review genetic reserve site. Obviously if the potential impact of climate change is predicted to mean the site or the target taxon at the site is unsustainable then an alternative location will need to be designated (see Footnote 2).

On a more positive note, the Mountain Agrobiodiversity Conservation Strategy drafted by the Project does identify changing natural environment factors as among the important threats to wild fruit forests. Also, climate induced risks of drought and reduced precipitation were partially taken into account in the context of potentially increased fire hazard and levels of insect pests. These risks were monitored on a quarterly basis using the Atlas System, along with mitigation measures.

ii. Arguably, the inability to change mindsets and traditional practices was the biggest of all risks to the Project achieving its objective and this was inadequately addressed. This is partly reflected in the above response of PIU to the MTE recommendation to adopt a more adaptive management approach to understanding why many natural fruit forests are showing little or no signs of regenerating. While PIU's action in securing funds for a programme of research into the regeneration of wild fruit forests is commendable, the opportunity to facilitate and guide initial studies and simple experimentation[22] into natural regeneration during the life of the Project has been lost.

The crux of this issue, however, lies with GEF as PIU initially wanted to investigate regeneration in greater detail but was advised by UNDP CO and the RTA that GEF does not finance research. This has proved to be a real stumbling block for the Project and is considered further in **Section 4. 1** because adaptive management, a hallmark of the *modus operandi* for implementation of GEF projects, is all about designing an intervention based on the understanding of a how system is operating and then learning from what happens.

3.1.3 Lessons from other relevant projects incorporated into project formulation

Previous and ongoing projects in Kazakhstan and the Central Asian/CIS region have been taken into account during the development of this Project, as described in the Project Document. These include two GEF projects: the World Bank-GEF Central Asia *Transboundary Biodiversity Project*, which does not overlap either geographically or thematically; and the UNEP-GEF In situ*/On-farm Conservation of Agro-biodiversity (Horticultural Crops and Wild Fruit Species) in Central Asia*, for which the focus is significantly different and potential geographic overlaps were avoided during formulation In addition, the UNDP-GEF evaluation[23] yielded useful and germane lessons for the present Project: (i) government multi-sectoral coordination and enforcement bodies were found to be strategically advantageous in all biodiversity projects; and (ii) the use of a two-track approach to build capacity at the national policy level (regulations and institutions), while at the same time applying implementation activities at the local and community level.

3.1.4 Stakeholder participation

The main stakeholders are outlined in **Section 2.4**. They were involved throughout the design and development of the Project, including preliminary assessments undertaken by consultants as part of PDF-B to define the baseline conditions.

Considerable attention was given to stakeholder participation in the design and preparation of the Project, given the lack of adequate stakeholder interaction, coordination and input into decision-making with respect to managing agrobiodiversity for conservation and sustainable use. At one

[22] For example, applying different grazing and fruit collection treatments to stands of wild fruit forest (enclosed by fencing as appropriate); interviewing with members of communities who knew the forests 25, 50 and 75 years ago; and ascertaining what is happening to wild fruit forests across the border in China.

[23] Refer to Project Brief, p. 41.

level there had been a lack of integrated and coordinated activity by the various government agencies involved. At another level, historical management approaches do not include mechanisms for consultation and the participation of non-government stakeholders, such as local land users and communities, private sector entities and NGOs.

The Project benefitted from active stakeholder participation during PDF Block B, which was overseen by a Steering Committee comprising representatives from the MEP, FHC of the Ministry of Agriculture, Academy of Science and UNDP Country Office. The Steering Committee ensured that other stakeholders such as the Ministry of Economy, akimat and district authorities of Almaty Oblast, and various local-level agencies were consulted, along with NGOs, such as Farmers of Kazakhstan, Kazakh Republic Society of Beekeepers and Green Salvation, and experts from several forest protection and national park agencies.

To ensure involvement of local communities in the Project design, Zhetysuskiy Economic Institute was contracted to solicit inputs from 28 rural settlements in the Project target areas. Their views were also gathered on issues relating to reasons for the decline in wild fruit forests, resource management priorities, environmental legislation awareness, knowledge of wild plants and animals, and their use of forest resources. The researchers also met with representatives from more than 60 farms and five farmer organizations to investigate local economic conditions and potential future opportunities. This participatory process enabled candidates for alternative livelihood and micro-credit components of the Project to be identified.

Considerable assistance was also provided by several international organizations specializing in the management of natural and agricultural resources. The Canadian Environmental Alliance provided alternative livelihood proposals; ACDI-VOCA Country Office contributed recommendations for the management of Ile Alatau National Park; and staff of the Sustainable Development Programme of the UNDP Country Office played an active role in advising on all points of the PDF-A and PDF-B processes.

3.1.5 Replication approach

The Project has been designed mindful of the importance of information exchange and replication of successful approaches, as well as the dissemination of lessons learned. In particular, replication is central to achieving the overall objective of the Project in respect of Outcomes 1, 2, 4 and 5. Outcome 1 is concerned with piloting an ecosystem-based approach to conserve globally important agrobiodiversity as a part of maintaining the functioning and services of entire ecosystems, as opposed to focusing on the protection of specific species. Outcome 2 is focused on demonstrating effective management planning in the three target PAs, in order that the experience and best practices may be replicated across the entire PA system. Likewise, the piloting of a wide range of approaches to developing sustainable livelihoods in areas peripheral to PAs under Outcome 4 is intended to encourage other communities to follow suit. Outcome 5 focuses on specific activities to ensure replication, including (i) partnership building and networking; (ii) coordination with other conservation projects and initiatives in the region, including the WB/TACIS project *Biodiversity Preservation of Western Tien Shan*, the UNDP-GEF project *Complex Preservation of Globally Important Wetland Habitat for Migratory Birds*, the UNEP-GEF PDF B In Situ/*On-farm Conservation of Agro-biodiversity in Central Asia* and the GoK program of sustainable development for the Ile-Balkhashskiy water basin; and (iii) coordination with other agrobiodiversity initiatives, including the project *Preservation and utilization of genetic polymorphism of Kazakhstan fruit forests*, sponsored by the USDA Plant Genetic Resources Unit, and the project *Preservation and Utilization of Genetic Polymorphism of Kazakhstan Fruit Forests* of the Institute of Botany and Phytointroduction.

Thus, there is considerable opportunity and expectation for replication beyond the life of the Project, as well as during its implementation. This is in line with the GEF approach to maximise cost effectiveness of interventions and, in this case, ensure that ultimately the entire PAs system benefits from the impacts of the Project.

A consistent weakness in such an approach, however, is the relatively short timeframe of projects, so that any delays in developing models and best practices limits opportunities for replication within the life of a project and, therefore, beyond its life. This is particularly relevant for biodiversity conservation projects and the present Project is no exception with respect to Outcomes 1 and 4 (see **Section 3.3**).

3.1.6 UNDP comparative advantage

Biodiversity conservation and the expansion of the PAs system is among the key pillars of UNDP's programme in Kazakhstan. UNDP Kazakhstan has been successfully managing a portfolio of technical assistance and capacity building initiatives in the areas of biodiversity conservation, prevention of land degradation and watershed management. The Country Office, which is well- respected by government and other national stakeholders, has a long track record of project implementation and execution. Previous assistance to the GoK within the environmental sector includes the development of a National Strategy and Action Plan on Conservation and Sustainable Use of Biodiversity and the National Environmental Action Plan; and, more widely, the Kazakhstan 2030 Development Strategy. It possesses extensive, nation-wide experience in creating and operationalizing PAs and stakeholder participatory processes.

UNDP's portfolio of GEF work in Kazakhstan is considerable, as well as elsewhere in the region. Details of these are given in the Project Document.

3.1.7 Linkages between Project and other interventions within the sector, including management arrangements

The Project is aligned with UNDP's programme of support to Kazakhstan, falling under the strategic area that includes the development of policies and strategies to address ecosystem degradation and loss of biodiversity. Related efforts within the UNDP programme include: UNDP's participation in the preparation of the NSAPCSUBD and NEAP; ongoing, close cooperation with the GoK and its Ministries of Environmental Protection and Agriculture; and participation in the work of the Supervisory Council of the GoK, comprising representatives of donors, executive agencies, parliament, and NGOs who monitor the performance of NSAPCSUBD and facilitate consultations with key stakeholders.

Linkages between the Project and other projects in the sector identified during the Project's design include: World Bank/TACIS *Biodiversity Preservation of Western Tien Shan*, UNDP/GEF *Complex Preservation of Globally Important Wetland Habitat for Migratory Birds*, UNEP-GEF "In situ*/On-farm Conservation of Agrobiodiversity*", and the GoK programme of sustainable development in the Ile-Balkhashskiy water basin.

Management arrangements

As planned in the Project Document, implementation of the Project was assigned to the UNDP Country Office (CO) in Kazakhstan. Its supporting role was specified as including:

- management oversight (project launch, participation in steering committee meetings, monitoring implementation of annual and quarterly work plans, field visits, financial management and accountability, annual audit, budget revisions, etc.);
- ensuring reporting and independent evaluation is undertaken;
- assisting with identification and recruitment of project personnel and subcontractors as required; and
- assisting with procurement of goods and supplies as required.

The Project's management structure was revised several times from what was originally planned in the Project Document, initially during the Inception phase and subsequently in 2008 in response to the RTA's recommendation[24]. The history of the management structure is

[24] Refer to PIR, 2007.

summarised diagrammatically in **Annex 5**. The implementation arrangements for the Project were designed to maximize and balance efficiency, transparency, and participatory decision-making. Yet the management structure looks cumbersome, which certainly affected initial implementation of this Project, as described in **Section 3.2**.

UNDP established a Project Implementation Unit (PIU) in March 2006 to implement the Project. PIU initially comprised 12 full-time staff located in Astana (3) and Almaty (9). More often, such management units are administered by three persons, a project manager, financial manager and administrative assistant, and expertise is contracted as necessary for short or longer term purposes. The main issue with having two locations was that there were two managers, one in Astana and another in Almaty, with unclear division of responsibilities. Concerns about this major overlap in responsibilities and cost-effectiveness were raised by the Regional Technical Advisor, who requested a functional analysis of the PIU. The issue was strongly supported during discussions with the Executing Agency (FHC)[25] and resulted in the Astana unit being dissolved and remaining staff moved in 2008 to Almaty, which is much closer to the Project sites. Also, as recommended by the RTA, PIU was consolidated and its structure streamlined, which contributed to building a much stronger team and improved coordination of activities[26]. At the time of this Final Evaluation, PIU consisted of the National Project Manager, three full-time and one short-term expert, and two full-time support staff.

The FHC under the Ministry of Agriculture was designated the Executing Agency of the Project. It was responsible for setting up a Project Steering Committee (or National Coordinating Committee), chaired by the Deputy Director of FHC. The role of the Steering Committee covers: (i) provision of guidance and oversight on Project implementation activities, including approval of all significant project initiatives and sub-contracts, annual work plans and financial reports; (ii) primary lobbying and coordinating body to ensure GoK policy, legislative, and financial support for the Project; and (iii) liaison between the Project and other national and international programmes, organizations and donors. It met biannually, 10 times in total, the last SC meeting being held on 23 February 2012. Steering Committee members included representatives of key governmental agencies (Ministry of Environmental Protection, Ministry of Agriculture, Ministry of Economy, Land Agency), Almaty Oblast Akimat, UNDP Country Office, scientific institutions and environmental NGOs. Members are listed in **Annex 6**.

In addition to having a national Steering Committee, Project Support Councils were originally envisaged as a means of engaging key stakeholders from the two Project sites in guiding and monitoring the Project's on-the-ground implementation and achievements. This structure was eventually abandoned in favour of a more cost-effective approach, whereby Steering Committee meetings were held in the field at one or other of the Project sites.

3.2 PROJECT IMPLEMENTATION

3.2.1 Logical framework used during implementation as a management and M&E tool

The LFM, as originally specified in the Project Document (Annex II) underwent significant changes at various times during implementation:

- The original LFM was revised during the Inception phase of the Project (28 February – 1 March 2006) to revise, clarify and, in some instances, introduce quantitative indicators related, for example, to hectares of wild forest cover, METT scoring, specific laws and by-laws to be developed, number of alternative livelihoods, number of stakeholders accessing micro-credit financing, etc. For some indicators, the PIU was to clarify baseline values by June and September 2006[27].

[25] PIMS 1278 Kazakhstan Conservation of Mountain Agrobiodiversity. PIR 2007
[26] PIMS 1278 Kazakhstan Conservation of Mountain Agrobiodiversity. PIR 2008
[27] Please refer to the revised LFM in Annex G of the Inception Report, March 2006

- Further changes were made to the LFM as a result of the MTE in April 2009. Recommendations did not amount to significant changes (i.e. objective and outcomes remained the same) but rather reflected the Project's accumulated experience and changing conditions. The number of indicators was reduced to a more manageable number, particularly for Outcome 4 in line with the emphasis on dropping many of the alternative livelihood options that were dependent on establishing new markets rather than developing existing ones. This LFM, updated in 2011, has been used as the basis for this Terminal Evaluation (**Annex 9**).

Initially, the LFM was largely overlooked as the main monitoring tool because PIU focused on activities and not results[28]. This has changed and improved significantly in reporting periods subsequent to 2007, as the PIU increasingly monitored its progress in achieving the performance indicator targets specified in the LFM. Evidence that development objective targets have been monitored regularly includes the APR/PIRs (2007-2011), reporting at Objective and Outcome levels to the Steering Committee, 2009 MTE, and METT scores for target PAs in 2011 and 2012.

Fundamentally important to appreciate is the context within which the Project has had to operate from its very inception, constantly challenging a conventional science approach to *in situ* conservation of wild fruit forests, inherited from Soviet times and supported by some leading academics and FHC in Kazakhstan. The conventional approach had been to select varieties of wild fruit trees from the forest that had desirable genetic traits, such as pest and frost resistance, grow and multiply these 'genetically pure' specimens *ex situ* in nurseries and then use them to restore degraded *in situ* wild fruit forests. While this approach ensures that at least some of the genetic diversity is safeguarded *ex situ* and available for future *in situ* restoration of wild fruit forests in the event of a catastrophe to *in situ* wild fruit forests, it is flawed on two accounts as highlighted in the MTE:

i. It is interventionist by its very nature and, therefore, neither captures the entire spectrum of genetic diversity within populations of wild fruit trees nor does it allow for such populations to remain exposed to evolutionary selection within their naturally occurring ecosystem, undisturbed and subject to natural environmental and biological processes.
ii. It is unsustainable over the longer term because it does not address the currently unresolved issue of why many wild fruit forests are showing little or no signs of natural recruitment.

This dispute between the Project, leading national academics and influential bodies with regard to the science and how it should be applied to conserving wild fruit forests led to the hosting of an international conference[29], which was a very strategic initiative on the part of PIU and provided a professional platform for scientific debate and consensus on the need to focus on understanding the ecology and biology of wild apples (and other fruits) through *in situ* research and experimentation. Despite this coup, *in situ* conservation efforts continued to be diluted and, to some extent, side-tracked by various *ex situ* conservation activities concerned with root propagation, grafting etc.

3.2.2 Effective partnerships arrangements established for implementation of the Project with relevant stakeholders in the country/region

The Project has established some strong and productive partnership, with clear signs of congenial and close collaboration with central and regional government agencies, NGOs and local communities. Unfortunately, the Evaluation Team had little opportunity (i.e. time) to interact with community representatives other than Ulagat, so this assessment is based mainly on discussions with PIU, UNDP CO, and Project documents/materials.

[28] PIMS 1278 Kazakhstan Conservation of Mountain Agrobiodiversity. PIR 2007

[29] The Project, in cooperation with renowned scientists from the US, UK and leading research institutions in Russia and Kazakhstan, organised an international conference in 2007 on *Modern Methods and International Experience in Conserving the Gene Pool of Wild Fruit Plants.* It was attended by over 70 participants.

Among the most important and strategic partnerships of PIU were its close relations with FHC, who strongly endorsed the achievements of PIU, and PA teams at each of the Project sites. The Project also worked closely with the GEF Small Grants Programme (SGP), initiating several projects that including a collective grazing plan for the community at Ulagat and bee-keeping at the twp Project sites. With regard to the latter, the Project was able to capitalize on the bee-keeping experience of the GEF SGP elsewhere in Kazakhstan, integrating SGP's lessons learned in the design of the training programme for bee-keepers from the Project's target areas.

The Project experienced some bottlenecks in its cooperation with the UNEP-GEF regional project on In situ*/On-farm Conservation of Agro-biodiversity in Central Asia*, as noted by the RTA in PIR 2007 and the MTE (2009). Although the two projects signed a MoU, it took a while before this cooperation partially materialized, largely limited to information exchange and participation in key Project events. The different foci of the two projects (*in situ* and *ex situ*/on-farm) and the fact that the UNEP-GEF project was regional, operating from Tashkent, also accounted for limited needs and opportunities to collaborate closely. That said, the opportunity to collaborate closely at a strategic level and promote a coherent understanding with the Central Asian region of the different roles and priorities of *in situ* and *ex situ* conservation of agrobiodiversity does not appear to have been taken, despite the challenges experienced by this Project in changing mindsets as described in **Section 3.2.1**.

3.2.3 Feedback from M&E activities used for adaptive management

There is considerable evidence of the Project being managed adaptively at strategic, technical and logistic levels in response to feedback from monitoring processes. Examples include:

- The international conference on wild fruit forests in Kazakhstan, hosted by the Project in 2007 (see **Section 3.2.1**), provided a professional vehicle for scientific debate and assisted in building consensus on approaches to *in situ* conservation that the Project was then able to adopt within its overall strategy. This was validated recently at the Project's final conference held on 23-24 February 2012, at which participants fully endorsed the over-riding importance of *in situ* conservation as the primary measure, with *ex situ* interventions being a secondary (or back-up) option for when *in situ* options have been exhausted[30].
- In response to a new risk generated by the government's nomination of one of the Project sites as pilot for tourism, the Project initiated a series of legal instruments to regulate this sector, including by-laws with respect to: (a) leasing territories within National Parks to regulate tourism and recreation activities; (b) tenders for infrastructural development of tourism and recreation sites in PAs; (c) establishment of tour tracks and routes in zapovedniks; and (d) provisions for user/visitor fees by PAs (expanding the range of activities for which fees can be collected and the conservation activities they can fund)[31].
- The creation of an Scientific & Technical Committee under the National Steering Committee[32] to review and proposed research and conservation approaches that often were innovative and required endorsement from academics in order for the Project to maintain its credibility and proceed with the support of FHC and other key partners.
- Many of the MTE recommendations were addressed and implemented by PIU in a timely and professional manner, as summarised in **Annex 7**. For example, recommendations on alternative livelihoods and their respective performance indicators were mostly adopted and the revised LFM was approved by the Steering Committee on 26 November 2009. Such streamlining enabled the Project to be more focused in its demonstration and delivery of more sustainable livelihood approaches.

[30] Proceedings of the International Science Conference on Wild Fruit Forests in Kazakhstan: Conservation and Sustainable Use Challenges, 23-24 February 2012, Almaty, Kazakhstan
[31] RTA Monitoring Report, May 2007
[32] Also referred to as the National Committee on Project Management, as shown in Annex 5.

However, a number of important MTE recommendations were either deliberately not taken up or misunderstood by the PIU (see **Annex 7**). Critically important examples are that the Project:

- strengthens its adaptive management approach to (i) *in situ* conservation through a range of experimental pilot approaches to rehabilitating genetic reserves, while also challenging the assumption of 'over-exploitation by local communities as the root cause of the lack of natural regeneration of wild forests'[33]; and
- articulates a more sophisticated message about the conservation management of agrobiodiversity by developing the 'genetic reserve conservation' and 'on-farm conservation' paradigm so that the relevance and roles of these respective interventions are properly understood and appropriately applied. In regard to the former, the use of root shanks for planting stock and green cutting, as proposed by the Project in response to this recommendation, is not the most appropriate long-term approach to restoration of wild fruit forests – they are a last resort[34]. Moreover, addressing the latter would have been a very appropriate joint outcome of the regional UNEP-GEF and national UNDP-GEF agrobiodiversity projects[35]. It remains outstanding as scientists, technical PA staff and the wider public in Kazakhstan do not have a clear, common understanding of this paradigm.

A. *Financial planning*

The total budget in the Project Document was US$ 22,569,877, of which US$ 3,022,967 (13%) was grant-aided by GEF (including US$ 252,967 for PDF A and PDF B) and US$ 19,546,910 (87%) co-financed by bilateral and multilateral donor agencies, and national and international NGOs. Subsequently, additional 'raised resources' increased the level of co-financing massively to US$ 32.7 million, as summarised in **Table 3.1**. However, a large proportion of this co-financing relates to management (including fire-fighting), research and other operations in PAs located within the Project area, for which it is impossible to determine how much actually contributed to

[33] PIU considers the assumption of "*overexploitation by local community as the main reason of the lack of natural regeneration of wild fruit forests" to be "*insufficiently accurate." PIU meant that: "due to the overexploitation of sites with wild fruit plantations [read: 'forests'] **historically** (unregulated cattle grazing, haying, fruit collection, unauthorised tree felling for fuel, domestication of wild plantations, etc.), the age structure of plantations was disturbed in these forests (old trees with partially lost restorative capacity predominate), and climate changes had worsened the growing conditions, impacting the natural regeneration success rate. This generally resulted in the degradation of wild fruit forests. Grazing continues at present (this could be seen in the shots of our video film …); growth in the numbers of cattle was reported. As Kazakhstan legislation does not prohibit grazing and haying in national parks, this threat for wild fruit forests persists." While the Evaluators acknowledge this further information, it does not invalidate the MTE recommendation which advocates an evidence-based approach (i.e. experimentation) to identify the root causes for the lack of present regeneration. Such evidence can then pave the way for relevant policy and legislative changes.

[34] PIU disagrees with this statement that "…the use of root shanks for planting stock and green cutting …. is not the most appropriate long-term approach to restoration of wild fruit forests – they are a last resort." PIU considers: "This statement is not true. Root cutting growing technology was proposed by the project only for the creation of a field genetic bank/collection, where it is critical to conserve natural genotypes without unblended with cultural genes. For the regeneration of forests themselves (and we recommended that), a traditional method of getting planting material from seeds may be used (subject to arranging a genetic control of their pureness), as well as methods of micro-clonal propagation (subject to selecting appropriate hormonal milieus not affecting the natural genotype) and rooting of green cuttings." The Evaluators acknowledge the importance of using root cuttings to establish genetic banks (living collections) to conserve CWRs *ex situ*, as well as the use of seeds (subject to their DNA content being validated with respect to 'wild' characteristics) and rooting of green cuttings in wild forests. However, the latter (planting of seed and green cuttings) represent interventions, which should be a last resort or at least complement *in situ* measures. The priority should be to enable wild forests to regenerate naturally by removal, for example, of all sources of human and livestock disturbance. This is ecologically (and economically) more sustainable because it allows CWRs to evolve in response in natural processes of selection.

[35] PIU justifiably points out that the regional UNEP-GEF Project focused on the on-farm conservation of land races (traditional varieties), addressing the conservation of wild relatives only to the extent appropriate. PIU shared all Project materials (guidance and recommendations, publications etc) with this partner and also suggested certain actions for joint implementation but these were not taken up, nor were any counter offers received from the UNEP-GEF Project. This would suggest that some responsibility lies with the GEF implementing agencies, UNDP and UNEP, for not being proactive in promoting synergy between the projects.

the Project's objective of conserving agrobiodiversity within the two priority areas of the Tien Shan Mountains. Examples of new monies raised as a result of the Project include: funds for the establishment and management of Dzhungar Alatau National Park; Mountain Agrobiodiversity departments in target PAs; KazMicroFinance credit line available to local communities in target areas, based on an MoU between the credit company and the Project signed in 2007; and a business venture concerning honey products in Lepsinsk, jointly developed with the Jibek Joly company at a total cost of US$ 15,000.

Table 3.1 Sources and amounts of co-financing committed at the time of approval of the Project Document in April 2003 and subsequently during implementation in 2006-2012.

Cofinancing Source	Government (US$ million)		Other* (US$ million)		Total (US$ million)	
	Budget	Actual	Budget	Actual	Budget	Actual
Micro-credit facilities			0.070	0.101	0.070	0.101
In-kind support	9.730	14.501	0.364	1.248	10.094	15.749
Other *	7.510	15.242	1.868	1.619	9.378	16.861
TOTAL	17.240	29.743	2.302	2.968	19.542	32.711

*Contributions from multilateral agencies, bilateral development cooperation agencies, NGOs, private sector and others.

More detailed annual budgets and disbursements are shown in **Tables 3.2** and **3.3**. This is very impressive in terms of leverage of funds from a GEF perspective, albeit not all can be considered as additional investments in agrobiodiversity conservation catalysed by this Project.

Table 3.2 Annual budgets, including cash and in-kind co-financing

Project # 00049805 (Atlas)	Total 2006-2011	Annual Budgets (US$)					
Donor		2006	2007	2008	2009	2010	2011
GEF Contribution*	2,770,000	607,155	710,355	617,510	329,920	235,640	269,420
UNDP (TRAC)	0	0	0	0	0	0	0
Total	2,770,000	607,155	710,355	617,510	329,920	235,640	269,420
Cash co-financing – partner managed							
Gov of Kazakhstan	15,242,079	0	377,420	3,255,133	1,366,248	1,408,988	8,834,290
Baldyrgan	1,010,000	0	1,010,000	0	0	0	0
Jibek Joy	695,382	0	159,000	111,000	148,682	197,100	79,600
Agroinprof-service	0	0	0	0	0	0	0
Kaz-Micro-Finance	14,596	0	0	4,156	5,530	4,910	0
Total	16,962,057	0	1,546,420	3,370,289	1,520,460	1,610,998	8,913,890
In-kind co-financing							
Gov of Kazakhstan	14,500,938	0	2,538,000	2,608,860	2,648,953	2,869,125	3,836,000
Almaty Oblast Akimat	1,214,000	0	331,565	375,145	333,329	173,969	0
Green Salvation	7,430	0	450	480	1,500	2,000	3,000
Farmers of Kazakhstan	26,760	0	1,720	4,273	5,344	4,994	10,429
ACDI/VOCA Farmer to Farmer	0	0	0	0	0	0	0
Total	15,749,128	0	2,871,735	2,988,758	2,989,126	3,050,088	3,849,429

Annual budget and disbursements are fairly typical of a normal project cycle, with a lower allocation in the first year while the Project got up to speed, establishing the necessary infrastructure, contracting staff and consultants etc, following by several years of higher

investments and declining in the final years (**Tables 3.2-3.3**). There are a few significant discrepancies between annual budgets and disbursements. In the first year, for example, only two-thirds of the budget (GEF grant) was spent, presumably because it took longer to get up to speed than anticipated. Conversely, in the latter part of the Project (2009 and 2010), there were overspends in excess of US$100,000. This suggests that management of the budget was coarse.

Table 3.3 Annual disbursements, including cash and in-kind co-financing

Project 00049805 (Atlas)	Total 2006-2011	Annual Disbursements (US$)					
Donor		**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
GEF Contribution	2,770,000	397,030	695,034	600,249	451,820	348,266	277,601
UNDP (TRAC)	0	0	0	0	0	0	0
Total	2,770,000	397,030	695,034	600,249	451,820	348,266	277,601
Cash co-financing – partner managed							
Government of Kazakhstan	15,242,079	-	377,420	3,255,133	1,366,248	1,408,988	8,834,290
Baldyrgan	1,010,000	-	1,010,000	0	0	0	0
Jibek Joy	695,382	-	159,000	111,000	148,682	197,100	79,600
Agroinprof-service	0	0	0	0	0	0	0
Kaz-Micro-Finance	14,596	0	0	4,156	5,530	4,910	0
Total	16,962,057	0	1,546,420	3,370,289	1,520,460	1,610,998	8,913,890
In-kind co-financing							
Government of Kazakhstan	14,500,938	0	2,538,000	2,608,860	2,648,953	2,869,125	3,836,000
Almaty Oblast Akimat	1,214,000	0	331,565	375,145	333,329	173,969	0
Green Salvation	7,430	0	450	480	1,500	2,000	3,000
Farmers of Kazakhstan	26,760	0	1,720	4,273	5,344	4,994	10,429
ACDI/VOCA Farmer to Farmer	0	0	0	0	0	0	0
Total	15,749,128	0	2,871,735	2,988,758	2,989,126	3,050,088	3,849,429

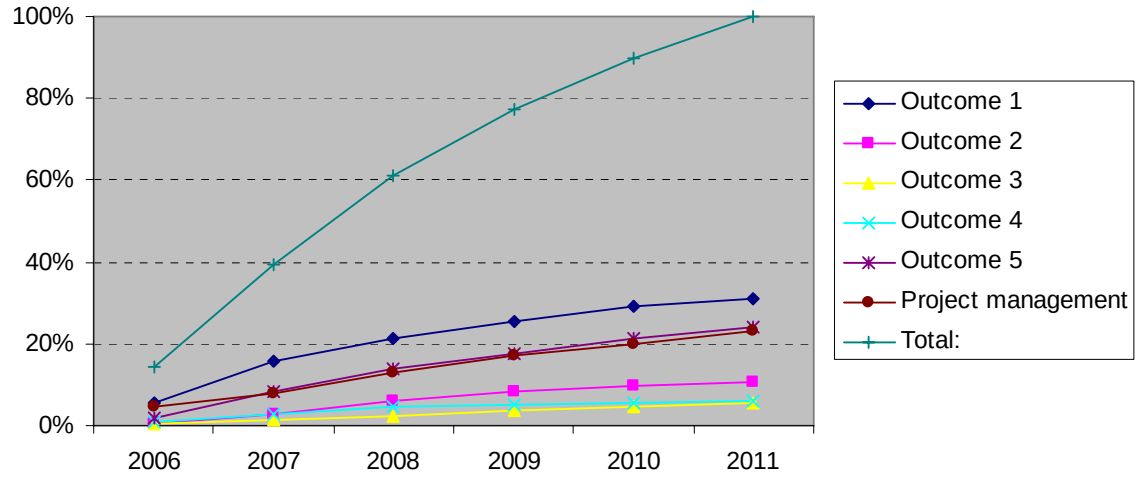

Figure 3.1 Cumulative annual disbursements, expressed as a percentage of the total Project expenditure (US$ 2,770,000), plotted according to Project Outcome

There is a consistent level of investment in each of the Outcomes throughout the Project period, indicating that efforts were distributed fairly evenly across all Outcomes throughout the implementation period (**Figure 3.1**). Levels of investment in ascending order of Outcome were: 1

(conservation management of agrobiodiversity in the wild), 5 (awareness raising), 2 (capacity building), 4 (alternative livelihoods) and 3 (enabling legislation). Project management costs were relatively high, accounting for 23% of expenditure.

While most of the GEF grant focused on core biodiversity conservation aspects of the Project, Outcome 5 was also supported by other resources from Small Grants Programmes of GEF and the World Bank. These funds amounted to a further US$ 110,000.

B. *Monitoring and evaluation: design and implementation**

Monitoring and evaluation is rated as Satisfactory, with respect to Project implementation, on the basis that the monitoring and evaluation plan was routinely applied in a consistent and comprehensive manner throughout the Project's duration.

The main weaknesses concern (i) the initial SMARTness of the indicators in the LFM, which gradually improved during Project implementation, as described in Section 3.1.1; and (ii) the tendency towards 'auditing' activities and outputs rather than 'monitoring and evaluating' the changes that have resulting from them. The latter weakness is at least a reflection of the SMARTness of the performance indicators in detecting/measuring changes that relates directly to a project 's Objective and Outcomes.

Monitoring and evaluation of Project activities have been undertaken in varying detail at three levels:

i. progress monitoring,
ii. internal activity monitoring, and
iii. impact monitoring.

Progress monitoring has been good and undertaken through quarterly and annual reporting to UNDP CO. Annual Work Plans (AWPs) were prepared by PIU, with inputs from UNDP CO, and submitted to the Steering Committee for formal approval. PIU maintained regular, often daily, contact with the UNDP CO regarding the work plan and its implementation. PIU ensured that the UNDP CO received quarterly progress reports, with updates on the status of planned activities and overall schedule, completed outputs and associated products, problems and an outline of activities planned for the following quarter.

UNDP CO generated its own quarterly financial reports from Atlas. These expenditure records, together with Atlas disbursement records of direct payments, served as a basis for monitoring expenditure and revisions to the budget. The latter took place annually, based on progress in disbursing funds and changes in the operational work plan, and also on an *ad hoc* basis depending upon the rate of delivery. UNDP CO has also required quarterly delivery projections, along with work plans (derived from the AWPs) and procurement tables, all of which have served as an additional monitoring tool, especially to quantify Project progress.

PIU also prepared Quarterly Operational Reports (150-word fixed-format), which were forwarded to UNDP CO and UNDP/GEF Regional Coordination Unit in Bratislava, and in turn submitted to UNDP HQ and to GEF. The major findings and observations of all these reports were incorporated in the Project Implementation Report (PIR), covering the period July to June, and submitted by the PIU to the UNDP CO, UNDP Regional Coordination Unit, and UNDP HQ for review and official comments, prior to final submission to GEF. PIRs were not circulated in full to the Project Steering Committee since the translation was considered too time-consuming an exercise, but the section on indicators and delivery was translated for its attention and endorsement. Annual Project Reports (APRs), covering calendar years (January - December), were also prepared as part of the AWP monitoring protocol in accordance with UNDP's regulations.

UNDP has also monitored the Project through numerous field visits, generally three to five per year[36]. The Project's risk assessment has been updated approximately twice a year, together by PIU and UNDP CO. No risks were identified as critical during the Project formulation; and they have been tracked throughout implementation. While most of the assumptions and risks have proved manageable, the Evaluation Team considers that some of this monitoring has been somewhat superficial and insufficiently challenging with respect to: assumptions about the lack of regeneration in wild fruit forests; and the risk of prevailing mindsets on *in situ* conservation approaches undermining the objective of the Project (see **Section 3.1.2**). It is all too easy to get bogged down in 'auditing' implementation progress in order to meet project reporting requirements rather than actually 'monitoring' what is being achieved with respect to a project's objective and, as a consequence, miss seeing 'the forest for the trees'[37].

This risk surfaced yet again at the end of the Evaluation Team's mission when it learnt from FHC about plans to replace cultivated fruit trees with 'pure' wild stock (cloned by the academician Jungaliev from wild fruit trees for desirable horticultural traits, such as disease and frost resistance) to provide a natural buffer for wild fruit trees. While this is definitely an improvement on having cultivars in buffer areas, assuming that the selected wild strains have not been contaminated with cultivated varieties, it is still an intervention with respect to potential impacts on natural processes of evolutionary selection. Furthermore, the Jungaliev 'pure' wild stock can still act as a stepping stone or bridge for genetic contamination of the wild fruit trees that it is buffering should any Jungaliev individuals be cross-pollinated by bees or other insects carrying the pollen of cultivars from further afield. Such risks can be averted if the F1 generation from seeds is continually removed from buffer areas, avoiding the chance of any cross-pollinated seed germinating, flowering and its pollen being carried to wild fruit forests in the genetic reserves and other core conservation areas.

An independent mid-term evaluation was undertaken in January-April 2009, beginning with a field mission from 9th to 23rd January 9-23, 2009. The Project was judged to be progressing well and the PIU was commended for its combined capacity, intellect and willingness to learn from experience, providing the MTE evaluators with a high degree of confidence that the Project would achieve its objective. The overall concern expressed in the MTE was the sustainability of the Project's impact, given that the genetic reserves established for the long-term conservation of wild fruit forests are dependent on the effective management of PAs which remain financially vulnerable.

The Project has been subject to mandatory nationally implemented audit in 2006, undertaken by an independent company appointed by open tender. This is in accordance with standard UNDP CO practice.

Internal activity monitoring: Annual and quarterly work plans, coupled with individual work plans developed for experts, provided the framework for guiding Project implementation. External consultants and contractors were commissioned on the basis of results-based contracts, with payments dependent upon satisfactory completion of deliverables or achievement of milestones. The Finance/Procurement Assistant of the Project developed a system to track the status of project payments and timely follow-up on outstanding payments. The efficiency of the PIU improved after the first year of implementation, once the Project management structure had been streamlined and consolidated, with reporting and coordinating functions clarified and adapted to the context in which the Project was operating.

[36] **2006:** 6th September, 17th October. **2007:** 14-16 March, 28th April, 14-15 May (RTA mission), 23-24 December. **2008:** 9-11 April, 28th April-5th May (RTA mission), 30 November – 2 December. **2009:** 12-15 February, 31st March - 1st April, 20-24 May, 2nd October, 25th November. **2010:** 18-20 May, 10th June, 28-31 October. **2011:** 1st February, 1st March, 24th March, 29-30 June (CO & RTA mission), 9th November. **2012:** 23-24 February.

[37] To' see the forest for the trees' is an expression meaning: to discern an overall pattern or big picture from a mass of detail.

Impact monitoring appears to have been effectively non-existent at the very beginning of the Project but improved substantially after the RTA mission in May 2007. Since then, LFM performance indicators have been used diligently to monitor progress towards targets for the respective Outcomes, and the LFM has served as a planning tool.

In particular, PIU structured its annual progress reporting to the Steering Committee in accordance with LFM indicators at Objective and Outcome levels, which helped its members to focus on results and impacts. Similarly, UNDP CO and the RTA from UNDP/GEF Regional Coordination Unit in Bratislava concentrated their monitoring visits on the progress achieved towards meeting the LFM indicator targets and reported on issues and concerns in Back-to-Office-Reports (BTOR).

Particularly significant was the application of the METT to track changes in effectiveness of PA management in the demonstration sites. Importantly, this exposed PA managers and their staff in target sites to principles of effective management for the first time.

C. *UNDP and Executing Agency execution*, coordination and operational issues*

Implementation approach is rated as Satisfactory, with respect to Project implementation, on the basis that Implementing and Executing agencies have worked well together, serviced by a very competent PIU that has established effective working relations with key partners and more widely at local levels with PA staff, local communities and NGOs.

Some weaknesses are evident in the supervisory role of the Implementing Agency, especially with respect to ensuring that recommendations from the MTE and other consultants charged with specific tasks were followed up, as appropriate, by the PIU. Arguably, the high levels of competence and commitment shown by the PIU lead to it being given too long a rein in some instances.

The implementation approach was well designed in terms of its structure (**Annex 5)** and, using the Nationally Executed (NEX) modality, this was realised in a competent manner, with the appointment of staff to create a PIU that was independent of but answerable to the client (FHC) and both supported and overseen by the implementing agency (UNDP CO). This arrangement worked well and it appears that excellent inter-relationships were established between the three parties, as reported in the MTE and observed during this Final Evaluation. The Deputy Chairman of FHC was appointed as the National Project Director and Chairman of the Steering Committee[38], and the Project undoubtedly benefited from having the same individual in post throughout its implementation, which is unusual as civil servants are often transferred during the life of a project as long as six years. The Steering Committee, lead by its Chairman, took a keen interest in the implementation activities and supported PIU on a number of critical occasions, such as hosting an international conference on agrobiodiversity and incorporating its deliberations into the Project's strategy.

As described earlier in **Section 3.1.7**, the Project had its teething problems early on during its implementation but by the end of 2008 PIU had become an effective, efficient, competent and progressive management unit that was committed to fulfilling its role under its formidable National Project Manager who, apparently, was always the first to be on the scene in the event of any unforeseen difficulty or emergency.

PIU was also extremely strategic and professional in dealing with difficult and sometimes delicate or politically sensitive matters. Changing entrenched outdated attitudes on how best to conserve wild fruit forests in Kazakhstan presented PIU with a formidable hurdle from the outset, particularly since the original idea of this Project germinated from a lifetime's work of a leading and influential academic who had a personal interest in how the Project might be implemented.

[38] The Steering Committee was officially known as the National Coordinating Committee and later as the National Committee on Project Management (**Annex 5**).

Hosting an international conference to provide an open forum for debating the science and learning lessons from experience around the world proved to be a turning point for the Project because its strategy and plans for *in situ* and *ex situ* conservation for agrobiodiversity were publicly validated. This was a shrewd initiative, the stakes were high and GEF took a lot of convincing at RTA level because it was no longer policy to financially support such types of conference. The outcome was extremely positive for the Project, not only with respect to the science but also politically as PIU had gained credibility in the eyes of FHC and its key partners. Furthermore, while there had been heated debated during the conference, there had been no loss of face for any of the parties involved. Only a technically competent and united PIU championed by strong leadership could have pulled off such an initiative so successfully. However, despite this very positive, early outcome, attitudes did not change overnight and continued to dog the Project throughout its implementation (see **Sections 3.2.1** and **3.2.3B**).

The support of UNDP, as the Implementing Agency through its Country Office and RTA, has been sustained and effective throughout the Project, undoubtedly contributing significantly to the achievements. Its support has been particularly beneficial on a number of occasions, including the initial selection of PIU staff (jointly with FHC) through an open application process, hosting of the international biodiversity conference, the RTA challenging the geographical split of PIU between offices in Almaty and Astana, and fostering links between the Project and the GEF Small Grants Programme.

There are a number of areas that would have benefitted from closer, more robust supervision and, on occasion, direction by the Implementing Agency (UNDP) as follows:

- Monitoring execution of the management responses to the MTE, a number of which were not adequately addressed for reasons that do not appear to be adequately justified (see **Annex 7**).
- Technical oversight of Project activities relating to *in situ* conservation of genetic reserves, especially since agrobiodiversity conservation is a new discipline in Kazakhstan. For example, it would have been particularly important to monitor follow-up by PIU on the recommendations of the International Consultant on agrobiodiversity conservation (see Footnote 2).
- Ensuring greater collaboration and synergy with the UNEP-GEF In situ*/On-farm Conservation of Agrobiodiversity* project in Central Asia, as anticipated in the Project Document.

3.3 PROJECT RESULTS

*3.3.1 Overall results (attainment of objectives)******

The Project is evaluated as Satisfactory with respect to the overall achievement of its Objective, based the assessment of Project Outputs below and a more detailed evaluation of the LFM in which performance indicators for individual Outcomes and Outputs have been examined in relation to end of Project targets in **Annex 10**.

Ratings of other aspects of the Project's Objective (relevance, effectiveness, efficiency and impacts) and sustainability of its Outcomes are also provided below in **Table 3.6**, along with a brief justification.

The Project's development Objective (or goal), which is focused on '*The conservation of key habitats and ecosystems of globally significant mountain agrobiodiversity in Kazakhstan*', comprises five interrelated components or Outcomes: (i) demonstration of *in situ* conservation of agrobiodiversity (wild crop relatives) in PAs through (ii) strengthened institutional capacity and technical know-how to conserve agrobiodiversity; all of which is underpinned by (iii) an effective legal framework for the rational use of agrobiodiversity resources. In order to deliver these three

outcomes it is also necessary (iv) to reduce human pressures on agrobiodiversity by developing alternative livelihoods (or improved sustainability of existing livelihoods); and (v) to raise awareness among all levels of the national and global conservation and socio-economic values of Kazakhstan's agrobiodiversity.

An assessment of the extent to which these components (Outcomes) have been addressed is provided below, based on Project Outputs and taking into account what was originally planned (Project Document), changes recommended in the MTE and any further modifications advised by the RTA and approved by the Steering Committee post mid-term.

Outcome 1 ***Ecosystem-based conservation and management of wild crop relatives at two project sites***

Output 1.1 *Baseline description of project sites and specific land use categories within each site*

Activities identified in the Project Document for achieving this Output focus on:

i. ecological and socio-economic baseline assessments;
ii. assessment of the use of land and agrobiodiversity resources at project sites;
iii. inventory of wild fruit forests to inform agrobiodiversity conservation strategies (including maps and database for each project site); and
iv. identification of indicators for species diversity and genetic variability of agrobiodiversity.

The MTE recommended a detailed ecological analysis of the existing fruit forests contained within the genetic reserves, including a number of indicators for conservation status and quality of wild fruit forests (e.g. age structure, recruitment – vegetative and seedling, intra and inter-specific diversity, level of genetic ingression from cultivars, extent/area, etc.) to compare different areas and genetic reserves and to develop a long term monitoring programme for wild fruit forest recovery, as specified in the Project Document.

A full inventory of wild fruit forests in the Project sites was completed, along with DNA analyses of samples of genetic material to identify clusters of pure genotype as well as hotspots of cultivated ingressions. Surveys included age structure, height, width, density, quality and status of adjacent territories, vegetative and seedling recruitment, sanitary conditions, extent/area of cultivated orchards as a source of genetic ingression. The results were used to modify management zones within 2 existing PAs, demarcate the boundaries and management zones of the new PA, inform management plans of targeted PAs and to create 7 genetic reserves (covering a total area of 560 ha) in Ile-Alatau and Dzhungar Alatau national parks.

Results from the inventory and DNA analyses[39] provided a solid foundation for further research by the Kazakh Science & Research Institute on *in situ* and *ex situ* conservation measures for wild apple and apricot trees in targeted areas[40].

The Project pioneered *ex situ* conservation approaches for wild apples and apricots that enable the genotype to be replicated and, thereby, enable pure wild genotypes to be conserved for the immediate future (in evolutionary terms). Also, the Project laid the foundations (technical documentation and legal provisions under a new FHC Ordinance, dated October 2011) for establishing Kazakhstan's first field genetic bank to conserve the genetic diversity of *Malus sieversii* (wild apple) and wild apricots in Ili Alatau National Park.

For long-term conservation, agrobiodiversity provisions were incorporated in PA management plans. Specifically, the 3 PAs now monitor quality indicators of wild fruit forests according to the

[39] Fully endorsed by the FHC Ordinance # 304, dated 25th October 2011.
[40] PIU recommended 13 research topics (not included in PA management plans) to follow-up on *ex situ* and *in situ* conservation/regeneration of wild fruit forests in the Dzungar Alatau, Trans-Ili and Tarbagatai (Eastern Kazakhstan) sites. The FHC Scientific & Technical Committee fully endorsed these recommendations, costed at 15 million tenge (c. US$ 100,000) for implementation in 2011-2015.

government long-term and mandatory 'Chronicles of Wild Nature' (*Letopisi Prirodi* in Russian) monitoring program. This annual monitoring exercise requires registering any negative/positive changes in quality indicators, along with details of the adequacy of the management responses.

There has been little practical input from the Project in developing databases at the target sites so that survey and monitoring results are readily accessible to the managers and other interested partners and stakeholders. The data published in the Chronicles of Wild Nature are not yet held electronically, seriously jeopardising their ready access for such purposes as informing management, updating national statistics and publicity. However, the Project has developed a concept of an integrated, national PAs digital database for the FHC, which would address these and other shortcomings. This concept has been taken on board by FHC and UNDP CO, with a view to securing US$ 1 million for designing and piloting this database in 2012-2013.

Output 1.2 *Establish Dzhungar Alatau National Park and Specially Protected seed sites*

The main focus of this Output was to establish Dzhungar Alatau National Park (NP) and genetic reserves. The Project contributed to:

i. preparation of all required documents for the subsequent establishment of the Dzhungar Alatau NP (gazetted on 30 April 2010);
ii. creation of 7 genetic reserves for *in situ* conservation measures; and, additionally,
iii. expansion of Ile Alatau NP from 236,000 ha to 271,403 ha on 11 June 2008.

The Project prepared a feasibility analysis, including zoning and management requirements, and facilitated negotiations with the local akimats, resulting in a total allocation of 356,022 ha for Dzhungar Alatau NP to conserve the wild apple gene pool, the main aim of this PA.

The total area of wild apple and apricot forests under protection increased from 2,824 ha to 10,795 ha as a result of Project interventions, comprising 3,725 ha of pure wild apples protected in Dzhungar Alatau NP and 7,070 ha of pure wild apple forests (small area), pure wild apple and apricot forests, and apple forests mixed with secondary species (e.g. poplar, hawthorn and hackberry) in Ile Alatau NP. Of the 7,070 ha in Ile Alatau NP, 3,550 ha lie in the buffer zone, where pure wild apple trees are mixed with cultivated varieties that are presumed to have spread as a result of dispersal by animals.

Table 3.4 Status and extent (ha) of wild fruit forests in Dzhungar Alatau and Zailiskiy Alatau protected by the end of the Project (March 2012) to conserve wild fruit forest

Region:	Dzhungar Alatau			Zailiskiy Alatau[41]					Total Regions		
Protected Area:	Dzhungar Alatau NP			Ile Alatau NP		Almaty SNR			Total PAs		
PA Zone:	Core	Buffer	Total	Core	Buffer	Core	Buffer	Total	Core	Buffer	Total
Fruit forest type											
Wild apple (pure)	3,725	0	3,725	n/a	n/a	n/a	n/a	0	3,725	0	3,725
Wild apple mixed with other spp.	0	0	0	n/a	n/a	n/a	n/a	0	0	0	0
Wild apple and apricot (pure)	0	0	0	n/a	n/a	n/a	n/a	0	0	0	0
Wild and cultivated apple	0	0	0	n/a	n/a	n/a	n/a	0	0	0	0
Total protected forest	3,725	0	3,725	3,520	3,550	0	0	0	7,245	3,550	10,795

[41] It is noted that data on the extent of different types of wild fruit forest are not available (n/a) as yet for PAs in Zailiskiy Alatau, reflecting current inventory protocols. These need to be refined in future to monitor the composition, status and extent of wild fruit forests, separately, in core and buffer areas.

The extent and protection status of the different compositions of fruit forest are summarized in **Table 3.4,** in cases where data are readily available. Core areas are ecological sustainability zones under strict protection (zapovednaya zona). There is provision under the law for management interventions to recover and rehabilitate these wild forests. In Ile Alatau National Park, forests in buffer zones are also under a strict protection regime.

The 7 genetic reserves, established on 6 May 2011 under FHC Ordinance No. 138, cover a total area of 560 ha in the Ile Alatau and Dzhungar Alatau national parks. These sites have been recorded in the National Register as gene pool sites for conservation and regeneration of natural forest, thereby guaranteeing their legal protection and their being subject to special management regimes, financed by FHC.

Output 1.3 *Build partnerships with local communities for agrobiodiversity conservation on adjacent private lands*

As originally envisaged in the Project Document, this Output is based on the establishment of Local Consultative Committees (LCCs)[42] as a mechanism to enable local communities to participate in the management of PAs (Ile Alatau and Dzhungar Alatau national parks). The Project expected to contribute to drafting statutes, consulting with stakeholders and providing logistical support to initial LCC meetings. The original LFM had both LCCs established by the end of Year 1 (2006) but MTE moved this target to Year 6 (2011) for legitimate reasons.

LCCs in both national parks were officially established and became operational in October 2011. Meetings are chaired by the national park director (or his deputy) and members include: representatives of local (rayon) and village *akimats* (state administrative branch), local *maslikhats* (state legislative branch), farming and horticultural associations, local NGO or initiative groups, women's associations and senior community representatives (*aksakals*). Also, alongside their central LCCs, both Ile Alatau and Dzhungar Alatau national parks have established sub-LCCs in each subdivision to address issues on the ground.

The LCC in Dzhungar Alatau has proved to be an effective mechanism for influencing resolution of community concerns related to beekeeping activities inside the national park, which were scheduled to be relocated from the core area (zone of ecological stability). The issue was subsequently raised at FHC level and a resolution adopted to permit traditional environmentally sustainable economic activities, including beekeeping, within such core zones of national parks.

Output 1.4 *Sector specific sub-plan development (scientific research and monitoring, ecological restoration, tourism regulation and development, agrobiodiversity conservation on adjacent private lands)*

This Output was aimed at strengthening management of the targeted PAs (Ile Alatau and Almaty) by developing strategies and programmes (sub-plans) to address specific thematic areas (sectors) of the management plan, such as research and monitoring (including information management systems), ecological restoration, threats from fire and pests, and tourism and recreation.

Changes were made during the Inception Phase and subsequently, albeit not clearly documented, such that activities focused on developing: (i) management plans for Ile Alatau NP and Almaty State Nature Reserve (SNR); (ii) research and monitoring programmes for Dzhungar Alatau and Ile Alatau national parks, including a forest nursery at Lepsinsk (Dzhungar Alatau); and (iii) ecotourism and recreation plans for Ile Alatau NP and Almaty SNR. Some of these changes reflect the fact that Outputs 1.6 and 1.7 were amalgamated with Output 1.4 during the Inception phase, although this is not recorded in the Inception Report or elsewhere.

[42] LCCs were originally referred to as Land User Associations in the Project Document and as Land User Groups in the Inception Report.

Achievements under this amalgamated Output 1.4 include: management plans completed for Ile Alatau NP, Almaty SNR, and also the new Dzhungar Alatau NP. All management plans include provisions for agrobiodiversity research, conservation and monitoring. Ile Alatau NP and Almaty SNR management plans are under implementation and that for Dzhungar Alatau NP has been prepared and submitted to the FHC for endorsement. An eco-tourism concept was prepared for Ile Alatau NP in 2008 and is now being implemented in collaboration with relevant stakeholders.

Output 1.5 *Identification and analysis of key management objectives and components for project sites*

This Output is directed at identifying gaps in management and assessing the needs of PA staff and land users at each site. Assessment results were used to develop training and seminar programmes, and create Mountain Agrobiodiversity departments in respective PAs, as envisioned under Outcome 2.

Assessments were completed in 2007. The following year the project began to implement training programs and facilitate the establishment of Mountain Agrobiodiversity departments in PAs.

Output 1.6 *Final management plans assembly, participatory review and agreement*

This output was merged with Output 1.4 during the Inception phase, although the change is not documented in Table 1 or anywhere else in the Inception Report. The fact that Output 1.6 does not appear in the 2006 or any subsequent AWP indicates, apparently, that this change was approved by the Steering Committee and adopted by UNDP. Such changes should be properly documented otherwise wrong impressions are unintentionally conveyed to third parties.

Output 1.7 *Pilot phase implementation of PA management plan and sub-plans and periodic adaptation to incorporate lessons learned*

This output was merged with Output 1.4 during the Inception phase, although the change is not documented in Table 1 or anywhere else in the Inception Report. The fact that Output 1.7 does not appear in the 2006 or any subsequent AWP indicates, apparently, that this change was approved by the Steering Committee and adopted by UNDP. Such changes should be properly documented otherwise wrong impressions are unintentionally conveyed to third parties.

Outcome 2 ***Strengthened institutional, technical, and financial framework for agrobiodiversity conservation***

Output 2.1 *Conservation agency and SPA institutional restructuring*

Under this Output, activities planned in the Project Document focused on institutional strengthening and restructuring, including the creation of new agrobiodiversity conservation departments at national and PA level, and the initiation of sustainable land-use and tourism development programmes within the target sites.

The proposed plan to establish a new department within FHC proved to be impracticable due to an ongoing structural optimization policy in the government, so this Output was revised accordingly in the Inception Report[43]. Instead, the Project focused on institutionalising agrobiodiversity conservation at PA level.

Mountain Agrobiodiversity departments were established in Ile Alatau NP, which became fully functional in 2009 with 4 permanent staff, government financing and approved research on agrobiodiversity issues; and in Dzhungar Alatau NP in 2010 where two staff members received undergraduate training in forestry at Kazakh National Agricultural University.

These departments routinely monitor key indicator species (including wild apple and apricot forests), the results of which are recorded in Chronicles of Nature (*Letopis Prirodi* in Russian).

[43] Refer to Table 1, Inception Report. *In situ* Conservation of Mountain Agrobiodiversity, March 2006.

More specific, in depth research is outsourced to specialists from research institutes and biodiversity conservation organizations. Examples of such research completed in Dzhungar Alatau and Ile Alatau NPs include: identification of wild apple stock areas, mapping their boundaries onto a GIS, preparing a passport[44] for each designated area for state attestation of wild apple and apricot forests reserves; and identification of a network of areas that contain wild fruit forests and other plant species for monitoring purposes.

Some US$ 170,000 of equipment has been provided to the target PAs (e.g. 2 off-road trucks, tractors, fire fighting and prevention equipment, patrol vehicles/motorbikes, computer equipment, audio-visual equipment, solar panels, etc.).

Output 2.2 *Training and capacity development of managers and staff of SPAs and other conservation institutions*

This Output was aimed at strengthening competence of current and prospective PA and forestry employees in contemporary agrobiodiversity conservation and management principles and practices through in-country and overseas training and study tours. A training needs assessment is prescribed in the Project Document, forming the basis of a training programme. Emphasis is given to establishing partnerships with local, national and international organisations in order to implement training activities and establish a sustainable long-term programme for staff.

Much of the training programme was delivered by Tabigat Alemi, which is currently the only Environmental Education Centre in Kazakhstan that trains PAs staff based on international approaches and methods. All training materials developed under the auspices of the Project were shared with this Centre, providing a certain level of sustainability post-Project.

Training outputs achieved by the Project include the following:

i. 10-day study tour to national parks in Austria for FHC, Almaty Oblast forestry and hunting inspection divisions, Lepsinsk forestry, Ile Alatau NP, Almaty SNR and Parliament to learn about contemporary PA management and community engagement (October 2007).
ii. 20-day training in Moscow Central Botany Garden of the Russian Academy of Science in for a Horticulture Institute specialist (May 2008).
iii. Two-year undergraduate training in forestry at Kazakh State Agricultural University for two young PA specialists from Dzhungar Alatau. Both were awarded a bachelor degree in forestry.
iv. One week course in PA Strategic Planning and Management in Kentau (Kazakhstan) for the Head of Almaty SNR (December 2008).
v. One week course in Moscow on how to set up a protection system in PAs, attended by three staff from Ile Alatau NP and Almaty SNR (April 2009).
vi. 3-day training on regular monitoring (Chronicles of Nature), attended by 104 employees of the newly established Dzhungar Alatau NP (June 2011).
vii. 8-day course in Moscow on environmental awareness and eco-tourism in PAs, attended by two employees of Ile Alatau NP and Almaty SNR (November 2009).
viii. 17 staff from Almaty SNR and Ile Alatau NP attended a 3-month training course in how to be a PA guide (February-April 2009). All participants were certified as qualified PA guides.
ix. 18 specialists from Ile Alatau NP, Almaty SNR, and Lepsinsk, Uigetass, Sarkand and Taldy Korgan forest ranges (these later became part of Dzhungar Alatau NP) attended a 2-day course in Taldy Korgan (Kazakhstan) on pest and disease control in forest ecosystems (March 2009).

Importantly, capacity was also developed among targeted PA staff through repeated application of the METT, raising PA staff understanding about what constitutes effective management and

[44] 'Passport' is an official term used to refer to an information sheet that records key biogeographic information about a site, including: location, GPS coordinates, species present and their status.

how it should be assessed. Enhanced PA management is reflected in increased METT scores from 47 to 67 (old methodology scoring) for Ile Alatau NP and from 51 to 70 for Almaty SNR. Increases are due to:

i. increased human capacity in targeted PAs (creation of Mountain Agrobiodiversity departments, 2 trained staff in forestry management, 17 staff certified in ecotourism, etc.);
ii. creation of a visitor centre in Ile Alatau NP;
iii. upgrade of a natural museum exhibition in Almaty SNR;
iv. opening of a new trail on mountain agrobiodiversity issues in the Almaty SNR;
v. strengthening of PA infrastructure and equipment; and
vi. approval of 5-year management plans that address agrobiodiversity issues in target PAs.

Output 2.3 *Identification and development of viable long-term financing mechanisms for agro-biodiversity conservation within Kazakhstan*

Activities identified in the Project Document include: secure funding for certain components of the management plan from the State budget; establish and refine collection of visitor/user fees and penalties/fines in PAs to support management; expand cooperation with international research institutes and solicit support for research and monitoring programs; engage with the private sector (fruit processing and agricultural production enterprises) as long-term financing partners.

The Project drafted amendments to the list of PA paid services approved by Government Resolution No. 586 of 24 April 2009 on additional revenue generation opportunities for PAs that included fees for (i) roads, pipelines and power networks (except for public use); (ii) location of trails, tent camps, observation platforms, and parking lots. The Project's suggestion on charging fees for private roads, pipelines and power networks that run through the territory of a PA was added to the list and endorsed in 2010.

In regard to international research cooperation, the Project signed MoUs with the following:

i. State Research Centre of the Russian Federation of Plant Breeding after N. I. Vavilov, the leading research institute in CIS on *ex situ* and *in situ* agrobiodiversity conservation (signed on 16 May 2007);
ii. Lead Botanical Garden after N.V. Tsitsin of the Russian Federation of Science (signed on 26 March 2008); and
iii. UNEP-GEF Project "In situ/on farm conservation and use of agrobiodiversity in Central Asia (signed on 15 December 2007).

In cooperation with the Russian Research Centre and scientists/practitioners from USA and Great Britain, the project published a monograph on contemporary methods of conserving wild genotypes that is based on the latest studies of wild fruit forests[45]. Project staff also consulted with scientists from the Russian Research Centre on *in situ* and *ex situ* approaches to conserving wild apple and apricot forests. Under the terms of the MoU with the Lead Botanical Garden, an employee of Kazakh Institute of Horticulture was trained in DNA analysis of forest materials.

The Project has also been quite successful in engaging fruit-processing businesses in long-term financing of agrobiodiversity, as in the case of Baldyrgan which opened a buying office for farmers that grow fruits and berries in the Trans-Ile area. The Project shared with this company the results of the socio-economic studies that suggested Talgar Rayon, near Ile Alatau NP, would be a commercially attractive location for the buying office. The project also cooperated with Zhibek Zholy, a company specialising in honey-based products in Lepsinsk (Dzhungar Alatau). The Project supported a feasibility study and the company has since opened an office in Lepsinsk. Negotiations with local honey producers are currently ongoing.

[45] *Modern methods and international experience of conserving the gene pool of wild plants (by the example of wild fruit)*

Outcome 3 ***An effective legislative framework for the conservation and rational use of agrobiodiversity resources***

Outcome 3 seems to have been poorly formulated as 'four areas of legislative development' are identified in the Project Document as 'the main focus of the project' (paragraph 91) but they are not defined as outputs. Instead, Outputs 3.1-3.5 are not outputs as such but a series of activities concerned principally with the process of making policy, identifying gaps in existing regulatory system, drafting new legislation, consulting with stakeholders and finally submitting legislation for official review and lobbying to secure the changes. As a consequence, the 'four areas of legislative development' have been effectively overlooked by the monitoring and evaluation process. This is a project design flaw and does not reflect on PIU, although their efforts might have been better focused had it been picked up during the MTE. These 'four areas of legislative development', which in reality are the outputs identified in the Project Document for delivering Outcome 3, are as follows:

i. improvement of key enabling legislation to clarify roles, responsibilities and powers of national park administrations in Dzhungar Alatau and Ile Alatau, based on a local-level legal framework that includes provisions for PAs to retain income they generate from visitors etc;
ii. development of legal mandates, regulatory provisions and enforcement mechanisms to enable SPA managers to prevent clearance of wild fruit forests and to eliminate existing or future cultivated tree gardens and orchards in proximity of those wild forests;
iii. legal framework for sustainable use of agrobiodiversity resources in productive landscapes, with new laws and regulations to minimise impacts on agrobiodiversity; and
iv. designation of Ile Alatau as a World Heritage site to increase its conservation priority through provision of an additional level of legal protection.

It is clear from the assessment of Outputs 3.1-3.5 below that three of the above four main legislative areas of focus of the Project have been addressed to varying extents. However, there is no evidence that the fourth area concerning the nomination of Ile Alatau for inscription on the World Heritage List has received any consideration at all.

Output 3.1 *Develop long-term policy for agrobiodiversity conservation and sustainable use in Kazakhstan*

Long-term agrobiodiversity conservation strategies were completed for Dzhungar Alatau and Ile Alatau NPs in 2009, following extensive consultations with national and international scientific experts during the drafting stage. The completed strategies were submitted to FHC for them to promote further. This was in line with the MTE recommendation that '. . . PIU prepares a position statement/briefing document for the "Concept of State Forestry Policy 2020" being prepared by the Forestry and hunting Committee of MoA which addresses the issues of the "*genetic reserve conservation*" and "*ex situ conservation*" paradigm.' As such, the Project took an active part in drafting this forestry policy but the initiative is currently on hold.

Output 3.2 *Identify key legislative and regulatory changes required at national, SPA and local level to support agrobiodiversity management plans and initiatives*

This Output informed the implementation of Output 3.3, mainly by identifying and assessing gaps in the regulatory framework for agrobiodiversity conservation and agreeing with FHC and other stakeholders on the list of identified gaps to be addressed by the Project.

Output 3.3 *Develop new or adapted draft legislative acts, create clear guidelines and instructions on the practical implementation of legislation, and clarify the rights and obligations of stakeholders in agrobiodiversity conservation area*

The Project has actively facilitated the development of a draft of laws concerning flora conservation and PAs *per se*, details of which are summarized on **Table 3.5**. It originally participated in a Ministerial working group to inform the drafting process of the PAs law and

catalyze the work of Parliament. Subsequent to the approval of this Law in 2006, the Project helped draft a further 13 bylaws, of which 10 have been adopted to date.

Table 3.5 List and details of legal and policy instruments facilitated by the Project

No.	Document Title	Year drafted	Project involvement	Version	Result
1.	Law of the Republic of Kazakhstan *On Specially Protected Natural Areas*	2006	part of Working Group	revised version	adopted by RK Parliament Resolution No. 175 dated 07.07.2006
2.	Rules for Renting Out Land Plots in the Territory of State National Nature Parks for Regulated Tourism and Recreation	2006	draft document development	originally drafted	approved by RK Government Resolution No. 1063 dated 07.11.2006
3.	Rules for Holding Competitive Tenders for Construction of Tourist and Recreational Facilities in Specially Protected Areas	2006	draft document development	originally drafted	approved by RK Government Resolution No. 1181 dated 07.12.2006
4.	Rules for Reserving Land Plots Designed to Create and Expand Specially Protected Areas of Local and National Significance	2006	draft document development	revised version	approved by RK Government Resolution No. 943 dated 29.09.2006
5.	Procedure to Develop and Use Symbols of Nature Protection Institutions	2006	draft document development	revised version	approved by FHC Order No. 21 dated 22.01.2007
6.	Procedure to Create Excursion Paths and Routes in Specially Protected Areas	2006	draft document development	originally drafted	approved by FHC Order No. 234 dated 24.10.2006
7.	Kazakhstan Mountain Agro-Biodiversity Conservation and Restoration Concept (draft)	2007-08 (revised 2010)	draft document development	originally drafted	submitted to FHC
8.	Proposals on Amendments to Laws of the Republic of Kazakhstan on Forests, Wildlife and SPAs	2009-10	draft proposed amendments to existing laws	originally drafted	submitted to FHC and Ministry of Agriculture
9.	Proposals on Amendments to the Rules of Holding March of Parks in SPAs (supplemented by mandatory actions *Saving Primrose Plants* and *Day of Tulips*)	2010	draft amendments to existing regulations	originally drafted	approved by FHC Order No. 158 dated 20.04.2010
10. 11. 12.	Establishment of Dzhungar Alatau National Park - RK Government's Decisions on: Park establishment Park Regulation Park Structure	2010	participation in drafting	originally drafted	approved by RK Government Resolution No. 370 dated 30.4.2010 and FHC Orders Nos. 181 and 182 dated 07.05.2010
13.	Dzhungar Alatau National Park Official Emblem (Logo) Development	2010	emblem (logo) development	originally drafted	approved by FHC Order No. 5 dated 13.01.2011, undergoing registration procedure
14.	Draft Law on Flora	2010-11	concept and draft law	originally drafted	submitted to FHC and Ministry of Agriculture

The link to agrobiodiversity is not self-evident from the titles of these bylaws because they are concerned with overall management effectiveness of PAs, including those that are important for agrobiodiversity. For example, bylaws on land leasing in PAs and setting land aside for establishing PAs served the Project well when creating Dzhungar Alatau NP. Also, as mountain agrobiodiversity gradually becomes a target of ecotourism, regulations relating to tourism (including ecotourism) in PAs becomes increasingly relevant to agrobiodiversity.

Importantly, the Kazakh regulatory framework did not recognize the term *agrobiodiversity* at the time of the PAs law and associated bylaws; and this remains the case. However, the importance of agrobiodiversity, its protection, conservation, reproduction (*in situ* and *ex situ* in living collections) and monitoring of genetic resources, is being legally addressed for the first time in the

new *Law on Flora*. This is an additional remit taken on by the Project, based on its experiences and lessons learned, and this demonstrates its adaptive approach to implementation.

Output 3.4 *Consult with all stakeholders to ensure agreement on legislative and regulatory changes*

This Output is essentially an activity that was undertaken with the involvement of a wide variety of stakeholders during the drafting process, as part of **Output 3.3**.The Steering Committee agreed at its meeting on 24 December 2007 to **Outputs 3.4** and **3.5** being merged (Protocol No. 3).

Output 3.5 *Submit legislation projects for official review and approval according to required procedures, and undertake lobbying and follow-up to ensure timely results*

This Output is also another activity that was undertaken as part of **Output 3.3**. It was merged with **Output 3.4** as explained above.

Outcome 4 *Alternative livelihoods benefiting local communities in project sites, reducing natural resource use pressure on mountain agrobiodiversity*

Five tasks are identified in the Project Document and implemented as Outputs but reporting is inconsistent, making it difficult to assess progress. For example, Output 4.4 concerns the establishment of a micro-credit facility but it is reported under Output 4.2 in the 2006 AWP, Output 4.4 in 2007 and 2008 AWPs and Output 4.3 in AWP 2011. This suggests a lack of rigour in reporting, quite apart from a lack of clarity.

Output 4.1 *Developing alternative kinds of activities development at project areas concept for population living standards improvement, conservation and stable agrobiodiversity resources usage*

This Output, as described in the Project Document, focused on:

i. contemporary analysis of socio-economic situation at two project sites with a detailed review of key barriers to alternative livelihoods in targeted areas;
ii. consultations with relevant stakeholders on strategic approaches to alternative livelihoods;
iii. development of the alternative livelihoods concept for targeted areas; and
iv. development of recommendations for sustainable land use on productive territories in and around PAs.

Following completion of the socio-economic analysis the Project devised an Alternative Livelihoods Concept that included ecotourism, medical plant cultivation, beekeeping, cheese making, felt production, home-based flower production as sustainable alternative livelihood opportunities for communities residing in and around targeted PAs. This concept was modified in the wake of the MTE (2009), which recommended focusing on the development of existing markets as more cost-effective use of project funds, and ecotourism, medical plant cultivation, cheese, felt and home-based flower production were dropped as they had little/no relevance to existing threats to agrobiodiversity. Importantly, the MTE also recommended focusing on improvement of existing rather than new beekeeping production methods and markets for the same reasons of cost effective use of Project funds.

Along with the Alternative Livelihoods Concept, the Project produced a through analysis and recommendations (2008) on sustainable land use practices for communities around targeted PAs. These recommendations informed the development of pilot projects on sustainable grazing in Dzhungar Alatau.

Output 4.2 *Demonstration/pilot projects for alternative livelihood development*

This Output is concerned with the detailed development of pilot projects at each target site, implementation (either directly or through sub-contractors) and subsequent support with replication of successful models.

Overall, the Project assisted with development of 8 project proposals, of which 5 were adopted and implemented. Given the Project's limited financial resources under this Output, it collaborated with the Small Grants Programmes (SGPs) of GEF and the World Bank. This collaboration proved very effective and beneficial to the Project, SGPs and local beneficiaries.

A collective grazing plan was developed and implemented in one village near Dzhungar Alatau rather than having 6 farms at Ile Alatau and 4 farms at Dzhungar Alatau, in line with the MTE recommendation to use a more focused approach to demonstrate sustainable grazing practices. This proved very successful, with the entire village of Koilyk participating. The NGO Ulagat is now considering cultural and ecotourism initiatives, for which Koilyk is geographically well-located.

Output 4.3 *Long term technical, business and organizational support services for appropriate small-scale farmers and relevant private sector*

On the basis of experience gained from piloting alternative livelihood projects (Output 4.2), this Output focused on:

i. assessing the institutional and capacity needs of local Land Users Associations and Agrobiodiversity Conservation Departments to provide support services to small-scale farmers and the private sector; capacity assessment of various local stakeholders in terms of implementation alternative livelihood opportunities to tailor training programs to identified capacity gaps; and
ii. provision of training and workshops on alternative livelihoods for local farmers, entrepreneurs and other community groups.

The Project hosted 12 workshops and field-based training events to inform local communities of more economically and environmentally sustainable livelihoods in the targeted areas. Training includes but was not limited to: (i) introduction to entrepreneurship; (ii) effective and efficient use of rangelands; (iii) new and improved methods of honey production; and (iv) creation and sustainable management of orchards. The events were attended by 272 community members (73 from Trans-Ile, including 34 women, and 158 from Dzhungar Alatau, including 38 women).

Output 4.4 *Assistance in micro-credit facility development to support sustainable alternative livelihood activities for small-scale farmers and businesses in project sites*

The emphasis of this Output was changed from *micro-credit facility* to *micro-credit activities* during the Inception phase, as the intention was to work with an existing facility rather than set up a new fund. It was planned to identify an existing micro-credit facility that was prepared to expand their lending in support of agrobiodiversity conservation through development of sustainable alternative livelihoods at the two Project sites.

The Project concluded a MoU with KazMicroFinance, a micro-crediting facility, on July 2007 whereby a new credit line of 15 million tenge (c. US$ 100,000) was opened for agrobiodiversity-friendly economic/business activities during the Project's life in the target areas. The original target of 18 households was reduced to 9 households on the advice of the MTE, given the public's slow adoption of alternative livelihood options and a reported reduction in overuse of wild fruit resources attributed to the expansion and strengthening of the PAs network. To date, KazMicroFinance released 3 micro-credits worth 2.15 million tenge (c. US$ 14,500) in 2008 and 2009 to 2 households from the Talgar and Essik areas of Trans-Ili for crop production and animal husbandry.

Output 4.5 *Initiation of activities to create economic incentives to encourage sustainable use of natural resources and to discourage activities with negative impacts on agrobiodiversity on national and local level*

This Output does not appear to have been specifically addressed during Project implementation, as evidenced by any tangible products. However, it is recognised that incentives and disincentives will have been in-built to greater or lesser extents in **Outputs 4.2** and **4.4**.

Outcome 5 *Awareness and support at all levels regarding the values and need to conserve Kazakhstan's mountain agrobiodiversity increased*

Output 5.1 *Activities on strengthening and development of Biodiversity Awareness and Education Centers in each project site to act as a focal point for awareness and education campaigns*

This Output was focused on establishing or renovating nature museums with the target PAs, developing training programmes for school children, and rehabilitating forestry education departments and forest friends associations within PAs. The phraseology of this Output was changed during the Inception phase from 'Development of Biodiversity Awareness and Education Centres…' to 'Development and Strengthening of Biodiversity Awareness and Education Centres…". to reflect the fact that, although a new centre would be created in Dzhungar Alatau NP (using FHC funds), education centres already existed in Ile Alatau NP and Almaty SNR that needed upgrading.

The visitor centre at Ile Alatau NP was still being upgraded at the time of the Evaluation Team's visit, while renovation works for Almaty SNR had been completed. A new visitor centre is planned for Dzhungar National Park, for which an existing building seen by the Evaluation Team has been earmarked and a concept has been endorsed by FHC. Funds are due to be allocated for the conversion of this building into a visitor centre.

The Project created 3 forestry schools (i.e. clubs) in secondary schools in the vicinity of Dzhungar Alatau NP in 2010, and 4 schools in Ile Alatau NP in 2011. An objective of these schools is to attract young students to the forestry and PAs sector by providing opportunities for them to get to know professionals in the sector and participate in fieldwork, patrolling activities and the annual Park Marches. The Project provided microscopes to 3 schools, one in Turgen (Ile Alatau) and two in Lepsinksk and Koilyk villages (Dzhungar Alatau).

Output 5.2 *Development of cooperation with funds for project activities implementation*

This Output was based on facilitating the engagement of public associations, such as NGOs, and other interest groups in raising awareness about agrobiodiversity conservation in the target sites and, as appropriate, supporting the creation of new NGOs.

Four NGOs were created during 2007-2009, targeting various aspects of biodiversity conservation: sustainable use of biodiversity resources, cultivation of fruit varieties and medical herbs, beekeeping and ecotourism. More specific, summary details are as follows:

i. NGO Ulagat engages the village community in sustainable pasture management to prevent degradation of wild tree apples from cattle grazing in Dzhungar Alatau National Park.
ii. Public Association "Kokzhar" implements a grant project on construction of hives to improve pollination of wild tree apples, as well as upgrading drinking water pipelines in one village in the Project area.
iii. Moldir Bulak, a tourism-focused NGO, operates guest houses and has established trails featuring mountain agrobiodiversity and the production of felt souvenirs following a workshop conducted by the Project.
iv. Wonders of Wild Nature NGO focuses on BD awareness raising, conducts seminars and also involves children in research work.

Three of these NGOs, Ulagat, Kokzhar and Moldir Bulark, secured additional financing from the GEF Small Grants Programme.

The Project also collaborated closely with Gulstan Limited Liability Partnership and Gulzar Public Association in Almaty, who target schools throughout the Oblast. They produced an impressive series of children's booklets highlighting the importance of Kazakhstan's agrobiodiversity.

Output 5.3 *Awareness building and training on ecological and nature conservation legislation*

This Output is focused on training workshops and provision of reference materials for PA staff, local governments, law enforcement bodies, judiciary and the users of agrobiodiversity resources to raise awareness of existing and new legislation in relation to agrobiodiversity conservation.

This Output is complementary to Output 2.2 on capacity building for which details of training provided by Project have already been given. In addition, the Project produced various guidance and comments clarifying new changes in the regulatory framework and its relevance/importance for agrobiodiversity conservation. Such materials were produced electronically and distributed to workshop participants on CDs. Also, the Project digitized PA and forestry related legislation and statutory acts for distributing to PA staff at Project sites.

Output 5.4 *General public awareness campaign on the importance of natural environment conservation and country agrobiodiversity gene pool*

This Output was focused on raising awareness about agrobiodiversity among urban-based land owners and visitors using multi-media (print, audio, and video). It also included organizing apple festivals in Almaty and Taldy-Korgan to generate more publicity about the unique and rich agrobiodiversity heritage of Kazakhstan.

The publicity campaign was grounded in a concept or vision of agrobiodiversity conservation and an action plan for delivering tailored messages to target audiences of various stakeholder groups identified during the Project's formulation. The concept and action plan were approved by the Project Steering Committee in 2008.

One of the MTE recommendations was for the Project to develop a communication plan, if feasible, '. . . to articulate a more sophisticated message for decision-makers and other institutions about the conservation management of agrobiodiversity developing the "*genetic reserve conservation*" and "*on farm conservation*" paradigm'. The PIU declined this recommendation insisting that the approved concept covered this issues (see **Annex 7**). It remains outstanding, however, as scientists, technical PA staff and the wider public do not have a common understanding of this paradigm. Apart from being a different sort of message, this one would have been a very appropriate joint outcome from the UNEP and UNDP GEF agrobiodiversity projects.

This Output included: general public awareness campaigns using mass media (electronic and printed materials); educational and awareness raising booklets, publications, posters, etc for various targeted groups; and the Project's active presence at important agrobiodiversity related events, such as the Festival of Tulips, annual Apple Festival, Park Marches and Photo Exhibition *Treasures of Mountain Agrobiodiversity*. By end of the Project, PIU had produced 17 popular and specialised publications and contributed to a reference book for forest managers. A list of selected publications and articles is provided in **Annex 8**.

During February 23-24, 2012, the Project held a final conference to inform scientists, research institutes, NGOs, other public and international organizations and mass media on its major achievements and lessons learned.

Output 5.5 *Local-level awareness campaign for natural resource users on value of agrobiodiversity resources and carrying capacities of local ecosystems*

This Output was focused on targeted awareness raising campaigns and workshops at local levels in and around the Project sites. Identified target audiences included land users (farmers, dacha gardeners, livestock herders and other natural users) and the private sector.

Activities undertaken by the Project in connection with this Output and Output 5.6 include: (i) quarterly progress reports; (ii) regular provision of updates to oopt.kz, undp.kz, minagri.kz, caresd.net websites; (iii) financial support and contributions to a regular PA newsletter *Pearls of*

Kazakhstan; (iv) technical support to FHC staff when presenting such items as the Mountain Agrobiodiversity Conservation Strategy to the Environmental Committee of Majilis (Upper Chamber of Parliament).

Output 5.6 *Awareness building with important national and local authorities, project partners on global values and economic importance of agrobiodiversity conservation*

This Output is similar to Output 5.5 but focuses on local authorities and national environmental agencies with respect to targeted awareness raising, workshops and hearings in the Environment Committee of Parliament. Activities undertaken are covered in Output 5.5 and also Output 5.3.

Output 5.7 *International networking and partnership development for agrobiodiversity conservation*

This Output was focused on some very specific partnership initiatives in order to exchange information, and share lessons and best practices, as follows:

i. UNDP Learning Portfolio for Agrobiodiversity Projects in Asia, under the aegis of the International Plant Genetic Research Institute (IPGRI) to share lessons and best practices;
ii. various sustainable mountain conservation and sustainable use networks (e.g. Asian Mountain Forum, Central Asian Mountain Program);
iii. *Preservation and Utilization of Genetic Polymorphism of Kazakhstan Fruit Forests* project sponsored by USDA Plant Genetic Resources Unit; and
iv. Institute of Botany and Phytointroduction project on *Preservation and Utilization of Genetic Polymorphism of Kazakhstan Fruit Forests* (under development).

Activities undertaken included:

i. Strengthening existing partnerships with projects/programs on mountain agrobiodiversity conservation. For example, the Project participated regularly in regional workshops and seminars in Bulgaria and Slovakia, organized by UNDP's Regional Centre in Bratislava as part of UNDP's Learning Portfolio. These events were attended by biodiversity project managers and specialists from Europe and the CIS region.

   The Project's partnership with IPGRI was two-fold: it was represented on the Steering Committee of the UNEP/GEF regional project on On-farm conservation by its National Project Manager officially; and its specialists attended IPGRI-organized workshops on legal aspects of agrobiodiversity conservation and genetic markers.
ii. Cooperation with national and international research institutes and organizations in biodiversity conservation and PA management. This was largely implemented as a result of signing MoUs with the State Research Centre of the Russian Federation of Plant Breeding (after N. I. Vavilov) and the Botanical Garden of the Russian Federation of Science, as reported above under **Output 2.3**.
iii. Engagement of Project partners (government officials, PA employees, NGO/Public Association members, local communities) in the Project's workshops, trainings and experience sharing activities. Implementation is directly linked to **Outputs 2.2** and **4.3**.
iv. Dissemination of the Project's lessons learned and experiences *via* on-site training and workshops. Implementation is directly linked to **Outputs 2.2** and **4.3**.

*3.3.2 Relevance, effectiveness, and efficiency**

The Ratings of other aspects of the Project's objective (relevance, effectiveness, efficiency and impacts) and sustainability of its outcomes are provided in **Table 3.6**, along with a brief justification based on evidence outlined earlier in this Final Evaluation report.

Table 3.6 Application of GEF evaluation criteria to Project objective and outcomes

GEF Criteria	Final Evaluation – Summary Comments and Ratings
Achievement of Project objective:	DEVELOPMENT OBJECTIVE (GOAL) - The conservation of key habitats and ecosystems of globally significant mountain agrobiodiversity in Kazakhstan. IMMEDIATE OBJECTIVE (TOWARDS GOAL) - Stakeholders conserve agro-biodiversity in two priority sites within Kazakhstan's Tien Shan Mountains by developing and applying new methods and tools for conservation, including partnerships among conservation and land-use agencies, SPAs, local governments, local communities and the private sector.
▪ Relevance	▪ Project design is in line with UN Convention on Biological Diversity objectives and the GEF Strategic Priority BD-1 to catalyse sustainability of PAs. It sits within GEF Operational Programme 13 to conserve and sustainably use biological diversity important to agriculture. The Project aligns well within the national policy framework that also anticipates developments in agrobiodiversity conservation (see Section 3.3.3). It is highly relevant to social, economic and environmental interests of Kazakhstan and has been targeted to address global, national and local community interests. Shortcomings include: an overly ambitious original Project design that would have benefitted with more focus on *in situ* conservation of mountain agrobiodiversity *per se*, possibly with fewer Outcomes (policy/legal enabling environment, building capacity, awareness raising, and demonstrating sustainable management), and certainly fewer and more targeted Outputs; and lack of synergy with regional UNEP-GEF project on *ex situ*/on-farm agrobiodiversity, which would have provided an opportunity to address the genetic reserve conservation and on-farm conservation paradigm more thoroughly. Rating: Satisfactory
▪ Effectiveness	▪ Project has been effective in delivering Outcome 1 *(in situ* conservation of wild fruit forests), Outcome 2 (institutional and technical capacities to manage agrobiodiversity), Outcome 3 (legislative framework) and Outcome 5 (awareness raising), and to a lesser extent Outcome 4 (alternative livelihood options). While many positive steps have been taken to prioritise the conservation of wild fruit forests, understanding why many of these forests are not showing more signs of regeneration has not progressed through research and experiment despite being highlighted as a priority in the MTE. Indeed, the hypothesis in the Project Document that historical events, such as wild apple collection and over-grazing coupled with an ageing or senescing population of wild fruit trees, are the root cause of the lack of regeneration of the forests has not been substantiated by scientific observation, survey and experiment. Indeed, some more recent reports suggest that livestock populations and wild fruit collection by people have declined. Rating: Satisfactory
▪ Efficiency	▪ Overall, the Project has been administered and implemented efficiently, as evidenced by regular and competent reporting and disbursement of financial resources (Section 3.2.3). Initially there were some difficulties and inefficiencies when the PIU office was split between Astana and Almaty at the insistence of the Implementing Agency but this was resolved in the second year (2007) – learning by experience. Leverage of funds is very impressive from a GEF perspective (Section 3.2.3B), albeit not all can be considered as additional investments in agrobiodiversity conservation catalysed by this Project *per se* because a large element comprises new monies raised to establish Dzhungar National Park and other government funding on mountain PAs. Nevertheless, the total budget in the Project Document was US$ 22,569,877, of which US$ 3,022,967 (13%) was grant-aided by GEF, and by the end of the Project the level of co-financing had been increased to a massive US$ 32.7 million (92.2% of the total budget), of which cash amounted to 51.9% of the total co-finance. All of this co-financing reflects extremely well on the efficiency of the Project's partnerships, which also includes a small (US$ 110,000) but significant amount of funding from the Small Grants Programmes of GEF and the World Bank. Rating: Satisfactory
▪ Results/Impacts	▪ Project represents a significant intervention and marks a turning point from prevailing practices of *ex situ* conservation to improve the vigour and quality of horticultural varieties of fruit trees by selecting such desirable traits from wild fruit species, as conventionally espoused by leading national academicians and agencies, to a greater awareness and understanding of the priority need to focus on *in situ* conservation of wild fruit forests. Thus, *ex situ* collections of wild fruits species provide a genetic reservoir in the event of catastrophic loss of such forests but intervention measures, such as re-introduction of *ex situ* bred 'pure' wild stock to precipitate the recovery of wild fruit forests, should only be used as a last resort. This paradigm shift in understanding and attitudes has been fuelled by a major awareness raising programme (Outcome 5) and capacity building among FHC and its PA administrations (Outcome 2). It is underpinned by new legislation, with provisions for agrobiodiversity conservation for the first time, and supported by increasing levels of finance for PAs management. The Project has also demonstrated within its target PAs how to create and manage genetic reserves of wild fruit forests, minimising risks of them becoming genetically contaminated by cultivars growing in the neighbourhood (Outcome 1). It has also supported local communities in reducing their impacts on wild fruit

GEF Criteria	Final Evaluation – Summary Comments and Ratings
	forests through more sustainable and alternative livelihoods (Outcome 4), albeit to a more limited extent as original plans were over-ambitious and wide of the target (see MTE) and there was little take up of the micro-credit scheme. Specific impacts in terms of achieving the Project's development Objective are the significant increase in nationally protected areas for globally important mountain agrobiodiversity, within which core genetic reserves have been created and are being routinely managed to maintain the integrity of wild fruit forests. However, the long-term benefits of the Project remain uncertain because the low levels of recruitment observed in wild fruit forests are not understood. Much more opportunity should have been taken by the Project, to verify the key threats to these aging forests, as recommended in the MTE and subsequently by the international agrobiodiversity expert, through experimental research and monitoring. Rating: Satisfactory
Sustainability of Project outcomes	Outcome 1: Ecosystem-based conservation and management of wild crop relatives at two project sites Outcome 2: Strengthened Institutional, Technical, and Financial Framework for ABD Conservation. Outcome 3: An effective legislative framework for the conservation and rational use of agro-biodiversity resources Outcome 4: Alternative livelihoods benefiting local communities in project sites, reducing natural resource use pressure on mountain agro-biodiversity Outcome 5: Awareness and support increased at all levels regarding the values and need to conserve Kazakhstan's mountain agro-biodiversity
▪ Financial resources	▪ The fact that the GEF grant represented just 7.8% of the total Project budget (US$ 35.48 million), taking into account the huge co-financing component, is a clear indicator that the Project was little more that a timely catalyst to precipitate some much needed change in public awareness, national policy and sustainable management of agrobiodiversity. Further evidence that the Project has not induced undue levels of dependency in future grant aid is the noticeable improvement in current levels of financing the target PAs by the government, which have almost doubled during the course of Project implementation. It is also very encouraging to note that FHC has awarded 15 million tenge (c. US$ 100,000) for a programme of research on *ex situ* and *in situ* conservation and regeneration of wild fruit forests in Dzungar Alatau, Ile Alatau and Tarbagatai (Southern Kazakhstan) in 2011-2015, based on proposals recommended by PIU. While funding has improved significantly, current levels are still comparatively very low for managing the complexity of scientific and socio-economic issues encapsulated within any PA, particularly in the new Dzhungar National Park which has yet to consolidate and then develop its role. FHC will need to sustain its efforts and pressures over the next budget cycle to secure adequate state funding for PAs that conserve agrobiodiversity as their main objective. Rating: Moderately Likely
▪ Socio-political	Project was very successful in raising the national profile of agrobiodiversity through its impressive number of publications and media materials for both general and specialized audiences. A wide range of information has been disseminated via multi-media, notably: video about Kazakhstan's agrobiodiversity, series of educational booklets for young children, posters, and scientific and technical publications. These materials and a variety of educational opportunities organised by the Project (e.g. forestry schools in Dzhungar Alatau and Ile Alatau national parks, annual Apple Festival in Almaty) have raised the interest of urban and rural populations in the importance of mountain agrobiodiversity and its conservation. ▪ Project has made more limited sustainable impact among local communities in the target sites through GEF Small Grant Programmes of UNDP and he World Bank, and micro-loans available via KazMicroFinance. The uptake of micro-credits was very limited, highlighting a lack of confidence in this mechanism for establishing new enterprises and initiatives. This might have been addressed by appointing someone from the Project to market and help interested parties develop proposals but this was felt to be the responsibility of the lender, based on recommendations in the MTE. Rating: Moderately Likely
▪ Institutional/ governance	▪ Much of the Project's achievements have resulted from the strength of relationships between partners, notably between UNDP, FHC and their PA administrations, MoEP, parliamentarians, akimats and local communities, together with the mechanisms put in place to achieve objectives. The latter include the inter-ministerial working groups to draft new legislation, including the draft Flora Law; and the Scientific & Technical Committee, established by the Project Steering Committee to review and endorse research proposed/undertaken by the Project. If not for the Project's strong partnership with parliamentarians, the creation of Dzhungar Alatau National Park could have been significantly delayed and jeopardized achievement of a key Project target. Also notable has been the establishment of Local Consultative Committees in the target PAs, particularly in the case of Dzhungar Alatau National Park where the LCC was able to influence management policy concerning bee-keeping. These relationships, mechanisms and practices have grown from strength to strength and there is every reason to suggest that they will outlive the Project, develop further and become more widely applied. Rating: Likely

GEF Criteria	Final Evaluation – Summary Comments and Ratings
▪ Environmental	▪ Clearly, the main thrust of the Project concerns reducing pressures on mountain agrobiodiversity in Zailiskiy Alatau and Dzhungar Alatau and it is likely that the interventions of the Project can be sustained due to the improved legislation and management planning, enhanced competencies of PA staff directly involved with the Project and greater awareness and support from local communities in and around the target PAs, and the general public. However, the Project has not adequately addressed the underlying threats to wild fruit forests as highlighted above (see Results/Impacts); only then will the paradigm shift in approaches to agrobiodiversity conservation have been completed, from the historic mindset on *ex situ* interventions to one of prioritising *in situ* conservation informed by research, experiment and monitoring. Rating: Moderately Likely

Satisfaction scale: Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory

Sustainability scale: Likely, Moderately Likely, Moderately Unlikely, Unlikely

3.3.3 Country ownership

As noted in the MTE, the Project is operating within a national policy framework that includes:

- Kazakhstan's National Strategy and Action Plan on Conservation and Balanced Use of Biodiversity, which specifically identifies mountain agro-biodiversity ecosystems as one of seven priority ecosystems in Kazakhstan.
- National Environmental Action Plan
- Decree 1167 of 1 August 2000, which approved a program of conservation, development and use of Kazakhstan's genetic resources of agricultural plants, animal species and micro-organisms for the period of 2001-2005.

It supports three priority areas in the Environment and Natural Resources section of the Government's Long-term (2030) Development Strategy for Kazakhstan, namely: Conservation of Biological Diversity, Sustainable Use of Natural Resources and Environmental Education. Further details about these and other policy drivers can be found in the Project Document[46].

A strong sense of ownership has been maintained and developed further during the Project's implementation. This is reflected in the inter-agency membership of the Steering Committee and its keen interest in and support for many of the activities and other initiatives delivered by the Project; the establishment of a Scientific & Technical Committee to scrutinise the Project's scientific research; the establishment of a Parliamentary Working Group to support the drafting of new legislation; and the approval of a five year programme of research on agrobiodiversity conservation funded by FHC.

3.3.4 Mainstreaming

UNDP-supported GEF-financed projects are key components in UNDP country programming, as well as regional and global programmes, and provide opportunities for mainstreaming with other UNDP priorities, such as poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender. According to the Project Document, this Project was intended to mainstream biodiversity conservation principles and practices into the agriculture, forestry, and tourism sectors in the following ways:

- provide support to systemic and institutional capacity building in government agencies and promote integrated planning and management across sectoral institutions;
- increase relevant knowledge and building partnerships between government agencies, the private sector, NGOs, and communities that secure biodiversity conservation;
- promote market based measures, such as micro-credit, tax credits, etc. to support mainstreaming of biodiversity conservation objectives in small and medium-sized enterprises;

[46] Refer to Section 2a in the Project Executive Summary of the Project Document.

- support alternative livelihoods based on sustainable natural resource use that help to demonstrate win-win examples of benefits to local livelihoods and the global environment; and
- at the Project's two sites, established and practically tested *in situ* programs for mountain agrobiodiversity conservation will provide lessons learned and best practices to inform the policies and procedures of the newly established Department of Agrobiodiversity Conservation, which will become institutional practice for other agrobiodiversity conservation activities throughout Kazakhstan.

This is an ambitious list of mainstreaming initiatives. However, significant institutional capacity in agrobiodiversity conservation has been developed within FHC and demonstrated at the two Project sites involving three PA administrations; and knowledge and know-how has been shared with their partners in government, NGO, private and local community sectors who have contributed to the implementation of the many Project activities. While a new Department of Agrobiodiversity Conservation did not materialise at national level due to changes in government policy, such units were established in the two target national parks.

A little progress has been made in developing alternative livelihoods that are based on sustainable use of natural resources, such as livestock grazing using a community-based model and bee-keeping, but mainstreaming in small and medium-sized enterprises supported by micro-credit has yet to properly take-off.

Likewise, a little mainstreaming has been achieved with respect to the tourism sector in terms of raising awareness among potential visitors (especially the national public) through the various events and materials output from Outcome 5 and also among those who do visit the demonstration sites, where visitor centres have been re-vamped or, as in the case of Dzhungar Alatau National Park, are being built.

*3.3.5 Sustainability**

The sustainability of Project outcomes is considered in **Section 3.3.2** and each of the four dimensions of sustainability have been rated (**Table 3.6**).

3.3.6 Catalytic role and impact

The catalytic role concerns the extent to which a project has demonstrated: a) production of a public good, b) demonstration, c) replication, and d) scaling up. The present Project has successfully, albeit not as yet completely, achieved a paradigm shift in conventional approaches to agrobiodiversity conservation and demonstrated the way forward at two target sites. An opportunity to replicate this approach in the proposed Tarbagatai National Park was examined by the Project but establishment of this PA was delayed to 2012, providing little opportunity for the Project to contribute its experience other than assist in the identification of wild apple forests for special protection measures. Scaling up at regional of national level was not possible within the Project's time-frame. However, guidance on priorities for agrobiodiversity conservation, including formulation of a conservation strategy for crop wild relatives (CWRs) in Kazakhstan, is provided in the mission report of the international expert on agrobiodiversity (see Footnote 2).

4. CONCLUSIONS, RECOMMENDATIONS AND LESSONS

4.1 CORRECTIVE ACTIONS FOR PROJECT DESIGN, IMPLEMENTATION, MONITORING AND EVALUATION

The Evaluators' general conclusion is that this is a very challenging Project by virtue of breaking ground for the first time in Kazakhstan in the relatively new field of agrobiodiversity conservation. It has been fairly well designed, albeit somewhat ambitious given the low level of awareness of Kazakhstan's strategically important position within a global epicentre for mountain agrobiodiversity; and proficiently executed by an efficient, technically competent, committed, astute and dynamic PIU that has benefitted hugely from having a proactive client (FHC), with a strong sense of ownership, and good, reliable support from the Implementing Agency (UNDP) at Country and Regional Office levels. Clearly, the Implementing and Executing Agencies have collaborated well together and been capably serviced by PIU. This partnership has engaged effectively with a wide range of stakeholders in the delivery of Project Outcomes, thereby enjoying a high level of credibility.

Overall, the Project is evaluated as **SATISFACTORY**, which means that it has only minor short-comings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency. This is an 'above average' accolade for those involved in the Project's formulation and implementation, being the second highest of six possible scores awarded to GEF projects and the highest being HIGHLY SATISFACTORY in the case of a project that has no short-comings (see **Table 1.1**). Furthermore, Outcome 3 (effective legal framework for conservation and rational use of agrobiodiversity) and Outcome 5 (awareness of the values of agrobiodiversity and support for its conservation) are evaluated as **Highly Satisfactory**.

This evaluation is similar to the SATISFACTORY rating awarded in the MTE but the overall result masks a number of significant improvements in Outcomes and other components. A comparison between MTE and Final Evaluation ratings is provided in the second table of **Annex 9**, which shows improvements from Satisfactory to **Highly Satisfactory** in the case of three other components/tasks, namely: Technical capabilities, Partnership creation and Involvement/Support of government agencies. All other components are evaluated as **Satisfactory**, with the exception of Project concept/structure development, which has been consistently rated in the MTE and Final Evaluation as **Moderately Satisfactory** (i.e. moderate short-comings in achievement of objectives).

The main short-comings in the Project's design are considered to be as follows:

- Weak performance indicators that do not meet SMART criteria (see **Section 3.1.1**).
- Overambitious set of outputs for Outcome 4, accompanied by largely irrelevant indicators for alternative livelihoods that do not focus on agrobiodiversity interests. Many of these were later dropped in response to the MTE recommendation that the Project should stay focused on agrobiodiversity interests and develop existing uses and markets rather than create new ventures and markets.
- A particular weakness is the first performance indicator (minimum awareness levels) under Outcome 5, which is based on surveys that were not scientifically sound nor carried out consistently. Thus, baseline and end of Project comparisons in **Annex 10** are meaningless. This was not previously identified either before or after the MTE.
- The design of Outcome 3 is flawed as Outputs 3.1-3.5 are not outputs, as such, but a series of activities concerned principally with the process of making policy. As a consequence, the 'four areas of legislative development' (the actual outputs) have been effectively overlooked by the monitoring and evaluation process, of which one concerning the nomination of Ile Alatau for inscription on the World Heritage List appears to have been dropped completely from the implementation agenda without any explanation.

Other short-comings, as related to the Project's implementation and its monitoring and evaluation, include the following:

- An initially cumbersome management structure and deployment of PIU staff in two different cities locations undermined the Project's overall efficiency in the first year of implementation. This should have been addressed during the Inception phase, thereby precipitating the building of a stronger team and better coordination of activities.
- Observed inconsistencies in planning and reporting on some Project Outputs made it particularly difficult for the Evaluators to track progress in their implementation and tracing them back to the original design in the Project Document. Examples include Outputs 1.4, 1.6, 1.7 (see **Section 3.3.1**).
- Insufficiently robust technical oversight and monitoring of the management response to the MTE and the recommendations in the Mission Report of the international agrobiodiversity expert by the Implementing Agency (UNDP CO). This relates principally to concerns raised during and subsequent to the MTE about why there is little or no regeneration in wild fruit forests and the priority need to identify, manage and monitor the threat(s). MTE Recommendation 14 (**Annex 7**), for example, states:

  > *The project – using an adaptive management approach – develops a spread of different experimental management approaches to rehabilitating the genetic reserves (e.g. small plot trials with different management prescriptions).*

  In the management response to Recommendation 14, a key action is identified as:

  > *1. The PIU will develop technical recommendations and approves technologies of cultivation of apple and apricot planting stock using root shanks and method of green cutting, and will carry out development works to promote natural recovery of apple-trees at different sites.*

  This seems to misinterpret the MTE recommendation, providing an *ex situ* rather than *in situ* approach towards rehabilitating genetic reserves. Use of root shanks for planting stock and green cutting is not the most appropriate long-term approach to restoration of wild fruit forests – they are subordinate, albeit complementary, to *in situ* conservation measures.

  The crux of this issue may partly lie with GEF as PIU indicated to the Evaluators that it had wanted to investigate the regeneration issue in greater detail but was advised by UNDP CO and the RTA that GEF does not finance research. There appears to have been some confusion or misunderstanding regarding this advice as one of the Evaluators was subsequently informed by the RTA that GEF can fund scientific research provided it is targeted at informing *in situ* conservation.

  Such a policy is consistent with the adaptive management approach that is heralded as the *modus operandi* for implementation of GEF projects, which is all about designing an intervention based on how a system is thought to operate and then seeing (monitoring) and learning from what happens. It provides the opportunity to progress management without the need for lengthy research. Adaptive management in the context of participating stakeholders is somewhat more complex and sophisticated[47] but community-based management of natural resources is becoming an increasing important aspect of PA management and is potentially relevant with respect to agrobiodiversity in certain types of PA in Kazakhstan.

  In other respects, UNDP CO, supported by the RTA, has performed its role well and been prepared to put its head on the block when necessary, as in the critically important case of

[47] Adaptive co-management may be defined as a long-term management regime that allows stakeholders to share management responsibility within a specific system of natural resources, and to learn from their actions. Participants are conscious of the fact that they are operating within a complex system and that they learn, adapt and modify the rules of their participation. [Adapted from Jack Ruitenbeek and Cynthia Carter, 2002, *The Invisible Wand: Co-Management as an Emergent Strategy in Complex Bio-economic Systems*, CIFOR Occasional Paper No. 34.]

endorsing the Project's hosting an international conference on agrobiodiversity in order to thrash out some scientific issues – at that time contrary to normal GEF practice.

- A final point concerns the timing and duration of the Final Evaluation mission. While it was extremely well hosted and efficiently organised, it was not possible to visit the Project areas due to winter snow conditions and there was insufficient time to meet with some of the many community stakeholders or, indeed, hold a feed-back session with key partners. Meeting stakeholders without being able to see and experience the context (field conditions and situation) within which activities have been implemented made it more difficult to assess and verify first hand the Project's achievements; and the lack of opportunity to feedback directly to some of the Project's partners does not capitalise on the full value of having an independent evaluation, nor does it provide an important opportunity to further raise the credibility and profile of the Project.

4.2 ACTIONS TO FOLLOW UP OR REINFORCE INITIAL BENEFITS FROM THE PROJECT

The Project is the first of its kind to address the conservation of agrobiodiversity in Kazakhstan and among the first tranche of such projects in Central Asia. Much can be done **to consolidate** and **replicate** the Project's achievements on parallel fronts. Opportunities to reinforce the benefits from the Project include the following [lead agencies/organisations are indicated in square brackets]:

i. **Dissemination of current knowledge of wild fruit forests and best practice in their management for conservation.** PIU has acquired much knowledge about the distribution and status of wild fruit forests, and provided technical assistance to PA administrations in the target areas regarding the development of policies for the conservation of these forests within core areas, such as genetic reserves. Detailed prescriptions were prepared for the conservation of mountain agrobiodiversity Trans-Ili Alatau and Dzhungar Alatau project sites, in which lie the three demonstration PAs (Ile Alatau National Park, Almaty State Nature Reserve and Dzhungar Alatau National Park), They include information on the distribution, status (age and condition in terms of impacts from disease and human/livestock disturbance) and composition of forests (inventories), as well as proposed actions for their planting, regeneration and protection from livestock grazing, disturbance from tourists and fire. These plans were approved and made binding the FHC (Order No. 304, dated 25 October 2011).

   This knowledge and existing best practice, currently available only in Russian for the benefit of those managing the Project sites, should be distilled and clearly articulated in bilingual guidelines (Russian and English) for much wider dissemination among other protected area managers in Kazakhstan and elsewhere, including Central Asia. Furthermore, particular guidance should be given to management of a range of scenarios, including: wild fruit forests that show little or no signs of regeneration; minimising risks of genetic contamination from nearby landraces and modern cultivated varieties of fruit trees; establishment of genetic reserves for i*n situ* conservation in perpetuity; and *ex situ* conservation of living collections and seed banks. There is also a considerable amount of useful guidance on the establishment of genetic reserves that can be incorporated from the Mission Report of the agrobiodiversity consultant (see Footnote 2). The manual should be concise, written in non-technical language, officially endorsed with a covering letter and distributed by FHC to all PAs featuring mountain agrobiodiversity for immediate action, as well as made available to ongoing UNDP-GEF and other agrobiodiversity initiatives in the region[48]. [FHC, UNDP]

ii. **Training in agrobiodiversity conservation and PAs management** needs to be institutionalised. The training in agrobiodiversity conservation delivered by the Project should be mainstreamed within FHC. This is best achieved through the Environmental Education Centre (Tabigat Alemi) that delivered much of the training for the Project. The

[48] e.g. UNDP-GEF PIMS 3647: *Sustaining agricultural biodiversity in the face of climate change in Tajikistan.*

Project has already shared its training materials with this Centre, assuring a certain level of sustainability post-Project. [FHC, UNDP]

iii. **Legislative framework for and rational use of agrobiodiversity resources.** Major progress has been made with the drafting of a new Flora Law, which introduces the concept of agrobiodiversity and genetic reserves for its conservation. This needs to be taken to its final stage of approval as soon as practicable [FHC]. Meanwhile, FHC and UNDP should consider facilitating wider public discussions of this draft law to identify outstanding unregulated issues and elaborate the draft law accordingly. There is also a potential opportunity to pilot some of the provisions of this Law, once adopted, within UNDP-GEF biodiversity projects and, as necessary, propose further refinements [UNDP].

iv. **Alternative (sustainable) livelihoods.** Further opportunities need to be explored in the Project's target sites (and other mountain agrobiodiversity sites) to secure funds from the Small Grants Programmes of GEF and the World Bank for local enterprises and community initiatives. UNDP is in a strong position is facilitate and precipitate action on this front, with PA administrations in support. [UNDP, FHC]

The micro-credit scheme, which proved unsuccessful, needs to be thoroughly reviewed to identify constraints and learn lessons. Ideally, this should be done alongside a survey of those who benefited from the GEF Small Grants Programme in order to assess the relative merits and appropriateness of the two funding mechanisms. UNDP COs have had considerable success with micro-credit schemes for other GEF projects recently completed in Central Asia, notably a wetlands project in Kazakhstan and a PAs project in Tajikistan, so some sharing of information is likely to prove instructive.

v. **Replication.** Tarbagatai, lying in the Tien Shan of north-eastern Kazakhstan, is currently scheduled for establishment as a national park in late 2012. It is an agrobiodiversity stronghold, with wild fruit forests that have not been subject to genetic ingression from modern cultivated varieties of fruit trees. It is an obvious priority PA for replication of the experience gained and lessons learned from the present Project, including: genetic reserves of wild fruit forests; consultative mechanism (Local Consultative Committee) for engaging stakeholders in PA management, as successfully achieved in Dzhungar Alatau National Park; and financial catalysts to facilitate adoption more sustainable or alternative livelihoods.

Tarbagatai's 'Outstanding Universal Values' should also be determined in the management planning process, with a view to its potential candidature for inclusion in a World Heritage serial nomination (see **Section 4.3**).

vi. **Tourism development** is somewhat constrained at present by security zones within PAs bordering international boundaries. This will need to be addressed in the near future if tourism is to financially benefit PAs and their local communities.

4.3 PROPOSALS FOR FUTURE DIRECTIONS UNDERLINING MAIN OBJECTIVES

In addition, new ground needs to be broken on a number of fronts **to build** on the Project's achievements. Priorities for agrobiodiversity and its *in situ* conservation within Kazakhstan's PAs system should include the following:

vii. **Develop a National CWR Strategy for Kazakhstan**, building on the work of the Project on *Malus sieversii* and *Armeniaca vulgaris* and its contribution to a regional strategy for the conservation and use of plant genetic resources[49]. This would also provide a sound basis for the development of a World Heritage nomination of a serial agrobiodiversity property (recommended below) [MEP, MoA, FHC]

[49] *Regional Strategy for the Conservation, Replenishment and Use of Plant Genetic Resources for Food and Agriculture in Central Asia and the Caucasus for the Period until 2015*, Central Asian and Transcaucasian Network on Plant Genetic Resources (2007).

viii. **Continue to inform and develop the *in situ* conservation of wild fruit forests** in the Project target sites, comprising the three PAs, and elsewhere as appropriate[50]. Priorities include the following:

- Implement the three-year research study (2012-2015) funded by FHC on natural regeneration of wild apricot and apple forests.
- Depending on the precise nature of the above research, it may be necessary to complement it with an adaptive management experimental approach to understanding why there is no natural regeneration taking place in many wild fruit forests.
- Identify agrobiodiversity species most likely to be threatened by climate change in semi-arid regions, assess the risks and undertake and monitor short-term conservation measures.

ix. **World Heritage serial nomination for agrobiodiversity hotspot**. Among the four areas of legislative development under Outcome 3 was the designation of Ile Alatau as a World Heritage site to increase its conservation priority through provision of an additional level of legal protection (**Section 3.3.1**). This was not addressed for reasons unknown to the Evaluators but merits re-visiting from a more strategic perspective, as already raised by the Evaluators and met with considerable interest at meetings with the Ministry of Environment Protection and FHC. Given the global importance of Kazakhstan's mountain agrobiodiversity, its remaining disparate distribution in different parts of the country, and that Central Asia is a global hotspot for agrobiodiversity within which Kazakhstan is one of several epicentres, there is very strong potential for a serial nomination[51], comprising several sites of 'Outstanding Universal Value' [52].

Kazakhstan currently has 12 properties tentatively listed for World Heritage nomination, including Ile Alatau, Altyn Emel, Aksu Zhabaagly and the Western Tien-Shan (natural properties). Several of these and other sites may be on 'Outstanding Universal Value' for agrobiodiversity (wild crop relatives) but it is unlikely that each would merit inscription on the World Heritage List in their own right. However, a serial nomination paves the way for several sites to be included in a single nomination, while also providing opportunities for a transnational serial property involving several countries. In the case of a transnational property, it is not necessary for the complete series to be nominated in the first instance as it may take a number of years to develop international cooperative mechanisms and agreements for managing a transnational World Heritage serial property[53]. A more pragmatic approach is to define the sites of 'Outstanding Universal Value' within

[50] Such experimental sites should include the 80 ha of abandoned pastures in Dzhungar Alatau National Park where apple trees are currently regenerating (aged 3-15 years). DNA analysis of 50 tree samples has shown that only four of these are of hybrid origin, suggesting that most regeneration of wild apples in this national park is from a pure genotype. This type of regeneration mostly occurs in abandoned pastures and hay meadows, presumably by zoochory (dispersal of seeds and fruit by animals), but not in forests.

[51] Serial World Heritage properties are sites with two or more distinct, geographically separated areas that together are included on the World Heritage List. A serial property may be an appropriate basis for a World Heritage nomination where the Outstanding Universal Value is revealed at the scale of more than a single area. According to paragraph 138 of the *Operational Guidelines to the World Heritage Convention*, a serial nominated property may occur: *a) on the territory of a single State Party (serial national property); or b) within the territory of different States Parties, which need not be contiguous and is nominated with the consent of all States Parties concerned (serial transnational property).* See also Englels et al. (2009). *Serial Natural World Heritage Properties An initial analysis of the present situation of serial natural World Heritage properties*. IUCN, Gland, Switzerland.19 pp.

[52] Outstanding Universal Value is defined in the Operational Guidelines of the World Heritage Convention as *"cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole."* See also Badman *et al*, (2008). *Outstanding Universal Value: A Compendium on Standards for Inscriptions of Natural Properties on the World Heritage List*. IUCN, Gland, Switzerland. 45 pp.

[53] It is worth noting that Tajikistan has recently (2012) nominated Tajik National Park for inscription on the World Heritage List. Its global importance for CWRs of wheat and walnut is cited in the nomination.

Kazakhstan that would merit a serial nomination and subsequently develop the series with other State Parties across international borders. Thus, there is a very real opportunity for Kazakhstan to take the initiative and lead the development of a serial nomination for Central Asian agrobiodiversity. [MEP, FHC, UNDP]

x. **Ecotourism** was originally an output under Outcome 4 but subsequently dropped, along with a plethora of other potential forms of alternative livelihoods, based on the recommendations of the MTE. However, ecotourism was the subject of a project funded by the GEF Small Grants Programme that proved to be very successful, largely because the NGO was able to work closely and well the National Park authority.

Currently, with relatively low numbers of people visiting PAs, there exists a window of opportunity to lay the foundations for appropriate forms and levels of tourism, before Kazakhstan becomes an international destination for tourism and unsustainable forms of consumerism take hold of development. Tourism development should be based on principles of responsibility and sustainability for the benefit of visitors, local communities and conservation (nature and culture). Kazakhstan needs to develop a sustainable tourism or ecotourism policy, of which agrobiodiversity is an important component, and a strategy for its delivery in the regions. Almaty Oblast is well placed to take a lead, given that it is already well know for its Apple Festival and lies in reasonably close proximity to a number of important PAs.

4.4 BEST/WORST PRACTICES IN ADDRESSING RELEVANCE, PERFORMANCE AND SUCCESS ISSUES

4.4.1 Lessons

Lessons identified previously in the MTE, and with which the present Evaluators are broadly in agreement, are as follows:

- The first lesson relates to time scales and the importance of taking a systematic approach to conservation. Whereas projects operate over relatively short time scales (5-6 years), the systems (e.g. wild fruit forests) with which they are intervening are the result of processes having a very much longer time-scale. Thus, interventions are necessarily undertaken with an incomplete knowledge of the system. Hence, the need for an adaptive management or experimental approach to fast-track the understanding and begin to attempt to 'fix things'.
- The second lesson concerns the 'genetic reserve conservation' and 'on-farm conservation' paradigm, and the related issue concerning land races. For the purposes of agrobiodiversity conservation, it is imperative to treat PAs in the context of surrounding land use over millennia during which people would have selected fruiting trees and transported them to their farms and kitchen gardens, giving rise to land races[54]. These land races represent not only an important component of agrobiodiversity but they are also important symbols of cultural heritage, as well as offering conservation and development opportunities for their utilitarian values without threatening the genetic resource reserves.[55]

[54] Land races are historically derived, directly from the wild population, and subject to local environmental and biological selection pressures as well as farmer selection for phenotypes with subsistence or nutritional qualities (but without the ingression of any modern cultivar or hybrid genetic material).

[55] PIU disputes the likelihood of land races having arisen on farms or in gardens, as in the Caucasus and some parts of Central Asia (e.g. Tajikistan), because of the nomadic lifestyle of Kazakhs. It maintains that Kazakhstan "… has no ancient culture of gardening. It [gardening] was brought in by relocatees from Russia, Ukraine and Belarus in late 18th – early 19th centuries. These relocatees brought-in from their home grounds their own varieties, which were subsequently adapted and originated gardening. The National Institute of Horticulture and Viticulture also does not confirm information that any local breeds existed in Kazakhstan, it mentions only traditional varieties of apples, which were used in the country previously and which ought to be conserved as the cultural gene pool. The same data are handled by an adjacent project, GEF/UNEP, in respect of *in situ*/on farm, with which regular working contacts have been maintained. In response, the Evaluators' note: (i) closer collaboration with the UNEP-GEF project may have enabled the significance of landraces in Kazakhstan to be re-assessed in the light of more recent surveys; (ii) the agrobiodiversity consultant reports on being shown traditional *Malus pumila* landrace (see Footnote 2); (iii) while nomads do not tend farms or gardens, they maintain traditional patterns of transhumance so it is quite possible for landraces

- The third lesson relates to alternative livelihoods and their inclusion in the Project strategy. The alternative livelihoods approach has considerable support amongst conservationists because it offers 'non-consumptive' alternatives to rural livelihoods, which may be impacting upon biodiversity. However, it is important to critically analyze the approach and make clear the inevitable assumptions upon which it is based. For example, what is likely to happen to the target resource when people stop using it – will it lose its value and, as a consequence, become rarer/more threatened? Thus, equal weight should be given to sustainable use as a mechanism for conservation management.

Other lessons are identified as follows:

- The very high level of co-financing committed to the Project has resulted in a noticeable sense of sustainability beyond the life of the Project, minimising dependencies on the Project following its completion.
- The effectiveness of PIU can be attributed to its core staff having high levels of technical competence, good diplomatic skills, strong leadership and, most importantly, a common vision and good working relations with the Implementing Agency (UNDP CO) and the client (FHC). The chairing of the Steering Committee by the same person throughout the Project was also of very significant benefit to PIU and the Project.
- A potential lesson, yet to be substantiated, is to support the development of sustainable and/or alternative livelihoods through a combined grant/micro-credit funding programme. There is a view that while potential clients are more likely to need the security of a grant for new initiatives and enterprises, they are more prepared to borrow funds for something that is already tried and tested.

4.4.2 Best practices

Best practices (in no particular order) are considered to be as follows:

- The Project set a good precedent of developing a comprehensive framework for understanding the natural and cultural values of agrobiodiversity resources and providing for their conservation, especially in the wake of changing climate change and food security issues.
- The establishment of a Scientific & Technical Committee, reporting to the Project Steering Committee, provided an important 'safety valve' to assure the quality of research undertaken or commissioned by the Project, as well as building consensus among the scientific community.
- PIU was very strategic, visionary and timely in its overall approach to implementation, as demonstrated on a number of occasions, for example: (i) hosting of an international conference on agrobiodiversity conservation to inform the development of the Project's *in situ / ex situ* agrobiodiversity conservation intervention strategy, correct its original strategy and counter existing flawed approaches to conserving wild fruit forests; and (ii) identifying high visibility initiatives to raise awareness about Kazakhstan's agrobiodiversity, such as the Almaty Apple Festival and compiling a superbly illustrated, 'coffee table' monograph on Kazakhstan's tulips (published with funds from the Dutch Embassy!).
- PIU developed a concept for an integrated, national PAs digital database for FHC to be able to ready access field data to better inform ecosystem-based management, as well as update national statistics. This has been endorsed by FHC and UNDP CO, with US$ 1 million assigned for designing and piloting this database in 2012-2013.
- Specialist workshops and practical, field-based training programmes for promoting more economically and environmentally sustainable livelihoods, based largely on existing rather than alternative uses of natural resources.

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to have evolved at resting sites as a result of deliberate or inadvertent dispersal of seeds from edible wild fruits; and (iv) if landraces were introduced only by settlers from outside during the turn of the 18th century, such landraces would have developed and possibly gone through many bouts of introgression with the wild types during the intervening period of 200 and more years.

- Strong linkages to government funding sources, as well as support provided to other organizations/groups to develop project proposals, enabled funds to be raised for projects that would complement this Project's objectives.

4.4.3 Worst practices

The main failures, weaknesses and reservations (in no particular order) are considered as:

- A micro-credit facility that delivered only three credits over the life of the Project. The Project could have taken a more active role and spent time in explaining the benefits of micro-credit to local communities, potentially resulting in greater uptake in target areas. In this instance, heeding the advice given in the MTE not to appoint someone full-time to promote the micro-credit initiative may have been counterproductive.
- The principle of cooperation between this Project and the UNEP/GEF project on *in situ*/on farm agrobiodiversity conservation provided an important opportunity to share information and experience, and develop some synergies, such as promoting policy guidance on *in situ* and *ex situ* conservation management. In practice, the different foci of the two projects (*in situ* and *ex situ*/on farm) and the fact that the UNEP project was regional, operating from Tashkent, resulted in limited collaboration.

Annex 1: Terms of Reference for Terminal Evaluation

For the final evaluation of the Republic of Kazakhstan/GEF/UNDP 'In-Situ Conservation of Mountain Agrobiodiversity in Kazakhstan' Project

Functional Name: International Final Evaluation Expert

Duration: 12.09.2011-15.11.2011

Terms of Payment: The total amount paid upon satisfactory completion and UNDP's approval of all submitted documents including the Evaluation Report

Travel Expenses: To be paid within lump sum payment (should be included in financial proposal)

I. INTRODUCTION

1. UNDP/GEF MONITORING AND EVALUATION (M&E) POLICY

In accordance with UNDP/GEF Monitoring and Evaluation Policies and procedures all GEF-supported standard and medium projects must be finally approved for implementation completion.

The final evaluation is used for assessment of the project value, implementation and success. This evaluation considers any signs of possible interaction and sustainable outcomes, including contributions in potential development and achievement of global and national nature preservation goals. In addition, the final evaluation defines/records the lessons learned and makes recommendations with respect of the aspects, which can be used by the project partners and interested parties for improvement, development and implementation of similar projects and programmes.

The evaluation is performed in accordance with UNDP Monitoring and Evaluation Policies and Procedures (please see http://thegef.org/MonitoringandEvaluation/MEPoliciesProcedures/mepoliciesprocedures.html)

GEF evaluations consider five basic criteria:

(1) Relevance – the degree of activities' compliance with the local and national development priorities and organisation policy, including temporary changes.
(2) Effectiveness – the degree/probability of objective achievement.
(3) Efficiency – the degree of objective achievement with utilisation of the least cost intensive resources.
(4) Impact – positive and negative, expected and unexpected changes and consequences of development activities. In GEF terminology the term "impact" includes direct project impact, short-term and long-term ultimate impact including global environmental benefits, effect of replication and other local consequences.
(5) Sustainability – possible capability of a certain activity to be of benefit within a long period of time after its completion. The projects must be ecologically, financially and socially sustainable.

This Final Evaluation is performed by the Country office and UNDP Regional Centre in Bratislava, which is an authorised GEF Regional Coordination unit. Its key objective is submission of the overall project evaluation and outcome recurrence strategy to the management (on the level of regulatory agencies of the Ministry of Ecology and the Ministry of Agriculture, UNDP/GEF). It is also a basis for training and accountability of management and interested parties.

2. PROJECT DESCRIPTION

The objective of this project is in-situ conservation and utilisation of mountain agrobiodiversity globally important for agricultural activities in two mountain areas located in Trans-Ili and Dzungarian Alatau in the south-east of Kazakhstan.

The project focuses on mountain fruit-tree forests with globally unique species of apple and apricot trees and other species of wild plants for in-situ conservation of their genetic diversity.

The project is aimed at development of advanced and adaptable conservation methods and ecosystem management techniques to mitigate and prevent threats to wild apple-tree and other wild fruit habitats through establishment of new partnership relations, conservation instruments, relevant information and sustainable economic activities.

GEF alternative is developed to implement additional activities required to overcome current legislative, planned, institutional and functional barriers and gaps in the context of basic activities to demonstrate viable mountain agrobiodiversity conservation approaches and the model for other Kazakhstan areas and regions.

Strategic activities in each area include development of joint integrated management policy, enhancement of technical and institutional potential for agrobiodiversity conservation, adequate regulation framework and raising public awareness of agrobiodiversity importance at all levels.

The basic expected outcome of the project:

(1) Ecosystem-based conservation and management of the wild congeners of cultivated plants in two project areas.
(2) Improvement of institutional, technical and financial framework for agrobiodiversity conservation.
(3) Efficient legislative framework for rational agrobiodiversity conservation and management.
(4) Alternative economic activities beneficial for resident population, which mitigate pressure on mountain agrobiodiversity caused by natural resources utilisation.
(5) Overall raised awareness and support of mountain agrobiodiversity conservation activities in Kazakhstan.

The main interested parties of the project:

(1) Forestry and Hunting Committee of the Ministry of Agriculture of the Republic of Kazakhstan;
(2) The Ministry of Ecology of the Republic of Kazakhstan;
(3) Personnel and management of specially protected natural areas of the project territory;
(4) Local communities of the productive areas at the boundaries of the specially protected natural areas in two project implementation territories;
(5) Farmers and private entrepreneurs involved in land use in the productive areas within two project implementation territories; and
(6) The global community interested in genetic resources of wild fruit/agrobiodiversity of Kazakhstan.

The project document was signed on 22 December 2005 with project implementation commenced on 1 March 2006. The overall budget of the project is US$ 22,569,877 including US$ 3,022,967 contributed by GEF, US$ 17,224,710 – parallel financing by the Government of Kazakhstan and US$ 2,322,200 – parallel financing of the third parties.

The Executive Agency is the Forestry and Hunting Committee of the Ministry of Agriculture of the Republic of Kazakhstan and the coordinating agency is the Ministry of Ecology of the Republic of Kazakhstan.

The mid-term evaluation of the project was performed in December 2008 - January 2009. According to the mid-term evaluation report, the project received a positive "satisfactory" evaluation. It was noted in the report that the Mid-Term Evaluation Group recognises the significant achievements of the Project Implementation Unit. The project introduced a few changes in the Logical Framework; it also enhances "the adaptive management framework" as a strategy renovation instrument and develops different aspects of wild apple-trees genetic conservation. It is important to note the fact of existence of other important wild congeners among the available genetic resources and switch from the attempts to create new markets of alternative activities to further development of existing ones.

II. EVALUATION OBJECTIVES

The final monitoring (evaluation) is performed to make an integral assessment of the project outcome, including the evaluation of the applied strategy, the findings, problems and restrictions. The project outcome is evaluated on the basis of indicators represented in the logical framework of the project (Please see Annex).

The key evaluation target is measurement of effectiveness and efficiency of the project in the context of the performance objectives. It is expected that the evaluation results will be taken as a basis for recommendations relating to:

(1) Key elements of project success and further steps to be taken to ensure successful initiatives in two project implementation territories;
(2) Any gaps remaining after project implementation, which shall be taken as a basis for future initiatives of the partners and the Government; and
(3) Risk identification to ensure sustainability of project initiatives to be considered by the partners for mountain agrobiodiversity management including future wild fruit forests management.

The final evaluation shall consider the current policy and economic environment with due consideration of risks and further development of the project.

The final evaluation shall be focused on:

Project Indicators

Final evaluation experts shall evaluate the degree of project completion and consider the working plan, scheduled dates and project budget.

Implementation

The project implementation shall be evaluated in terms of quality, investments promptitude, effectiveness and efficiency of the performed activities. In addition, the efficiency of management and the quality and promptitude of monitoring and contribution of all project participants shall be evaluated. In particular, the methods of adaptable management used by the project team in the course of its implementation and the measures scheduled in the management response for recommendations made in the course of mid-term evaluation in December 2008 - January 2009.

Intermediate and Final Outcome and Project Impact

Evaluation of intermediate and final results shall be performed in the context of the project along with the possible sustainability of the project outcome. This evaluation shall include the evaluation of attaining short-term objectives and their contribution to the general goal of the project.

The degree of interested parties involvement and cooperation between various partners shall also be evaluated. In the course of evaluation any possible unforeseen impacts – both beneficial and negative shall be also considered.

The final evaluation shall also consider the following aspects:

1. Progress towards Achievement of Expected Results

Changes of development conditions: The following questions shall be responded with special focus on awareness of changes by the interested parties:

(1) Was the relevant and due conservation of the globally valuable threatened species ensured?
(2) Were there any changes in behaviour of the local interested parties (e.g. threats, the number of protocols, etc.) contributing to nature conservation? If not, why?
(3) Are there visible improvements in distribution and utilisation of agrobiodiversity information by the interested parties in the course of decision-making?

(4) Was better community awareness of agrobiodiversity conservation and further participation of local residents in agrobiodiversity monitoring and management achieved?
(5) Is there any planning of adequate land use to ensure long-term biodiversity conservation, including agrobiodiversity and cultural values?

Changes measurements: Progress in attaining the outcome shall be based on comparison of indicators before and after (at the reported date) the project-related activities. This progress can be evaluated by comparing the conditions existing in the project territory with the conditions in similar unmanaged territories.

Project strategy: How and why do the final outcome (given as intermediate outcome in the project document) and strategies ensure attaining of expected outcome, how relevant are they and to what extend do they contribute to efficient attaining of the expected outcome?

Sustainability: To what extent will the benefits from project implementation be preserved in and beyond the project territory after project completion? Relevant sustainability factors include, among others, development of sustainable development strategy, creation of financial and economic instruments and triggers, integration of project goals in economics, etc.

Gender aspects: To what extent does the project focus on gender difference during development and application of project activities? How are gender aspects considered in project activities?

2. Adaptable Project Management Structure

(a) Monitoring System

Evaluate the monitoring instruments currently used:
- Do they provide the required information?
- Do they involve the key partners?
- Are they efficient?

Ensure the monitoring system's compliance (including the efficiency indicators) at least with the minimum GEF requirements[56]. Use SMART indicators, if required.

Use GEF tracking instrument with comparative analysis of the initial application of this instrument.

(b) Risk Management

Confirm that the risks defined in the project documents and PIR are extremely important with the relevant risk assessment applied. If not, please explain why. Describe any additional risks identified and propose risk assessment systems and possible risk management strategies to be adopted.

Evaluate the project identification and risk management systems:
- Is GEF-UNDP risk management system duly applied?[57]
- How can GEF-UNDP risk management system be applied to improve project management?

(c) Work Planning

Evaluate the utilisation of logical framework as an instrument in the course of project implementation and any amendments to it.
- Make sure that logical framework complies with GEF-UNDP requirements in terms of format and content

[56] Please see Clause 3.2 of GEF Monitoring and Evaluation Policy on http://www.undp.org/gef/05/monitoring/policies.html

[57] UNDP-GEF system is based on ATLAS Risk Module. Please see the reference materials in UNDP-GEF Risk Management Policy (Annex XI) on http://www.undp.org/gef/05/monitoring/policies.html

- How did the changes in impact indicators affect the project management procedure?

Evaluate the utilisation of regularly updated work plans.

Evaluate the utilisation of electronic information processing technologies in the course of project implementation, participation, monitoring and other types of project-related activities.

Are the planning processes result-oriented[58]?

Study the project financial management with special focus on economic efficiency of project activities and any violations and existing obstacles.

(d) Reporting

- How did the project management reflect the changes in adaptable reporting management?
- How were the lessons learned from the adaptable management process recorded, brought to key partners' notice and adopted by the partners?

3. Fundamental Factors

Evaluate the key factors beyond the direct project control, which affect the intermediate and final outcome. Consider the viability and efficiency of project management strategies in terms of these factors. Revise the assumptions made by the project management and define new required assumptions.

Evaluate the effect of any undue project assumptions

4. UNDP Contribution

Assess UNDP role in accordance with the requirements given in UNDP Handbook for Monitoring and Evaluating for Results. Study the following:

- Visits to project implementation territories
- Further activities and Management Committee/Terms of Reference analysis
- Preparation and post-PIR activities
- GEF management

Consider new UNDP requirements given in UNDP User Guide[59], especially the project quality assurance and make sure that they have been included in the adaptable project management structure.

Evaluate UNDP contribution of "soft" assistance (i.e. policy advice, dialogues, advocacy and coordination).

5. Partnership Strategy

Evaluate the partners involvement in the project adaptable management structure:

- Involvement of partners and interested parties in selection of indicators including the
- performance efficiency indicators;
- Utilisation of existing data and statistics;
- Analysis of progress on the way towards attaining the objectives and project strategy
- determination.

Evaluate the opportunities to strengthen cooperation.

Evaluate the participation of the local interesting parties in project management and decision making process. Include the strengths and weakness analysis of the project-related approaches and improvement proposals, if required.

[58] The documents on Result-Oriented Management are available on http://www.undp.org/eo/methodologies.htm

[59] UNDP User Guide currently is available only on UNDP intranet site but UNDP can provide you with a required section on roles and responsibility at http://content.undp.org/go/userguide/results/rmoverview/progprojorg/?src=print

Study the distribution of project information between the partners and interested parties and propose more efficient instruments, if required.

In the course of final evaluation consider the intermediate evaluation results and the management's feedback to this evaluation and adjustments to further project activities with due consideration of recommendations based on the intermediate evaluation.

Taking into consideration of the project goals and vast project territory (2 project areas), evaluation experts shall focus on thorough selection of interested parties for further inclusion in project evaluation to create the maximum objective picture of the project outcomes, achievements and unresolved problems.

Participation of the main interested parties in project process and outcome will be one of the key success and project sustainability factors. Evaluation experts shall make objective evaluation of the key interested parties' participation in the final project outcome.

III. FINAL OUTCOME EXPECTED FROM THE EVALUATION

The key expected product of the final evaluation shall be a complex analytical report made in English, which shall comprise at least the following sections:

Please note that some categories of summaries and conclusions shall be evaluated in accordance with GEF Final Evaluation Guidelines.

1. Executive Summary
- Brief description of the project
- Context and goals of evaluation
- Key conclusions, recommendations and lessons learned

2. Introduction
- Evaluation goals
- Key issues under consideration
- Evaluation methodology
- Evaluation structure

3. Project and Development Context
- Commencement and duration of the project
- Problems considered by the project
- Immediate project tasks and development goals
- Key interested parties
- Expected outcome

4. Summary and Conclusions

In addition to descriptive evaluation all criteria marked with (R) shall be evaluated using the following criteria: highly satisfactory, satisfactory, marginally satisfactory and unsatisfactory.

TABLE 1: CRITERIA USED TO EVALUATE THE PROJECT BY THE FINAL EVALUATION TEAM

Highly Satisfactory (HS)	Project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice".
Satisfactory (S)	Project is expected to achieve most of its major global environmental objectives, and yield satisfactory global environmental benefits, with only minor shortcomings.
Marginally Satisfactory (MS)	Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environment benefits.

Marginally Unsatisfactory (MU)	Project is expected to achieve some of its major global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives.
Unsatisfactory (U)	Project is expected not to achieve most of its major global environment objectives or to yield any satisfactory global environmental benefits.
Highly Unsatisfactory (U)	The project has failed to achieve, and is not expected to achieve, any of its major global environment objectives with no worthwhile benefits.

4.1. Project Preparation

- Concept/Structure development (R). Here the approach used for development and defining of problem conceptualisation shall be evaluated along with a degree of the chosen interference strategy's coverage of the root causes and main threats in the project territory. Project preparation shall also include evaluation of the logical structure, feasibility and practicability of different project components and activities applied for attaining the project objectives and their conformity with contextual, institutional, legislative and regulative philosophy of the project. It also includes evaluation of the indicators defined for implementation management and outcome measurement and a degree of consideration of the lessons learned in the course of similar projects implementation during project development.

- Conformity with the national priorities. It means evaluation of the project concept in the context of national and branch-wise plans or development plans and a degree of the project's focus on the national nature conservation and development interests.

- Participation of interested parties (R). It means evaluation of information distribution, consulting and participation of the interested parties at all stages of project development.

- Duplication approach. It means evaluation of a degree of lessons learned and project expertise duplication or expansion in the course of other projects development and implementation (including the practices adopted in the course of project implementation).

- Other aspects shall be also evaluated as a part of project formulation: comparative advantage of UNDP as Executive Agency (EA) for this project; consideration of inter-project links and other economic activities and specification of clear and reasonable management agreements at the development stage.

4.2. Project Implementation

Implementation approach (R). It includes evaluation of the following aspects:

(1) Utilisation of the logical structure as a management instrument in the course of project implementation and any amendments thereto consistent with changing conditions and/or feedback from the International Evaluator, if required.

(2) Other elements being indicative of adaptable management, i.e. overall and realistic routine work plans reflecting adaptable management and/or changes in management arrangements for better implementation.

(3) Utilisation/creation of electronic information technologies to support the project implementation, participation and monitoring and other project-related activities.

(4) General business relationships between the institutions involved and other persons and their contribution to efficient implementation and attaining the project objectives.

(5) Project-related technical capabilities and their role in project development, management and outcome.

Monitoring and evaluation (R). They include the evaluation of relevant on-going control of the project-related activities to define a degree of conformity of resources, timelines and implementation of other relevant activities within the plan; the formal evidence of evaluation and actions based on the monitoring and evaluation reports.

Participation of interested parties (R). It means evaluation of information distribution, consulting and participation of the interested parties at all stages of project development with the following details specified:

(1) Preparation and distribution of project-related information.

(2) Participation of local resource users and non-profit organisations in project implementation and decision-making process and analysis of strengths and weakness of project approach in this area.

(3) Creation of partnerships and project-related cooperative relationship with the local, national and international organisations and their impact on project implementation.

(4) Involvement of governmental agencies in project implementation; a degree of governmental support of the project.

Financial budgeting includes the evaluation of:

(1) The actual project costs with breakdown by objectives, outcome and types of activities

(2) Economic benefits from the achievements

(3) Financial management (including budget disbursement)

(4) Co-financing[60]

Sustainability. To what extent will the benefits from project implementation be preserved in and beyond the project territory after project completion? Relevant sustainability factors include, among others, development of sustainable development strategy, creation of financial and economic instruments and triggers, integration of project objectives into economics or production activities of the community.

Execution and implementation facilities. Effectiveness of UNDP and Project Coordination Group participation in selection, hiring and appointment of experts, consultants and local personnel and in identification of objectives and responsibilities, quantity, quantity and reference conditions of the project in respect of responsibility for execution, adoption of relevant legislation and budgetary allocations and a degree of their impact on implementation and sustainability of the project, quality and promptitude of resources of UNDP, the national Government and other parties responsible for contribution in the project and a degree of their impact on continuation of project implementation.

4.3. Outcome

- Attaining the outcome/objectives (R): including description and *evaluation* of a degree of attaining the project objectives (ecological and development-wise) with utilisation of the following categories: satisfactory, marginally satisfactory and unsatisfactory. If no initial (basic) conditions/indicators are determined for the project, the evaluator should use special methodologies for due identification of achievements, outcome and impact.

  This section shall also cover the following aspects:

- Sustainability: It includes evaluation of a degree of benefits preservation in and beyond the project territory after completion of GEF assistance/external assistance.
- Contribution to advanced training of national personnel

5. Recommendations

- Corrective actions in the context of development, implementation, monitoring and evaluation of the project.
- The activities targeted at preservation or strengthening of the initial benefits of the project.
- Proposals of future directions underlying the key targets.

[60] Please see Guidelines on co-financing reporting in Annex 1 to the Terms of Reference

6. Lessons Learned

They reflect the best and the worst practices in project issues consideration (relevancy, efficiency and success of the project).

7. Annex to the Evaluation Report

- Terms of reference for the final project evaluation
- Timeline
- The list of respondents
- Field visits overview
- The list of examined documents
- The template of questionnaire used and the summary of questionnaire survey results (METT evaluation will be prepared by the Project Implementation Unit in the course of report preparation.
- The comments of the interested parties (only in case of inconformity with the data obtained and evaluation conclusions).

The volume of the final evaluation report must not exceed 50 pages in general (excluding the annexes).

IV. EVALUATION GROUP

The evaluation will be made by a group of independent experts consisting of one international (group leader) and one national consultant. The group of the appointed evaluators shall not include the evaluators who participated in preparation and/or implementation of the project and have a conflict of interests with the project-related activities. The consultants shall have relevant experience in project evaluation. Previous cooperation with GEF is a plus.

Characteristics of the group:

- Recent experience of the work with result-based management evaluation methodologies;
- Experience in utilisation of joint monitoring approaches;
- Experience of SMART indicators utilisation or baseline scenario checks;
- Advanced knowledge of GEF monitoring and evaluation policies;
- Advanced knowledge of UNDP result-based monitoring and evaluation procedures;
- Competence in adaptable management in the context of nature conservation projects or natural resources management;
- Recognised knowledge and skills in the area of biodiversity/agrobiodiversity management and sustainable utilisation in the Central Asian ecosystems;
- Introduction of specially protected natural areas and forestry policy and management structures in Kazakhstan;
- Demonstrated analytical skills;
- The experience in relevant areas over a period not less than 10 years;
- The experience in nature conservation projects supported by multilateral or bilateral organisations;
- The experience in UN projects evaluation is a plus; and
- Fluent English: mandatory for the international consultant and a plus for the national consultant.

In particular, the international expert (group leader) shall bear the following responsibilities:

- Management of and control over the activities of the evaluation mission;
- Development of detailed subject and methodology of evaluation (including data
- collection and analysis techniques);
- Assistance in national consultant functions specification;
- Decision-making on segregation of functions within the evaluation group;
- Analysis of the final and intermediate outcome and partnership strategy (as described in
- the evaluation subject above);
- Execution of the sections of the evaluation report in conformity with the functions within the evaluation group; and
- Execution of the whole evaluation report and its follow-up revision with due consideration of the comments made by the project personnel, UNDP and the Executive Board of the project.

In particular, the national consultant shall bear the following responsibilities:

- Collection of the report statistics, analysis and submission to the group leader;
- In required, clarification of the natural territories management structure, regulatory framework for special protected natural areas and forestry, etc. to the team leader;
- Active participation in the discussions within targeted groups interviewing, clarification of certain issues for the team leader;
- Execution of the scope of works in conformity with the segregation of duties within the evaluation group;
- Analysis of final and intermediate outcome and partnership strategy;
- Execution of the sections of the evaluation report in conformity with the functions within the evaluation group; and
- Execution of the whole evaluation report and its follow-up revision with due consideration of the comments made by the project personnel, UNDP and the Executive Board of the project.
- The responsibilities of the national consultant go beyond the above items and can be specified by the leader of the evaluation mission in the course of final evaluation.

The individual consultants are welcome to apply (CV inclusive) for this position.
The applications are admitted from all persons who believe that they can contribute to the team work should they have three or more business capacities specified above. It is obvious that the more capacities are demonstrated by a candidate, the more chance to be preferred he/she has.

The evaluation will be made in accordance with GEF principles[61]:

- independence
- objectiveness
- transparency
- information disclosure
- ethics
- partnership
- competence and capabilities
- trust
- benefits

The evaluators shall be independent both of decision-making and assistance/assistance management process. In this context the applications from the evaluators directly involved in project development and implementation will not be admitted. The same relates to the evaluators involved in the organisations, universities or parties currently or previously involved in decision-making on specially protected natural areas and/or project implementation. Any previous cooperation with the project, the Forestry and Hunting Committee of the Ministry of Agriculture of the Republic of Kazakhstan, the Ministry of Ecology of the Republic of Kazakhstan and UNDP Kazakhstan or any other partners/interested parties shall be disclosed in the Annex.

For selected candidates non-disclosure of the above information shall be treated as a legitimate reason for immediate termination of the contract without redundancy payment. Such being the case, all memos, reports and other documents made in the course of evaluation shall be withheld by UNDP.

Should individual evaluators be selected, UNDP shall appoint a team leader (normally an international evaluator). The team leader shall take responsibility for preparation and quality of evaluation products. The functions and segregation of responsibilities within the group shall be specified in the personal contracts.

V. EVALUATION METHODOLOGY/APPROACH

General evaluation approach is described below but if required the evaluation group is responsible for its revision. Any amendments shall comply with the international criteria and professional norms and standards (approved by UN Evaluation Group). They must be also approved by UNDP prior to its utilisation by the evaluation group.

[61] Please see p.16 of GEF Monitoring and Evaluation Policy

Evaluation shall be based on reliable, comprehensive and useful factual information. It shall be clear for the project partners and applicable for the remaining stage of project implementation.

Evaluation shall comprise gender-disaggregated data as much as possible.

The methodology applied by the evaluation group shall be detailed written in the report and include the following information:

- Documents review – a list of documents for consideration is included in Annex A to the Terms of Reference;
- At least the following organisations and persons shall be interviewed: UNDP Kazakhstan, UNDP/GEF Regional Technical Experts, Forestry and Hunting Committee of the Ministry of Agriculture of the Republic of Kazakhstan, the Ministry of Ecology of the Republic of Kazakhstan, the project team, members of the National and Regional Coordination Board, Project Scientific Board, non-profit organisations, etc.;
- Project field visits;
- Questionnaire review; and
- The methods based on joint participation and data analysis.

VI. IMPLEMENTATION STEPS

Key responsibility for evaluation management shall be borne by UNDP Kazakhstan. UNDP Kazakhstan project office is a key evaluation coordinator responsible for cooperation with the Project Implementation Unit with regard to appointment of interviews with the interested parties, project field visits and coordination of the activities with the Executive Agency and other partners. UNDP Kazakhstan shall conclude a contract with the evaluators and ensure prompt per diem payment and travel arrangements.

The contract shall come into effect on 12 September 2011, and expire on 15 November 2011.

The report shall be submitted to UNDP Kazakhstan Project in the name of Ms. Victoria Baigazina to victoria.baigazina@undp.org, postal address: 26 Bukeikhan Street, Astana, phone (8-717-2) 59-25-50, fax 59-25-40.

Till the final approval of the report the draft shall be submitted for comments to the partners representing the governmental authorities and the project management – the National Project Coordinator and members of the Project Management Council representing the following organisations:

- Ministry of Ecology of the Republic of Kazakhstan
- Forestry and Hunting Committee of the Ministry of Agriculture of the Republic of Kazakhstan
- Ministry of Education and Science of the Republic of Kazakhstan
- Ministry of Finance of the Republic of Kazakhstan
- Agency for Land Use Management of the Republic of Kazakhstan
- Kazakhstan Farmer Non-Profit Organisation
- Almaty Oblast Akimat
- UNDP Kazakhstan

In case of any disagreements in the views and observations between the evaluation group and the aforesaid parties, they shall be clarified in the Annex to the final report.

Evaluation Activities and Deadlines are as follows:

Activities	Deadlines and Persons in Charge
Documents review	3 days – International Expert 11 days – National Expert
Project field visits, interviews, questionnaire reviews, findings and conclusions	7 days – International and National Expert
Preparation of the draft report, getting of preliminary findings and conclusions approved by the interested parties by submission of the initial reports for comments, meetings and other feedback	13 days – International Expert 5 days – National Expert
Follow-up revision of the evaluation report (including the comments on the first draft)	5 days – International and National Evaluator

Expected Results and Payment Terms:

#	Results	Timing	Amount (optional)
1	Documents review	12-15 September	1st tranche (20%)
2	Two project field visits (including the meetings with UNDP Kazakhstan Country Office, Executive Agency – Forestry and Hunting Committee of the Ministry of Agriculture of the Republic of Kazakhstan and other project partners)	16-22 September	DSA to be paid within first tranche
3	1st final draft report	23 September- 5 October	2nd tranche (20%)
4	Getting comments from UNDP Country Office and the project	6 – 23 October	
5	The final draft report	24-28 October	3rd tranche (60%)

Working Days:
International Expert – 28 working days
National Expert – 28 working days

APPLICATION: Please send your applications, a brief approach paper (5 pages at most with your vision of the evaluation methodology/approach supposedly to be used for fulfilment of the terms of reference) and lump sum quotations (including costs breakdown/possible travel costs) to Ms. Aliya Akhmetova: 26, Bukeikhan Street, Astana, 010000, Republic of Kazakhstan, email: aliya.akhmetova@undp.org**). The deadline for applications is 16 August 2011.**

VII. ANNEXES TO FINAL EVALUATION TERMS OF REFERENCE

Annex A: The list of documents for consideration
Annex B: Rating tables
Annex C: Co-financing tables
Annex D: GEF Guidelines to Terminal Evaluation
Annex E: Logical framework

Annex A: The list of document for consideration

The following documents can be taken as a basis for project evaluation:

Documents	Description
Project document	Project document; logical framework
Project reports	Initial project reports; annual project reports for 2006-2010. Mid-term project monitoring report
Annual GEF project report	Project implementation overview for 2007, 2008, 2009, 2010 and 2011.
Minutes	The minutes of the meetings of the National Coordination Committee Meetings with project experts, personnel, etc.
Other documents	Field inventory reports, social and economic reports
Information project-related materials	Forestry Code, Laws of the Republic of Kazakhstan 'On Specially Protected Natural Areas' and 'On Wildlife Protection' and other regulatory documents Management plan for two specially protected natural areas; METT-based evaluation of specially protected natural areas management, etc. Reference and other materials, recommendations on management, video-materials (video films, video clips), visit centre establishment concept, etc.) Alternative activities development concept, Microloan Programme, etc.

Annex B. Rating Tables

Table 1: TASK/OUTCOME STATUS AS PER MEASURABLE INDICATORS

TASK/OUTCOME	MEASURABLE INDICATORS FROM THE PROJECT LOGICAL FRAMEWORK	REFERENCE LEVEL	FINAL TARGET INDICATOR	VERIFICATION MEANS	RISKS AND ASSUMPTIONS	PROJECT STATUS*	RATING**
Task:							
Final outcome 1							
Final outcome 2							
Final outcome 3							
Final outcome 4							
Final outcome 5							

* PROJECT STATUS

** RATING: Highly Satisfactory = HS

GREEN: COMPLETED	= The indicators speak for successful completion	Satisfactory = S
YELLOW	= The indicators speak for the expected completion by the end of the project	Marginally satisfactory = MS
RED	= The indicators speak for unsatisfactory performance with unlikely completion by the end of the project	Unsatisfactory = U

TABLE 2: PROJECT RATING

Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), and Unsatisfactory (U)

PROJECT COMPONENTS AND TASKS	RATING SCALE				RATING
	U	MU	S	HS	
PROJECT PREPARATION					
Project concept/structure development					
Participation of the interested parties					
PROJECT IMPLEMENTATION					
Implementation approach					
Utilisation of logical framework					
Adaptable management					
Utilisation/creation of information technologies					
Operational links between the involved organisations Technical capabilities Monitoring and evaluation Participation of the interested parties Information preparation and distribution Participation of local resource users and non-profit organisations Partnership creation Involvement and support of governmental agencies					
PROJECT COMPONENT OR TASK					RATING
PROJECT OUTCOME					
Attaining of outcome / Fulfilment of tasks					
Fulfilment of task					
Final outcome 1					
Final outcome 2					
Final outcome 3					
Final outcome 4					
Final outcome 5					
OVERALL PROJECT IMPLEMENTATION AND IMPACT					

Annex C. Co-Financing

Co-Financing (Type/Source)	Executive Agency Own Financing (USD 000'000)		Government (USD 000'000)		Other* (USD 000'000)		Total (USD 000'000)		Total Disbursement Amount (USD 000'000)	
	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget	Actual
- Grants										
- Loans granted on favourable terms (vs. market rate)										
- Credit facilities										
- Capital investments										
- In-kind support										
- Other (*)										
Total										

*The line "Other" includes the contributions to the project from other multilateral agencies and bilateral collaborating agencies for the development purpose, non-profit organisations, private sector and beneficiaries.

Raised Resources

Raised resources are additional resources apart from those assigned at the date of their approval. They are raised in the form of financial aids or in-kind contribution from other donors, non-profit organisations, funds, governments, communities or private sector. All resources raised throughout the project shall be briefly described with a focus on their role in attaining the final objective of the project.

Annex 2: Itinerary and Persons Interviewed

Programme for Final Evaluation Team, comprising Dr Michael J.B. Green (International Expert) and Natalya Panchenko (National Expert), 22-29 November 2011.

Date	Time	Action
Tuesday 22 November	03.00 – 04.30 11.00 – 17.00	Arrival in Almaty, accommodation in Kazzhol Hotel Arrival at Project Office, meeting with project staff, working at the office (review of evaluation program and project documents, presentation of Project by PIU, Q&A session)
Wednesday 23 November	 09.00 – 13.00 13.00 – 14.00 14.00 – 18.00	<u>Meetings with Project Partners:</u> Visit to Ile Alatau NP Office and meeting with Mr. M. Ainabekov, General Director, and Mr. B. Altayev, Deputy General Director. Visit to National Park's Visit Centre under construction Lunch Meeting with Ms. G. Kulzhabayeva, Head, Gulstan LLP, and Ms. B. Kabdoldanova, Head, Gulzar PA (Public organization, a project partner) Meeting with Ms. Ye. Yuschenko, National Coordinator, GEF/SGP Meeting Mr. V. Levin, General Director, Farmer of Kazakhstan Public Fund
Thursday 24 November	08.00 – 12.00 12.00 – 13.00 13.00 – 18.00	<u>Trip to Almaty SNR (by car)</u> Meetings with K. Baiturbayev, Director, and Almaty SNR staff. Visit to Museum of Nature Meeting with Ms. A. Vishnevskaya, Head, Talkhiz Public Association Lunch <u>Trip to Turgen (by car)</u> Meeting with Mr. S. Daberov, Director of Lomonosov Secondary School. Familiarisation with work of the school forestry
Friday 25 November	06.00 10.00-11.00 11.00-12.00 12.00 – 13.00 13.00 15.00 – 18.30	<u>Departure to Taldykorgan (by car)</u> Meeting with Mr. T. Mamiyev, Head of Almaty Oblast Office of FHC MoA Meeting with Mr. T. Dosymbekov, Almaty Oblast Deputy Akim Lunch <u>Departure to Sarkand (by car)</u> Meetings with: Mr. A. Demesinov, General Director, Dzongar Alatau National Park, Mr. S. Igembayev, Deputy General Director, Mr. T. Kusainov, Director of Sarkand Branch, and Mr. M. Vishnyakov, Director, Forest Nursery Mr. Z. Tuleuov, Head of ULAGAT Public Fund NGO / Rangeland Management Project Manager, discussion of GEF/SGP project results
Saturday 26 November	09.00 – 18.00	Departure to Almaty (by car)

Sunday 27 November	11.00 – 13.00 16.05	Drafting and preparations for meetings with UNDP and Government in Astana Departure to Astana (by air)
28 November, Mon	9.30 – 11.00 11.30 – 12.30 13.00 – 14.00 14.00 – 17.00 20.55	Meetings with Implementing Partner and Steering Committee members: Mr. I. Koval, Natioal Project Coordinator / Deputy Chairman, Forest and Hunting Committee, Ministry of Agriculture of Kazakhstan Mr. K. Ustemirov, Head, Forest and SPA Department, Forest and Hunting Committee, Ministry of Agriculture of Kazakhstan Mr. R. Bultrikov, Vice Minister of Environmental Protection (Operational GEF Focal Point) Mr. A. Bragin, Director, International Environmental Conventions and Agreements Department, Ministry of Environmental Protection of Kazakhstan Lunch Mr. T. Tazhmagambet, Member of the National Steering Committee, Head, Land Cadastre and Land Management Department, Agency for Land Resource Management of Kazakhstan Mr S. Kim, Head of UNDP Energy & Environment Unit Departure to Almaty (by air)
Tuesday 29 November	05.30	Departure to UK via Amsterdam (by air)

Note: The Evaluation Team was accompanied by Kurulay Karibayeva (National Project Manager) throughout the field visits and trip to Astana. Some other members of PIU were in attendance as appropriate, namely: Arkadiy Rodionov (Ecosystem Management Expert), Anatoliy Mischenko Agrobiodiversity Expert) and Lina Valdshmit (Public Relations and Awareness Expert).

Annex 3: List of Documents Reviewed

Project documentation

- Project Document
- Inception Report, March 2006
- Mid-Term Evaluation, April 2009
- Management Response to Mid-Term Evaluation
- Revised Logical Framework Matrix
- Annual Work Plans, 2006-2011
- Atlas-generated Annual Work Plans, 2006-2011
- 150-words Quarterly Progress Reports
- UNDP/GEF Annual Project Reviews/Project Implementation Reports, 2007-2011
- Annual Performance Reports, 2006-2011
- Atlas-generated Combined Delivery Reports, 2006-2011
- Minutes of Steering Committee meetings, 2006-2011
- Final Progress Report, Executive Summary
- UNDP CO and BD RTA Back to the Office Reports (BTORs)
- FHC ordinances of Steering Committee membership
- Ordinance of Dzhungar Alatau NP Administration on Creation of LCC, 2011
- Ordinance of Ile Alatau NP Administration on Creation of LCC and sub-LCCs, 2011
- Information on additional financing fundraised by the Project
- GEF Monitoring and Evaluation Policies

Technical reports and other documents

- Recommendations on sustainable land use in areas adjacent to PAs in Zailiskiy and Dzhungar Alatau (2008)
- Nigel Maxted's Mission Report (2009)
- Draft Flora Law (2011)
- Project communications with FHC on Project progress and priority actions, and most appropriate methods for *ex situ* conservation of wild apples and apricots tested by Project
- List of most important Project publications and cursory examination of some publications
- List of NGOs operating in target areas
- List of forestry clubs in target areas
- Information on target progress for apiculture under Outcome 4
- Management Plans for Ile Alatau NP, Almaty State Reserve, Dzhungar Alatau NP
- METTs for Ile Alatau NP and Almaty State Reserve, 2009 and 2011
- Project Awareness Raising and Information Strategy
- MoU of Cooperation with UNEP-GEF Project In situ*/on farm conservation and use of agrobiodiversity in Central Asia*
- MoU of Cooperation with Lead Botanical Garden after N.V. Tsitsin of the Russian Academy of Science
- MoU of Cooperation with State Research Centre of the Russian Federation of Plant Breeding after N. I. Vavilov
- Project Exit Strategy
- Proceedings of International Scientific Conference on MABD Conservation Challenges (2007) and Project Final Conference (2012)

NB Other literature consulted is referenced in the footnotes.

Annex 4: Evaluation Consultant Code of Conduct Agreement Form

Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and: respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

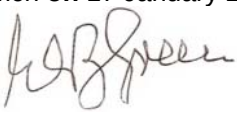
Evaluation Consultant Agreement Form[62]

Agreement to abide by the Code of Conduct for Evaluation in the UN System
Name of Consultant: Natalya Panchenko
Name of Consultancy Organization (where relevant)**:**
I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.
Signed at Almaty **on** 16 January 2012

Signature: 

Evaluation Consultant Agreement Form

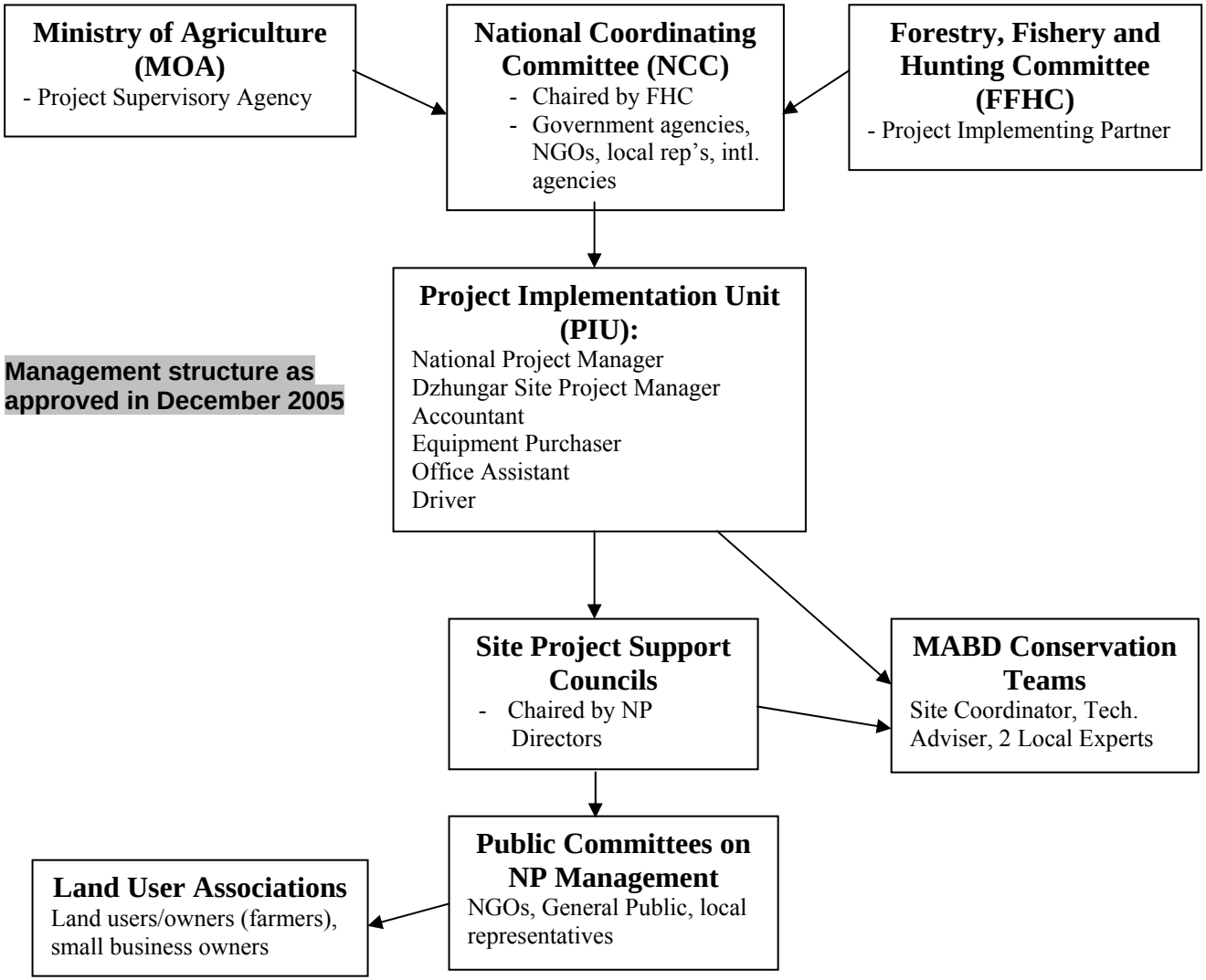
Agreement to abide by the Code of Conduct for Evaluation in the UN System
Name of Consultant: Michael J.B. Green
Name of Consultancy Organization (where relevant)**:**
I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.
Signed at Norwich **on** 17 January 2012

Signature: 

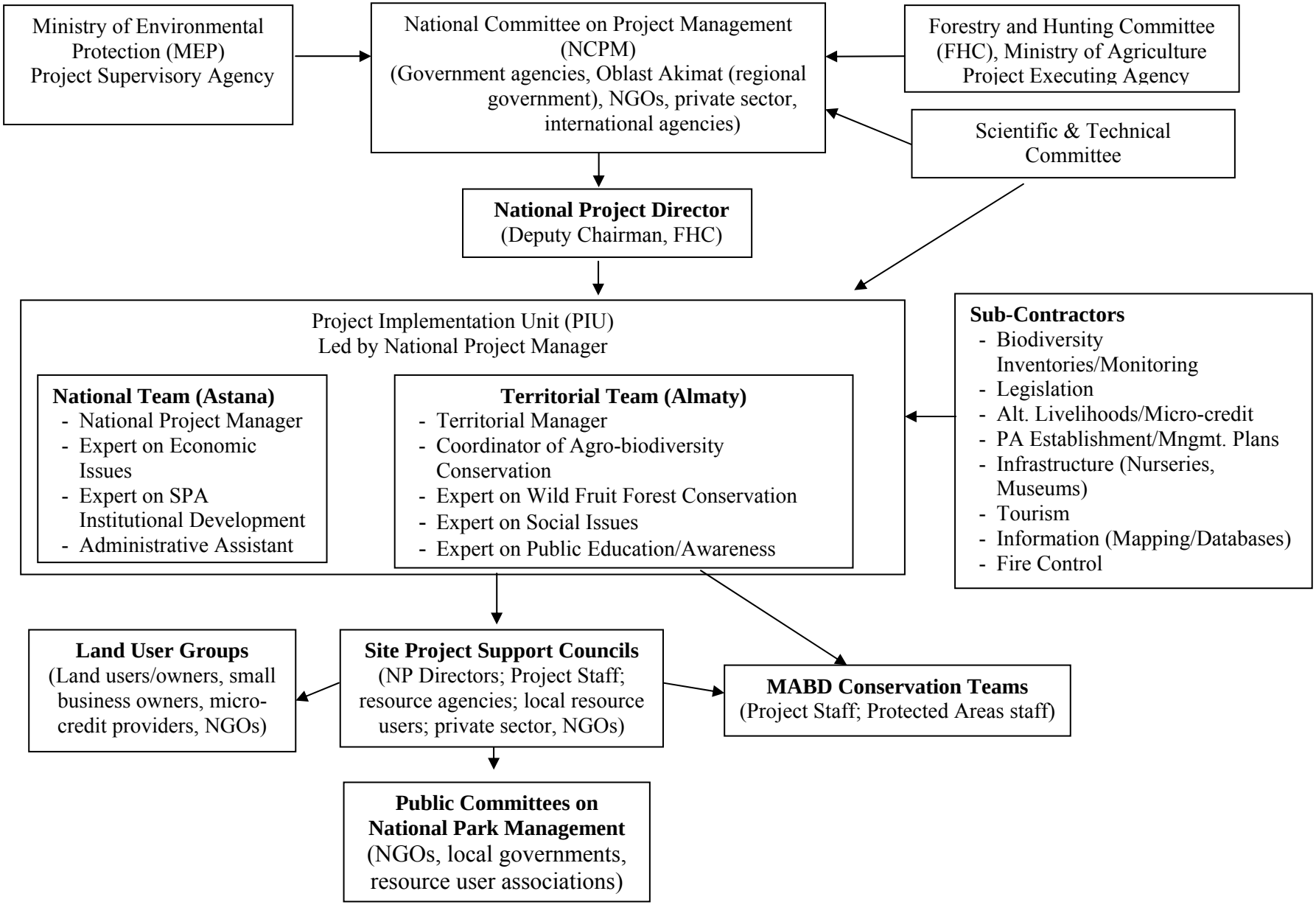
[62] www.unevaluation.org/unegcodeofconduct

Annex 5: History of Project Management Structure

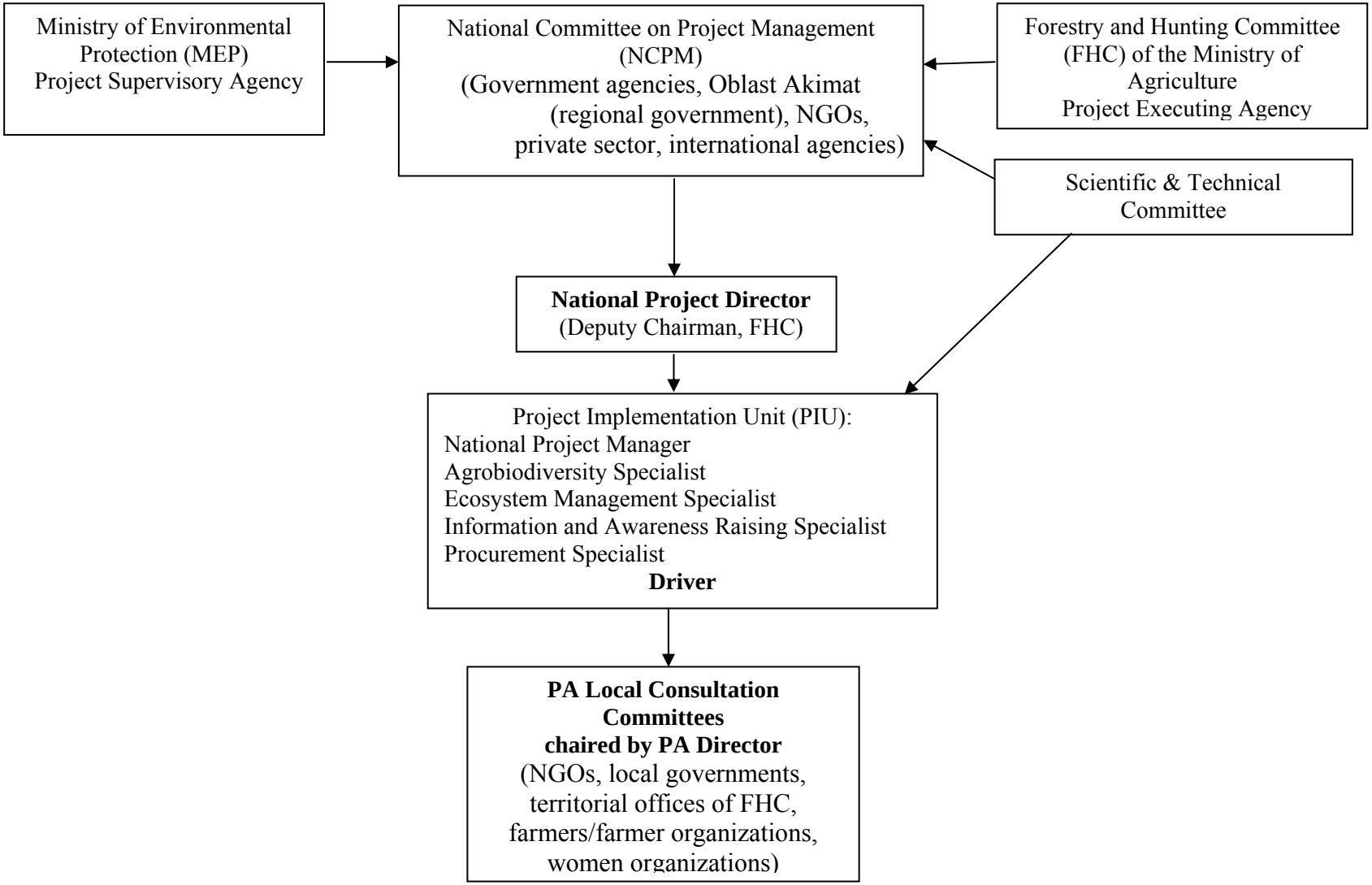
Management structure as approved in December 2005



Management structure at Project inception (March 2006)



Project management structure from 2008 to 2012



Annex 6: List of Project Steering Committee Members[63]

The Project Steering Committee met on a total of 10 occasions (6 September 2006, 15 March 2007, 24 December 2007, 13-14 August 2008, 19 December 2008, 15 July 2009, 26 November 2009, 25 November 2010, 9 November 2011, and 24 February 2012). Current members of Project Steering Committee are shaded in the table below (previous members are unshaded).

No.	Name, Title	Dates	Confirmation
1	Igor A. Koval, Deputy Head of FHC, Chair	04/2006 - 03/2012	FHC ordinance #78
2	Gordon Johnson, UNDP Deputy Resident Representative	04/2006 – 02/2007	FHC ordinances #78 and #55
3	Steliana Nedera, UNDP Deputy Resident Representative	02/2007 – 03/2011	FHC ordinances #55 and #60
4	Elena Paniklova, Deputy Resident Representative	03/2011 – 03/2012	FHC ordinance #60
5	Zhanar Sagimbayeva, Head of E&E Unit, UNDP	04/2006 – 02/2007	FHC ordinances #78 and #55
6	Inkar Kadyrzhanova, Head of E&E Unit, UNDP	02/2007 – 04/2010	FHC ordinances #55 and #70
7	Stanislav Kim, Head of E&E Unit, UNDP	04/2010 – 03/2012	FHC ordinance #70
8	Zhanat N. Dyusenbekov, Head of Almaty Oblast Office of FHC MoA	04/2006 – 09/2010	FHC ordinances #78 and #85
9	Temirlan B. Mamiev, Head of Almaty Oblast Office of FHC MoA	09/2010 – 03/2012	FHC ordinance #85
10	Galia T. Karibzhanova, Head of International Cooperation Office, MoEP	04/2006 – 03/2012	FHC ordinance #78
11	Amankeldi K. Sadanov, General Director of BioResearch Center, Ministry of Education	04/2006 – 03/2012	FHC ordinance #78
12	Meneegul D. Sarina, Deputy Head of Agricultural Sector and Environmental Protection Office, Sectoral Planning Department, MoA	04/2006 – 11/2008	FHC ordinances #78 and #372
13	Almagul B. Mazhrenova, Head of Agricultural Sector and Environmental Protection Office, Sectoral Planning Department, MoA	11/2008 – 03/2012	FHC ordinance #372
14	Turganbai K. Tazhmagambet	04/2006 – 03/2012	FHC ordinance #78
15	Alikhan A. Toibaev, Deputy Akim of Almaty Oblast	04/2006 – 02/2008	FHC ordinance #78 and #51
16	Tynyshbai T. Dosymbekov, Deputy Akim of Almaty Oblast	02/2008 – 03/20012	FHC ordinance #51

[63] The Steering Committee was officially known as the National Coordinating Committee and later as the National Committee on Project Management (see Annex 5).

Annex 7: Management Response to Mid-Term Evaluation

Evaluation Title: Mid Term Evaluation - "*In situ* Conservation of Kazakhstan's Mountain Agro-biodiversity" Project (UNDP/GEF Project: # 00037324, PIMS Number: 1278)

Evaluation Completion Date: 15/03/09

Note that the management response and its tracking have been reviewed by the Evaluators and any comments of theirs are confined to the penultimate and last columns, preceded and highlighted by the word 'Evaluators', in the table below.

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
Overall Recommendations						
1. The project makes a number of adjustments to the LFM to update the projects results framework in light of experience gained and changing conditions. These do not amount to significant changes (i.e. the outcomes and objective remain the same). The adjustments will be discussed in the main report and documented in a DRAFT LFM included as an annex to the main report. The project and partners (as should all UNDP-GEF projects) agree a simple system to log changes to LFMs. Preferably a header that includes date, "version" and possibly the next PIR report to record the changes (e.g. Project Name LFM/Ver. #/date/date recorded in PIR).	The project uses NA (nature annals) versions represented in the last PIR (Project Implementation Report)	The PIU (Project Implementation Unit) will be obliged to observe that previous NA copies are to be removed from the system archive in separate file to avoid a mess.	Every three months	National project manager	Completed, on a once-off basis (no further changes considered necessary)	PIU has documented changes to performance indicators and targets, showing changes to targets and rationale for amendments. Approved by National Coordination Committee on 26 November 2009. Evaluators: Well completed and documented.
2. The PIU should "pause" consider the revised LFM and the original project objective and produce a revised strategy document (not more than 5-6 pages) that summarizes how the various project outcomes will achieve the	The PIU uses NA versions represented in the last PIR. The PIU has no need in short version of strategy for project implementation activities, as it most likely is convenient for external	The PIU will prepare the revised strategy of the project according to MTE (mid-term evaluation) recommendations	2009	PIU	No change to overall strategy but some Project outputs	PIU did not produce a revised strategy document but it used adaptive management techniques for slightly revising or expanding some Project outputs. As project strategy did not change, PIU considered the recommended exercise of no

[64] Unit(s) assigned to be responsible for the preparation of a management response will fill the columns under the management response section.
[65] Unit(s) assigned to be responsible for the preparation of a management response will be updating the implementation status. Assigned with an oversight function monitors and verifies the implementation status.
[66] **Status of Implementation:** Completed, Partially Completed, Pending

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
project's objective and embed an adaptive management culture in the project's approach. Guidelines will be provided in an annex to the main report. It should be noted that this draft strategy document is guide and its purpose is to stimulate the analysis of the project's intervention in order to identify the critical assumptions and risks and thus develop a spread of interventions and therefore reduce the vulnerability of a narrow strategy – for instance what if the replanting doesn't work? It is an exercise that is designed to strengthen the project's adaptive management approach by challenging the assumptions behind the intervention.	evaluation and monitoring				revised or expanded, and reflected in AWPs. Evaluators: not implemented	value and thus did not adopt this recommendation. Evaluators: A small 1-day workshop, involving PIU, UNDP and a few members of the NCC, to review the Project's strategy and challenge its assumptions in the light of the MTE could have been very constructive if independently and well facilitated (e.g. RTA).

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
3. The project strengthens its adaptive management "framework" as a means to cope with complexities of the system and future uncertainties and to update the project's strategy in light of lessons learned. An adaptive management "framework" will be provided as an annex to the MTE report	The project used separate approaches of this methodology for updating of some activity directions. In particular, in 2007 it has organized International Conference on genetic conservation aspects, and in 2008-2009 it conducts work on creation of living collection of wild apple and apricot species diversity	1. For the purpose of fuller use of adaptive management "framework" PIU will organise internal training on the subject, as well as place a proposal before UNDP concerning organisation of a series of special trainings for project personnel 2. The project will engage SPA (special protected areas) personnel of designed area in development of management approaches on the basis of specified methodology	4quarter 2009 2010-2011	National project manager PIU, FHC	Completed Evaluators: partially completed	PIU made extensive use of adaptive approaches, this especially relates to the *ex-situ* conservation approaches that it developed, tested and shared with targeted PAs. Also, the project created a Scientific & Technical Committee under the NCC to discuss and approve research work and approaches that often were innovative and required consensus in academic circles in order to proceed. PIU shared its initiative in the PIR, promoting the idea of setting up such Committees for projects with significant scientific research components a Scientific Committee in order to validate scientific agendas. There was no internal training but PIU did meet to discuss adaptive management approaches to project implementation and reflect this in annual work plans. Re: Action 2, the Project produced recommendations on tested regeneration techniques and trained targeted PA staff in them. Evaluators: Some good examples of adaptive management are provided but it is clear from the management response that the recommendation has not been clearly understood as it concerns strengthening its adaptive management framework which can then be applied as necessary. This would involve setting out the existing framework and then documenting plans to strengthen it in response to a range of threats, scenarios etc. It would have been helpful if PIU had been provided with an example of such a document, as well as the guidance in Annex 5 of the MTE Report.

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
4. The key project partners meet and discuss the possible implications of including a third area within the project's activities. Tarbagatai is an area to the northeast of the Dzhungar and Ile-Alatau National Park. It is proposed as a zapovednik (strict nature reserve) and approximately US$66,000 has been allocated already (from the State budget) to develop a scientific and feasibility study for creating a zapovednik. The wild fruit forests in this area have been found to include stands of trees that have not been subject to genetic ingression from modern cultivated varieties. Any decision should be weighed against the effects of the worsening economic downturn and the impact that this will have upon state budgets and the co-financing commitments as well as the impact of the delays when staring the project on co-financing. It is important that any such additional areas (to the project) do not affect the projects ability to meet the current objective by December 2011 in the Dzhungar and Ile-Alatau National Parks.	Establishment of Tarbagatai reserve is provided by the program of the Government of RK developed for the period till 2010. Agrobio Project considering the value of mountain apple forest population of Tarbagatai mountains recommends to include their most important sites in structure of projected reserve. Predicted term of reserve establishment is 2011, i.e. the year of completion of Agrobio Project realisation. In case of seeking for additional sources of co-financing and, accordingly, prolongation of execution period, Agrobio project without prejudice to formulated project aims and objectives could also carry out corresponding actions for conservation at the third area - Tarbagatai	UNDP will go into the issue on additional co-financing of works at potential third area with prospective donors and also with executive agency concerning expansion of scope of activity of the project. In case of success, the question on inclusion of the third area and prolongation of project validity term will be put by UNDP before GEF (Governmental Ecological Fund)	2009-2011	UNDP, FHC	Not implemented Evaluators: not possible to complete within Project time frame	PIU briefly identified and assessed key areas of wild apple forests for inclusion in Tarbagatai NP and provided its recommendations to FHC in 2010. Creation of this NP is now scheduled for the end of 2012 as per the government program 'Zhasyl Damu' (i.e. after the Project's closure). PIU currently does not know the extent to which its recommendations have been adopted by Government. Evaluators: Well followed up to the extent possible.
5. The project and its partners keep in mind that the objective reflects agrobiodiversity *per se*, As a result of genetic ingression from commercial orchards, wild apples are probably the most vulnerable and this threat is most extensive and urgent. However, it is important to remember that there are a number of other important wild relatives within the genetic reserves.	The project considers apple-apricot forests as wild fruit ecosystems where other agro-biodiversity species co-exist along with keystone ones. Complex of measures under the project for keystone species will also automatically promote conservation of other species within these forests. Besides, with a view of conservation of other agro-biodiversity variety, in 2009 the project initiated special action - "Festival of tulips" – with attraction of schoolchildren, educational institutions, NGO (non-governmental organizations), and business organizations	The project will continue work on mountain agro-biodiversity conservation strategy at technical support of international consultant for genetic resources, as well as will promote Festival of Tulips to get the status of annually held event	2009-2011 y.	PIU	IC in July-August 2009. Agrobiodiversity promoted at Festival of Tulips in 2010 and 2011 Evaluators: completed	International agrobiodiversity consultant mission in July-August 2009: supported PIU in methodological approach to CWR conservation in Ile Alatau NP and other genetic reserves; and in developing national strategy for fruit tree CWR conservation. Project lobbied adoption of Ordinance No.158 dated 20 April 2010 that recognises 'Festival of Tulips' and 'Save the Primula' as official annual events in Kazakhstan's PAs. Project, jointly with Netherlands Embassy and a publishing house, published *Tulips of Kazakhstan*. Almaty Akimat included Apple Festival in its list of annual public events. Evaluators: Well completed –*Tulips of*

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
						Kazakhstan is superb publication and annual Apple Festival raised public awareness significantly, see #6 below re: agrobiodiversity IC..
6. The PIU engages a substantive short-term consultant to assist with developing various aspects of the genetic reserves and plant genetic conservation *per se.* The MTE will provide a draft ToR for this consultancy.	Involvement of authoritative consultant will promote identification of activities under the project and introduction of amendments to the developing national forest policy 2020.	1. Preparation of performance specification and advertising a vacancy for hiring of international technical consultant 2. Signing of the contract with international technical consultant 3. Carrying out of technical evaluation of design works and preparation of recommendations 4. Updating of the version of Conservation Strategy prepared by the project and work out of proposals to the Ministry of Agriculture and FHC (Forest and Hunting Committee) for developing Concept of the State Forest Policy till 2020	May-June 2009 completed July 2009 completed July – August 2009 completed August-October 2009	PIU UNDP in Kazakhstan International technical consultant with PIU PIU	Completed	International consultant hired and completed his assessment in July-August 2009.The consultant noted that "…the general approach taken by the PIU has thus far been appropriate and it is recommended that team should […] be involved in long-term sustainable approach to genetic reserve maintenance. The consultant's proposed technical recommendations were widely utilized by PIU in annual work plans and implemented". In particular, the Project extensively used the consultant's inputs for establishment of a field gene bank (living collection) and its long-term monitoring, publications on importance of CWRs, and in draft Law on Flora. Evaluators: Well completed - inputs from agrobiodiversity IC valued.
7. The *Agrobio Project* and the UNEP Regional Project meet to discuss ways in which the projects can complement each other particularly in relation to on-farm conservation and genetic reserves and the opportunity to promote sustainable use and Land Races of crop wild relatives in farming systems surrounding the protected areas. The MTE will provide contact details[67] with the UNDP Recovery,	In the beginning of 2007 the Agrobio Project and the UNEP Regional Project have concluded memorandum of cooperation, regularly communicate and discuss various aspects of genetic conservation, including in farming systems. However, despite focusing on *ex situ*-conservation, the UNEP project has no data on promotion of Land	The Agrobio Project will study materials of project implementation in Georgia and will try to co-ordinate with UNEP project the possibility of joint researches for use of local crop wild relatives by the farmers. In case of successful negotiations and encouraging	3-4 quarters, 2009 1-2 quarters,	PIU	Not implemented	The UNEP Regional Project could not participate in joint research, as planned originally, due to limited funding. Thus, this MTE recommendation was not implemented. Despite this unfortunate fact, PIU issued 3 guides and references on horticulture for farmers. Also, UNDP and UNEP projects invited representatives for relevant events throughout 2009-2011.

[67] Mariam Shotadze mariam.shotadze@undp.org

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
Conservation, and Sustainable Use of Georgia's Agrobiodiversity Project, Project Number UNDP/GEF Project: # 00037324, PIMS Number: 1636 that has been working in this area for some time and has been actively promoting the use of Land Races in organic farming systems. There are some useful synergies between the three (including the UNEP) projects.	Races of crop wild relatives by farmers and consequently concentrates attention on the age-old species delivered to territory of Kazakhstan	results, the PIU will revise the issue of possible synergism of project activities aimed at support of promotion of local crop wild relatives by the farmers	2010			Evaluators: Cooperation between the two projects was an important opportunity. In practice, their different foci (*in situ* and *ex situ*/on farm) and the fact that the UNEP project was regional, operating from Tashkent, resulted in limited collaboration despite efforts by PIU. Arguably, with more support and facilitation from implementing agencies (UNEP and UNDP), there should have resulted greater synergy in addressing the 'genetic reserve conservation' and 'on-farm conservation' paradigm, including related issues concerning land races. so that the relevance and roles of these respective interventions are fully understood and appropriately applied.

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
8. The PIU develops an "exit strategy" in the next year to demonstrate how the achievements will be embedded institutionally in order to sustain the impact on agrobiodiversity conservation. The "exit strategy" should take account of the plausible impact of the global economic downturn and its likely impact on co-financing and capital investment in the protected areas system and rural development (e.g. ecotourism). One possible option would allow the PIU to focus some of its effort over the next year (2009) on leveraging additional funding (non-GEF funds) from other sources with a view to extending lifetime of the project (see section 5.3). The "exit strategy" should also focus on ways that institutions, particularly the protected areas can capitalize on the future use values of agrobiodiversity as a means to fund their conservation management. Consideration should be given to the possibility of using Technical Assistance to develop this financing mechanism.	All GEF projects are aimed at stability that predetermines corresponding measures for subsequent (after completion of the project) realization of the project. Certainly, these measures should be based on economic possibilities of the state for their real implementation and existing financial mechanisms. The existing source – SPA own funds made from rendering of certain kinds of paid services can be used as one of such mechanisms. The part of them (from use of fruits and berries by forest users) has already formed the funds of this source. In process of increasing need in other values, the list of such services will be extended and the order of use of these funds will be specified.	1. The PIU will develop "exit strategy" for the next year after completion of the project and will submit it for coordination to UNDP and FHC 2. The PIU together with UNDP and FHC will study and define additional sources of co-financing other than GEF for financing of works under the project and its prolongation (in particular, Fund of Kazakhstan Biodiversity Conservation which in process of capitalisation should become national financial tool of conservation, etc.)	2011 y. 2009–2011 yy.	PIU, UNDP, FHC	Completed	PIU developed and submitted exit strategy to UNDP CO. for endorsement. Highlights that ensure sustainability beyond life of Project include: (1) creation of Dzhungar Alatau NP as a legal entity with staff and guaranteed government funding; (2) creation of genetic reserves that now have legal and protection status and thus eligible for government funding through the Ile Alatau and Dzhungar Alatau NPs ; (3) creation of a field bank/living collection of wild apple and apricot in the Ile Alatau NP by (i) securing government endorsement of proposed methodology (root shanks); (ii) assisting Ile Alatau NP and Almaty Forestry and Seed Centre with collection, DNA analysis, transfer and growth of planting materials for the future gene bank; (iii) securing government approval of 2012 budget for construction works; (4) creation and operationalisation of MABD departments in three targeted PAs and training MABD staff in ABD conservation issues. This preparatory work will enable MABD staff to regularly monitor status of mountain agrobiodiversity (including wild apple and apricot forests), as per approved annual plan for PAs - Chronicles of Wild Nature. Although the PIU failed to raise additional funding for extending the project for another year, as initially planned, remaining funds were used to prolong its implementation till the end of March 2012 to finalize the project closure and hold a final conference to publicise the project's results and achievements. Evaluators: Completed, with some significant sustainable achievements. Also, co-financing increased hugely from US$19,546,000 in ProDoc to $32,711,185 during implementation.

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
9. The FHC, UNDP and the PIU consider carefully whether they need a project representative to be based in Astana. Given the likely financial constraints on the protected areas and the project during the next three years this position can either be reassigned within the project or the position is moved to Almaty and used to "drive" the recommendations outlined in 5.2 below.	Project representative based in Astana was engaged in coordination of engineering specifications developed by the project (natural-scientific study and feasibility study) for creation of Dzhungar-Alatau National Park and promoted improvement of interaction of the PIU with FHC and UNDP office. At present, in connection with statement of NSS and FS, streamlining of procedures of documents revision in UNDP, the problem acuteness is eliminated and there is no need in such position in Astana. And, considering decrease in project budget for the next years, the decision was made on reduction of this position	In connection with reduction of project representative in Astana the project will reconsider staff structure and will redistribute the duties of this expert among other experts	February-March, 2009 completed	National project manager, FHC, UNDP	Completed	Position of Project representative in Astana closed in March 2009. Evaluators: Completed promptly
Recommendations Outcome 1: *Ecosystem-based conservation and management of wild crop relatives at two project sites*.						
10. The project makes a detailed ecological analysis of the existing fruit forests contained within the genetic reserves and identifies a number of indicators for conservation status and quality of the wild fruit forests (e.g. age structure, recruitment – vegetative and seedling -, *intra* and *inter-specific* diversity, level of genetic ingression from cultivars, extent/area, etc.). The purpose of this would be to compare different areas and genetic reserves and to develop a long term monitoring programme[68] for wild fruit forest recovery. Much of the existing data could be utilized and a simple survey methodology could be developed with an emphasis on cost effectiveness and replication of data collection (e.g. fixed transects and the use of Distance sampling[69] and quick and	The project before evaluation has planned and now conducts detailed analysis of fruit forests contained within the genetic reserves. Within the limits of these works it identifies a number of indicators for organisation of monitoring of wild fruit forests status and defines monitoring platforms for future monitoring by the forces of scientific departments of Ile-Alatau and establishing Dzhungar-Alatau National Parks	The PIU uses the experience of international technical consultant for selection of optimum methodology of organisation and monitoring of wild fruit forest ecosystem condition and will promote its introduction in SPA of projected area	2009-2010 yy.	PIU	Partially completed Evaluators: Completed to the extent possible within the constraints of existing PA monitoring protocols.	Monitoring of agrobiodiversity incorporated within existing annual monitoring program as per mandatory Chronicles of Wild Nature and reflected in PA management plans.. Full inventory of wild fruit forests in Dzhungar Alatau and Trans-Ili area completed, including forest quality indicators such as genotype purity (500 samples taken for DNA analysis to identify genetic ingression levels), age structure, height, width, density, adjacent lands to have an overall ecosystem, vegetative and seedling recruitment, sanitary conditions, extent/area, area of cultivated orchards as a source of genetic ingression, and wild berry bushes. Also, quality of wild fruit forests in 3 PAs will be monitored annually (using above indicators). Monitoring requires changes to be noted and management responses developed

[68] "Development of long-term research and monitoring programme specifically for ABD in the project sites which will generate information of direct application for management" Project Document p52
[69] http://www.ruwpa.st-and.ac.uk/distance/

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
simple analysis) for future data collection. An important point in ecological monitoring is establishing robust indicators that are cost-effective.						and implemented. Evaluators: Much appears to have been achieved but unable to assess effectiveness of monitoring protocol, which is may be constrained with respect to agrobiodiversity interests.
11. The PIU adopts the Threat Reduction Analysis tool as a means to measure the effectiveness of the projects interventions. Once familiar with this methodology the PIU works with the protected area staff to train them in the methodology. The TRA is not "the answer" but does provide a quick and cheap method to monitor the effectiveness of both the project and the long term management interventions.	Any tool of efficiency evaluation including TRA is important for maintenance of productivity of project implementation. Therefore the PIU is ready to consider this methodology for use in their work	1. The PIU will revise proposed methodology and will try to apply it for analysis of project effects on existing threats to mountain agro-biodiversity 2. The PIU in case of acceptability of this methodology will offer to introduce it in activity of APA of projected area	2009 2010 r.	PIU PIU, FHC	Not implemented	The TRA tool was not in demand by PA staff and thus the recommendation was not adopted Evaluators: This tool appeared unfamiliar to PIU, despite members having been trained in its application during the MTE. Discussions with PIU suggest that its potential was not sufficiently appreciated at the time and that the team was operating in a vacuum, without the benefit of any member having experienced the value of such a tool, particularly if it had been used participatively with PA staff.
12. The project (in collaboration with the Scientific-Research and Mountain Agrobiodiversity Departments) develop a long term monitoring programme based upon the indicators derived from the ecological analysis and the TRA exercises. The purpose of which is to monitoring programme for the recovery and conservation of the wild fruit forest genetic reserves. By the end of the project this monitoring programme will need to be embedded in the protected areas management plans.	As it was mentioned above, the PIU is engaged in organisation of monitoring, identification of corresponding indicators and definition of a number of monitoring platforms to control wild fruit forest condition. It is provided that a basis of this monitoring program will be allocated by PIU genetic reserves	See key actions in subparagraph 1 of this section. Besides, the PIU will promote embed of actions for monitoring of wild fruit forests in the protected areas management plans	2009-2011 yy.	PIU	Not implemented	7 genetic reserves were identified and approved by the state in 2 target PAs (Dzhungar Alatau and Ile Alatau NPs). NP MABD will monitor newly created genetic reserves as part of the annual Chronicles of Wild Nature monitoring programme, which is part of their respective management plans. In addition, as a result of PIU lobbying, FHC's Kazakh Scientific & Research Forestry Centre received 5 million tenge for 3 years (US$ 34,000 annually), starting in 2012, to undertake scientific research in established reserves and other areas with wild apple and apricot forests. Some of these funds will be directed to monitoring genetic reserves in Dzhungar Alatau and Ile Alatau NPs. Evaluators: The initiative and efforts of PIU to secure funding for research and monitoring is a significant achievement. With the Project ended, there is no obvious mechanism to identify and prioritise research that will inform *in situ*

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
						conservation of wild fruit forests.
13. The substantive TA (overall recommendations point 6) develops guidelines for the ex situ collection and the rehabilitation of genetic reserves.	See comments in the PIU response and key actions to item 6 of General recommendations				Completed	The TA developed guidelines for the *ex situ* collection and genetic reserves that were widely utilized and implemented by the PIU and the project counterparts. Evaluators: Well completed
14. The project – using an adaptive management approach – develops a spread of different experimental management approaches to rehabilitating the genetic reserves (e.g. small plot trials with different management prescriptions)	The PIU develops different approaches / methods of restoration of wild fruit forests and provides researches for selection of the most cost-effective and acceptable methods	1. The PIU will develop technical recommendations and approves technologies of cultivation of apple and apricot planting stock using root shanks and method of green cutting, and will carry out development works to promote natural recovery of apple-trees at different sites. 2. The PIU will offer optimal recovery methods for various habitats	2009-2010 yy. 2010 y.	PIU	Completed Evaluators: not implemented using *in situ* experimental approaches	FHC Scientific & Technical Committee approved the Project's recommendations to create a field gene bank and technologies for growth and planting of apple root shanks. The Project drafted rules for cultivation of wild apples in laboratory settings, later endorsed by FHC. Also, the Project tested and finalized a methodology for apple and apricot regeneration by green cutting. Evaluators: The experimental approaches were not followed up, possibly due to a misunderstanding between the MTE recommendation towards *in situ* rehabilitation of genetic reserves and the management response to approve technologies for cultivation of apple and apricot planting stock using root shanks. Use of root shanks for planting stock and green cutting is not the most appropriate long-term approach to restoring wild fruit forests – they are a complementary measure that should be subordinate to interventions that will enable wild fruit forests to regenerate within prevailing natural conditions.
Recommendations Outcome 2: *Strengthened institutional, technical, and financial framework for ABD conservation*						
15. Key staff of Dzhungar and Ile-Alatau National Parks participate in the development of an adaptive management approach.	See comments in the PIU response and key actions to item 3 of General recommendations. Thus it should be noted that these activities will be implemented for Ile-Alatau National Park in 2009-2010, and for Dzhungar-Alatau they will be planned after				Not adopted Evaluators: partially completed	Key staff of Dzhungar Alatau and Ile Alatau NPs carried out a full inventory of hotspots of wild apple and apricot forests. Once completed, PA staff took full charge of delineating boundaries of genetic reserves and registering their contents. PIU created a working group for both NPs delegated a representative in each to address

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
	establishment (approximately after 2010)					issues re: field gene bank establishment. The Project's scientific Committee, as well as its NCC, included a representative of Ile Alatau NP. Evaluators: Although an adaptive management approach, *per se*, was not developed, some important baselines were established, providing a foundation for future adaptive management.
16. The Scientific-Research and Mountain Agrobiodiversity Department in IASNNP participates in the planning and implementation of the experimental approaches to rehabilitating the genetic reserves.	The PIU has already involved IASNNP staff in experimental works aimed at restoration of genetic reserves. In particular, in 2009 it participates in the first phase of works on detailed inventory in genetic reserves and establishment of their legal status	The Project in process of approval / acceptance of experimental approaches to rehabilitating the genetic reserves will promote planning in SPA and consecutive rehabilitation at the sites of wild fruit forests based on these approaches	2010-2011 yy.	PIU, FHC, IAGNNP	Completed Evaluators: not implemented using *in situ* experimental approaches	MABD staff of Ile Alatau NP actively engaged in locating field gene bank and getting technical and legal documents approved. Construction works, scheduled for 2012, will be financed by government. Ile Alatau NP and Almaty Zapovednik management plans endorsed and now being implemented. The Dzhungar Alatau management plan developed and submitted to FHC for approval. Evaluators: Same comments as provided for Recommendation 14.
17. The project holds a planning workshop with the Key staff of Dzhungar and Ile-Alatau National Parks to review the effectiveness of the management plan (including the genetic reserves) and the impact of the present economic downturn. This should be a participatory workshop (if necessary a substantive TA should be engaged to facilitate the workshop) and should pose the question *"How do we best conserve the agrobiodiversity resources within the protected area for the next 15 years".* The question includes 3 aspects – time, place/scale and subject – sufficient to generate a strategy to cope with the economic downturn predicted for the next 3 years.	The PIU in performance objective of involved international TA (technical adviser) provides his participation in workshop for Ile-Alatau National Park personnel. As for Dzhungar Park holding of such workshop in the current year will be ineffective, as it is planned to create SPA there only in 2010.	The project by results of technical evaluation and on the basis of preliminary recommendations of international adviser will hold (with participation of the latter) a workshop / meeting with the personnel of Ile-Alatau National Park on planning of nature protection activities for the next years and prospects.	July-August, 2009	PIU,ITA(C), IAGNNP	Completed Evaluators: not implemented	PIU held working meeting with management of Ile Alatau NP; and trained Dzhungar Alatau NP staff in the application of the Chronicles of Wild Nature monitoring programme. Evaluators: No evidence to suggest that effectiveness of management plan was reviewed with respect to the impact of the economic downturn on agrobiodiversity interests. Unclear whether/not the plan to involve the agrobiodiversity IC was followed up.
Recommendations Outcome 3: *An effective legislative framework for the conservation and rational use of agro-biodiversity resources*						
18. The project works closely with the working group on ABS law and the Altyn Dala	In 2007 the Project concluded memorandum of cooperation with	1. The project will prepare the first version of Flora Bill which	November 2009	PIU	Completed in 2010-2011.	Evaluators: Flora Law drafted and submitted to FHC and Ministry of Agriculture for taking forward.

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
Conservation Initiative housed within CAREC to ensure that agrobiodiversity is sufficiently included in the ABS legislation being prepared (for instance would any ABS legislation recognise the need to finance protected areas and specifically genetic reserves).	Kazakhstan Biodiversity Conservation Association (KBCA), which actively develops mechanisms of Altyn Dala Conservation, including teamwork in the field of legislation. At present the Concept of Flora Bill is prepared and the first version of bill text is revised.	makes provision for protection and use of genetic resources, and will discuss it with Kazakhstan Biodiversity Conservation Association and other partners and concerned persons 2. The project will promote the inclusion of this Bill in Legislative Plan of the Government of RK for 2010 - 2011	December 2009-2010	PIU, FHC		
19. Following the input from the substantive TA (5.1 point 6) the PIU prepares a position statement/briefing document for the "Concept of State Forestry Policy 2020" being prepared by the Forestry and hunting Committee of MoA which addresses the issues of the "*genetic reserve conservation*" and "*ex situ conservation*" paradigm. This document should be shared with the UNEP project	The Project Work Plan for 2009 approved by FHC provides participation of PIU in development of Concept of State Forestry Policy prepared by Ministry of Agriculture and FHC. Besides, the project is engaged in conservation of genetic stocks by giving the status genetic reserves to the most valuable sites, as well as works through the problems of *ex situ* conservation by means of creation of living collection of apple and apricot variety. The project is intended to co-operate with UNEP project	1. The project taking into account the suggestions of independent international technical adviser will complete the version MABD conservation strategy and will submit it to FHC 2. On the basis of conservation strategy the PIU will submit such suggestions which address the issues of conservation and restoration of MABD to FHC to embed in Concept of State Forestry Policy 2020	September 2009 October, 2009	PIU PIU, FHC	Partially completed Evaluators: Completed, albeit the Concept now gathers dust due to the hold up in the Ministry	Concept for MABD conservation drafted and submitted to FHC for approval in 2009 and then in 2010. Meanwhile, FHC has put on hold the development of a Concept of State Forestry Policy.
Recommendations Outcome 4: *Alternative livelihoods benefiting local communities in project sites, reducing natural resource use pressure on mountain agro-biodiversity*						
20. The project includes sustainable use of agrobiodiversity in this component as part of its overall intervention strategy, including the use of more cultivars that are directly derived from the wild stock. This will involve developing an on-farm component to the alternative livelihoods approach of outcome 4.	The project does not include in overall intervention strategy the use of more cultivars of apples that are directly delivered from the wild-growing stock. As the alternative there is a question of removal of cultured gardens from wild fruit tree zones and support of fruit-growing development by farmers in adjoining territory out of risk zone for wild species.	Offered key activities of PIU on this issue are stated in item 7 of General Recommendations			Not implemented	PIU considers this recommendation to be less of a priority, given that on farm conservation and sustainable use of cultivars derived directly from wild stock is part of the remit of the Central Asia UNEP project. Evaluators: This recommendation was not adopted, which seems reasonable in the light of other competing demands on Project staff and the priority issue of understanding the ecological

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
	To the point, MTE offers to update project strategy and develop on-farm component. But for this purpose GEF/UNEP authorised the other Regional *in situ/on-farm* project which is simultaneously realised in Kazakhstan. Considering this fact, the PIU sees no need in changing of project strategy, but is ready to strengthen interaction on this question with specified UNEP project					requirements of the wild stock in order to provide appropriate measures for their conservation.
21. The project reviews the experience of the GEF-funded Small Grants Programme in particular the *ex-post* report on the *"Conservation of Wild Apple Tree Woods in the Foothills of Zailiyski Alatau (Agrobiodiversity of Alatau)"*. The use of wild apples for vinegar-making offers possibilities for sustainable use and, in the event that Land Races are located, possibilities for on-farm conservation, etc., as well as an opportunity to draw down on a significant fund for development.	At a stage of Agrobio Project development the PIU reviewed the experience of the GEF Small Grants Programme. It is offered to use this experience as alternative and to support local economy development. However wild apple tree, firstly, is included in the Red Book of Kazakhstan and use of its fruits is strictly regulated by legislation; secondly, in habitat it bears fruits irregularly, and it is economically inexpedient to establish steady production using these raw material. However such production can be established on the basis of the use of cultivars. Thus the possibilities of organisation of such production in project activity zone should be reviewed taking into account market needs in such products. The PIU will be guided by MTE recommendations that "the PIU should not try to create the market, but only to promote its development"	The PIU will review the possibilities to support apple vinegar-making and to provide effective demand in the market, then it will make a decision on activities in this direction within the framework of Outcome 4	2009-2010 yy.	PIU	Not implemented	Vinegar-making enterprise locations fall outside the Project targeted areas. Also, there is limited demand for such product, thus this activity looked counter-productive and declined. Evaluators: The decision not to follow up on this recommendation seems to be well justified.

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
22. The project investigates the existence of any Land Races of apples and other fruit trees. Should these be found,[70] the project will need to prepare a programme to multiply and distribute the stock amongst farmers	The comment and key activities of the project are outlined in subitem 1 to Recommendations Outcome 4, and also to item 7 of General Recommendations				Not implemented	Relevant data are non-existent in the country. Investing the Project's funds in researching was beyond the Project's strategy, thus the recommendation was declined. Evaluators: PIU is justified in stating that such an investigation was beyond the Project's strategy for investing funds but then so were certain other good initiatives adopted by the Project, such as the preparation of a fine publication on Tulips. A more constructive approach would have been to collaborate with the UNEP Project and seek their support in searching for land races in one of the target sites. However, cooperation with this project was also fraught with difficulties (see comments under Recommendation 7).
23. The project switches its alternative livelihoods approach from trying to develop markets to one which tries to build on existing markets. For instance there is an existing market for honey whereas the market for ecotourism/home stays is one which is as yet poorly developed and unproven. Apple production is another existing market therefore alternative livelihoods should seek to develop ways in which this can be developed and value added at the same time that the issue of genetic ingression into the genetic reserves is addressed[71]. The take up of micro-credit has been low and a market-led initiative (i.e. developing existing enterprises associated with fruit growing may encourage risk-averse local communities to take up loans because they are familiar with the products and technologies. It is	In connection with MTE proposal the Project will be focused on successful experience and reject the results which have not justified expectations. The PIU has to ascertain that not all kinds of alternative activity provided by the project and reviewed log-frames are of interest and find economic preconditions in the places of project realisation. In particular: a) actually, *ecotourism* market is poorly developed and can effectively operate only at support of large travel agencies which do not show interest in this field as yet; b) *growing of medicinal herbs* is very expensive and labour-consuming and	The PIU in accordance with MTE recommendations will prepare and submit to UNDP and NCC (National Coordination Council) the offers of specification / change of indicators according to Outcome 4	December 2009	PIU	Completed	Evaluators: These recommendations from MTE were largely adopted and LFM revised and approved by National Coordination Committee on 26 November 2009. Such streamlining enabled the Project to be better focused in its demonstration and delivery of more sustainable livelihood approaches.

[70] The MTE recognises that these may have become "extinct" during the Soviet period – but it is essential to determine whether they still exist. An example of this can be found in Georgia where a UNDP-GEF project found a 160 year-old pear tree that pre-dated the Soviet period of collectivisation – it was growing quite close to a major road!

[71] The MTE considers that the projects efforts in developing some of the alternative livelihoods has not been wasted, indeed it has provided valuable lessons and now it should re-focus on those that were successful and abandon those that have not performed as well as anticipated.

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
important to bear in mind that constraints to economic development may not be caused by poor access to credit but rather to poor access to markets.	requires special agricultural engineering and above all has no active support from farmers yet; d) *cheese making* and *floriculture* are not widespread among local communities due to absence of access to the markets; e) Most likely that accepted indicators of growth of *farms which introduce steady methods of cattle breading* will be unacceptable, - it is expedient not to dissipate the energies and take into consideration MTE recommendation for pilot project development only in one village; f) Attention should be paid to Recommendations on generation of only one indicator for *improved apiculture in existing manufacturers of honey*; g) In consideration of project profile, it is possible to include new indicator for support of *fruit-growing* development					
24. The proposed position of micro-credit specialist shortly to be advertised should be dropped. The existing micro-credit institutions offer sufficient assistance to potential borrowers already (e.g. business planning advice, etc.). Given that we are entering a period of considerable financial uncertainty and risk it is important that any enterprises promoted by the project are thoroughly vetted by the lender to ensure that they are – as much as is possible to determine – economically viable.	Taking into account MTE recommendations the proposed position is dropped. Involvement of micro-credit specialist on the terms of SSA-contract for 4-5-months period was planned to activate the work under micro-crediting program and to achieve indicators on a number of participants of alternative kin of activity using micro-credits.	The PIU will strengthen interaction with project partner "KazMicroFinance" LLP to stimulate potential for more successful implementation of micro-crediting program by means of holding of working meetings, joint participation in project workshops for local communities, and publication of joint information materials on this issue	2009-2011 rr.	PIU, KazMicroFinance Ltd	Adopted Evaluators: partly completed	Evaluators: PIU decided not to appoint someone full-time to promote take up of the micro-credit initiative, in line with the MTE recommendation. Arguably, this proved to be counter-productive, as reported in Section 3.3.1 (Output 4.4 and Results/Impacts section of Table 3.6) and discussed in Sections 4.2 (iv), 4.4.1 and 4.4.3.
Recommendations Outcome 5: *Awareness and support increased at all levels regarding the values and need to conserve Kazakhstan's mountain agro-biodiversity*						
25. The project continues to promote the importance of agrobiodiversity through mass	In 2008 the PIU has developed informing strategy which is taken as a	The project will continue informing strategy which will	2009-2011 yy.	PIU	Completed	In February 2012, the project will hold a final conference to inform scientists, research

Key Issues / Recommendations of MTE	Management Response to MTE[64]				Tracking[65] by Management	
	Response	Key Actions	Time-frame	Responsible Unit(s)	Status[66]	Comments
media and other opportunities, and in addition to this;	principle of development of all information work of the project. At present the PIU a) together with partners has organised and held republican Festival of Tulips, b) annually publishes and periodically promotes information through mass media and websites, c) prepares video film in Kazakh, Russian and English which showing is organized on TV channels, etc.	familiarize population with value and necessity of conservation of wild fruit forests, as well as publication of methodical and special literature for nature conservation services of forestry and SPA for improvement of their professional knowledge in this field				institutes, NGOs, mass media and other public and international organizations on Project achievements and follow-up activities. Evaluators: Well completed, with wide range of information disseminated via multi-media, notably: video about Kazakhstan's agrobiodiversity, series of educational booklets for young children, posters, Festival of Tulips, annual Apple Festival, scientific and technical publications.
26. Following the input from the international TA (overall recommendations point 6) the project decides upon the feasibility of developing a communication plan to articulate a more sophisticated message about the conservation management of agrobiodiversity developing the "*genetic reserve conservation*" and "*on farm conservation*" paradigm. This message should be aimed at decision-makers and other institutions.	Comments and key activities are stated in previous subparagraph of Recommendations Outcome 5				Not implemented	This recommendation was declined. Evaluators: This is a different sort of message and one that would have been a very appropriate joint outcome from the UNEP and UNDP GEF projects that might have also helped to align them more closely. It remains outstanding as scientists, technical PA staff and the wider public do not share a common understanding of this paradigm.

Annex 8: Project Publications

No.	Title	Participants	Author/Compiler	Year
1	Ecological ABC	-	Akypbekov, O.	2007
2	Plants of the Dzungar and Trans-Ili Alatau Requiring Protection	-	Kokoreva, I.I.	2007
3	Mushrooms on Trees and Bushes of the Trans-Ili Alatau	-	Nam, G.A., Rakhimova, Ye.V., Kyzmetova, L.A.	2008
4	Flowering Plants of the South-East of Kazakhstan	Association for Conservation of Biodiversity of Kazakhstan	Ivaschenko, A.A	2008
5	Rural Entrepreneur Aid	-	Ilyicheva, T.M, Pashkevich, I.A., Shestel, V.V.	2008
6	Landscape Gardening Aid for Schools	Gulzar NGO	Kulzhabayeva, G.A.	2008
7	Aporto Apple Growing and Storing Technology	Institute of Horticulture and Viniculture of Kazakhstan	Izbasarov, D.S., Madenov, E.D., et al.	2009
8	Fruit, Berry and Grape Varieties Zoned and Promising in the South and South-East of Kazakhstan	Institute of Horticulture and Viniculture of Kazakhstan	Madenov, E.D., Nurtazina, N.Yu.	2009
9	Guide of Apple Pests in Wild Fruit Forests and Gardens of Kazakhstan	-	Kascheyev, V.A.	2010
10	Tulips of Kazakhstan Photo Album	Embassy of the Kingdom of the Netherlands in Kazakhstan, AlmatyKitap Baspasy LLP	Valdshmit, L.I. (compiler and author of the text)	2010
11	Promising Apple Varieties for the South and South-East of Kazakhstan	-	Salnikov, Ye.M.	2010
12	Recommendations for Conservation of the Genetic Diversity of Sievers Apple and Common Apricot Historically Formed in the Course of Evolution in Clone Archives (Living Collections, Field Gene Banks)	-	Rauzin, Ye.G., Mischenko, A.B. et al.	2010
13	Clonal Micro-Reproduction of Sievers Apple (Laboratory Regulations)	-	Zhumabekov, Ye.Zh. et al.	2011
14	Recommendations for Identifying Clonal Rootstocks of Apple and Pear (Quince) Zoned and Promising in Kazakhstan	Institute of Horticulture and Viniculture of Kazakhstan	Izbasarov, D.S., Madenov, E.D., Karychev, K.G., Yankova, A.I., Saveko, I.L., Urazayeva, M.V.	2011
15	Modern Methods and International Experience for Conservation of Wild Growing Plants (using wild fruit plants as an example)	N.I. Vavilov All-Russia Scientific Research Institute of Horticulture (Russia), N.V.Tsitsin All-Russia Scientific Research Institute of Fruit Culture Breeding (Russia), N.V. Tsitsin Central Botanic Garden (Russia), Kazakh Scientific Research Institute of Horticulture and Viniculture (Kazakhstan), V.L. Komarov Botanic Institute (Russia), N.I. Vavilov Institute of General Genetics (Russia), University of Birmingham (UK)	Rauzin, Ye.G., Aleksanyan, S.M., Ponomarenko, V.V., Burmistrov, L.A., Smekalova, T.N., Gorbunov, Ю.L., Dolgikh, S.G., Mischenko, A.B. et al.	2012
16	Woody Plants. Reference Book	-	Roldugin, I.I., Maltsev, S.N.	2011
17	Kazakhstan Forester's Guide	'Conservation and Sustainable Use of Biodiversity in the Kazakhstan Part of the Altai-Sayan Eco-Region' Project, 'Conservation of Forests and Increasing the Country's Forest Cover' Project	Tokhtasynov, S. et al.	2011

Annex 9: Rating Project Performance

[in accordance with UNDP Evaluation Guidance for GEF-Financed Projects, January 2012]

Criteria	Rating	Comments
Monitoring and Evaluation (use 6-point satisfaction scale)		
Overall quality of M&E	**S**	In general, comprehensive and thorough, albeit a tendency to 'audit' and not monitor 'change' due to poorly designed performance indicators.
M&E design at project start up	**MS**	Weaknesses in SMARTness of LFM performance indicators undermine assessment of achievements.
M&E Plan Implementation	**S**	Diligent, proficient execution of M&E Plan, including sound, insightful MTE.
IA & EA Execution (use 6-point satisfaction scale)		
Overall Quality of Project Implementation/Execution	**S**	Generally very good, with strong, supportive relationships between Implementing (UNDP) and Executing (FHC) agencies and PIU. Project would have benefitted from more technical oversight by UNDP, especially given that agrobiodiversity is new field.
Implementing Agency Execution	**MS**	Project supported well by UNDP but weak on maintaining technical overview of *in situ* conservation issues, including follow-up of MTE and Maxted recommendations.
Executing Agency Execution	**S**	Strong support of Project by FHC; proficient execution by PIU.
Outcomes (use 6-point satisfaction scale)		
Overall Quality of Project Outcomes	**S**	
Relevance	**S**	New PA, new management plans, draft Flora Law with provisions for agrobiodiversity, communication materials etc.
Effectiveness	**MS**	Technical understanding and related issues concerning *in situ* conservation insufficiently addressed by end of Project.
Efficiency	**S**	Efficient delivery of many outputs, regular reporting etc.
Catalytic Role (use yes/no scale)		
Production of a public good	**yes**	Significant increase in public awareness of agrobiodiversity values and their need to be conserved.
Demonstration	**yes**	Effective piloting of agrobiodiversity conservation in 3 PAs.
Replication	**no**	Little potential for replication in S. Kazakhstan due to limited distribution of wild apple and apricot forests.
Scaling up	**no**	Project has not scaled up its activities beyond Project sites.
Sustainability (use 4-point likelihood scale)		
Overall likelihood of risks to Sustainability:	**ML**	
Financial resources	**ML**	Significantly improved funding of PAs with globally important mountain agrobiodiversity but budgets remain inadequate.
Socio-economic	**ML**	Improvements in local livelihoods pilots but needs considerable consolidation and then replication.
Institutional framework and governance	**L**	Much improved legal enabling environment, institutional capacity strengthened.
Environmental	**ML**	Genetic reserves for wild fruit forests established as core zones within PAs but natural regeneration inadequate and not understood.
Overall Project Results (use 6-point satisfaction scale)	**S**	

Satisfaction scale: Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory

Sustainability scale: Likely, Moderately Likely, Moderately Unlikely, Unlikely

Rating Project Components and Tasks
[in accordance with Terms of Reference]

Note: MTE rating is shown in last column.

PROJECT COMPONENTS AND TASKS	FINAL EVALUATION RATING						MTE
	HU	U	MU	MS	S	HS	Rating
PROJECT PREPARATION				X			MS
Project concept/structure development				X			MS
Participation of the interested parties					X		S
PROJECT IMPLEMENTATION					X		S
Implementation approach					X		S
Utilisation of logical framework					X		S
Adaptable management					X		MS
Utilisation/creation of information technologies					X		S
Operational links between involved organisations					X		S
Technical capabilities						X	S
Monitoring and evaluation					X		S
Participation of the interested parties						X	S
Information preparation and distribution						X	HS
Participation of local resource users and non-profit organisations					X		S
Partnership creation						X	S
Involvement and support of governmental agencies						X	S
PROJECT OUTCOME					X		S
Attaining of outcome / Fulfilment of tasks					X		S
Fulfilment of task							S
Final outcome 1					X		S
Final outcome 2					X		S
Final outcome 3						X	S
Final outcome 4					X		S
Final outcome 5						X	S
OVERALL PROJECT IMPLEMENTATION AND IMPACT					X		S

Satisfaction scale: Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory

Annex 10: Logical Framework Matrix, with Evaluation of Performance Indicators and Status of Delivery of Project Objective and Outcomes

**Status of delivery colour codes:* Green / completed – indicator shows successful achievement.
Yellow – indicator shows expected completion by end of Project.
Red – indicator show poor achievement, unlikely to be completed by end of Project.

**Satisfaction rating scale:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory

PROJECT GOAL: The conservation of key habitats and ecosystems of globally significant mountain agrobiodiversity in Kazakhstan

Project Objective / Outcome	Performance Indicator	2006 Baseline	2011 End of Project Target	2011 End of Project Status*	Comments	Rating#
Stakeholders conserve agrobiodiversity in two priority sites within Kazakhstan's Tien Shan Mountains by developing and applying new methods and tools for conservation, including partnerships among conservation and land-use agencies, local governments, SPNAs, local communities and the private sector	Expansion of the territory of Specially Protected Areas for conservation of mountain agrobiodiversity: - Dzhungar Alatau - Trans-Ili Alatau	- 0 ha - 236,000 ha	- 356,000 ha - 271,000 ha	- 356,022 ha - 271,403 ha	Creation of Dzhungar Alatau NP (356,022 ha) in April 2011 was a huge achievement, with PIU instrumental in preparing a new feasibility study, as existing one had become obsolete. Also, two existing PAs (Ile Alatau NP and Almaty SNR) extended to a total area of 271,403 ha to include key habitats of wild tree apples and apricots (627,425 ha in total). Total area of wild tree apples and apricots under protection increased from 2,800 to 10,795 ha.	HS
	Sustainability of wild fruit forests is maintained due to elimination/localization of the centres of genetic erosion (orchards, domesticated apple plantations, etc.)	0 ha	Environmental cutting/reconstruction cutting in the centres of genetic erosion: - by year 4: up to 10 ha - by year 6: up to 20 ha	Lepinski: - by year 4: not known - by year 6: 65.5 ha (June 2011)	MTE suggested that this indicator should be split into two targets, one for regeneration of wild fruit trees in natural forest and another for removal of cultivated material. Also recommended was the identification of indicators of the conservation status and quality of wild fruit forests. This was not done, apparently because PIU felt that the Project was focused on putting in place strategies and technologies for regeneration in future rather than piloting regeneration *per se*. Lepinski, a former forestry management unit of 54,000 ha, lies in Dzhungar Alatau NP. Here, sanitary cuttings included removal of	S

Project Objective / Outcome	Performance Indicator	2006 Baseline	2011 End of Project Target	2011 End of Project Status*	Comments	Rating#
					cultivated varieties of apples (no apricots present in this area) from 24 ha; and removal of competitive species (e.g. aspen poplar) and unhealthy trees from 34.3 ha. Snow conditions prevented a visit by the Evaluation Team.	
Outcome 1. Ecosystem-based conservation and management of wild crop relatives at two project sites	Number of hectares of globally important apple and apricot forests under fully managed legal protection (within SPA): - Dzhungar Alatau - Trans-Ili Alatau	- 0 ha - 2,824 ha	- 3,725 ha - 7,070 ha	Details of composition and protection status (management regime) of these forests are given in Table 3.4. - 3,725 ha - 7,070 ha (includes 3,550 ha buffer)	End of Project target changed from 7,225 ha to 7,070 ha for Trans-Ili Alatau, in line with finalized survey and inventory data of wild fruit forests. Note that only 3,520 ha of Trans-Ili Alatau is pure wild stock of fruit trees because the buffer zone (3,550 ha) comprises patches of wild fruit forest with cultivated varieties that have 'encroached' into the wild. An additional 4,991 ha planned for creation as buffer zone in 2012 around core of Dzhungar Alatau NP.	S
	Local Consultative Committees (LCCs) enabling the participation of local communities in management of SPNAs: - Dzhungar Alatau - Trans-Ili Alatau	- 0 LCCs - 0 LCCs	- 1 LCC in year 6 - 1 LCC by year 6	Membership of LCCs detailed under Output 1.3 in Section 3.3.1. - LCC created 10.2011 - LCC created 10.2011	End of Project target changed: to year 6 in Dzhungar Alatau due to delays in creation of NP; and from year 3 to year 6 in Trans-Ili Alatau, due to replacement of key administrative persons in Ile Alatau NP. Project pioneered creation of LCCs in Kazakhstan. Dzhungar Alatau LCC proven to be effective mechanism for influencing resolution of community concerns (see Section 3.3.1, Output 1.3).	S
Outcome 2. Strengthened institutional, technical, and financial framework for ABD conservation	Institutional responsibility and coordination on agrobiodiversity	Responsibility for mountain agrobiodiversity (MABD) is not assigned	MABD departments within SPAs: - Ile Alatau by year 3 - Dzhungar by year 5 (upon establishment of SPA)	MABD departments created: - Ile Alatau NP in 2009, with 4 staff trained in agrobiodiversity - Dzhungar NP in	MABD departments fully functional, with government financing approved for research on agrobiodiversity. Departments routinely monitor key indicator species, including wild apple and apricot forests; records held in Chronicles of Nature *(Letopis Prirodi*). Other, targeted research outsourced to specialists.	S

Project Objective / Outcome	Performance Indicator	2006 Baseline	2011 End of Project Target	2011 End of Project Status*	Comments	Rating#
				2010, with 4 trained staff	See Section 3.3.1, Output 2.1 for details of research undertaken.	
	Improved capacity for managing mountain agrobiodiversity within SPAs (METT scores): - Ile-Alatau National Park - Almaty State Nature Reserve	- 46 - 51	- 67 - 70	Note: new METT applied in October 2011. - 67 (old METT) 109 (new METT) - 70 (old METT) - 78 (new METT)	METT scores showed no sign of increase in 2007 or 2008. Increased, post MTE, to 64 for Ile Alatau and 67 for Almaty in June 2009 and to 66 and 60, respectively, in June 2010. METT methodology changed mid-2011, which accounts for much of increase seen in October 2011. Main increases in METT scores due to: enhanced human capacity of targeted PAs (creation of MABD departments, 2 trained staff members in forestry management, 17 certified staff members in ecotourism), new/ upgraded visitor centres, purchase of equipment/machinery to upgrade technical capacities of PAs, and approval of 5-year management plans that address agrobiodiversity issues. Lack of application of METT to Dzhungar Alatau NP, following its establishment in 2010, considered to be a lost opportunity to replicate/reinforce Project's achievements.	S
	Annual GoK funding levels for protected areas that encompass wild fruit forests (US dollars): - Trans-Ili Alatau (Ile Alatau National Park and Almaty State Nature Reserve) - Dzhungar Alatau	- US$ 1,953,333 - US$ 316,938 (budgets of two existing Forest Reserves)	- 40% increase - 5 times increase (budget of new Dzhungar Alatau NP)	- US$ 4,574,746 (230% increase) - US$ 1,613,092 (510% increase)	Low baseline figures in 2006 reflected underfunding of PAs. Economy of Kazakhstan improved significantly in subsequent years so 2011 end of project target raised during MTE from 20% to 40% increase in annual budget for Trans-Ili Alatau; and from 3 to 5 times annual budget for Dzhungar Alatau. Despite exceeding these revised targets, current budgets do not reflect increasing priority within government's agenda for PAs to conserve biodiversity, as masked by	S

Project Objective / Outcome	Performance Indicator	2006 Baseline	2011 End of Project Target	2011 End of Project Status*	Comments	Rating#
					inflation and national currency devaluation. The 510% increase for the new Dzhungar Alatau NP is very significant but resources considered insufficient to implement the new management plan.	
Outcome 3. An effective legislative framework for the conservation and rational use of agrobiodiversity resources	1. Legislation, bylaws and regulations for conservation and sustainable management of agrobiodiversity: - Law on Protected Areas (covering all PAs in two project sites) - Regulations for control of tourism development and visitor activities in SNAs - Bylaws for land leases within SPNAs - Bylaws to set aside land for establishment of SNAs	- Draft law at Parliament - Existing regulations are either not in place or have become old - Existing bylaws have become old - Existing bylaws have become old	- Law by end of year 1 - Regulations by end of year 2 - Bylaw by end of year 1 - Bylaw by end of year 1	14 bylaws drafted, of which 11 approved. - Law on Specially Protected Areas adopted in 2006. - Rules for …Construction of Tourist and Recreation Facilities approved 2006. - Rules for Renting Out Lands Plots…for Regulated Tourism & Recreation approved 2006. - Rules for Reserving land Plots Designed to Create and Expand PAs… approved 2006.	Project has facilitated a Parliamentary working group and all the drafting of legislation, details of which are given in Table 3.5 (Section 3.3.1, Output 3.3).	HS
	2. RK Draft Law on Flora developed and presented in FHC	- No law in place	- Concept Paper to the law: by end of year 4 - Draft law: by year 6	Final draft Law on Flora submitted to FHC in June 2011.	New Law on Flora introduces the concept of agrobiodiversity and the concept of genetic reserves for its conservation.	HS

Project Objective / Outcome	Performance Indicator	2006 Baseline	2011 End of Project Target	2011 End of Project Status*	Comments	Rating#
Outcome 4. Alternative livelihoods benefiting local communities in project sites, reducing natural resource use pressure on mountain agrobiodiversity	a) Number of households participating in sustainable alternative livelihood activities at two Project sites:				Households supported through Small Grants Programmes of GEF and also World Bank.	S
	Ecotourism - Trans-Ili Alatau - Dzhungar Alatau	 - 4 - 2	 - 10 - 11	No longer applicable	Ecotourism not pursued after MTE (2009) recommendation to focus on development of existing markets as more cost-effect use of Project funds.	n/a
	Medicinal Plant Cultivation - Dzhungar Alatau	 - 0	 - 12	No longer applicable	Medicinal plant cultivation not pursued after MTE (2009) recommendation to focus on development of existing markets as more cost-effect use of Project funds.	n/a
	Improved Beekeeping (existing production methods): - Trans-Ili Alatau - Dzhungar Alatau	 - 0 - 0	 - 3 - 8	 - 5 households - 15 households	2011 end of Project targets exceeded but impossible to know the economic benefits as households reticent about their incomes. Anecdotal evidence that households buying more productive bees species, following Project workshop, survived a very dry summer whereas other beekeepers only covered costs (i.e. no profits). 5 households in Trans-Ili (from Talgar and Essik towns) purchased higher honey-yielding bee species in 2008-2011. Likewise, with respect to15 households in Dzhungar Alatau (from Lepsinsk, Kokzhar and Ekiasha villages).	S
	Improved Beekeeping (new production methods) - Trans-Ili Alatau - Dzhungar Alatau	 - 0 - 0	 - 3 - 7	No longer applicable	Improvement of existing rather than new beekeeping production methods and markets recommended by MTE (2009) as more cost effective use of project funds.	n/a
	Cheese Production - Trans-Ili Alatau - Dzhungar Alatau	 - 0 - 0	 - 2 - 2	No longer applicable	Cheese production not pursued after MTE (2009) recommendation to focus on development of existing markets as more cost-effect use of Project funds.	n/a

Project Objective / Outcome	Performance Indicator	2006 Baseline	2011 End of Project Target	2011 End of Project Status*	Comments	Rating#
	Crafts Production - Trans-Ili Alatau - Dzhungar Alatau	- 3 - 0	- 5 - 2	No longer applicable	Craft production not pursued after MTE (2009) recommendation to focus on development of existing markets as more cost-effect use of Project funds.	n/a
	Flower Production (home-based greenhouses) - Trans-Ili Alatau	- 2	- 4	No longer applicable	Highly competitive flower market not pursued after MTE (2009) recommendation to focus on development of existing markets as more cost-effect use of Project funds.	n/a
	b) *No. of farms adopting sustainable grazing practices (rotation of grazing lands; production of fodder, etc.)* - Trans-Ili Alatau - Dzhungar Alatau	- 0 farms - 0 farms	- No longer applicable - 1 village	Ulagat Rangeland management project supported by GEF SGP (see Section 3.3.1, Output 4.2). - No longer applicable - 1 village (Ulagat)	MTE (2009) recommended more focused approach of demonstrating the development and implementation of a collective grazing plan in one village near Dzhungar Alatau, rather than having 6 farms at Trans-Ili Alatau and 4 farms at Dzhungar Alatau adopt sustainable grazing practices. This has proved very successful, with entire village of Ulagat participating. They are now considering cultural and ecotourism initiatives.	HS
	c) *No. of stakeholders participating in alternative livelihoods activities at two project sites receiving micro-credit funds*	- 0 households	- 7 households by Project mid-term; - 9 or more by Project end	- 0 by project mid-term; - 2 by project end Micro-credit scheme largely unsuccessful (see Section 3.3.1, Output 4.4).	MTE (2009) advised reducing 2011 target from 18 to 9 households, given public adoption of alternative activities and reduction in overuse of wild fruit crops (due to SPA establishment and activities). Total amount of released micro-credits –2.15 million tenge (c. US$ 14,500) for crop production and animal husbandry accessed by 2 households from Talgar and Essik areas (Trans-Ili area) in 2008 and 2009. PIU also pursued Small Grants Programmes of GEF and World Bank, which compensated for limited uptake of micro-credits (Section 3.3.1, Output 4.2).	MU
Outcome 5. Awareness and	% of inhabitants within protected areas and				Original survey methodology not based on sound science so indicator cannot measure	n/a

Project Objective / Outcome	Performance Indicator	2006 Baseline	2011 End of Project Target	2011 End of Project Status*	Comments	Rating#
support at all levels regarding the values and need to conserve Kazakhstan's mountain agrobiodiversity increased	neighbouring buffer zones meeting minimum awareness levels about cultural, economic and ecological values of agrobiodiversity resources: - Dzhungar Alatau - Trans-Ili Alatau	- 40% inhabitants - 30% inhabitants	- 75% inhabitants - 70% inhabitants	- 76% inhabitants - 70% inhabitants	changes in awareness levels. Hence, indicator not rated by Evaluation Team. Surveys somewhat suspect in terms of reliability and validity of data from which measures were derived, and were not applied consistently so baseline and end of Project comparisons are meaningless. Overall awareness considered to be fairly high, based on Project's many publications and awareness raising materials: *Tulips of Kazakhstan* being an outstanding publication and other examples including films aired on national TV channels and Caspian NET, and Almaty Apple Festival.	
	No. of schools with curriculums on specially protected areas and mountain agrobiodiversity	- 0	- 8	- 7 schools	3 'forest clubs' established in schools in vicinity of Dzhungar NP in 2010 and 4 in Ile Alatau NP in 2011. Details provided in Section 3.3.1, Output 5.1.	S
	No. of NGOs focused on mountain agrobiodiversity conservation at the project sites (established with support and guidance of the project)	- 2	- 4	- 4 NGOs	4 NGOs established during 2007-2009 for promotion of ecotourism (2 NGOs), cultivation of fruit varieties and medical herbs (2 NGOs) and beekeeping (1 NGO): - *Ulagat Public Fund* operates Rangeland Management Project in Dzhungar NP; - *Kokzhar Public Association* implements 2 projects, wild apple tree pollination and drinking water upgrade in one village; - *Moldir Bulak* promotes ecotourism; and - *Wonders of Wild Nature* focuses on raising awareness of agrobiodiversity.	S