TERMINAL EVALUATION

of the UNDP/GEF Medium Size Project

Small Hydro Power Development, Kyrgyz Republic

GEF Project ID: 3931, UNDP Project ID (PIMS): 3134

Atlas Award ID: 00059088, Atlas Project ID: 00073756

Small Hydro Power Plant “Kalininskaya”

This Terminal Evaluation Report was prepared for UNDP CO Kyrgyzstan by:

Jiří Zeman, International Consultant

January 2016

Table of content

Acknowledgements **5**
Abbreviations and acronyms **6**
1. Executive summary **7**
1.1 Brief description of project 8
1.2 Evaluation rating 8
1.3 Main conclusions, recommendations and lessons learned 12
2. Introduction **17**
2.1 Purpose of the evaluation 17
2.2 Scope and methodology of the evaluation 17
2.3 Evaluation criteria 18
2.4 Structure of the evaluation report 19
3. Project description and development context **20**
3.1 Project development context 20
3.2 Project start and its duration 22
3.3 Problems that the project sought to address 22
3.4 Immediate and development objectives of the project 22
3.5 Baseline indicators 23
3.6 Expected results 24
4. Findings **25**
4.1 Project design and formulation 25
4.1.1 Project relevance and implementation approach 25
4.1.2 LogFrame analysis 26
4.1.3 Assumptions and risks 28
4.1.4 Planned stakeholder participation 29
4.1.5 Linkages between the project and other interventions within the sector 29
4.1.6 UNDP comparative advantage 30
4.1.7 Replication approach and sustainability 30
4.2 Project Implementation 31
4.2.1 Project implementation and adaptive management 31
4.2.2 Partnerships arrangements 32
4.2.3 Monitoring and evaluation 33
4.2.4 Feedback from M&E activities used for adaptive management 34
4.2.5 Financial planning and management 35
4.2.6 Co-financing and in-kind contributions 37
4.2.1 Management by the UNDP Country Office and implementing partner 39

4.3 Results 42
4.3.1 Overall results and attainment of objectives 42
4.3.2 Relevance 49
4.3.3 Effectiveness of project implementation 49
4.3.4 Efficiency - cost-effectiveness of project implementation 49
4.3.5 Country ownership 50
4.3.6 Mainstreaming and gender equality 50
4.3.7 Prospects of sustainability 51
4.3.8 Project impact 52
5. Conclusions, Recommendations and Lessons Learned 54
5.1 Lessons Learned and Recommendations 56
6. Annexes 61
Annex 1: Main project outcomes 61
Annex 2: Evaluation mission itinerary, January 10-16, 2016 66
Annex 3: List of persons interviewed 69
Annex 4: List of documents reviewed 71
Annex 5: Evaluation Consultant Code of Conduct and Agreement Form 72
Annex 6: Terminal Evaluation Questions/Matrix 73
Annex 7: UNDP/GEF TE Report Audit Trail 75
Annex 8: Management response to the Terminal Evaluation of the SHP Development project, Kyrgyzstan 79
Annex 9: Terminal evaluation TOR 81

Profile of the evaluator

The Terminal Evaluation was conducted in January 2016 by Mr. Jiří Zeman.

Mr. Zeman has 20+ years of professional experience in energy efficiency, renewables, climate change and energy utilities gained primarily in the Central and Eastern Europe and in the Central and South-East Asia. Since 2009, he has been working internationally as a freelance consultant. Between 1990 and 2006, he worked with SEVEn, The Energy Efficiency Center in Prague, the Czech Republic, a leading energy efficiency consulting organization, where he served as a Deputy Director, and later he worked for the Utility Competence Center of Hewlett Packard for Central and Eastern Europe, Middle East and Africa as a Solution Architect. Mr. Zeman evaluated more than dozen UNDP/GEF energy efficiency and renewable energy projects, prepared feasibility studies, developed projects for financing and implementation, and drafted renewable energy legislation and bylaws.

Contact details: Mr. Jiří Zeman
Murmanská 5
100 00 Praha 10
Czech Republic
Email: jirkazeman@seznam.cz
Tel: +420-776818363

Acknowledgements

The author of the terminal evaluation would like to express his gratitude to all project stakeholders whom he met and interviewed during the terminal evaluation mission in the Kyrgyz Republic in January 2016 and who generously provided their views and opinions on project results and impacts.

The author would like to express his thanks specifically to Ms. Elena Rodina, UNDP Energy Project Coordinator, as well as to all other interviewed parties, who provided all requested information and valuable inputs for project evaluation during the evaluation mission. The cooperation with the project team, all project partners and UNDP CO in Kyrgyzstan was effective, and the evaluator received all information requested.

Abbreviations and acronyms

APR	Annual Project Review
AWP	Annual Work Plan
CADII	Central Agency on Development, Investments and Innovations
CDR	Combined Delivery Reports
CO	UNDP Country Office
DSMP	Directorate for Small and Medium-Scale Power Generation Projects in the Kyrgyz Republic
EBRD	European Bank for Reconstruction and Development
FIT	Feed-in tariff
GEF	Global Environment Facility
GHG	Greenhouse Gas
IWRMP	Integrated Water Resources Management in Central Asia, joint UNDP-EU project
MTE	Mid-Term Evaluation
NGO	Non-Government Organization
PDF	Project Development Facility
PIMS	Project Information Management System (UNDP GEF)
PIR	Project Implementation Review
PIU	Project Implementation Unit
RE	Renewable Energy
SHP	Small Hydro Power
ToR	Terms of Reference
UNDP	United Nations Development Programme

1. Executive summary

Table 1: Overview of the project identification

Project title	Small Hydro Power Development
GEF Project ID	3134
UNDP Project ID	7356
Country	Kyrgyz Republic
Region	Central Asia, ECIS
Focal Area	Climate Change - Mitigation
Operational Program	To promote on-grid renewable energy - CC-SP3-RE
GEF agency	UNDP
Executing Entity	Ministry of Energy and Industry (currently Ministry of Economy), Central Agency on Development, Investments and Innovations (CADII)
Implementing Entity	Directorate for Small and Medium-Scale Power Generation Projects in the Kyrgyz Republic (DSMP)
Other Partners Involved	RES Association of Kyrgyzstan, State Agency for Environment Protection and Forestry under the Government of the Kyrgyz Republic

Table 2: Key project milestones

	Originally expected date	**Actual date**
CEO endorsement/approval	November 2009	January 7, 2010
Agency approval date	December 2009	January 29, 2010
Implementation start	January 2010	January 2010
Midterm evaluation completion	December 2012	December 2012
Terminal evaluation completion	October-November 2013	January 2016
Project completion	December, 2013	February, 2016
Project termination	December, 2013	December, 2016

Table 3: Overview of budgeted and actual financial sources spent by end of 2015

	Budgeted in Project Document	**Actual as of end of 2015**
GEF financing	950,000 USD	793,509 USD
UNDP regular financing	100,000 USD	151,799 USD
Other cash:		
- MDG Carbon Facility	280,000 USD	0
- UNDP-EU IWRMP	200,000 USD	540,000 USD
- One UN Programme		498,936 USD
- Private sector	20,000,000 USD	10,667 USD
Total cash co-financing	20,580,000 USD	1,049,603 USD
In-kind:		
- Government	800,000 USD	100,000 USD
- Czech Trust Fund		20,000 USD
Total in-kind co-financing	800,000 USD	120,000 USD

Total co-financing (cash and in-kind) without GEF and UNDP	21,380,000 USD	1,169,603 USD
Total project costs (incl. GEF)	22,330,000 USD	2,114,911 USD

As of end of 2015, in total 793 508.76 USD or 84% have been spent out of the total GEF budget of 950 000 USD. Unused funds are planned to be returned to the GEF.

1.1 Brief description of project

The project was designed to accelerate sustainable small hydropower (SHP) electricity generation in Kyrgyzstan by leveraging 20 million USD in private sector investment over its four-year implementation period, and specifically to:

1. Formulate a streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development
2. Strengthen capacity of governmental authorities to enforce SHP regulation, address institutional issues, and to evaluate economic and financial viability of SHP projects
3. Develop local capacity to design, develop and implement SHP projects and provide maintenance and repair services
4. Develop feasibility studies and technical design, and actual construction of 5 (3) small hydropower plants
5. Prepare outreach program and disseminate project experience and best practices

The project document expected to generate 285 000 MWh of electricity in new SHP plants and to reduce GHG emissions by 250 000 tons of CO_2 over the project implementation period.

1.2 Evaluation rating

Project achievements are described in detail in Chapter 4.3.1 Overall results and attainment of objectives.

Table 4: Overview of project achievements rating

Indicator	Target	Achievements	Rating
Objective: To assist the Government in addressing the barriers to significantly increase grid connected small hydro power capacity			
Barriers are removed, SHP projects constructed, electricity generated and GHG emissions reduced	Investment in at least 2 small hydropower projects resulted in 50 000 MWh additional annual electricity generation and 20 000 t of CO_2 reduction	**0 MWh generated** **0 t CO_2 saved**	**HU**
Outcome 1: Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development			
Framework finalized and available for consultation by potential investors	Legal framework approved by the Government	RE policy and RE Law amendments approved, some proposals pending for approval, legal framework not finalized	**U**

Report confirming that RE policy and framework arrangements are in place (land tenure, water use rights)	Approved by the government Policy advice provided, RE support mechanisms created	RE Law amendments approved in 2011 and 2012, RE policy and water use rights and land tenure amendments submitted for approval	**MS**
Guidelines/procedures for the introduction of competition in the award of sites/concessions for SHPP development.	Guidelines/procedures approved by the government	Guidelines developed and submitted for approval	**MS**
Standard power purchase agreement to facilitate negotiations with IPPs and SHP developers	Standard power purchase agreement approved by the Government	PPA developed – approval pending	**MS**
Procedures for issuance of construction licenses and permits to developers	Procedures approved by the Government, information brochure and website are available	SHP exempt from licensing, only standard construction permitting process applies	**S**
Outcome 2: Capacity available within governmental authorities to evaluate the economic and financial viability of small hydropower projects and within the Ministry's RE Unit to monitor and enforce regulations related to SHP			
Number of people who participated in and successfully completed capacity development program	5 projects sites evaluated 10 people trained	12 potential SHP project sites evaluated, 15 specialists trained	**HS**
Suitable methodology for the economic/financial evaluation of small hydropower plants	Methodologies applied	Methodology developed and applied	**HS**
Financial and other incentives to be provided to project developers	Incentives developed and applied	Incentives partially developed and applied	**MS**
Guarantee and risk mitigation instruments that facilitate IPP investment elaborated within a framework of a RES policy	Instruments developed	No sufficient guerantees	**U**
Pursue options in sectoral carbon crediting	Viable options identified	Analytical study developed, carbon crediting found not cost-effective	**na**
Number of Ministry staff successfully trained in capacity to monitor and enforce regulations related to SHP	Five to six governmental and other staff trained	15 specialists trained in 3 training courses. Impact undermine by changes in government.	**S**
Outcome 3: Capacity available to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services			
Teams trained in various categories of activities Technical assessment of projects Guidelines for maintenance, repair and modular SHP design.	40 people trained in the various categories by the end of the project 3 projects technically assessed Manual for operations & maintenance developed, O&M procedures applied in at least 3 sites	250 people trained 3 feasibility studies and technical designs and 1 EIA developed O&M manual developed	**HS**
Guidelines and technical standards for small hydropower development	Published guidelines and applied in at least 2 pilot projects	Methodology for SHP assessment developed and applied in three SHP sites	**HS**
Capacity developed to design, evaluate and implement projects	Six staff trained during the development of pilot projects (feasibility study, detailed design, construction, supervision)	10+ experts trained in SHP development. No experts trained during the construction phase	**MS**
Local capacity for maintenance and repair	30 people trained	38 experts trained in O&M	**HS**

services - availability of qualified and certified companies for maintenance and repair services			
Outcome 4: Full feasibility and technical design studies for 5 (3) small hydropower sites followed by construction of power stations			
Feasibility studies	Feasibility studies developed Construction of 2 small hydropower plants completed generating 50 000 MWh/y	Three feasibility studies and project design documentation and one EIA developed, one SHP plant under construction, no SHP completed	**U**
Reports on feasibility and technical design studies	Reports available	Three feasibility studies and project design documentation developed and one EIA	**HS**
Construction of small hydropower stations	2 small hydropower stations constructed	0 SHPP constructed 1 SHPP under construction	**HU**
Outcome 5: Outreach programme and dissemination of project experience/best practices/ lessons learned for replication throughout the country			
Outreach programme and project experience	Outreach programme formulated. Project experience compiled, analysed and disseminated	Fully achieved	**S**
Plan to implement outreach/promotional activities targeting domestic and foreign investors	Plan available	Plan developed and available	**S**
Capacity development to monitor and document project experience	Capacity development material prepared 10 people trained	Ca 250 experts trained, dozen of information booklets published	**HS**
Project experience/best practices and lessons learned dissemination	Project experience and best practices compiled, published and available on website	Project experience compiled and published, website created, temporarily not in operation	**MS**

Rating: HS (Highly Satisfactory) – S (Satisfactory) – MS (Moderately Satisfactory) – MU (Moderately Unsatisfactory) – U (Unsatisfactory) – HU (Highly Unsatisfactory)

Table 5: Terminal evaluation rating

	Rating					
	HS	S	MS	MU	U	HU
1. Monitoring and Evaluation						
M&E design at entry	**HS**					
M&E plan implementation			**MS**			
Overall quality of M&E			**MS**			
2. IA & EA Execution						
Quality of UNDP Implementation			**MS**			
Quality of Execution				**MU**		
Overall quality of Implementation/Execution				**MU**		
3. Assessment of Outcomes						
Relevance		**R**				
Effectiveness					**U**	
Efficiency					**U**	
Overall Project Outcome Rating					**U**	

HS – Highly Satisfactory, S – Satisfactory, MS – Moderately Satisfactory, MU – Moderately Unsatisfactory, U – Unsatisfactory, HU – Highly Unsatisfactory
Relevance: R – Relevant, NR – Not Relevant

	L	ML	MU	U
4. Sustainability				
Financial Resources	**L**			
Socio-political		**ML**		
Institutional Framework and Governance		**ML**		
Environmental	**L**			
Overall likelihood of sustainability		**ML**		

Sustainability: L – Likely, ML - Moderately Likely, MU - Moderately Unlikely, U – Unlikely

	S	M	N
Impact	**S**		

Impact: S – Significant, M – Minimal, N - Negligible

Project outcome achievement rating is Unsatisfactory, due to the failure to develop a comprehensive RE legislation that would attract SHP investment, and thus no SHP was constructed, and no electricity generation and GHG savings materialized.

Despite the low rating of project outcome achievements (no SHP constructed and no electricity and GHG savings generated), the project sustainability and impact are rated high, primarily due to the fact that the project established an active policy dialogue platform for effective discussion on RE policy, legal and regulatory revisions, and the government considers now SHP as a viable option for development (and not only in a declaratory way).

The overall project rating is Moderately Unsatisfactory.

1.3 Main conclusions, recommendations and lessons learned

Lessons learned:

I. The 2008 Renewable Energy Law, including 2011 and 2012 amendments, does not provide sufficient incentives and guarantees for investment in SHP.

Effective RE legislations that support RE development in a form of feed-in tariffs provide, among others, also:

- Fixed/guaranteed feed-in tariff over a specified support period (usually 7 to 20 years), the shorter the support period, the higher the feed-in tariff is and vice versa.

The wording of the RE Law stipulates that the tariff for "*hydro power"* generation is set for the "*project payback period*" at the level of 2.1 times higher than the "*maximal end-use tariff*".

It is not clear how the "payback period" will be defined, how long it will be, and if it will allow the investor to recover all costs, including costs of capital (costs of financing).

There is no guarantee what will be the "maximal end-use tariff" in the future, and specifically if it will not decrease eventually.

The actual level of the feed-in tariff is 4.7 KGS/kWh (2.1 x 2.24 KGS/kWh max end-use tariff). This might be sufficient for recovery of some SHPs that were closed down in the past, if the structures would not need major reconstruction. This level of tariff still seems to be too low to cover full investment costs of new SHP plants.

The RE Law defines "traditional energy" to include hydro power with capacity of 30 MW and more.

However, the preferential feed-in tariff is provided to hydro power plants in general – without any specific limitation of the capacity.

Although it is widely understood that the support should apply only to small hydro power with capacity smaller than 30 MW, the RE Law provides support to all hydro projects without any capacity limitations. Thus, even the largest hydro power projects (with capacity of more than 1000 MW) should be eligible, according the to the wording of the existing RE Law, for this feed-in tariff support. This was obviously not the intention of the law makers.

- Feed-in tariffs themselves have no limits in terms of volume, and the volume of new capacity supported is not limited at all.

Although this is not currently an issue in Kyrgyzstan, most of countries that used feed-in tariffs and had no specific limits, experienced significant difficulties and excessive costs after the RE technology costs sharply decreased. This was the case primarily of photovoltaics after 2008. After this costly international experience, feed-in tariff support schemes incorporated limits to the volume of electricity generated in RE/SHP or newly installed capacity eligible for the feed-in tariff support (definition of national target in RE/SHP that receives support).

- Feed-in tariff support is not the only option. It is usually used for smaller installation with capacity in MWs max, because the regulation of the volume supported is not that straightforward and has some delay after actual development.

For power plants with larger installed capacity, tendering for electricity price from new SHPs provides higher flexibility in terms of regulation of volume of new construction (newly installed MW).

II. Projects that include policy, legislation and regulations development and approval cycle, investment project development phase, including permitting, and actual construction period require adequate project implementation period. Four years seems to be too short even in an ideal situation. Six years seem to be more realistic, although still rather challenging – if full package of legislation should be developed, approved, and implemented, including policy targets, primary and secondary legislation, and technical regulations.

III. It is difficult to provide evidence based on facts why the project failed to deliver at least the draft of the RE law amendment that would fix the feed-in tariff support for SHPs over the whole support period at a sufficient level to guarantee return on investment. The project would have benefitted from an in-depth expertise and knowledge of best international practices in RE legislation application combined with a good understanding of the whole energy/power sector regulations and trends internationally. Either the project team (project expert or project manager) should have such expertise, or an experience of an external advisor should have been utilized. The recommendation of the MTE to involve international expert in this field was not implemented. Although the MTE stated this clearly in the text of the report, the actual wording of the MTE recommendation was softened and read "to consider" involvement of an international expert. In my opinion, the project team, the project board, and the UNDP CO, underestimated how critical important such provisions in primary legislation/RE law is. The wording of the MTE recommendation in this aspect should have been more clear and straightforward, and it should have suggested also the key provisions of the necessary RE law amendment.

IV. Proper timing is a critical factor for successful delivery of most development projects. This project was designed for implementation during a period that seemed to be very adequate from the country development context. Due to external factors, the 2010 events and subsequent political instability and delays in project delivery, the project was extended after the MTE by two years in total. However, only in the last year of extended project implementation period in 2015, it seems that the government became fully motivated to implement effective support for SHP development as well as reforms in electricity sector in general. The government faces increased power deficit and it is forced to import fully priced electricity from Kazakhstan. The deal with Russian investor to construct large hydro power plant failed and the SHP remains the only viable option, at least in a short-term. In 2015, the government has approved amendments to several laws developed by the project, including the Water code and Land code, and these amendments were submitted to the parliament for approval. The government also approved in 2015 the Concept of SHP Development for 2015-2017. The energy regulator GARTEK approved regulation on connection to the grid in 2015 and submitted it to the government for approval. The government and GARTEK started to implement in 2015 a new World Bank project to improve economic regulation of the electricity industry and to allow/guarantee investors return on their investment (this WB project is not directly focused to SHPs only, but it will positively effect investment in SHPs as well). From a today's perspective, it is unfortunate that the project is going to be closed. This and may be next year seem to have a potential when the project support, especially in the policy/legislation/regulations, might be the most effective.

V. As this project team demonstrated, it is not necessary to have on staff full-time experts. However, it is essential that the project manager has an access to the best international practice, for example in a form of a part-time international advisor. English knowledge is also essential for an ability to utilize best available international experience (often available in English). However, it is not only the technical expertise that matters. Especially in policy oriented projects, critical are communication skills and personality of the project manager, and ability to facilitate effective discussions with governmental and industry stakeholders.

VI. Through implementation of several subsequent projects focusing on development of RE legislation in Kyrgyzstan, UNDP gained a specific position and played a unique role in facilitating and supporting RE policy dialogue in the country. UNDP was the only international entity active in supporting development of the RE legislation. The standard UNDP/GEF support is project based, with projects that typically last few years only. By its nature, the short-term project-based support cannot directly utilize the capacity developed within the project team after the project termination. The strategy to develop and implement multiple subsequent projects in one particular field (such as RE), seems to be an effective strategy that has a potential to overcome the limitations of short-term project-based support, and it is worth for replication in other countries and in other development focus areas as well. (UNDP applies this approach also for example in energy efficiency projects in several countries in the region).

VII. In 2015, the World Bank launched a new project in Kyrgyzstan "Energy Sector Development Policy Operation - ESDPO", that focuses on tariff reforms, transparency and tariff setting methodology to manage power shortages, and works jointly with the economic regulator GARTEK. This project has partly similar goal with the UNDP/GEF project, although it does not focus on SHP specifically. However, the SHP development will benefit from reforms and improved governance and regulation in traditional "full-size" energy sector as well. In this case, it was coincidence that the World Bank project was developed as a "follow-up" to the UNDP/GEF SHP project. But a useful lesson learned can be drawn from this: barriers to investment in power generation in Kyrgyzstan are not unique to SHP only, but the same barriers are in place for any investment in power sector, including the traditional "large-scale" power industry. SHP is an integral part of the "large" power sector, and most of power sector regulations apply to SHP as well. Effective SHP support can be implemented only when general power sector regulations are sufficiently developed and implemented. This is why the project supported development of several regulations that were not only SHP specific, but covered the power sector in general. For example the regulation 6/1117 on connection to the grid approved by GARTEK in 2015 does not regulate specifically connection of SHP plants, but connection to the grid of any end-use and generating technologies. This may be one of the factors, why the SHP legislative framework is not yet fully in place. The task was just too broad and did not and could not cover only SHP specific regulations. Actually, there is no SHP specific regulation internationally. Even the relevant primary law is Renewable Energy Law. This implies what has been stated above: the expertise needed for successful development of SHP schemes requires not only specific RE legislation skills, but also detailed understanding of the whole power industry regulations.

VIII. In total 23 project indicators and targets are used, including some repetitive ones. This detail seems not to be necessary and the number of indicators and targets could be reduced, and thus the LogFrame matrix simplified.

Large number of project indicators might be even counterproductive. Outcome 1 indicator – "Legal framework finalized and approved" is just one out of 23 indicators, although this is the single most important one. All others depend or make sense basically only if the target of this indicator is achieved. The higher number of indicators may suggest that the relative importance of the most critical indicator is lower. This might have been the case in this project as well, when the project team focused on delivery of results in other project components, although the target of output 1 was not fully achieved. However, at the end of the project the project team realized that it does not make sense to further support development of individual SHP projects in a form of feasibility studies, and decided not to spend the remaining funds, but to return them to the GEF.

IX. This might have been also the case of the Project Board and the UNDP CO that they were overwhelmed by details and large number of indicators, and did not focus on the key project component – delivery of a comprehensive/effective RE legislation. In early 2015, there still was a chance to revise the RE law and significantly upgrade it and to work with and explain to decision makers the necessity of such revision. The last Project Board meeting was held in August 2014, and the Project Board did not suggest focusing on revision and finalization of the legislative framework. In 2015, there was no Project Board meeting. Neither UNDP CO suggested in 2015 to mobilize activities in this legislative project output, despite the fact, that it is widely recognized by the local SHP community that the legislation and the primary RE law does not provide sufficient guarantees and the level of support for investment into new SHP plants.

Recommendations:

I. The project implementing partner, The Ministry of Energy and Industry/Economy, should work with law makers, government and parliament, GARTEK, RE Association and SHP Association and prepare RE Law/regulations amendments that would include as a minimum:

- Capacity limitation of new SHP plants eligible for feed-in tariff support (for example: SHP plants with capacity lower than 30 MW)
- Time-bound policy target – limit for SHP development eligible for feed-in tariff support (all new SHP plants will be guaranteed to receive the FIT support until the combined capacity in MW of newly constructed SHP reaches xxxx MW in year yyyy).
- Specification of the feed-in tariff at a fixed/guaranteed level (not necessarily at a constant level) over a clearly defined support period (for example: 6 KGS/kWh over a period of 15 years, and potentially indexed to the inflation - if the inflation exceeds for example 5% annually)

II. SHP and RE power generation is an integral part of the whole power industry. SHP or RE power legislation should be developed hand-in-hand with regulatory reforms of the whole power industry, if necessary.

III. RE support is a complex topic, integrated with the "large" power industry development, and both experienced recently significant changes worldwide. The project team should have access to the best hands-on international experience in both RE and power industry, in a form of part-time long-term advisor for example.

IV. English speaking skills are essential for international transfer of know-how and local capacity development. Recruiting requirements for project on board experts (manager and project expert) should include English knowledge (at least passive).

V. Legislation development and especially approval process, as well as investment project development cycle, including permitting, and actual construction is a lengthy process that can easily exceed 4 years. The project design should reflect realistically the time frame necessary for project implementation.

VI. UNDP should prioritize, if possible, development and implementation of multiple subsequent projects in one focal area/project subject in order to eliminate the limits of one-off projects, and maximize the locally developed capacity.

VII. Number of project outcomes and LogFrame indicators and targets should be kept limited. Less is more. Up to four project outcomes, and 10 indicators seem to be ideal (15 max).

VIII. Project assurance should not be overwhelmed by project details, but should focus mainly on strategic achievements and sustainable impact, and implement changes (adaptive management) whenever necessary.

2. Introduction

2.1 Purpose of the evaluation

This terminal evaluation was performed on a request of UNDP CO Kyrgyzstan (the GEF Implementing Agency) as a standard mandatory requirement of all UNDP/GEF projects. The terminal evaluation mission took place in Bishkek, Kyrgyzstan, on January 11-15, 2016, the Terminal Evaluation Report was submitted in January 2016.

The objective of this evaluation is to assess achievements of project's objectives, affecting factors, broader project impact and a contribution to the general goal/strategy, and a project partnership strategy. It also provides a basis for learning and accountability for managers and stakeholders and for providing lessons learned which can be applied to the design of future UNDP projects which aim to remove policy. Legislative and investment barriers to small hydro power projects.

According to the GEF and UNDP/GEF Monitoring & Evaluation Policies, the 2009 Handbook on Planning, Monitoring and Evaluating for Development Results, the terminal evaluation has four objectives:

i. Monitor and evaluate results and impacts;
   Analyze and evaluate effectiveness of the results and impacts that the project has been able to achieve against the objectives, targets and indicators stated in the project document;

ii. Provide a basis for decision making on necessary amendments and improvements;
   Assess effectiveness of the work and processes undertaken by the project as well as the performance of all the partners involved in the project implementation;

iii. Promote accountability for resource use;
   Provide feedback and recommendations for subsequent decision making and necessary steps that need to be taken by the national stakeholders in order to ensure sustainability of the project's outcomes/results; and

iv. Document, provide feedback on, and disseminate lessons learned.
   Reflect on effectiveness of the available resource use; and document and provide feedback on lessons learned and best practices generated by the project during its implementation.

2.2 Scope and methodology of the evaluation

The methodology used for the project terminal evaluation is based on the UNDP/GEF Monitoring & Evaluation Policies and includes following key parts:

I. Project documents review prior to the evaluation mission
II. Evaluation mission and on-site visits, interviews with project management, UNDP CO, project partners, representatives of the implementing partner, government, steering committee, other relevant stakeholders and independent experts
III. Drafting of the evaluation report and ad-hoc clarification of collected information/collection of additional information

IV. Circulation of the draft evaluation report for comments
V. Finalizing the report, incorporation of comments

The terminal evaluation methodology follows the standard evaluation methodology of UNDP/GEF projects and it combines review of project documents, interviews with relevant stakeholders, analysis of gathered information, review of conclusions/draft TE report by project stakeholders and UNDP, and review (and incorporation) of comments received .

The challenge of an external evaluation is always to properly assess and understand well the local situation and development context, and especially its development over the project implementation period. The evaluator benefited partly from his own experience working in Kyrgyzstan over the last several years with other projects. But the most important source of information were interviews with local stakeholders.

Selection of interviewed persons is critical for an ability to get a full picture. Stakeholders that were directly involved in project implementation, and particularly the governmental stakeholders, often tend to highlight the project success. Thus, it is important to have an opportunity to interview project stakeholders with different background and different interests, including government, SHP industry, and NGOs, as it was the case in this evaluation.

The evaluation always benefits from interviews with independent insiders who are not affiliated with the project, but can provide good and independent insight into the local situation and project achievements. In this case, such independent insider's opinion was used to double check the evaluator's interpretation of the interviews, analysis of information received and conclusions drawn.

Due to the large number of delivered project results, the evaluator did not have a capacity to review in detail all legal documents and materials produced by the project. Instead, the evaluator focused and reviewed in detail selected key materials, including the full RE law, amendment to the law on licensing, regulation on connection to the grid and several others. The terminal evaluation reviewed financial performance of the project; however it cannot replace a full financial audit.

2.3 Evaluation criteria

The following key evaluation criteria have been used in the terminal evaluation according to the UNDP/GEF Terminal Evaluation Guide:

- *Relevance*
  The extent to which the activity is suited to local and national development priorities and organizational policies, including changes over time, and the extent to which the project is in line with the GEF Operational Programs or the strategic priorities under which the project was funded.
- *Effectiveness*
  The extent to which an objective has been achieved or how likely it is to be achieved.
- *Efficiency*
  Cost-effectiveness of funds spent to reach project objectives and results and the extent to which results have been delivered with the least costly resources possible.
- *Results*

The positive and negative, foreseen and unforeseen changes to and effects produced by a development intervention. In GEF terms, results include direct project outputs, short to medium-term outcomes, and longer term impact including global environmental benefits, replication effects and other local effects.

- *Sustainability*

  The likely ability of an intervention to continue to deliver benefits for an extended period of time after completion (includes environmental, financial and social sustainability).

2.4 Structure of the evaluation report

This terminal evaluation report follows the structure specified in the "Project-Level Evaluation, Guidance for Conducting Terminal Evaluations of UNDP-Supported GEF-Financed Projects", UNDP 2012.

3. Project description and development context

3.1 Project development context

The Kyrgyz Republic is a young democracy undergoing a significant transformation with nascent institutions and a challenging political situation. Over the 25-year period since gaining its state independence in 1991, Kyrgyzstan faced in total 28 changes on the post of a prime ministers. Since the April 2010 revolution, "significant progress has been made to improve democratic governance, rule of law, and accountability"[1]. However, the situation still remains challenging, although the political stability has improved.

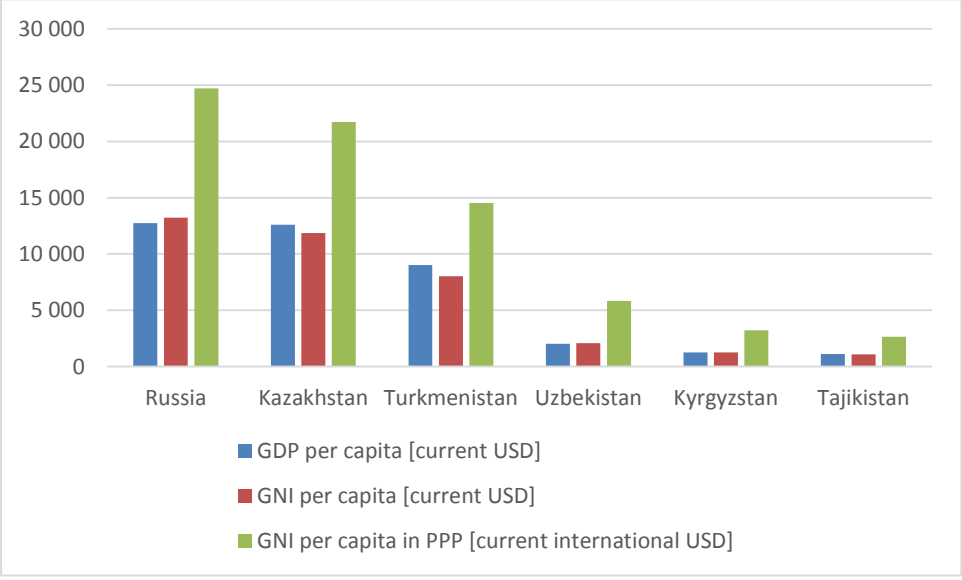
The Kyrgyz Republic is the second poorest country in Europe and the CIS/Central Asia with a GNI per capita of 1 250 USD in 2014. Economic growth has been volatile in the last few years (from -0.5% to 10%), with an average of 4% since 2010. The Kyrgyz economy has shown some resilience in the face of numerous shocks in recent years but it faces serious structural challenges.

Table 6: Per Capita Gross Domestic Product (GDP) and Gross National Income (GNI) in 2014

Country	GDP per capita [current USD]	GNI per capita [current USD]	GNI per capita in PPP [current international USD]
Russia	12 736 (100%)	13 220 (100%)	24 710 (100%)
Kazakhstan	12 602 (99%)	11 850 (90%)	21 710 (88%)
Turkmenistan	9 032 (71%)	8 020 (61%)	14 520 (59%)
Uzbekistan	2 037 (16%)	2 090 (16%)	5 830 (24%)
Kyrgyzstan	1 269 (10%)	1 250 (9%)	3 220 (13%)
Tajikistan	1 114 (9%)	1 080 (8%)	2 660 (11%)

Source: The World Bank, www.worldbank.org

Graph 1: Per Capita Gross Domestic Product (GDP) and Gross National Income (GNI) in 2014



[1] Energy Sector Development Policy Operation Program Document, World Bank, 2014

In 2014, 31% of the population lived in poverty (poverty headcount ratio at national poverty line)[2].

Electricity industry, which is based by 90% on hydro power, has been restructured into separate state-controlled joint-stock companies, and consists of one hydro power generating company "Power Plants" JSC (Toktogul HPP - 1,200 MW; Kurpsai HPP – 800 MW; Tash-Kumyr HPP – 450 MW; Shamaldysai HPP – 240 MW; Uch-Kurgan HPP – 180 MW), one transmission company "National Electrical Grid of Kyrgyzstan "JSC, four regional power distribution companies: "Severelectro" JSC, "Vostokelectro" JSC, "Oshelectro" JSC and "Jalalabadelectro" JSC, and two district heating utilities in Bishkek and in Osh with two fossil fueled CHP plants. However, the new government nominated after 2015 elections announced a new plan to reintegrate the power industry into a single company again and to create new Energoholding.

In addition to the "large energy system", there is a 40 MW At-Bashi HPP, 9 state-owned HPPs with a combined capacity of 38.5 MW, and three small private hydro power plants with a total capacity of 3.6 MW.

Electricity supply is unreliable because of aged and worn out energy assets, and because of significant growth of power demand due to low electricity tariffs (one of the lowest worldwide). The country faces power deficits and black-outs in winter periods, and recently had to start importing electricity in winter from Kazakhstan for 6 KZS/kWh, price 2.7 times higher than the highest end-use tariff.

The major problem of the electricity industry remains extremely low electricity tariffs, that cover only low operational costs of depreciated (hydro power) assets, and do not reflect full production costs. Low-tariffs do not allow to collect sufficient revenues to finance necessary modernization, nor do they attract investment into new power generation.

The governmental decision to increase energy prices in 2010 has been abolished after the violent political protests in April 2010. Energy pricing has been considered to be highly politically sensitive issue and residential electricity tariffs remained unchanged for most of the population until August 2015 when they increased by 10%, instead of 20% as planned for in the approved Mid-Term Tariff Policy.

Residential electricity is priced extremely low at 0.77 KGS/kWh (1 US cent/kWh) for households with monthly consumption lower than to 700 kWh (this threshold is higher than average household consumption), and 2.16 KGS/kWh (2.8 US cent/kWh) for households with higher consumption. Tariff for other consumers is 2.24 KGS/kWh (3 US cent/kWh).

Energy security has been declared as a cornerstone of the local energy policy as stated in the 2008 Development Strategy of the Fuel and Energy Complex till 2025, the Power Sector Development Strategy for 2012-2017, and the detailed Action Plan for Reforming the Energy Sector in 2013-14.

However, no consistent and binding reforms have been fully implemented yet, that would attract investors to power industry.

Plans with Russian investor ROA signed in 2012 to construct new 1 900 MW HPP and four smaller HPPs failed and have been postponed.

Small hydro power, which in Kyrgyzstan mean HPPs up to 30 MW capacity, thus became recently a promising and feasible option for the new Kyrgyz government that has to tackle the power deficit.

[2] www.worldbank.org

3.2 Project start and its duration

The Project Identification Form was submitted to GEF in March 2009, the final revised version in April 15, 2009. PIF was approved in April 22, 2009.

The Request for GEF CEO Endorsement/Approval was submitted in October 31, 2009.

The project was officially launched on January 29, 2010 by signing the Project Document by representatives of the Ministry of Energy and Industry of the Kyrgyz Republic, Central Agency on Development, Investments and Innovations, Directorate for Small and Medium-scale Power Projects, and the UNDP.

The project was developed within one year.

The project was originally scheduled to last four years until the end of December 2013. After the MTE, the project was granted one no-cost extension of two years. The Inception Report and the first Project Board meeting proposed the project extension by one year till the end of 2014. The decision to extend the project was postponed until the MTE, which recommended an extension by one additional year, i.e. by two years in total, till the end of 2015. This two-year project extension was approved and implemented. In late 2015, the project operational closure was postponed on an exceptional basis by two months till the end of February 2016 to secure proper handover of project results to the new Government and an implementation of the Terminal Evaluation.

The originally planned 4-year project implementation period was extended in total to last 6 years (6 years and 2 months).

3.3 Problems that the project sought to address

The project was designed to address the most urgent country's priority:

- energy security

and in the same time the project responded also to the country's commitment regarding the

- climate change.

3.4 Immediate and development objectives of the project

The project development objective is to assist the Government of the Kyrgyz Republic in addressing the barriers to significantly increase grid-connected small hydropower capacity.

Kyrgyzstan has a large hydro power potential, 90% of electricity generated is produced in large hydro power plants and also in 12 small hydro power plants with a combined capacity of 42 MW. Due to low-pricing of electricity, growing power demand, and limited capacity in existing power plants, the country faces also a growing power deficit especially in winter period. However, there still is a large untapped hydro power potential, including potential for rehabilitation of 39 former SHP plants that

are have not been in operation for decades, or developing new hydro power plants, including SHP, in new locations.

Low pricing of electricity does not allow any investor to enter the market and to invest in new power plant construction – regardless of its size, so not specifically to SHPs only.

The project was designed, in-line with country priorities, to address these opportunities and barriers, and to strengthen local capacity to develop both, the SHP legislative framework and also to develop feasible SHP projects.

3.5 Baseline indicators

The project logical framework matrix specified indicators, baseline and targets for the project objective, and for each project outcome and output.

The logical framework targets have been revised and several changes recommended in both, the Inception Report and in the Mid-Term Evaluation.

Definition of project indicators, as they were specified in the Project Document and updated in the Inception Report (proposed) and in the Mid-Term Evaluation Report (approved and implemented), are in some cases rather confusing. The name of the indicator sometimes includes also the target.

For example outcome 1 indicator reads: *"Framework finalized and available for consultation by potential investors"* and the ProDoc target reads: *"To be completed within 6 months from project inception report and approved by Government by the end of year 2012"*, and the revised target after MTE reads: *"Corresponding mechanisms for implementation of the policy created by the end of 2013"*.

The ProDoc objective indicator reads: *"285,140 MWh of electricity generated by project completion and 250,000 tons of CO_2 avoided"*, and the ProDoc target repeats the GHG savings target as it was specified in the name of the indicator and reads *"Investment in at least 5 small hydropower sites by end of project. Reduction of 250,000 tons of CO2 over the 4-year MSP project life cycle"*.

The Inception Report proposed revision in project objective target to read *"Investment in at least 3 small hydropower sites by end of project. Reduction of 20,000 tons of CO2 over plant life cycle and an estimated 1750 MWh/y of electricity generation"*, however, the name of the indicator specifying *"250,000 tons of CO_2 avoided"* and *"285,140 MWh of electricity generated by project completion"* remained unchanged.

The MTE proposed to change and clarify the wording of the indicator to read *"The barriers are removed and SHP investment projects implemented"* and specified the actual target value in the wording of the target itself only. The target as of MTE reads: *"Investment in at least 2 small hydropower projects resulted in some 50 GWh additional annual electricity generation and xxx t of CO_2 reduction"*. The MTE target did not specify the CO_2 emission reduction target. Thus, the project used and approved the 20,000 tons CO_2 target specified by the Inception Report, although from the context it is assumed to be annual savings target, rather than life-cycle savings target.

The ProDOc CO_2 emission reduction target is 250,000 tons over the 4-year implementation period, which theoretically gives 62,500 tons per year on average. In practice, the development of the legislation and of the new SHP plants can in no way take less than two years. Thus, the annual target as of ProDoc would be 125,000 ton of CO_2 as a minimum. The revised target of 20,000 tons

of CO_2 annual savings is thus theoretically 3 times lower, but practically at least 6 times lower than the ProDoc GHG emission reduction target.

Both the Inception Report and the MTE recommended significant changes to the project objective targets. Recommendations of the Inception Report were not approved and implemented, the recommendations of the MTE were formally approved by the Project Board and the UNDP CO, and implemented. Even the final revised project objective target in terms of GHG emission saved is rather significant compared to the ProDoc target, at least 3 (or 6) times lower than the original ProDoc target, however the changes were not formally approved by GEF.

However, the actual decreased value of the project objective target after MTE had no impact on project results rating, since no SHP was constructed and no GHG savings materialized.

3.6 Expected results

The project was designed in five components and defined expected results for each project outcome:

Outcome 1: Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development.
Outcome 2: Capacity available within DSMP to evaluate the economic and financial viability of small hydropower projects and within the Ministry's RE Unit to monitor and enforce regulations related to SHP
Outcome 3: Capacity available to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services.
Outcome 4: Full feasibility and technical design studies for 5 small hydropower sites followed by construction of power stations.
Outcome 5: Outreach programme and dissemination of project experience/best practices/ lessons learned for replication throughout the country.

The project logframe defines specific targets for project objective and each project outcome and output.

4. Findings

4.1 Project design and formulation

The project design built on findings and experience from several projects implemented earlier by the UNDP in Kyrgyzstan, namely the Central Asia Risk Assessment project that assessed and provided recommendations to prepare for and manage the compound threats to water and energy security, the Promotion of Micro Hydro Power Units for Sustainable Development of Mountain Communities, (2005-2007, TRAC), and Promotion of Renewable Energy Sources for Development of Remote Regions of Kyrgyzstan, (2008-2010, TRAC) that drafted the new Renewable Energy Law (adopted in 2008) and implemented 13 micro hydro power plants (200 W to 5 kW) in Issyk-Kutskaya region.

At the PPG stage the project managed to reach agreement with two foreign investors from the South Korea and Malaysia to construct new SHP plants with a total capacity of 250 MW.

At the project design phase, UNDP also launched a new UNDP-EU funded project Integrated Water Resource Management in Central Asia, which was designed to develop a comprehensive feasibility study on hydrological potential and a feasibility study for a small hydro power plant.

The project was designed to build upon existing experience and related activities implemented in Kyrgyzstan in this field, the newly adopted Renewable Energy Law, and an interest of foreign investors to construct small hydro power plants.

The project document is clearly and logically structured.

Although the achievements of the project are measured in number of SHP plants constructed, electricity produced and GHG emissions reduced, the project fundamental lies in development of a comprehensive and effective renewable energy legislation, including primary law, bylaws and institutional set-up that will allow and attract investment to construction of new small hydro power plants.

Successful implementation of the Component 1, adoption and enforcement of effective and complex renewable energy legislation, is a critical core of the whole project. Other outcomes build upon the successfully implemented Outcome 1, and cannot have sustainable impact without full achievement of Outcome 1.

4.1.1 Project relevance and implementation approach

The project has been designed in line with several country's policy documents that prioritize small hydro and renewable energy development, as well as climate change commitments.

By ratifying UN Framework Convention on Climate Change Kyrgyzstan identified the priority of developing small and medium-size energy including non-traditional renewable energy sources.

In 2008 the Small and Medium-size Energy Development Program till 2012 was launched as part of the National Energy Program for 2008-2010, which is aimed at implementing activities on construction, reconstruction and modernization of HPP.

The 2008 National Energy Program and Development Strategy of Fuel-Energy Complex till 2025 planned to implement rehabilitation of 39 conserved small hydropower stations.

The designed project is relevant not only with the policies, which often can have only declaratory value, but it is highly relevant for Kyrgyzstan and addresses one of its key *real* priority – energy security and tackling the power deficit.

Kyrgyzstan has large hydro power potential, several activities supporting small hydro power plants have been already implemented or under implementation.

This UNDP/GEF project was designed to be complementary to and to build on results of implemented projects, not to duplicate them, but rather to support commercial roll-out of the small hydro power construction.

4.1.2 LogFrame analysis

The LogFrame designed in the Project Document is logically structured, and in principle, it defines SMART indicators and targets for the project objective and for each project outcome and output.

The "in principle" reservation refers to a formal comment: the logic of project indicators and targets in the logframe matrix is clear. However, in some cases names of an indicator and the value of the target are confused. The name of the indicator includes target, and the target includes the timeframe, by which it should be achieved.

For example the Project Document defines an indicator of the project objective as "285 140 MWh of electricity generated by project completion and 250 000 t of CO2 avoided", and the end of project target reads: "Investment in at least 5 small hydro power sites by end of project. Reduction of 250 000 t of CO2 over the 4-year MSP project life cycle".

Outcome 1 indicator reads: *"Framework finalized and available for consultation by potential investors"* and the ProDoc target reads: *"To be completed within 6 months from project inception report and approved by Government by the end of year 2012"*, and the revised target after MTE reads: *"Corresponding mechanisms for implementation of the policy created by the end of 2013"*.

This may cause some confusion. Thus, in the rating of achievements as per the LogFrame, the Terminal Evaluation Report uses in some cases slightly reworded names of indicators and targets – however without changing the meaning of indicators.

Both, the Inception Report and the Mid-Term Evaluation, proposed changes to the LogFrame.

The Inception Report responded to the UNDP CO initiative and proposed major changes to the project design in response of the 2010 events: it proposed to focus on community based smaller (micro) hydro power plants, and it also proposed additional new project component – installation of a renewable power (photovoltaics and a micro hydro) for rural medical centers, as part of the "One UN Programme".

The Inception Report proposed revision of LogFrame targets to reflect these changes and proposed to *more than **40 times downsize** the project objective target* from originally planned 285 140 MWh of electricity generated and 250 000 t of CO_2 avoided over the 4-year project implementation period, down to 1 750 MWh of electricity generated annually, and a total lifecycle CO_2 savings of 20 000 t CO2.

The Inception Report included in the project objective target electricity generated and GHG emission saved only from the RE sources to be installed in the rural medical centers, arguing that results of SHP plant construction could not be measured. It is not clear from the Inception Report why.

These revised project objectives targets, proposed by the Inception Report, were not officially approved by the Project Board, and thus they were not incorporated into the actual project logframe matrix.

The renewable power for rural medical centers component was implemented as a separate and additional project component with additional funding from the One UN Programme.

The MTE did not support the recommendations of the Inception Report to focus on the community based micro hydro power.

The MTE revised LogFrame targets, and strengthened the project objective target revised and proposed by the Inception Report, although at a significantly lower value than it was planned in the ProDoc.

The revised project objective target, as of the MTE, read: "*Investment in at least 2 small hydropower projects resulted in some 50 000 MWh additional annual electricity generation and xxx tons of CO_2 reduction*". Despite the lower number of new SHP plants, the target in terms of electricity generation is 28 times higher, compared to the targets proposed by the Inception Report. The MTE did not specify the target in corresponding GHG emission reductions. The project team calculated the corresponding target and adopted the nominal 20 000 t of CO2 reduction target from the Inception Report, however it is assumed as an annual reduction rather than lifecycle reduction target. This final GHG emission reduction target, approved by the Project Board after the MTE recommendations and adopted, is at least ***3 (or 6) times lower*** than the target specified in the Project Document.

The magnitude of the changed project objective target value (minimum 3 or 6 times lower than the target in the ProDoc in GHG emission reductions), proposed by the MTE and approved by the Project Board, is substantial and thus it should have been subject to additional approval by the GEF Secretariat.

No evidence of such formal approval by the GEF has been demonstrated to the evaluator.

The Project Consultation Board approved MTE revisions and its recommendations at a regular meeting on December 18, 2012.

Several LogFrame targets that have been changed during the MTE revision used wording that project deliverables shall be "created" and replaced the original wording of ProDoc that results/legislation shall be "approved by the government". However, in cases where the MTE did not change the value of targets, the original wording "approved by the government" remained unchanged. Thus, it is slightly confusing if project targets after MTE in general should read as "create" deliverables, or to be "approved by the government".

Since the project objective target is to generate electricity in new SHP plants that will be constructed by investors after all relevant legislation is in place, the logic suggests that the legislative/regulatory deliverables should not only be created by the project, but also approved and fully implemented by the Government and/or Parliament.

Project outcome indicators and targets in some cases just repeat individual project output indicators and targets, for example in Outcome 4. There is no need for duplication and it would be sufficient to use only project outcome indicators and targets.

In total 23 project indicators and targets are used, including the repetitive ones. This detail seems not to be necessary in all cases and the number of indicators and targets could be reduced, and thus the LogFrame matrix simplified.

4.1.3 Assumptions and risks

The project document defined three main risks, institutional, financial and technical, and proposed mitigation actions. In addition to this, the project logical framework matrix defines specific assumptions and risks for each project indicator. These assumptions and risks were slightly updated in the MTE report.

Table 7: Project risks as of ProDoc

Risk	Assessment	Mitigation
Institutional: reluctance in some quarters of the Government to introduce the necessary policies and regulations in support of small hydro power development	Low	The Government of Kyrgyzstan is strongly motivated to increase and diversify its generation capacity through SHP plants … Hence, it will ensure that all its associated departments get on board.
Financial: lack of commitment from private and public sector to invest in RE	Low	Already during the project design stage several investors (national and foreign) expressed their interest and commitment to invest in SHP provided appropriate legal and regulatory provisions are created.
Technical: lack of technical information, knowledge and skills to design and implement small hydro power projects	High	Provision of technical assistance for RE-related capacity development in public and private sector will constitute one of the most important project components, which will be delivered through a combination of local and international expertise.

Surprisingly, the Project Document rated the technical risk as the highest, and the institutional risk, specified as a willingness of the governmental departments to adopt renewable energy regulations, as low.

The institutional risk was heavily underestimated. And its mitigation strategy very weakly defined.

The institutional risk should include not only the willingness to adopt the specific RE regulations, but also the political and macroeconomic stability to create sufficiently attractive framework conditions for any investments.

The risks do not mention at all the quality in detail of the renewable energy legislation to be prepared and approved. Experience from several countries, not only in the Central Asia, suggests, that the quality in detail of renewable energy legislation, in addition to the level of support/tariffs, is often a decisive factor which makes the difference between no investment and full commercial roll-out SHP/renewable energy.

On the other hand, I think the technical risk is rather overestimated. Especially foreign investors are expected to have sufficient expertise in SHP plants development and implementation.

This table with project risks assessment seems to illustrate not only the project design, but also the actual project implementation: focus on technical assistance in developing SHP projects, and underestimating the critical role of the quality of renewable energy regulations.

This project is primarily policy and regulations oriented. Without consistent renewable energy policy in place and without good quality renewable energy legislation there can hardly be any investment in new SHP plants. And the technical assistance provided in components 2 -5 would have only limited impact.

4.1.4 Planned stakeholder participation

All relevant ministries and governmental agencies have been involved in discussions during project preparation, as well as potential investors to SHP plants, and local NGOs.

The Project Document specified three key project implementation partners with responsibility in energy and renewable energy policy, namely:

- The Ministry of Energy and Industry, responsible for coordination of all activities in small hydro power development,

and two governmental agencies responsible for small hydro power, namely:

- CADII - Central Agency on Development, Investments and Innovations
- DSMP – Directorate for Small and Medium-Scale Power Generation Projects in the Kyrgyz Republic

The project was designed to work closely also with local and foreign potential investors to SHP, other international projects related to development of renewable energy and specifically small hydro in Kyrgyzstan (projects sponsored by the EBRD, EU, and GIZ).

- The project was planned to be implemented under the NEX (National Execution) modality by the DSMPP – the Directorate for Small and Medium-Scale Power Generation Projects, and under the overall guidance of the CADII - the Central Agency on Development, Investments and Innovations.

4.1.5 Linkages between the project and other interventions within the sector

The project was designed to build on experience from other projects and initiatives implemented in Kyrgyzstan regarding small hydro power, including the ones implemented by the UNDP. These activities include:

- Central Asia Regional Risk Assessment project implemented by UNDP in 2008 on behalf of international donors
- UNDP-EU project on Integrated Water Resource Management (IWRM) in Central Asia
- 2005-2008 UNDP project promoting renewable energy in remote regions that drafted new Renewable Energy Law that was adopted in 2008
- UNDP project funded by MDG Carbon Facility that targeted SHP development for carbon trading under the CDM mechanism
- Interested South Korean and Malaysian companies planning to invest in SHP development in Kyrgyzstan
- EBRD project Sustainable Energy Initiative targeted at creation of conducive environment for investment in renewable energy
- GTZ project Transboundary Management of Water Resources in Central Asia
- EU funded project Development of mini SHP and biogas technologies

4.1.6 **UNDP comparative advantage**

UNDP Kyrgyzstan has a demonstrated administrative and project management capacity to implement renewable energy projects, it is a neutral implementing agency. UNDP has a substantial in-country expertise and experience from implementing similar projects in the field.

In this specific case, UNDP Kyrgyzstan had also unique experience gained from implemented similar projects focusing on development of Renewable Energy Law and supporting development of small hydro projects in the remote regions.

UNDP CO was a single entity active in Kyrgyzstan with demonstrated experience in supporting renewable energy legislation development, as well as experience from development of small hydro power plants.

UNDP also benefited from its international and regional experience gained in implementing sustainable energy projects.

4.1.7 **Replication approach and sustainability**

The project has been designed to create a regulatory and legislative framework including bylaws to support development of small hydro power plants, and to strengthen capacity of local governmental agencies and ministries and their staff and SHP project developers in SHP price regulation, evaluation, and development of SHP projects, and in dissemination of experience gained.

Actual new SHP construction was planned to be financed by (private) investors and to demonstrate effectiveness of developed regulatory framework, and feasibility of SHP development.

The project budget did not include any provisions for subsidies for actual investment and construction of new SHP plants, since there is no need to test pilot small hydro power technologies. Hydro power, including small hydro power technologies have been used in Kyrgyzstan for decades already.

By definition, this project approach is targeted primarily to creation of an enabling environment for SHP investment by third parties, and thus it fully supports large-scale commercial roll-out and replication and sustainability of results.

4.2 Project Implementation

4.2.1 Project implementation and adaptive management

In terms of activities performed, the project has been implemented in accordance with the plan outlined in the Project Document with no major deviation.

However, the project implementation was significantly affected by the 2010 violent protests and subsequent political instability.

This had several impacts on project implementation:

- Implementation modality was changed
- Project implementing partners were changed due to institutional changes
- Project start was delayed and project implementation period was extended
- Frequent changes in structure and staffing of responsible governmental agencies decreased the "institutional memory" and negatively influenced effects of capacity building activities
- Project was extended by 26 months to last 6 years and two months in total

The Project was supposed to be implemented through the (NEX) NIM execution modality by the DSMP under the overall guidance of the CADII. However, due to the 2010 events and political instability, the UNDP approved the streamlined mechanism for implementation of projects in accordance with the Fast Tracking Procedure (FTP) and in January 2012, the UNDP Regional Director, Mr. Kori Udovičkj, granted to the Kyrgyzstan Country Programme 2012-2016 the Direct Execution (DEX) modality. Since January 2012, the Project has been implemented under the DIM modality.

Due to the 2010 events, an effective start of the project was delayed by about a year (the Project Manager was recruited in December 2010), and foreign investors who originally confirmed their interest to invest into SHP development left the country.

The political instability and frequent changes on the top governmental level also translated into frequent changes in the structure of governmental institutions responsible for SHP development, and the staffing of these institutions.

DSMP was created originally under the presidential office. After multiple organizational changes, the Department still exists as a state agency under the Ministry of Energy and Industry, and it has in total only one person on staff - serving as a Director. However, the Directorate receives no funding for its operation from the ministry/government, and the director of the Department serves for free, with no salary. He subsidies his activities serving as a director of the DSMP from his private business – he owns and operates one of the existing small hydro power plant.

Because the DSMP effectively lost its powers, the implementing partner has been changed and the Ministry of Energy and Industry became the project implementing partner.

The Ministry of Energy and Industry was abolished at the end of 2015. The new government installed after the 2015 elections reduced a number of ministries and abolished the Ministry of Energy and Industry. Energy related responsibilities were transferred to the Ministry of Economy, where a new

Energy Efficiency and Renewable Energy Department has been recently created. This EE&RE department has been staffed with two new officials yet.

In 2014 the former project manager was released from his position, due to technical underperformance of the new project component (micro HP plants – One UN Programme), and a new UNDP project coordinator was installed and took over his duties. Also, a new Project Assistant was hired in 2015.

4.2.2 **Partnerships arrangements**

The project served as a facilitator of renewable energy policy dialogue with the government, and worked formally and informally with practically all relevant local governmental and non-governmental stakeholders interested in small hydropower development. In creating partnership arrangement, the project utilized its contacts and reputation gained also when implementing earlier UNDP RE and EE projects (namely the 2005-2008 UNDP project promoting renewable energy in remote regions that drafted the new Renewable Energy Law).

The major challenge was the instability after 2010 events and frequent changes in governmental posts.

The key local project partner and the implementing partner is the Ministry of Energy and Industry of the Kyrgyz Republic. Other local partners include representatives of the government and parliament, other ministries and governmental agencies, energy regulator GARTEK, industry associations, municipalities, and local NGOs.

Local stakeholders involved actively during project implementation include:

1. Ministry of Energy and Industry of the Kyrgyz Republic
2. Directorate of the Small and Medium-Scale Power Generation Projects in the Kyrgyz Republic
3. The State Agency on Environmental Protection and Forestry of the Kyrgyz Republic
4. Office of the Government of the Kyrgyz Republic
5. The State Agency for Fuel and Energy Complex Regulation under the Government of the Kyrgyz Republic – GARTEK
6. Center for Renewable Energy and Energy Efficiency Development – CREEED Service Center (NGO)
7. Renewable Energy Association (NGO – industry association)
8. Association of Small Hydro Power (NGO – industry association)
9. Ecological movement BIOM (NGO)
10. Local self-governance agencies
11. Regional self-governance agencies
12. «Energy» The Kyrgyz Scientific and Technical Center
13. Local lawyers and energy experts, consultants, and engineering companies

SHP owners/operators and potential investors

14. Karakol Energy

15. Chandalash Energy
16. Kalininskaya SHP
17. Ibragimova LLC
18. Inkraft CJSC

The project has cooperated also with other renewable energy projects and activities in the country, namely with the CASEP program, EU funded Sustainable Energy Programme for Central Asia: Renewable Energy Sources and Energy Efficiency managed by GIZ, and with international development banks (EBRD), Canadian Asia Central Investment (CACI), and other donors.

The project has initiated an establishment of a working group on SHP, a policy dialogue platform consisting of all relevant stakeholders, including governmental decision makers, SHP industry representatives, NGOs active in SHP, and other experts. The working group discussed with governmental decision makers drafts of SHP regulations and facilitated their adoption and implementation.

The project worked closely also with local lawyers, energy experts and SHP owners/potential investors when developing RE regulations, and feasibility studies, technical design and EIA of new SHP plants.

Governmental agencies, NGOs and SHP industry representatives provided in-kind contribution to the project by provision of its staff, participation in meetings and trainings. Local experts, lawyers and the CREED Service Center were also contracted for specific parts of the project (legislation development, feasibility studies, and development of a map of hydro power potential sites, and trainings). SHP industry representatives and RE and SHP associations jointly with some governmental agencies (DSMP) are the main local advocacy group.

All local stakeholders highlighted the positive impact of the project specifically on development on SHP legislation, although they also recognized, that the legislation has not yet been fully developed and implemented. The industry representatives specifically articulated that the current legislation still does not provide sufficient level of support and guarantees for investors. All stakeholders unanimously stated that UNDP was the only entity in the country that initiated and supported SHP legislation development. Several stakeholders also indicated that the activities in development and adoption of SHP legislation intensified in the last year.

4.2.3 **Monitoring and evaluation**

The Project Document specified Monitoring and Evaluation Plan that identified responsible parties for M&E activities, allocated indicative budget, and specified time frame (quarterly and annually) for each M&E activity. According to the M&E plan, key parties responsible for performing project monitoring and evaluation included Project Manager, Project Assurance, Project Board, UNDP Country Office, UNDP Regional Coordination Unit, Governmental counterparts, inception report, and external evaluators.

The project is subject to standard UNDP monitoring and evaluation procedures. Crucial tools used for monitoring and evaluation include the LogFrame, Inception Workshop and Report, Mid-Term (and Final) Evaluation, and standard UNDP and GEF project progress reports – Annual Project Reports (APR), Project Implementation Reviews (PIR), Tripartite Project Review (TPR), periodic progress reports, audit.

Project implementation has been regularly reviewed by the Project Board between 2010 and 2014, with no Project Board meeting held in 2015. Annual Work Plans, Annual Progress Reviews, Quarterly Reports, and Project Implementation Reports have been regularly developed and submitted for approval to the Project Board.

The Project Inception workshop was held in November 2011. An Inception Report was finalized in December 2011 by an international consultant - Chief Technical Advisor, Mr. Zoran Morvaj.

The changes proposed by the Inception Report (focus on subsidized community based mini hydro power plants, instead on privately financed SHPP) would lead to substantial revision of the project, it would also require additional GEF approval, and thus they were not approved by the Project Board. The Mid-Term Evaluation supported this decision.

The pilot mini hydro plants were implemented as an additional project component with an additional budget from the One UN Programme. This mini HP project was implemented by a dedicated Project Specialist under an overall coordination of the SHP Project Manager, and the Energy and Environment Dimension Chief.

The Mid-Term Evaluation report was developed in December 2012 by an international consultant Paata Janelidze, and a national consultant Mikhail Toropov.

A Project Board consisted of representatives of the Ministry of Energy and Industry and its Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic, the State Agency for Environmental Protection and Forestry (as the GEF focal point), National Electricity Generation Company, Regional Electricity Distribution Companies and UNDP. Private sector investors interested in participating in joint ventures or as independent power producers and other interested parties were invited to participate in the meetings of the Project Board, as and when required.
The first Consultative Board meeting was held on December 2, 2011, afterwards the meetings were held regularly each half year until August 1, 2014.

In 2015, the Project Board meeting was planned to take place after the terminal evaluation. Due to its postponement till January 2016, the Board meeting has been rescheduled to take place in February 2016. In 2015 no Project Board meeting was held.

Except for 2015, Monitoring and Evaluation has been designed and implemented according to the UNDP/GEF standards.

4.2.4 **Feedback from M&E activities used for adaptive management**

The project used feedback from M&E activities on a regular basis – see Chapter 4.2.1.

As discussed above, the recommendations of the Inception Report to significantly change the project focus, due to fear that private investors would have no interest after 2010, have not been approved.

The Project Board approved recommendations and LogFrame revisions proposed by the Mid-Term Evaluation.

The MTE report stated that *"all the legal and regulatory initiatives to date have been elaborated by the local experts; inputs of international consultants are planned at the next stages. This strategy does not appear to be sound, and is likely to result in output inconsistencies, inefficient use of project*

resources and late delivery of mechanisms for implementation of approved changes based on the international experience".

Unfortunately, this recommendation was not implemented, and no international expert was contracted to support development of the renewable energy legislation (due to frequent changes at the senior management positions at the Ministry of Energy and Industry).

4.2.5 Financial planning and management

The original planned budget as of the project document is shown in Table 8.

Table 8: Project Budget as of Project Document [USD]

Year	2010	2011	2012	2013	Total	
Outcome 1	100 150	40 150	14 550	15 150	**170 000**	16%
Outcome 2	125 150	50 150	14 550	10 150	**200 000**	19%
Outcome 3	75 150	50 150	14 550	10 150	**150 000**	14%
Outcome 4	200 150	50 150	24 550	25 150	**300 000**	29%
Outcome 5	10 000	20 000	20 000	30 000	**80 000**	8%
Management	39 000	37 000	37 000	37 000	**150 000**	14%
Total	**549 600**	**247 600**	**125 200**	**127 600**	**1 050 000**	100%
	52%	24%	12%	12%	100%	

Each year a new annual budget has been prepared for the next year and submitted for approval to the Steering Committee/Project Board in the form of an Annual Work Plan. These annual budgets as shown in AWPs are summarized in the Table 9.

Table 9: Annual Project Budgets as of AWPs [USD]

Year	2010	2011	2012	2013	2014	2015
Outcome 1	154 650	107 150	59 900	19 020	16 185	8 500
Outcome 2	45 800	90 650	101 100	21 500	21 000	47 000
Outcome 3	5 200	82 300	74 700	3 200	54 228	75 000
Outcome 4	62 000	167 150	202 000	138 075	148 942	104 343
Outcome 5	7 500	13 000	34 900	11 600	10 501	25 000
One UN Prg	103 792	54 712	170 554	141 544	-	-
Management	35 448	72 608	53 380	34 265	14 500	-
Total	**414 390**	**587 570**	**696 534**	**369 204**	**265 356**	**259 843**

Note: The total of annual budgets does not make the total project budget because the annual project budgets have been updated annually.

The Table 10 shows annual project expenditures by project outcomes for each year of project implementation period as reported in Combined Delivery Reports.

Table 10: Annual expenditures by project outcomes and years (CDR) [USD] as of end of 2015

	2010	2011	2012	2013	2014	2015	Total	% of total
Outcome 1	3 578	78 639	57 017	16 429	11 076	7 539	**174 279**	22%
Outcome 2	24 453	32 541	61 012	10 134	6 065	46 589	**180 793**	23%
Outcome 3	3 000	36 492	24 585	2 329	32 007	45 264	**143 678**	18%
Outcome 4	31 847	6 750	31 289	37 800	65 837	23 746	**197 270**	25%
Outcome 5	4 402	7 395	13 403	11 304	3 603	2 451	**42 559**	5%
Mngment	3 399	9 042	2 357	25 814	14 319	0	**54 931**	7%
Total	**70 680**	**170 859**	**189 663**	**103 810**	**132 906**	**125 590**	**793 509**	100%
% of GEF budget	7%	18%	20%	11%	14%	13%	84%	
UNDP direct	49 110	61 668	41 021	-	-	-	**151 799**	

As of end of 2015, the total project spending is 793,508.76 USD, ie. 76% of the total combined GEF/UNDP budget of 1 050 000 USD, and 83,5% of the GEF budget of 950 000 USD. A total of 33,000 USD are budgeted and planned to be spent by the end of the project in February 2016, and the remaining 123,491 USD are planned to be returned to GEF.

In 2013 "funds for project management were overspent", thus for 2014 they were planned at mininum. In 2015, decision was made not to disburse project management funding at all and payroll for Project Coordinator was financed through project activities, while project coordination and project management role was given to the SD Dimension Chief funded from the core UNDP resources (TRAC). As for the Project Assistant, 50% of her payroll was charged through project activities other than project management, as Project Assistant contributed to the substantial content of the project activities. Project management costs have been partly charged to the project activities and the management costs were partly borne by the UNDP CO.

In 2015, no project management expenditures have been charged to the project. This is not a standard and transparent practice.

Project management expenditures during the first three years (2010-2012) were just ca 10% of what has been budgeted. In 2015, no project management costs have been budgeted nor expensed at all, because "the PM budget has been spent already". However, the total project PM expenditures are reported at the level of only 7% of the actual total project costs. This raises some uncertainty if the reported financial data truly reflect the real situation.

4.2.6 **Co-financing and in-kind contributions**

Co-financing is shown in Table 11 on the following page.

Table 11: Financial Planning Co-financing

Co-financing (Type/Source)	UNDP own Financing (mill US$)		Government (mill US$)		Other Sources (mill US$)		Total Financing (mill US$)		Total Disbursement (mill US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants	0.100	0.152			0.480	0.540	0.580	0.692	0.580	0.692
Credits					20.000	0.011	20.000	0.011	20.000	0.011
In-kind support (Government)			0.800	0.100		0.020	0.800	0.120	0.800	0.120
Other						0.499		0.499		0.499
Total	**0.100**	**0.152**	**0.800**	**0.100**	**20.480**	**1.070**	**21.380**	**1.321**	**21.380**	**1.321**

UNDP CO contribution in the amount of 151,799.14 USD covered PM and other activities of the project

Ministry of Energy and Industry of KR and DSMP in-kind co-financing of 100,000.00 USD (estimated) covered governmental staff input, conference room facilities and support in organizing working group meetings, regular board meetings and other different SHP workshops and seminars.

Czech Trust Fund contributed to the study tour for specialists from Kyrgyzstan in the amount of 20,000.00 USD (in-kind).

According to the Ibragimov private company, co-investing into the construction of Ibragimov SHP on Beles river, investment costs spent are 10,667 USD out of planned 24,000 USD.

One-UN Program co-financing provided 498,936 USD for promotion of miniHPs in rural First Aid Stations.

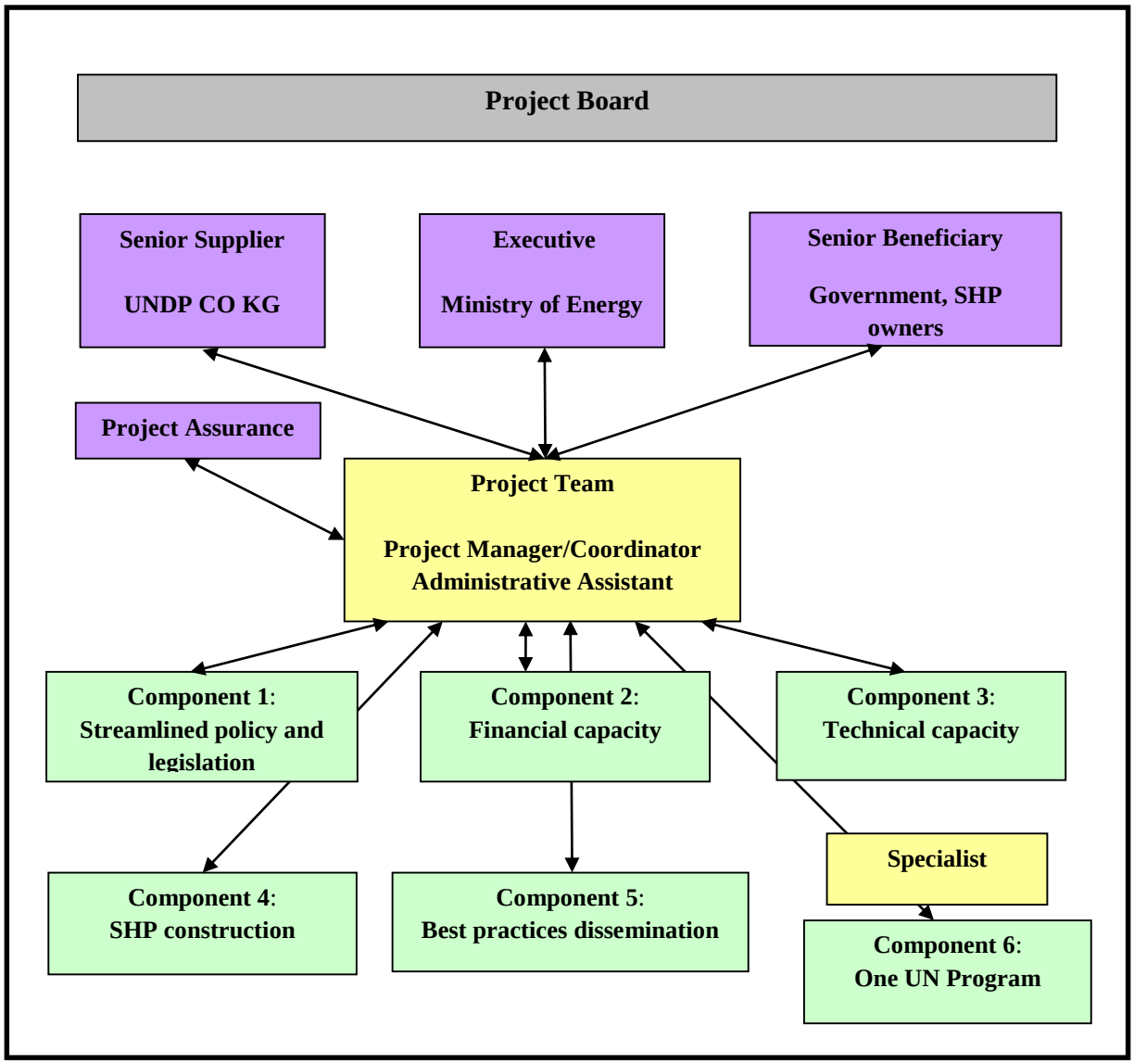
UNDP-EU IWRM Project contributed in the preparation of feasibility studies for Kirov and Orto-Tokoy SHPs in the amount of 540,000 USD.

In total, 1,321,402.14 USD of actual co-financing was provided.

4.2.1 Management by the UNDP Country Office and implementing partner

The structure of the project management illustrates the Chart 1: Project Management Scheme.

Chart 1: Project Management Scheme



The project was managed according to the management structure originally designed in the project document, except for the additional project component 6. The project team is very small and consists only of the Project Coordinator and the Project Assistant. All expertise needed for the project implementation was contracted from short-term local experts, and one international expert on carbon crediting. The project team was supported by a full time technical Specialist only during implementation of the additional component 6 on pilot micro hydro power plants - as part of the One UN Programme.

This organization of the project team seems to be effective and, in general, there is no need to have on staff large team of permanent experts. However, in such case, the Project

Coordinator must have sufficient expertise in both best international experience in RE legislation and in SHP project development.

The project would have benefitted from having access to the detailed hands-on international experience in RE legislation as it was recommended by the MTE.

The changes in the project implementation modality had no negative impact on actual operation of the project team. The project was implemented by the project team who established an effective cooperation and communication with the Ministry of Energy and Industry and with other governmental stakeholders. However, the project had to deal with frequent changes in governmental positions including the political positions of the Ministry of Energy and Industry. At the end of 2015, the Ministry of Energy and Industry was abolished, and its responsibilities were transferred to the Ministry of Economy.

The UNDP country office replaced the former Project Coordinator due to “significant underperformance”. Before his dismissal, the Project Manager was contracted on a short-term (3 months) renewal basis. This short-term contracting of the Project Manager position does not support effective delivery of project results.

It seems that the UNDP Country Office and project implementing partner focused mainly on delivery of individual results in project outputs, such as support to development of individual SHP plants, and amendments to the legislation, but underestimated the need of having a comprehensive legislation in place with sufficient guarantees and level of tariffs (key project component 1), in order to attract private investment in SHP construction. The project cannot directly influence the legislative approval process, which is a sole and sovereign responsibility of elected politicians. However, the project failed to deliver even the drafts of a comprehensive legislation that would provide required guarantees for investors. The project did support delivery of lot of useful amendments to the laws and other regulations, which partly have been already approved.

In this context, it is interesting to see that all local stakeholders (including the UNDP Country Office, Implementing Partner, the GEF Operational Focal Point, and the Project Coordinator) rated the project in the last 2015 Project Implementation Review as Moderately Satisfactory, but the UNDP Regional Technical Advisor rated the project as Unsatisfactory, taking into account that the comprehensive legislation is still not in place in order to attract private investment in SHP construction.

There has been no Project Board meeting in 2015. The last project board meeting was held in August 2014, and the last one is planned for February 2016.

There has been no international expert hired to support project implementation as recommended by the MTE. The only international expert was hired for analyzing opportunities in carbon crediting.

No project management expenditures have been charged to the project in 2015 due to overspending of the management budget.

Neither the Project Board, nor the UNDP CO reacted to the SHP industry comments that the RE legislation does not provide sufficient guarantee and level of support (feed-in tariffs) for investment, and did not require the project to at least draft an adequate amendment to the RE law.

UNDP and implementing partner execution is rated Moderately Unsatisfactory.

4.3 Results

4.3.1 Overall results and attainment of objectives

All main project results are summarized in Annex 1, which is an excerpt from the project publication “Global Challenges, National Problems and Solutions”.

Project objective: To assist the Government in addressing the barriers to significantly increase grid connected small hydro power capacity

Indicator 1: Barriers are removed, SHP projects constructed, electricity generated and GHG emissions reduced

Target 1: Investment in at least 2 small hydropower projects resulted in 50 000 MWh additional annual electricity generation and 20 000 t of CO2 reduction

Achievement: One 0.5 MW SHP “Ibragimov” plant under construction, no electricity generated, no CO2 saved yet. The “Ibragimov” SHP plant under construction is planned to generate electricity for consumption of the facility owned by the SHP owner. So, in this case the SHP plant is not dependent on the legislation to be developed and implemented for SHP plants that will sell electricity to the grid. There exists already an example of similar scheme: an existing SHP plant is connected to the grid, generates electricity that is transmitted for a fee via the network of regional power distribution utility and utilized in another facility owned by the SHP plant owner. Barriers have not yet been removed, construction of SHPs that would sell electricity to the grid is pending, no electricity from new SHP was generated so far, and thus no CO_2 emission reduced.

Rating: The target has not been achieved. Highly Unsatisfactory.

Outcome 1: Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development

Indicator 2: Framework finalized and available for consultation by potential investors

Target 2: Legal framework approved by the Government

Achievement: 2015-2017 Small Hydro Power Development Policy was developed and approved by the Government in 2015. Amendments to the 2008 Renewable Energy Law have been drafted, approved and implemented in 2011 and 2012, amendments specify the feed-in tariff for hydro power as a 2.1 multiple of the largest end-use tariff, guarantees non-discriminatory access to the grid, and specifies connection point to the grid. Amendments to the Water Code and Land Code on land tenure and water use rights for SHP developers have been developed and approved by the Government in 2015 and are pending for approval by the Parliament, as well as amendments to the Law on natural monopolies, Law on state statistics, and the Law on National Academy of Science. Amendment to the Law on licensing approved in 2013 excludes renewable energy sources from licensing. Procedures for introduction of competition, standard power purchase agreement, and procedures for connection to the grid have been developed and submitted to the Ministry of Energy and Industry for approval. In 2015, the procedures and fees for connection to the grid have been approved by the regulators GARTEK and submitted to the Government for approval.

Rating: The project supported development of a number of useful pieces of legislation supporting SHP development that were partly approved and implemented already, and partly are pending for approval and implementation. However, even if all developed legislation would be approved, there still will be major risks and uncertainties. Even the primary Renewable Energy Law needs significant revision in order to facilitate investment in renewable energy and SHP plants. *Unfortunately, the project did not draft such a comprehensive proposal*. Thus, the regulatory framework cannot be assessed as finalized. Nor in a form of drafts only. The target has not been achieved. The rating is Unsatisfactory.

Indicator 3: Report confirming that RE policy and framework arrangements are in place (land tenure, water use rights)
Target 3: Policy advice provided, RE support mechanisms created and approved by the government.
Achievement: The land tenure and water use rights, and partially also the RE support mechanism has been drafted, approved by the Government in 2015, approval by the Parliament is pending.
Rating: The target has been partially achieved. The rating is Moderately Satisfactory.

Indicator 4: Guidelines/procedures for the introduction of competition in the award of sites/concessions for SHPP development.
Target 4: Guidelines/procedures approved by the government
Achievement: Procedures for introduction of competition and procedures for connection to the grid have been developed and submitted to the Ministry of Energy and Industry for approval.
Rating: The target has been partially achieved. The rating is Moderately Satisfactory.

Indicator 5: Standard power purchase agreement to facilitate negotiations with IPPs and SHP developers
Target 5: Standard power purchase agreement approved by the Government
Achievement: Standard power purchase agreement has been developed and submitted to the Ministry of Energy and Industry for approval.
Rating: The target has been partially achieved. The rating is Moderately Satisfactory.

Indicator 6: Procedures for issuance of construction licenses and permits to developers
Target 6: Procedures approved by the Government, information brochure and website are available
Achievement: Renewable energy sources are exempt to energy plant licensing according to the 2012 amendment to the RE law. Only standard construction permitting process applies.
Rating: The target has been achieved. The rating is Satisfactory.

Outcome 2: Capacity available within governmental authorities to evaluate the economic and financial viability of small hydropower projects and within the Ministry's RE Unit to monitor and enforce regulations related to SHP

Indicator 7: Number of people who participated in and successfully completed capacity development program

Target 7: 5 projects sites evaluated, 10 people trained
Achievement: 12 potential SHP project sites evaluated, 15 specialists trained
Rating: The target has been achieved. The rating is Highly Satisfactory.

Indicator 8: Suitable methodology for the economic/financial evaluation of small hydropower plants
Target 8: Methodologies applied
Achievement: Financial methodology was developed, manual on the financial and economic analysis software of SHP plants was developed, Ministry of Energy and Industry equipped with IT and software.
Rating: The target has been achieved. The rating is Highly Satisfactory.

Indicator 9: Financial and other incentives to be provided to project developers
Target 9: Incentives developed and applied
Achievement: Incentives partially developed and applied, namely the calculation of a feed-in tariff.
Rating: The target has been partially achieved. The rating is Moderately Satisfactory.

Indicator 10: Guarantee and risk mitigation instruments that facilitate IPP investment elaborated within a framework of a RES policy
Target 10: Instruments developed
Achievement: No specific/sufficient guarantees have been developed, provisions of the RE law do not provide sufficient guarantee. Only annual calculation of a feed-in tariff is provided, no long-term guarantee.
Rating: The target has been partially achieved. The rating is Unsatisfactory.

Indicator 11: Pursue options in sectoral carbon crediting
Target 11: Viable options identified
Achievement: Study on carbon crediting/CDM trading was developed by an international consultant, and did not recommend carbon crediting as a non cost-effective option, due to high transaction costs and low international price of carbon credits.
Rating: This indicator and target has been evaluated as not applicable. The rating is not applicable.

Indicator 12: Number of Ministry staff successfully trained in capacity to monitor and enforce regulations related to SHP
Target 12: Five to six governmental and other staff trained
Achievement: 15 specialists trained in 3 training courses. Due to changes in government, and newly staffed EE and RE department newly established at the Ministry of Economy, the impact of training was reduced.
Rating: The target has been achieved. The rating is Satisfactory.

Outcome 3: Capacity available to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services

Indicator 13: Teams trained in various categories of activities, Technical assessment of

projects, Guidelines for maintenance, repair and modular SHP design

Target 13: 40 people trained in the various categories by the end of the project, 3 projects technically assessed, Manual for operations & maintenance developed, O&M procedures applied in at least 3 sites

Achievement: 10 participants from Ministries and RE Association trained in SHP development in a Study tour in Montenegro, 6 decision-makers from the government, business and civil society participated in Study tour on SHP in the Czech Republic (financed by the Czech Trust Fund), 47 specialists and decision makers trained, 147 practitioners across the country, 35 members of the working group trained, First Republican Meeting on RE and SHP held in 2015. 3 feasibility studies developed, one EIA performed. O&M manual developed.

Rating: The target has been achieved. The rating is Highly Satisfactory.

Indicator 14: Guidelines and technical standards for small hydropower development

Target 14: Published guidelines and applied in at least 2 pilot projects

Achievement: Methodology for SHP assessment developed and applied in three SHP sites

Rating: The target has been achieved. The rating is Highly Satisfactory.

Indicator 15: Capacity developed to design, evaluate and implement projects

Target 15: Six staff trained during the development of pilot projects (feasibility study, detailed design, construction, supervision)

Achievement: 10+ experts trained in SHP development. No experts trained during the construction phase.

Rating: The target has been partially achieved. The rating is Moderately Satisfactory.

Indicator 16: Local capacity for maintenance and repair services - availability of qualified and certified companies for maintenance and repair services

Target 16: 30 people trained

Achievement: 38 experts trained in O&M

Rating: The target has been achieved. The rating is Highly Satisfactory.

Outcome 4: Full feasibility and technical design studies for 2 small hydropower sites followed by construction of power stations

Indicator 17: Feasibility studies

Target 17: Feasibility studies developed, Construction of 2 small hydropower plants completed generating 50 000 MWh/y

Achievement: Three feasibility studies and project design documentation developed, one EIA developed, one SHP plant under construction, no SHP completed.

Rating: The target has not been achieved. The rating is Unsatisfactory

Indicator 18: Reports on feasibility and technical design studies

Target 18: Reports available

Achievement: Three feasibility studies and project design documentation developed for two new SHPs and one reconstruction (1.6 MW Karakol SHP, 0.54 MW Ibragimov SHP, and reconstruction of 1.4 MW Kalinin SHP), EIA for 6.8 MW Chandalash SHP developed

Rating: The target has been achieved. The rating is Highly Satisfactory.

Indicator 19: Construction of small hydropower stations
Target 19: 2 small hydropower stations constructed
Achievement: One SHP plant (0.54 MW Ibragimov SHP) under construction.
Rating: The target has not been achieved. The rating is Highly Unsatisfactory.

Outcome 5: Outreach program and dissemination of project experience/best practices/ lessons learned for replication throughout the country

Indicator 20: Outreach program and project experience
Target 20: Outreach program formulated. Project experience compiled, analyzed and disseminated
Achievement: The project publish in 2010 booklet on Development of SHP plants in Kyrgyzstan, 500 copies of a SHP manual were distributed to universities and designers, 500 copies of Digest on normative and legal acts in energy, guidebook on Designing RE sources in medical centers, Study on SHP impact on social and gender development, 200 copies of Introduction to SHP, Handbook on hydraulic structures and equipment of SHP, 500 copies of Electrical equipment of SHP, Introduction to SHP, Small and micro hydro power plants, proceeding of the Energy conference in 2014, press releases, articles published at CARTNet, interviews provided to local media. Website with SHP information www.greenenergy.kg was created and handed over to the Center for Renewable Energy and Energy Efficiency for administration.
Rating: The target has been achieved. The rating is Satisfactory.

Indicator 21: Plan to implement outreach/promotional activities targeting domestic and foreign investors
Target 21: Plan available
Achievement: Plan was developed and implemented.
Rating: The target has been achieved. The rating is Satisfactory.

Indicator 22: Capacity development to monitor and document project experience
Target 22: Capacity development material prepared, 10 people trained
Achievement: Ca 250 experts trained in total, a dozen of information booklets published.
Rating: The target has been achieved. The rating is Highly Satisfactory.

Indicator 23: Project experience/best practices and lessons learned dissemination
Target 23: Project experience and best practices compiled, published and available on website
Achievement: Website with project experience and SHP information www.greenenergy.kg was created and handed over to the Center for Renewable Energy and Energy Efficiency for administration. The website recorded 37 500 visits by viewers from 118 countries. As of January 2016, the website is not operational due to hacker's attack. However, the Center plans to restore the site after it will improve a protection against hacker's attacks.

Rating: The target has been achieved, however temporarily it is not accesible. The rating is Moderately Satisfactory.

Table 12: Overview of project achievements rating

Indicator	Target	Achievements	Rating
Objective: To assist the Government in addressing the barriers to significantly increase grid connected small hydro power capacity			
Barriers are removed, SHP projects constructed, electricity generated and GHG emissions reduced	Investment in at least 2 small hydropower projects resulted in 50 000 MWh additional annual electricity generation and 20 000 t of CO_2 reduction	**0 MWh generated** **0 t CO_2 saved**	**HU**
Outcome 1: Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development			
Framework finalized and available for consultation by potential investors	Legal framework approved by the Government	RE policy and RE Law amendments approved, some proposals pending for approval, legal framework not finalized	**U**
Report confirming that RE policy and framework arrangements are in place (land tenure, water use rights)	Approved by the government Policy advice provided, RE support mechanisms created	RE Law amendments approved in 2011 and 2012, RE policy and water use rights and land tenure amendments submitted for approval	**MS**
Guidelines/procedures for the introduction of competition in the award of sites/concessions for SHPP development.	Guidelines/procedures approved by the government	Guidelines developed and submitted for approval	**MS**
Standard power purchase agreement to facilitate negotiations with IPPs and SHP developers	Standard power purchase agreement approved by the Government	PPA developed – approval pending	**MS**
Procedures for issuance of construction licenses and permits to developers	Procedures approved by the Government, information brochure and website are available	SHP exempt from licensing, only standard construction permitting process applies	**S**
Outcome 2: Capacity available within governmental authorities to evaluate the economic and financial viability of small hydropower projects and within the Ministry's RE Unit to monitor and enforce regulations related to SHP			
Number of people who participated in and successfully completed capacity development program	5 projects sites evaluated 10 people trained	12 potential SHP project sites evaluated, 15 specialists trained	**HS**
Suitable methodology for the economic/financial evaluation of small hydropower plants	Methodologies applied	Methodology developed and applied	**HS**
Financial and other incentives to be provided to project developers	Incentives developed and applied	Incentives partially developed and applied	**MS**
Guarantee and risk mitigation instruments that facilitate IPP investment elaborated within a framework of a RES policy	Instruments developed	No sufficient guerantees	**U**
Pursue options in sectoral carbon crediting	Viable options identified	Analytical study developed, carbon crediting found not cost-effective	**na**
Number of Ministry staff successfully trained in capacity to monitor and	Five to six governmental and other staff trained	15 specialists trained in 3 training courses. Impact	**S**

enforce regulations related to SHP		undermine by changes in government.	
Outcome 3: Capacity available to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services			
Teams trained in various categories of activities Technical assessment of projects Guidelines for maintenance, repair and modular SHP design.	40 people trained in the various categories by the end of the project 3 projects technically assessed Manual for operations & maintenance developed, O&M procedures applied in at least 3 sites	250 people trained 3 feasibility studies and technical designs and 1 EIA developed O&M manual developed	**HS**
Guidelines and technical standards for small hydropower development	Published guidelines and applied in at least 2 pilot projects	Methodology for SHP assessment developed and applied in three SHP sites	**HS**
Capacity developed to design, evaluate and implement projects	Six staff trained during the development of pilot projects (feasibility study, detailed design, construction, supervision)	10+ experts trained in SHP development. No experts trained during the construction phase	**MS**
Local capacity for maintenance and repair services - availability of qualified and certified companies for maintenance and repair services	30 people trained	38 experts trained in O&M	**HS**
Outcome 4: Full feasibility and technical design studies for 5 (3) small hydropower sites followed by construction of power stations			
Feasibility studies	Feasibility studies developed Construction of 2 small hydropower plants completed generating 50 000 MWh/y	Three feasibility studies and project design documentation and one EIA developed, one SHP plant under construction, no SHP completed	**U**
Reports on feasibility and technical design studies	Reports available	Three feasibility studies and project design documentation developed and one EIA	**HS**
Construction of small hydropower stations	2 small hydropower stations constructed	0 SHPP constructed 1 SHPP under construction	**HU**
Outcome 5: Outreach programme and dissemination of project experience/best practices/ lessons learned for replication throughout the country			
Outreach programme and project experience	Outreach programme formulated. Project experience compiled, analysed and disseminated	Fully achieved	**S**
Plan to implement outreach/promotional activities targeting domestic and foreign investors	Plan available	Plan developed and available	**S**
Capacity development to monitor and document project experience	Capacity development material prepared 10 people trained	Ca 250 experts trained, dozen of information booklets published	**HS**
Project experience/best practices and lessons learned dissemination	Project experience and best practices compiled, published and available on website	Project experience compiled and published, website created, temporarily not in operation	**MS**

Rating: HS (Highly Satisfactory) – S (Satisfactory) – MS (Moderately Satisfactory) – MU (Moderately Unsatisfactory) – U (Unsatisfactory) – HU (Highly Unsatisfactory)

4.3.2 **Relevance**

The project is highly relevant with GEF and UNDP priorities as well as with specific country priorities and actual needs.

The project is directly consistent with the GEF 5 strategic programming for climate change and its Strategic Climate Change Objective 3 “Promote investment in renewable energy technologies”, and the Strategic Climate Change Objective 6 “Support enabling activities and capacity building”.

The Kyrgyz Republic Country Development Strategy (CDS) identified promotion of renewable energy source as a powerful tool for the achievement of the strategic goal of the country, ensuring security of energy supply, poverty eradication and environmental security.

The design of this Project took place in 2007-2009 when the Government of Kyrgyzstan (GoK) singled out SHP development as a priority in the Presidential decree No 365 of October 2008 “On specific measures of small and medium energy development in Kyrgyz Republic” (KR) and “Small and medium KR energy development program through 2012”.

Kyrgyzstan is a signatory to the UN Framework Convention on Climate Change (UNFCCC) and ratified the Kyoto Protocol on 13 May 2003. Kyrgyzstan established a Designated National Authority (DNA) to participate in the CDM. Therefore, the project design and objectives were aligned with the national and regional environmental and economic priorities that existed at the time. Kyrgyzstan identified the development of small and medium-size energy generation sources including non-traditional renewable energy sources as a priority area. In 2008 the GoK launched the “Small and Medium-size Energy Development Program until 2012”, which was developed as a part of the KR “National Energy Program for 2008-2010”.

Project relevance is rated Relevant.

4.3.3 **Effectiveness of project implementation**

The project has not reached its development objective to “assist the Government in addressing the barriers to significantly increase grid-connected small hydropower capacity” measured by new SHP constructed, electricity generated and CO_2 saved. The project developed several law amendments that support SHP, and supported development of SHP plants, strengthened capacity of governmental decision makers in evaluating SHPs, and strengthened capacity of private developers in development of SHPs.

Due to failure to develop a comprehensive RE law that would attract private investment in SHPP, and thus no GHG savings materialized, the effectiveness of the project is rated as Unsatisfactory.

4.3.4 **Efficiency - cost-effectiveness of project implementation**

Since the project failed to deliver its development objective to “assist the Government in addressing the barriers to significantly increase grid-connected small hydropower capacity”

and no SHP was constructed, and thus no electricity from new SHPs generated and CO_2 saved, the efficiency is rated as Unsatisfactory.

4.3.5 Country ownership

The country ownership has evolved over the project implementation period, and the impression of the terminal evaluator is that is has significantly improved by the end of extended project implementation period.

The Kyrgyz Republic has always declared a full support to the project, and the project was in line with relevant country policies and priorities. However, due to 2010 events and the subsequent political instability, this support and country ownership did not fully and effectively materialize at the beginning of project implementation, although the country did adopt the RE Law amendments in 2011 and 2012.

On a practical level, the effective country ownership did not always fully materialized, due to frequent political changes and inability of the government to fully implement its policy. For example the approved policy planned the minimal end-use electricity tariff to increase by 20% in 2015, however, the tariff was actually increased only by 10%.This still is a progress, because it was for the first time since 2010 when the tariff was increased, although the 10% increase does not even cover the inflation.

The project managed through its activities and effective liaison with the government to effectively strengthen the policy dialogue with the government and thus the country ownership as well. Especially since 2014/2015, and hand-in-hand with improved political stability, growing power deficit in the country, and a failure to progress with the large hydro power projects with Russian investors, SHP became recognized as the most viable option that could decrease the power deficit in a short time.

In 2015, the government has adopted additional pieces of legislation supporting SHP construction, the amendments to Water and Land Code, and related amendments to the Law on natural monopolies, on state statistics and few others.

The country ownership rating has positive progress and is rated as Moderately Unsatisfactory at the beginning of the project and Moderately Satisfactory at the end of the project.

4.3.6 Mainstreaming and gender equality

In addition to environmental sustainability, the project is directly mainstreamed with other UNDP priorities, namely with improved governance, economic development, poverty alleviation, and gender equality and women empowerment.

The project was not designed to address specifically gender issues. However, it commissioned a study on SHP plants impact on social and gender development. The study evaluated a positive impact of SHPs, as a result of increased availability of power supply especially in remote areas.

It was interesting for the evaluator to observe project impact on gender equality and women empowerment also on a practical level. The evaluator participated for example in a meeting of a working group at GARTEK, the energy regulator, where women were clearly dominating the discussion both in a formal way (percentage of representation), but most importantly women were also the leaders of the discussion. Despite the fact, that the meeting discussed a very important and controversial topic (how the level of feed-in tariff should be calculated), and there were quite heated moments in the discussion, the women, representing the government, SHP industry and the project, succeeded to managed the discussion on a substantial level, and, at the end, also to come to a rational conclusion. The evaluator participated also in a meeting with five stakeholders representing the government and SHP industry, where 100% of participants (except for the evaluator) were women. For example heads of both, the RE Association and the SHP Association, are both women.

From this perspective, Kyrgyzstan and the SHP project could be an example of gender equality and women empowerment for other countries, including some of the most developed ones as well.

4.3.7 **Prospects of sustainability**

The project was designed so that its results will be sustained even after project termination. It focused on creation on legislative framework and capacity building that would facilitate private investment in construction of SHP plants.

This approach ensured that any project results and achievements will be sustained in a long term without a need for additional grant financing or external intervention.

Although the project did not succeed to deliver constructed SHP plants and thus no GHG savings materialized, and the legislative framework is not finalized yet, the project did deliver lot of legal documents, and strengthened local capacity to develop legislation and SHP projects – see Annex 1 for the full list of main project achievements. Local stakeholders, including governmental agencies/ministries, SHP industry experts and local lawyers gained during project implementation sufficient capacity to finalize the SHP legislation so that it would attract actual investment in SHP. The project also established a policy dialogue platform/working group, where industry representatives and other stakeholders discuss with law makers the proposed legislation amendments. There is a good prospect that the government will be able to adopt necessary amendments to the SHP legislation to provide sufficient level of support and guarantee for investors – if there will be a political will to do so. Law amendments adopted in 2015 suggest that the government is working towards this goal.

Financial risk – is estimated to be low, because there will be no additional need for grant financing in order to sustain project results. Financial sustainability is likely.

Socio-political risk – is estimated to be low/moderate despite the fact that this is a critical factor that influences adoption and implementation of a comprehensive RE legislation, and traditionally this risk has been underestimated. However, despite the delays in approving some regulations, there seems to be a growing commitment to support SHP development. See SHP regulations adopted by the government in 2015. Social-political sustainability is rated Moderately Likely.

Institutional framework and governance risk – is estimated to be moderate/low, despite the fact that the results of the project, also in long-term, depend on the quality of RE regulation in place and on effective law enforcement. The detail matters. Even a minor change in wording of the legislation may have a critical impact on decision of investors if they will or will not invest in SHP plants. The actual and sufficient level of tariffs and guaranteed period of support are just two example of issues that are not yet properly addressed in existing RE legislation and will need significant improvement. Since there are no draft proposals in place yet, it is not clear how effectively the legislation will be improved in a future. However, the project has created sufficient capacity among local experts, and mainly it created an active policy dialogue platform that provides an effective platform for discussion of RE regulation revisions with the government. Sustainability of institutional framework and governance is rated Moderately Likely.

Environmental risk – is estimated to be low. Despite the fact that the environmental regulations do not still sufficiently protect the wild life in rivers from impact of SHP operation (minimum water flow in the river, bypass for migrating fishes, strainers protecting fishes to flow into the turbine), the overall environmental risk is low, primarily because of the positive GHG impact. Environmental sustainability is rated Likely.

Prospects of sustainability of delivered project results are rated to be Likely. Likelihood of delivery of the project objective after project termination and the overall prospects of sustainability is rated Moderately Likely.

4.3.8 **Project impact**

The project strengthened the capacity of governmental officers to evaluate SHP projects, of local experts to draft RE regulations, and it strengthened the capacity of SHP developers/potential investors to develop feasible SHP projects. It also drafted several pieces of regulations and law amendments that support SHP development. All delivered project results have, by their definition, a long-term project impact.

But the main success of the project was that it created a platform for RE/SHP policy dialogue among the government, including top political leaders (active involvement of vice-premier and ministers) and governmental agencies (ministries, energy regulator), SHP representatives (RE Association, SHP association) and relevant NGOs active in the field of renewable energy. This platform demonstrated already an ability to work independently from the project towards a joint objective, and the government seems to understand already SHP as a viable option to address power deficit.

The experience gained from this active policy dialogue platform supported by the strengthened capacity of all stakeholders suggests that the process of RE legislation development and revisions, which is an ongoing process, can continue in the future even after project termination, and thus that it will have a long-term impact.

Compared to this, the need to revise and improve the RE legislation, although it is a critical factor for successful facilitation of investment into SHPs, is rather a technical issue that can be developed by local experts, both from the government and SHP industry. However, without the

policy dialogue platform in place, the impact of such proposed regulatory revisions would be limited.

According to the TOR, the impact is to be evaluated according to the indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status. Since no GHG savings have been delivered, the impact according to the TOR indicator of actually reduced environmental stress is negligible.

However, the project did have significant and sustainable impact on development of the legislative framework and capacity development, and it established the policy dialogue platform and facilitated SHP regulations development and discussion of SHP stakeholders with the government.

Thus, despite the fact that the project failed to deliver its development objective and a fully complete RE regulations, it “enabled progress toward reduced environmental stress”, and the project impact is rated to be Significant.

5. Conclusions, Recommendations and Lessons Learned

The project, as it was designed, was very ambitious: development of a comprehensive renewable energy legislation, its adoption, capacity development, attracting investors and actual construction of SHP plants within planned four-year implementation period would be very challenging task even in ideal situation. Development of a comprehensive RE legislation takes multiple months, the process of negotiation with stakeholders and decision makers to reflect their interests would take a year or more as a minimum, additional year or more is needed for the actual process of primary and secondary legislation approval process in the government, parliament and ministries/governmental agencies/regulator. Investment project development phase and the construction approval and permitting process can easily take more than a year, and additional year, depending on the season, may take the actual construction. The four your implementation period for such a complex project is too short and the project objective could hardly have been delivered in such a short time.

The situation in Kyrgyzstan is challenging, it is far from being an ideal. The 2010 violent protest followed by a political instability caused critical delay in effective project implementation. The political stability, although it has improved significantly recently, still suffers from frequent changes in the administration. Despite the two year no-cost extension of the project, the total six-year project implementation period is critically short.

Thus, it is not that surprising, that – in a real world – the project did not manage to deliver the expected results in terms of new SHP plants constructed.

The project has delivered lot of very good and useful results in individual components as discussed below, including pieces of RE legislation and capacity development.

The main achievement of the project is that it facilitated the renewable energy (SHP) policy dialogue with the government. The government indeed became more responsive and active in this field especially in last few years. As an indicator of its new approach can serve its 2015 decision to increase the basic extremely low residential electricity tariff – for the first time since the project was launched in 2010. However, the basic tariff for residential consumers with monthly consumption lower than 700 kWh, increased by 10% only nominal, instead of by 20% as approved earlier in a governmental tariff policy.

The government started to consider SHP as a serious option for development, and not only as a declaratory option.

The main factor for the shift in its position is a growing power deficit, the need to pay for imported fully-priced electricity from Kazakhstan, and delays if not abolition of plans of Russian investors to build large new power capacity in the country.

Because of these cumulated difficulties, small hydro power – which in Kyrgyzstan means power plants with up to 30 MW capacity – became the only viable option that could be realistically implemented in a relatively short time and with affordable costs.

This UNDP/GEF project (jointly with the former 2005-2008 UNDP project promoting renewable energy in remote regions that drafted new Renewable Energy Law that was adopted in 2008) is the only initiative that supported development of SHP legislative/regulatory framework in the country. And the timing of this project was ideal to fit with this opportunity window. The project

managed to raise the awareness, build capacity and most importantly draft and facilitate approval of several important pieces of RE/SHP regulations. Thus, the rating of project impact and sustainability is high, despite the fact, that no SHP plants have been constructed. If the full legislative/regulatory package would be in place, or at least drafted, the SHP construction would materialize easily and the project objective could be achieved – although after project termination.

However, the project failed to deliver a comprehensive effective SHP legislation/regulation package. The problem is not that all pieces of SHP legislation proposed by the project have not been fully implemented yet. The failure of the project is that it even did not drafted fully the comprehensive effective SHP legislation/regulation that would provide sufficient guarantees and level of support for investors.

This is very unfortunate, because there was sufficient budget and sufficient timeframe for it.

The primary RE legislation still needs significant revision and improvement in order to attract RE investment.

The main problem is that the RE law does not provide neither sufficiently high tariffs nor sufficient guarantees for investors. The feed-in tariffs are still lower than costs of electricity generated in new SHP plants. And there are no guarantees on the level of feed-in tariffs in the future – during the support period. The feed-in tariffs are indexed to the actual end-use tariffs only. There is no guarantee that end-use tariffs will not decrease in the future, as it was the case in 2010. The feed-in tariffs are usually fixed, and guaranteed by law, for a certain period of 10 to 20 years. There are no such provisions in the current RE Law, nor were they drafted.

This is an example of one small but extremely important wording of the law that still needs improvement. And it is not the only example.

This is the reason why the rating of Indicator 2 – Legal framework is so low, despite the fact that lots of pieces of useful legislation have been drafted and some even approved already.

Without a good legislation in place or at least drafted, we cannot expect any investment and SHP plant construction, nor achievement of the project objective – even after the project termination.

Table 13: Terminal evaluation rating

	Rating					
	HS	S	MS	MU	U	HU
4. Monitoring and Evaluation						
M&E design at entry	**HS**					
M&E plan implementation			**MS**			
Overall quality of M&E			**MS**			
5. IA & EA Execution						
Quality of UNDP Implementation			**MS**			
Quality of Execution				**MU**		
Overall quality of Implementation/Execution				**MU**		
6. Assessment of Outcomes						
Relevance		**R**				

Effectiveness					**U**	
Efficiency					**U**	
Overall Project Outcome Rating					**U**	

HS – Highly Satisfactory, S – Satisfactory, MS – Moderately Satisfactory, MU – Moderately Unsatisfactory, U – Unsatisfactory, HU – Highly Unsatisfactory

Relevance: R – Relevant, NR – Not Relevant

	L	ML	MU	U
5. Sustainability				
Financial Resources	**L**			
Socio-political		**ML**		
Institutional Framework and Governance		**ML**		
Environmental	**L**			
Overall likelihood of sustainability		**ML**		

Sustainability: L – Likely, ML - Moderately Likely, MU - Moderately Unlikely, U – Unlikely

	S	M	N
Impact	**S**		

Impact: S – Significant, M – Minimal, N - Negligible

Project outcome achievement rating is Unsatisfactory, due to the failure to develop a comprehensive RE legislation that would attract SHP investment, and thus no SHP was constructed, and no electricity generation and GHG savings materialized, except for one SHP under construction.

Despite the low rating of project outcome achievements (no electricity and GHG savings generated), the project sustainability and impact are rated high, primarily due to the fact that the project established an active policy dialogue platform for effective discussion on RE policy, legal and regulatory revisions, and the government considers now SHP as a viable option for development (and not only in a declaratory way).

The overall project rating is Moderately Unsatisfactory.

5.1 Lessons Learned and Recommendations

Lessons learned:

I. The 2008 Renewable Energy Law, including 2011 and 2012 amendments, does not provide sufficient incentives and guarantees for investment in SHP.

Effective RE legislations that support RE development in a form of feed-in tariffs provide, among others, also:

- Fixed/guaranteed feed-in tariff over a specified support period (usually 7 to 20 years), the shorter the support period, the higher the feed-in tariff is and vice versa.

The wording of the RE Law stipulates that the tariff for "*hydro power"* generation is set for the "*project payback period*" at the level of 2.1 times higher than the "*maximal end-use tariff*".

It is not clear how the “payback period” will be defined, how long it will be, and if it will allow the investor to recover all costs, including costs of capital (costs of financing).

There is no guarantee what will be the “maximal end-use tariff” in the future, and specifically if it will not decrease eventually.

The actual level of the feed-in tariff is 4.7 KGS/kWh (2.1 x 2.24 KGS/kWh max end-use tariff). This might be sufficient for recovery of some SHPs that were closed down in the past, if the structures would not need major reconstruction. This level of tariff still seems to be too low to cover full investment costs of new SHP plants.

The RE Law defines “traditional energy” to include hydro power with capacity of 30 MW and more.

However, the preferential feed-in tariff is provided to hydro power plants in general – without any specific limitation of the capacity.

Although it is widely understood that the support should apply only to small hydro power with capacity smaller than 30 MW, the RE Law provides support to all hydro projects without any capacity limitations. Thus, even the largest hydro power projects (with capacity of more than 1000 MW) should be eligible, according the to the wording of the existing RE Law, for this feed-in tariff support. This was obviously not the intention of the law makers.

- Feed-in tariffs themselves have no limits in terms of volume, and the volume of new capacity supported is not limited at all.

Although this is not currently an issue in Kyrgyzstan, most of countries that used feed-in tariffs and had no specific limits, experienced significant difficulties and excessive costs after the RE technology costs sharply decreased. This was the case primarily of photovoltaics after 2008. After this costly international experience, feed-in tariff support schemes incorporated limits to the volume of electricity generated in RE/SHP or newly installed capacity eligible for the feed-in tariff support (definition of national target in RE/SHP that receives support).

- Feed-in tariff support is not the only option. It is usually used for smaller installation with capacity in MWs max, because the regulation of the volume supported is not that straightforward and has some delay after actual development.

For power plants with larger installed capacity, tendering for electricity price from new SHPs provides higher flexibility in terms of regulation of volume of new construction (newly installed MW).

II. Projects that include policy, legislation and regulations development and approval cycle, investment project development phase, including permitting, and actual construction period require adequate project implementation period. Four years seems to be too short even in an ideal situation. Six years seem to be more realistic, although still rather challenging – if full package of legislation should be developed, approved, and implemented, including policy targets, primary and secondary legislation, and technical regulations.

III. It is difficult to provide evidence based on facts why the project failed to deliver at least the draft of the RE law amendment that would fix the feed-in tariff support for SHPs over the whole support period at a sufficient level to guarantee return on investment. The project would have benefitted from an in-depth expertise and knowledge of best international practices in RE legislation application combined with a good understanding of the whole energy/power sector regulations and trends internationally. Either the project team (project expert or project manager) should have such expertise, or an experience of an external advisor should have been utilized. The recommendation of the MTE to involve international expert in this field was not implemented. Although the MTE stated this clearly in the text of the report, the actual wording of the MTE recommendation was softened and read "to consider" involvement of an international expert. In my opinion, the project team, the project board, and the UNDP CO, underestimated how critical important such provisions in primary legislation/RE law is. The wording of the MTE recommendation in this aspect should have been more clear and straightforward, and it should have suggested also the key provisions of the necessary RE law amendment.

IV. Proper timing is a critical factor for successful delivery of most development projects. This project was designed for implementation during a period that seemed to be very adequate from the country development context. Due to external factors, the 2010 events and subsequent political instability, the project was extended once by two years in total. However, only in the last year of extended project implementation period in 2015, it seems that the government became fully motivated to implement effective support for SHP development as well as reforms in electricity sector in general. From a today's perspective, it is unfortunate that the project is going to be closed. Next year or two seem to have a potential when the project support, especially in the policy/legislation, might be the most effective.

V. As this project team demonstrated, it is not necessary to have on staff full-time experts. However, it is essential that the project manager has an access to the best international practice, for example in a form of a part-time international advisor. English knowledge is also essential for an ability to utilize best available international experience (often available in English). However, it is not only the technical expertise that matters. Especially in policy oriented projects, critical are communication skills and personality of the project manager, and ability to facilitate effective discussions with governmental and industry stakeholders.

VI. Through implementation of several subsequent projects focusing on development of RE legislation in Kyrgyzstan, UNDP gained a specific position and played a unique role in facilitating and supporting RE policy dialogue in the country. UNDP was the only international entity active in this field. The standard UNDP/GEF support is project based, with projects that typically last few years only. By its nature, the short-term project-based support cannot directly utilize the capacity developed within the project team after the project termination. The strategy to develop and implement multiple subsequent projects in one particular field (such as RE), seems to be an effective strategy that has a potential to overcome the limitations of short-term project-based support, and it is worth for replication in other countries and in other development focus areas as well. (UNDP applies this approach also for example in energy efficiency projects in several countries in the region).

VII. In 2015, the World Bank launched a new project in Kyrgyzstan “Energy Sector Development Policy Operation - ESDPO”, that focuses on tariff reforms, transparency and tariff setting methodology to manage power shortages, and works jointly with the economic regulator GARTEK. This project has partly similar goal with the UNDP/GEF project, although it does not focus on SHP specifically. However, the SHP development will benefit from reforms and improved governance and regulation in traditional “full-size” energy sector as well. In this case, it was coincidence that the World Bank project was developed as a “follow-up” to the UNDP/GEF SHP project. But a useful lesson learned can be drawn from this: barriers to investment in power generation in Kyrgyzstan are not unique to SHP only, but the same barriers are in place for any investment in power sector, including the traditional “large-scale” power industry. SHP is an integral part of the “large” power sector, and most of power sector regulations apply to SHP as well. Effective SHP support can be implemented only when general power sector regulations are sufficiently developed and implemented. This is why the project supported development of several regulations that were not only SHP specific, but covered the power sector in general. For example the regulation 6/1117 on connection to the grid approved by GARTEK in 2015 does not regulate specifically connection of SHP plants, but connection to the grid of any end-use and generating technologies. This may be one of the factors, why the SHP legislative framework is not yet fully in place. The task was just too broad and did not and could not cover only SHP specific regulations. Actually, there is no SHP specific regulation internationally. Even the relevant primary law is Renewable Energy Law. This implies what has been stated above: the expertise needed for successful development of SHP schemes requires not only specific RE legislation skills, but also detailed understanding of the whole power industry regulations.

VIII. In total 23 project indicators and targets are used, including some repetitive ones. This detail seems not to be necessary and the number of indicators and targets could be reduced, and thus the LogFrame matrix simplified.

Large number of project indicators might be even counterproductive. Outcome 1 indicator – “Legal framework finalized and approved” is just one out of 23 indicators, although this is the single most important one. All others depend or make sense basically only if the target of this indicator is achieved. The higher number of indicators may suggest that the relative importance of the most critical indicator is lower. This might have been the case in this project as well, when the project team focused on delivery of results in other project components, although the target of output 1 was not fully achieved. However, at the end of the project the project team realized that it does not make sense to further support development of individual SHP projects in a form of feasibility studies, and decided not to spend the remaining funds, but to return them to the GEF.

IX. This might have been also the case of the Project Board and the UNDP CO, that they were overwhelmed by details and large number of indicators. In early 2015, there still was a chance to revise the RE law and significantly upgrade it and to work with and explain to decision makers the necessity of such revision. The last Project Board meeting was held in August 2014, and the Project Board did not suggest focusing on revision and finalization of the legislative framework. In 2015, there was no Project Board meeting. Neither UNDP CO suggested in 2015 to mobilize activities in this

legislative project output, despite the fact, that it is widely recognized by the local SHP community that the legislation and the primary RE law does not provide sufficient guarantees (and the level of support) for investment into new SHP plants.

Recommendations:

I. The project implementing partner, The Ministry of Energy and Industry/Economy, should work with law makers, RE Association and SHP Association and at least initiate RE Law/regulations amendments that would include as a minimum:

- Capacity limitation of new SHP plants eligible for feed-in tariff support (for example: SHP plants with capacity lower than 30 MW)
- Time-bound policy target – limit for SHP development eligible for feed-in tariff support (all new SHP plants will be guaranteed to receive the FIT support until the combined capacity in MW of newly constructed SHP reaches xxxx MW in year yyyy).
- Specification of the feed-in tariff at a fixed/guaranteed level (not necessarily at a constant level) over a clearly defined support period (for example: 6 KGS/kWh over a period of 15 years, and potentially indexed to the inflation - if it exceeds 5% annually)

II. SHP and RE power generation is an integral part of the whole power industry. SHP or RE power legislation should be developed hand-in-hand with regulatory reforms of the whole power industry, if necessary.

III. RE support is a complex topic, integrated with the “large” power industry development, and both experienced recently significant changes worldwide. The project team should have access to the best hands-on international experience in both RE and power industry, in a form of part-time long-term advisor for example.

IV. English speaking skills are essential for international transfer of know-how and local capacity development. Recruiting requirements for project on board experts (manager and project expert) should include English knowledge (at least passive).

V. Legislation development and especially approval process, as well as investment project development cycle, including permitting, and actual construction is a lengthy process that can easily exceed 4 years. The project design should reflect realistically the time frame necessary for project implementation.

VI. UNDP should prioritize, if possible, development and implementation of multiple subsequent projects in one focal area/project subject in order to eliminate the limits of one-off projects, and maximize the locally developed capacity.

VII. Number of project outcomes and LogFrame indicators and targets should be kept limited. Less is more. Up to four project outcomes, and 10 indicators seem to be ideal (15 max).

Project assurance should not be overwhelmed by project details, but should focus mainly on strategic achievements and sustainable impact, and implement changes (adaptive management) whenever necessary.

6. Annexes

Annex 1: Main project outcomes[3]

Outcome 1. Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development.

- Concept of development of small hydropower in the Kyrgyz Republic for 2015-2017 is developed and approved by the Government of the KR (*Resolution of the GKR #507, July 20th, 2015*);
- Amendments to the Kyrgyz Republic laws streamlining land tenure and water use rights to small hydropower developers are approved by the Government of the KR and passed to the Jogorku Kenesh of KR for further approval process (*Resolution GKR# 501, July 15th 2015*).

For the first time, the Land Code included:

- the notion of the energy land and a detailed description of these lands (Articles 10,82)
- energy land included into the lands for water funds (article 89);
- these lands are permitted to be used for RES construction (article 90, 92).

Water code for the first time mentioned a priority of water use for hydropower needs. In the first place - for drinking water, the second – for irrigation, the third – for hydropower. Priorities following hydropower are industry, fishing, sport and recreation, etc.

This draft law provides the following amendments to the Laws of the Kyrgyz Republic: "On natural monopolies in the Kyrgyz Republic", "On State Statistics" and "On the National Academy of Sciences of the Kyrgyz Republic." These include compulsory purchase of energy generated by renewable energy sources, accounting and maintenance of the state registry on energy and the need for renewable energy research support in the field of renewable energy.

- The Law of KR “On licensing system in the Kyrgyz Republic” in 2013 included an amendment on excluding sources of renewable energy, including small hydropower plants, in obtaining licenses. This helps to create a more attractive investment climate for the development of renewable energy sources and small hydropower plants.
- The procedures for introduction of competition in the award of sites/concessions for development and construction of small hydropower plants, a standard power purchase agreement (PPA), the rules of technological connection of small hydro power plants to the electric grids are developed and transferred to the Ministry of Energy and Industry for further processing.
- The methodology of financial mechanism for calculating small hydropower tariffs adopted by the State Agency for Fuel and Energy Complex Regulation on September 18th, 2015, #06/1117 and sent to the Apparatus of the Government of KR for further processing.

[3] Excerpt from the project publication “Global Challenges, National Problems and Solutions”.

- Changes to the law "On renewable energy sources" developed in 2012 providing incentives to small hydropower plants developers, such as:

  - introduction of the project payback period of preferential tariffs established by multiplying the maximum tariff for end users by 2.1;

  - ensuring a non-discriminatory access by all of the electricity companies to their networks of power generators using RES to supply electricity generated to the grid, subject to its compliance with established standards;

  - connection of plants using RES is made to the network of the electricity company, which has the lowest cost for grid connection;

Outcome 2. Capacity available within DSMP to evaluate the economic and financial viability of small hydropower projects and within the Ministry's RE Unit to monitor and enforce regulations related to SHP.

- In 2011, the following has been done:

  - A training module and the manual for the financial and economic analysis software of small hydropower plants projects are developed.

  - 3 trainings are held and 15 specialists from the Ministry of Energy and Industry, DSMP and other institutions are trained.

  - Ministry of Energy and Industry RES department and DSMP purchased and handed over office equipment and surveying software.

  - Field surveys of selected rivers for 12 projects of small hydropower plants in 6 regions are held; feasibility study for Karakol small hydropower plant (1, 6 mW) in the Issyk-Kul region is conducted.

- In 2012, inter-ministerial Working Group on legislative acts development is created and launched under the Ministry of Energy and Industry with DSMP cooperation. The Working group has fulfilled the following during 2012-2014:

  - Developed a standard PPA from the producers of RES power.

  - Developed a standard financial evaluation methodology for calculating RES power.

  - Developed changes to the law "On renewable energy sources" and the ad-hoc allowance rates for renewable energy, adopted by the Jogorku Kenesh of KR and signed by the President of the Kyrgyz Republic.

  - Drafted 3 technical regulations for the energy sector.

  - Drafted guidance on conducting tenders for investors of small hydropower plants

  - Conducted a study on the impact of gender-based small hydropower plants on local communities.

- On November 25th , 2014, the Government of the KR approved a new tariff policy for a thermal and hydropower energy on the basis of a financial mechanism developed within the framework of the Project and passed to the Ministry of Energy and Industry for further use.

Further development and use of the tariff policy is continued in the framework of the new independent State Agency for Fuel and Energy Complex Regulation.

Outcome 3. Capacity available to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services.

- Programme for updating the 30-year old hydrological data on 65 economically perspective sites for SHP construction depicted on GIS-maps on http://www.energo.gov.kg and www.greenenergy.kg
- Purchase of equipment for the measurement of flow and velocity of water in rivers and passed to DSMP, to Center for Renewable Energy and Energy Efficiency", RES Association
- Training on SHP development for 10 specialists from Ministry of Energy and Industry of KR, Ministry of Economic Development of KR, DSMP and Association for renewable energy sources in Montenegro.
- Study tour organized together with the Czech Trust Fund in 2015 for 6 of decision-makers, businesses and civil society sector on the development of small hydropower in the Czech Republic.
- Trainings and seminars organized by the project in 2010-2014, has been provided capacity building of 47 specialists of state, business and civil sector as well as 175 experts from all regions and districts of Kyrgyzstan.
- Capacity building provided together with the draft EU CASEP in 2015 of a cross-sectoral working group (35 people), established under the Ministry of Energy and Industry for the development of energy saving strategies, energy efficiency and renewable energy, including small hydropower plants.
- Platform for dialogue between the Government and the business community, launched for the first time, included investors on the development of SHP. On February 17, 2015, the Republican meeting was held on the development of small hydropower plants under the chairmanship of Deputy Prime Minister V. Diehl, and with the participation of other ministers, businesses, donors and civil society. The number of participants was more than 100 people. The meeting recommended that the Ministry of Energy and Industry of the Kyrgyz Republic:

- provide amendments and changes to the Law "On renewable energy sources" and other normative legal acts streamlining existing legislation to improve the investment climate for RES developers, including the construction of small hydropower plants (completed);
- submit to the Government of the Kyrgyz Republic in the established procedure a draft "Concept of small hydropower development in the Kyrgyz Republic until 2017", taking into account the proposals of the participants of the meeting (completed);

- develop specific mechanisms of interaction between the public and private sector in the construction of small hydropower plants in the framework of the Law "On public-private partnership in the Kyrgyz Republic" and create a department for renewable energy sources in the Ministry of Energy and Industry of the Kyrgyz Republic (not completed due to the abolition of the Ministry of Energy and Industry)

Outcome 4. Full feasibility and technical design studies for 5 small hydropower sites followed by construction of power stations.

- Following documents were developed and passed onto the investors in accordance with the previously concluded framework agreements or decisions of the Advisory Group of the Project:
  - Feasibility study and working drawings for Karakol SHP (1,6 mW) and passed onto Herrmann Verfaltungs GmbX and Karakol Energy LLC;
  - Technical design studies for the reconstruction of hydraulic structures at Kalinin SHP (1,4 mW) on Kara-Balta River in Chui valley and passed onto Kyrgyz-France Ltd;
  - Feasibility Study and working drawings for SHP (0.54MW) on Beles River in Batken oblast and passed to Ibragimov LLC;
  - EIA for small hydropower plant on the river Chandalash (6.8 mW) was developed and passed onto Herrmann Verfaltungs GmbX and Chandalash Energy LLC.
- Ibragimov LLC started a construction of small hydropower (0.54MW) on Beles River in Batken Oblast.
- Meetings with representatives of the EBRD, KFW Bank, Asian Development Bank, International Finance Corporation, KICB (a local bank), the Islamic Development Bank, the Korea Development Fund KOICA, with representatives of the Turkish business cooperation in order to attract investors for small hydropower plants. However, construction started only by local investors – Ibragimov LLC on the River Beles. The main constraint to investment is the low level of tariff for electricity generated by small hydropower plants. Even after calculating as in the Law "On renewable energy sources", where tariff for small hydropower plants is defined as multiplier of maximum tariff for electricity to consumers by 2.1, it continues to remain low for investors.

Outcome 5. Outreach programme and dissemination of project experience/best practices/lessons learned for replication throughout the country.

- In 2010, information booklet on the state and official languages published with the largest circulation on "Development of small hydropower plants in Kyrgyzstan" and during its implementation, the project published annually 2-3 of the press releases on the actual results of the project
- In the same year, 2010, Manual published with 500 copies: Lipkin V.I., Bogombaev E.S. Micro and small hydropower plants in the Kyrgyz Republic and distributed to the scientific and technical libraries, universities, design institutes.
- In 2010, published 500 copies in two volumes of "Digest of normative legal acts in the field of energy" and distributed to the relevant organizations.
- In the same year, 2010, guidebooks on designing, equipping and functioning “Renewable energy sources in the system of energy supply of healthcare objects”.
- From 2010 to 2013, a number of articles were published on development of small hydropower energy in informational bulletins of CARTNet.

- In 2011, brochure was published on “The study of the potential impact of small and micro-hydropower plant on the social and gender development of the local communities of the Kyrgyz Republic in the places of their planned construction”. This study has allowed flexible and deep involvement of the human dimension in the matter of the impact of the use of RES on the men and women in their future work.
- In 2012, in partnership with other UNDP projects, the EBRD, the Public Fund CREED 200 copies of the brochure on five different directions was published and distributed. As "Introduction to micro and small hydropower plants", "Introduction to Energy Efficiency", "Introduction to biogas technology", "Introduction to the heat pumps", "Introduction to solar installations"
- In 2013, brochures in state language "Introduction to micro and small hydropower plants", "Introduction to solar installations"
- In 2014, handbook “Hydraulic structures and equipment of the small hydropower plants diversion" and in 2015, “The choice of electrical equipment of small hydropower plants: in 500 copies and distributed to the scientific and technical libraries, relevant universities, colleges and design organizations.
- In 2013, together with the Center for Renewable Energy and Energy Efficiency”, in state and official languages, brochure "Introduction to the small and micro hydropower plants", 40 pp., manual on “Small and micro hydropower plant", 90 pp., published and distributed to the construction universities and colleges, relevant government agencies and NGOs.
- In 2014, published works of the international scientific-practical conference "Energy: the state, problems and perspectives", prepared jointly with «Energy» The Kyrgyz Scientific and Technical Center under the Ministry of Energy and Industry
- Series of articles and interviews on the Internet at the web site: www.greenenergy.kg, www.undp.kg, published interviews with journalists of local media.
- Website on the latest developments in renewable energy (www.greenenergy.kg) has is launched and handed over to the administration of PF “Center for Renewable Energy and Energy Efficiency"

Annex 2: Evaluation mission itinerary, January 10-16, 2016

Time	Activity		
Sunday, January 10			
03:25-05:30	Arrival of the International Consultant		
Monday, January 11			
09:00-10:30	**Meeting to discuss project issues and mission schedule ahead** Mr. Kumar Kylychev, EE Dimension Chief, Ms. Rodina Elena, Energy portfolio Projects Coordinator, Ms. Eliza Damirbek kyzy, Project Assistant		
11.00-11.30	**Interview meeting with UNDP CO Programme Team** Ms. Jyldyz Choroeva, Monitoring and Evaluation Officer Mr. Daniar Ibragimov, Programme and Policy Analyst, Ms. Aidai Ashiralieva, UNDP Associate		
11.30-12.30	**Interview meeting with UNDP CO Senior Management:** Mr. Aliona Niculita, Deputy Resident Representative, Ms. Jyldyz Choroeva, Monitoring and Evaluation Officer Mr. Daniar Ibragimov, Programme and Policy Analyst, Ms. Aidai Ashiralieva, UNDP Associate		
12:30-13:30	**Lunch time**		
14.00-15.00	**Meeting with the Project Coordinator**		
15.00-16.00	**Security briefing with UNDSS at CO**		
16.30-17.30	**Interview meeting with the Ministry of Energy and Industry of the KR and Ministry of Economy** Mr. Kaliev R., Deputy Minister of the Ministry of Economy Mr. Baetov B.I., State-secretary of the Ministry of Energy and Industry of the KR Ms. Baisalova Elza, Chief specialist, Ministry of Economic of the KR		

	Mr. Stamaliev A., Lawyer of the Ministry of Economic of the KR		
17.30-18.30	**Interview meeting with «Energy» The Kyrgyz Scientific and Technical Center experts** Ms. Kasymova Gulsara, Head of the Energy Efficiency and Environment Laboratory		
Tuesday, January 12			
9.00-10.30	**Interview meeting with the GEF OFP and staff of the State Agency on Environment Protection and Forestry under the Government of the KR** Mr. Atadjanov S., GEF OFP, Director Mr. Tolongutov B., Director of Environmental Safety Center Mr. Salykmambetova Baglan, Head of International Department		
11.00-13.00	Project beneficiaries: Usupbaev Azamat, Karakol Energy LLC, Chandalash Energy Project experts: Bogombaev Edil (former PM), Beishenova Maia		
13:30-14:30	Davletalieva N., Government Apparatus of KR		
15:00-18:00	Inkraft LLC: Kuon I., Klepachev I., Ismailov M.		
Wednesday, January 13			
08.30-10.00	**Interview meeting with the OJSC National Electric Network of Kyrgyzstan.** Mr. Borodin, First deputy Director General JSC “NES of Kyrgyzstan” Mr. Shapar V., Chief specialist JSC “NES of Kyrgyzstan”		
10.00-18.00	Trip to Kara-Balta (Kalininskaya SHP) and back to Bishkek same day. Ms. Kazakova Eleonora – Executive Director		
Thursday, January 14			
9:00-11:00	Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic. Director – Franz S.		

11:00-13:00	Center for Renewable Energy and Energy Efficiency Development. Vedeneva Tatiana		
15:00-16:00	EBRD, Bishkek Office		
Friday, January 15			
09:00-11:00	**Debriefing meeting with UNDP CO SM and Programme Team** Mr. Aliona Niculita,, Deputy Resident Representative, Mr. Daniar Ibragimov, Policy Analyst, Ms. Jyldyz Choroeva, Monitoring and Evaluation Officer Mr. Kumar Kylychev, EE Dimension Chief, Ms. Elena Rodina Energy portfolio Projects Coordinator		
15.00-17.00	**Presentation of preliminary findings and observations**		
Saturday, January 16			
05:30	Departure of the International Consultant		

Annex 3: List of persons interviewed

- UNDP Country Office
  - Ms. Aliona Niculita, Deputy Resident Representative
  - Mr. Daniyar Ibragimov, Policy and Program Analyst, Environment for Sustainable Development and Disaster Risk Management Unit
  - Mr. Kumar Kylychev, Energy Efficiency Dimension Chief
  - Ms. Elena M. Rodina, Energy Portfolio Project Coordinator
  - Ms. Eliza Damirbek kyzy, Project Assistant
  - Mr. Edilbek S. Bogombaev, former Project Manager

- Ministry of Energy and Industry of the Kyrgyz Republic
  - Dr. Batyrkul Baetov, Secretary of State, Ministry of Energy and Industry
  - Ms. Gulsara Kasymova, Head of Energy Efficiency and Environment Laboratory

- Ministry of Economy
  - Mr. Almaz Kerimovich Stamaliev, Power generation and transmission unit

- The State Agency for Fuel and Energy Complex Regulation under the Government of the Kyrgyz Republic – GARTEK
  - Mr. Taalaibek Inashevich Nurbashev, Director
  - Ms. Mirgul Aidarova, Deputy Director

- State Agency on Environmental Protection and Forestry
  - Mr. Sabir S. Atadjanov, Director, GEF Operational Focal Point
  - Ms. Baglan Salikmambetova, Head of International Relations Department,

- Office of the Government
  - Ms. Nadejda S. Davlatelieva, expert on industry, energy and subsoil

- Directorate for Small- and Medium-Sized Power Generation
  - Mr. Sergey Franz, Director

- Renewable Energy Association
  - Ms. Eleonora Kazakova, Head, CEO of Kalininskaya SHP plant JSC

- Association of Small Hydro Power Plants
  - Ms. Elvira Borombaeva, President

- Center for Renewable Energy and Energy Efficiency Development - CREED
  - Ms. Tatiana Vedeneva, President
  - Mr. Ivan Klepetov, Project Manager

- Incraft JSC
  - Mr. Igor Kuon, Director

- Fermer – Farming Association
  - Mr. Alexey Venedev, Chairman

- European Bank for Reconstruction and Development, Bishkek Resident Office
  Mr. Azamat Ibraimov, Associate Banker
  Mr. Ruslan Kurmanbekov, Associate Banker

- CASEP – Sustainable Energy Programme for the Central Asia (Renewable Energy, Energy Efficiency), INOGATE program
  Mr. Paata Janelidze, Reenewable Energy Expert, MTE evaluator

Annex 4: List of documents reviewed

General documentation

- UNDP Programme and Operations Policies and Procedures
- UNDP Handbook for Monitoring and Evaluating for Results
- GEF Monitoring and Evaluation Policy
- GEF Guidelines for Conducting Terminal Evaluations
- GEF focal area strategic program objectives
- UNDP Development Assistance Framework
- UNDP Country Program Document
- UNDP Country Program Action Plan
- Project-Level Evaluation: Guidance for Conducting Terminal Evaluations of UNDP-Supported GEF-Financed Projects, UNDP 2012

Project documentation

- Project Document
- Inception Report
- Annual Work Plans
- Annual Project Reviews
- Project Implementation Review reports
- GEF Operational Quarterly Reports
- Combined Delivery Reports
- Project Board/Steering Committee Meeting minutes
- Mid-Term Evaluation Report
- Management response to MTE
- Revised project Logical Framework matrix
- Project internal financial records

Other relevant documents

2008 Renewable Energy Law with 2011 and 2012 amendments

Methodology for calculation of connection fees, 2015

Provisions of randomly selected regulatory drafts developed by the project

Project web sites:

www.undp.kg

www.greenenergy.kg – temporarily not operational

Annex 5: Evaluation Consultant Code of Conduct and 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 imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: Jiří Zeman

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 *Prague* on January 5, 2016

Signature: _____

Annex 6: Terminal Evaluation Questions/Matrix

Evaluative Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?			
•	•	• GEF Operational Programs or the strategic priorities	• Document review
•	•	• National policies and priorities	• Policy review, situation analysis
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
•	•	• PIR, project materials/deliverables	• Document review and analysis
•	•	• Interview with stakeholders	• Interview analysis
Efficiency: Was the project implemented efficiently, cost-effectively, and in-line with international and national norms and standards?			
•	•	• Project materials/deliverables, drafted legislation	• Document review and analysis
•	•	• CDR – project expenditures	• Analysis
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?			
•	•	• Interview with stakeholders	• Analysis of interviews
•	•	• Situation analysis	•
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?			
•	•	• Interview with stakeholders	• Analysis of interviews
•	•	• Situation analysis	•

In my experience, asking questions from a formal list of TE evaluation questions increases the risks that interviewed stakeholders will provide just formal answers, in most cases trying to support a higher rating of the project evaluation. Thus, instead of this, I always try to lead an informal discussion with interviewed stakeholders, without reading or even submitting a list of questions. However, I do focus the discussion on the relevant issues (achievements, relevance, effectiveness, efficiency, sustainability, impact).

Typical questions that I use during interviews include:

- How did you cooperate with the project?
- From your perspective, what were the main project achievements?
- What were the main barriers/issues the project had to deal with? And how did the project overcome them?
- What do you think will happen (with project results) after project termination?
- How did the situation change today (at the end of the project) compared to its beginning?
- What do you think what the situation there would be today without the project?
- If a similar project would be implemented in another country in the future, what would be your recommendation? What worked best, what was not that successful?

In case the answers provided are just formal, not clear or concrete enough, I raise additional questions to confirm my understanding of what the interviewed stakeholder said, and I formulate the summary/key points of his/her answer in my words, and ask for clarification/confirmation. Usually, I excuse myself for my limited knowledge of Russian, which helps to relax the formal atmosphere of evaluation interview, and then the follow-up answer tend to be concrete.

Annex 7: UNDP/GEF TE Report Audit Trail

To the comments received on *February 8, 2016* from the Terminal Evaluation of SHP Development project, Kyrgyzstan (UNDP Project ID-*PIMS 3134)*

The following comments were provided in track changes to the draft Terminal Evaluation report; they are referenced by institution ("Author" column) and track change comment number ("#" column):

Author	#	Para No./ comment location	Comment/Feedback on the draft TE report	TE team response and actions taken
RTA	1		It is unclear from the report: what are the underlying reasons for project's failure to achieve its objective when ownership, implementation, design and other key aspects are all rated satisfactory. It would be good and useful, also in terms of lessons learnt, to understand where the problem happened and what didn't work that cause the end result.	Comment incorporated. Lesson learned # III revised and amended.
RTA	2		Somehow, it was not clear from the report how the various stakeholders, beneficiaries (Government and the private sector in particular) of the project assess its results, impact and effectiveness. I noticed you've got quite a number of interviews, it would be good to see in the report the reflection of their views and opinion.	Comment incorporated. Chapter 4.2.2 amended.
UNDP/GEF Evaluation Quality Assurance Consultant	3	Chapter 4.3.7 and 4.3.8 Sustainability and Impact	The evaluator gives the project effectiveness, efficiency, and overall outcomes ratings of Unsatisfactory. Yet the rating for Impact is Significant and the ratings for Sustainability are in the Satisfactory/Likely range. The consultant concludes that despite the low project outcomes, "the project sustainability and impact are rated high, primarily due to the fact that the project established an active policy dialogue platform for effective discussion on RE policy, legal and regulatory revisions, and the government considers now SHP as a viable option for development (and not only in a declaratory way)." I understand their logic, but I'd encourage you (RTA) to take a close look at whether the ratings for Impact and Sustainability are justified with	Comment incorporated. Chapters 4.3.7 and 4.3.8 revised and amended, rating of sustainability revised

			enough technical evidence. This raises an important question: can a project be sustainable if it didn't accomplish what it set out to accomplish? Arguably, yes, however I believe a Satisfactory/Likely Sustainability range is too high. That being said, you (RTA) are best placed to comment on this given your technical knowledge of the project.	
UNDP/GEF Evaluation Quality Assurance Consultant	4	Chapter 4.3.8 Impact	And for impact (Section 4.3.8), I believe the the consultant's interpretation of impact is different than the way it's described in the ToR: "Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements." Therefore the impact assessment should be reformulated to meet the requirements laid out in the ToR.	Comment incorporated. Chapter 4.3.8 revised, impact rating explained in more detail.
UNDP/GEF Evaluation Quality Assurance Consultant	5	Chapter 4.3.7 Sustainability	The components of Sustainability (Financial Resources, Socio-political, Institutional Framework and Governance, and environmental) are rated on the 6-point Satisfactory scale when they should be rated on a 4-point Likeliness scale.	Comment incorporated. Rating in the Chapter 4.3.7 adjusted to the 4-point scale
UNDP/GEF Evaluation Quality Assurance Consultant	6	Chapter 2.2	The methodology of the evaluation needs to be more thoroughly described e.g. a description of the rationale of the methodological approach taken, the rationale and basis for the selection of field visits and persons interviewed. The report should include a description any limitations to the evaluation.	Comment incorporated. Chapter 2.2 amended.
UNDP/GEF Evaluation Quality Assurance Consultant	7	Chapter 3.4	Section 3.4 "Immediate and Development Objectives of the Project" doesn't adequately address the logic behind the development of the project. There should be an explicit analysis of the design logic in this section or elsewhere in the report	Comment incorporated. Chapter 3.4 amended.
UNDP/GEF Evaluation	8	Chapter 3.5	In Section 3.5 the evaluators state, "The target for the project	Comment incorporated.

Quality Assurance Consultant			development objective has been several times changed during the project implementation and significantly reduced, however the changes were not formally approved by GEF." I don't find this statement to be consistent with the M&E plan implementation rating, which is given as Satisfactory.	Chapter 3.4 reworded, rating of M&E adjusted
UNDP/GEF Evaluation Quality Assurance Consultant	9	Chapter 4.2.2	In section 4.2.2 the evaluator lists the main stakeholders, but their roles and contributions to the project (including in-kind contributions, technical assistance, participation, staff time, training, leadership and advocacy) are not clearly described.	Comment incorporated. Chapter 4.2.2 amended
UNDP/GEF Evaluation Quality Assurance Consultant	10	Annexes	In addition to the annexes already included, the following annexes should also be included: • Summary of field visits • Evaluation Question Matrix (see attached for template) • Questionnaire used (if applicable) and summary of results • Evaluation Consultant Agreement Form (see attached form) • Audit trail (see attached for template)	Comment incorporated. Annexes amended
UNDP CO M&E Officer	11	Impact	The TE Report mentions that the project is primarily policy, regulations oriented, the component related to this was not achieved which affects results achieved under other components. However the overall project impact (owing to establishment of the policy dialogue) is rated S. Overall outcomes achievement is rated as unsatisfactory which contradicts previous statement on impact.	Comment incorporated. See comments 3 and 4
UNDP CO M&E Officer	12	p. 28-29	It also states that UNDP is a single entity in renewable energy legislation development (p.28), however further in p.29 it says project cooperated with	Comment incorporated. Although, there have been several

			other EBRD and GIZ projects. Please clarify if the latter projects did not work in legislation development?	international projects implemented to support renewable energy development, the UNDP was the only entity supporting development of the RE legislation. Lesson Learned VI., page 30.
UNDP CO M&E Officer	13	Page 28	P. 28 says following: "Since January 2012 the Project has been implemented under the NEX modality" needs to be revised as we are operating under DIM modality since 2010.	Comment incorporated. Page 31.
UNDP CO M&E Officer	14	Chapter 4.2.2	In general it would have been beneficial for us to know other actors' and stakeholders' opinion on UNDP contribution in this area which is missed in the report. Please add some more information about it.	See comment 2. Comment incorporated. Chapter 4.2.2 amended.
UNDP CO M&E Officer	15		Outcomes on capacities were rated as per achievement of Targets like 5 projects sites evaluated, 10 people trained (I assume project data) which doesn't capture real situation. In order to understand the situation better, it would have been good to use triangulation method that enables validation of data through cross verification from more than two sources and exclude bias.	I have collected the data from the last PIR report, project result booklet "Global Challenges, National Problems and Solutions", from the interviews with project stakeholders and reviewed the achievements with the Project Coordinator.

RTA – UNDP Regional Technical Advisor, Ms. Marina Olshanskaya.

Multiple comments/clarifications provided by the UNDP RTA, Ms. Marina Olshanskaya, and the UNDP CO EE Dimension Chief, Mr. Kumar Kylychev, have been incorporated into the revised text of the TE report but are not tracked in this table.

UNDP/GEF Evaluation Quality Assurance Consultant – Ms. Stephanie Ulrich

UNDP CO M&E Officer – Ms. Jeldyz Choroeva

Annex 8: Management response to the Terminal Evaluation of the SHP Development project, Kyrgyzstan[4]

Project Title: Small Hydro Power Development, Kyrgyz Republic
UNDP Project ID (PIMS) #: 3134
GEF Project ID (PMIS) #: 3931
Terminal Evaluation Mission Completion Date:
Date of Issue of Management Response:

Prepared by: *This will most likely be the Commissioning Unit*

Contributors: *For example, the UNDP-GEF RTA, the TE team, the Project Board*

Cleared by: *The Commissioning Unit, UNDP-GEF RTA, Project Board*

Context, background and findings

1. *Insert here up to several paragraphs on context and background and UNDP's response to the validity and relevance of the findings, conclusions and recommendations.*

2. *Second paragraph.*

3. *Third paragraph, etc.*

Recommendations and management response

Terminal Evaluation recommendation 1.				
Management response:				
Key action(s)	**Time frame**	**Responsible unit(s)**	**Tracking[5]**	
			Comments	**Status[6]**
1.1				
1.2				
1.3				

[4] This template is in alignment with the Management Response Template for UNDP project-level evaluations in the Evaluation Resource Centre.
[5] If the TE is uploaded to the ERC, the status of implementation is tracked electronically in the Evaluation Resource Centre database (ERC).
[6] Status of Implementation: Completed, Partially Completed, Pending.

Terminal Evaluation recommendation 2.				
Management response:				
Key action(s)	**Time frame**	**Responsible unit(s)**	**Tracking**	
			Comments	**Status**
2.1				
2.2				
2.3				

Terminal Evaluation recommendation 3.				
Management response:				
Key action(s)	**Time frame**	**Responsible unit(s)**	**Tracking**	
			Comments	**Status**
3.1				
3.2				
3.3				

Annex 9: Terminal evaluation TOR

GLOBAL ENVIRONMENT FACILITY

UNITED NATIONS DEVELOPMENT PROGRAMME

TERMS OF REFERENCE

FOR TERMINAL EVALUATION:

Project Title: "Small Hydro Power Development"

Functional Title: International Consultant for Terminal Evaluation

Duration: Estimated 20 working days during January 2016, including field mission to Kyrgyzstan

Terms of Payment: Lump sum payable upon satisfactory completion and approval by UNDP of all deliverables, including the Evaluation Report

Duty station: Home based with a week mission to Bishkek (5 working days)

INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of "Small Hydro Power Development" Project (PIMS #3134).

The essentials of the project to be evaluated are as follows:

PROJECT SUMMARY TABLE

Project Title:	" Small Hydro Power Development"			
GEF Project ID: UNDP GEF Project ID (PIMS):	#3931 #3134		at endorsement (Million US$)	at completion (Million US$)
Atlas award ID: Atlas project ID:	00059088 00073756	GEF financing:	0.950	*0.827 (TBC)*
Country:	Kyrgyzstan	IA/EA own:	0.100	0.100
Region:	ECIS	Government: In-kind support	0.800	0.800
Focal Area:	Climate change	Other:	20.480	*23.862 (TBC)*
FA Objectives, (OP/SP):	To promote on-grid renewable energy - CC-SP3-RE	Total co-financing:	21.380	*24.762 (TBC)*
Executing Agency:	Ministry of Energy and Industry of the Kyrgyz Republic	Total Project Cost:	22.330	*25.589 (TBC)*
Other Partners involved:	The Ministry of Energy and Industry of the Kyrgyz Republic and the State Agency for Environment Protection and Forestry under the Government of the Kyrgyz Republic	ProDoc Signature (date project began):		29 January 2010
		(Operational) Closing Date:	Proposed: 31 December 2013	Actual: 29 February 2016

OBJECTIVE AND SCOPE

The TE will be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects, in the GEF Monitoring and Evaluation policy: http://www.thegef.org/gef/sites/thegef.org/files/documents/ME_Policy_2010.pdf and guidelines for conducting evaluations: www.thegef.org/gef/node/1905; as well as the UNDP Monitoring and Evaluation Policy: http://web.undp.org/evaluation/policy.htm.

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

The project is designed to produce five components:

Component 1: To formulate a streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development in the country. The expected outputs under this component are:

- Adoption and implementation of new policies streamlining land tenure and water use rights for small hydro power developers;
- Revision of the Law on Renewable Energy to define/redefine role of the Ministry of Energy and Industry and its Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic (DSMP).
- Procedures for the introduction of competition in the award of sites/concessions for development.
- Standard PPA to facilitate DSMP negotiations with IPPs.
- One-stop shop for issuance of construction licenses and permits to developers.

Component 2: To develop capacity within DSMP to effectively address institutional issues and to evaluate the economic and financial viability of small hydropower projects, especially within the context of a least cost planning approach and to build capacity within the Ministry's RE Unit to monitor and enforce regulations related to SHP. The expected outputs are:

- Suitable methodology for the economic/financial evaluation of small hydropower plants.
- Standard financial evaluation methodology for calculating SHP tariffs to be paid to IPPs and the tariffs to be charged to consumers, taking account the operating and investment recovery costs of project developers.
- Incentives to be provided to project developers such as reduction/elimination of import duties/taxes on equipment, income tax holiday for a specific duration, simplification of foreign exchange regulations, making it a requirement for distribution companies to purchase all electricity generated by SHP, establishing a portfolio to be eventually occupied by SHP in the electricity generation mix (a sort of SHP generation target), grant of longer-term generation licenses valid for 40-50 years (rather than 25-30 years), simplifying EIA procedures for SHP, building or participating in building access roads to SHP sites ear-marked for development. All these will be operationalized by the Ministry of Energy in consultation with other Government Departments.
- In addition, the project will explore possibilities for introduction of such risk mitigation instruments as hydropower energy production guarantee (in case power production targets are not met by developers) or insurance package to safeguard developer in case of non-payment for electricity already supplied. These instruments will be proposed following detailed assessment of risk profile of the pilot projects and discussions among the Ministry of Energy, Ministry of Finance, investors and finance/insurance entities, with the latter entrusted with responsibility to operationalize and manage the scheme. No GEF funds are to be used to capitalize or cover the additional costs of the guarantees.
- Develop and validate power sector baseline study and GHG emission factor for Kyrgyzstan power grid to facilitate and reduce costs of SHP project development under CDM mechanism. Prepare PDD, conduct validation, and facilitate national approval, registration and signature of the Emission Reduction Purchase Agreement (ERPA) for the first CDM project activity in Kyrgyzstan, i.e. the bundle of SHP projects for a total of 200 MW. The list of SHP projects for inclusion in CDM package is currently being discussed with

the Directorate and potential investors; it will not include the pilot SHP projects (20 MW) to be supported via the proposed GEF grant in order to avoid any potential double counting of the resulting GHG emission reductions.

- Capacity developed within the Ministry's RE Unit to monitor and enforce regulations related to SHP.

Component 3: To develop capacity within DSMP/country to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services. The expected outputs are:

- Programme for updating the 30-year old hydrological data.
- Guidelines and technical standards for small hydropower development.
- Capacity within DSMP to design, evaluate and implement projects.
- Local capacity for maintenance and repair services.

Component 4: To prepare full feasibility and technical design studies for the 5 small hydropower sites listed in Table 1 below (this is a preliminary list that may be subject to change on the basis of initial studies by Cotec and Seloga as per their respective framework agreements with the Government), followed by construction of the power stations. The expected outputs are:

- Reports on feasibility and design studies.
- Reports on financial closure with identified investors.
- Report on completion of construction of the 5 hydropower stations.

Component 5: To formulate an outreach programme and document/disseminate project experience/best practices/lessons learned for replication throughout the country. The expected outputs are:

- Plan to implement outreach/promotional activities targeting domestic and foreign investors.
- Capacity development of DSMP to monitor and document project experience.
- Published materials on project experience/best practices and lessons learned/website.

The Project has five primary outcomes summarized below:

Component 1: Amendments to the Kyrgyz Republic laws streamlining land tenure and water use rights to small hydropower developers are made. Government Resolutions №501 as of July 15, 2015 and №507 as of July 20, 2015 are adopted. "Concept of development of small hydropower in the Kyrgyz Republic for 2015-2017", "Standard PPA agreement for SHP investors", "Rules on technological connection to the power grid and assessment methodology for calculation of fee on technological connection", "Regulation on land tenure procedure" and "Regulation on water use agreements" are developed.

Component 2: The methodology of financial mechanism for calculating small hydropower tariffs adopted by the State Agency for Fuel and Energy Complex Regulation. Changes to the law "On renewable energy sources" developed in 2012 on financial and other incentives and guarantees to purchase small hydropower plant generated electricity adopted by the Parliament. EIA for small hydropower plant on the river Chandalash (6.8 mW) was developed and delivered to the investor.

Component 3: SHP database with more than 60 economically perspective sites is developed. GIS-maps including finalized SHP database with economically perspective sites are updated.

Component 4: Feasibility studies for Karakol SHP (1,6 mW) and LLC Ibragimov SHP (0,6 MW) on the river Beles are conducted. Technical design studies for the reconstruction of hydraulic structures at Kalinin SHP (1,4 mW), Ken-Suu SHP (70 kW) and Tor-Kul SHP (70 kW) are conducted.

Component 5: Republican conference "On the development of small hydropower plants" with more than 100 participants including Deputy Prime Minister, ministers, government officials, donors (foundations and banks), local investors and NGO is organized. Agency on Renewable Energy Sources development and Energy efficiency and a Small Hydropower Plants Association are created. Two guidebooks on designing and equipping SHPs are published and distributed to leading universities and libraries. Website on the latest developments in renewable energy (www.greenenergy.kg) is launched and handed over to the relevant NGO.

EVALUATION APPROACH AND METHOD

An overall approach and method[7] for conducting project terminal evaluations of UNDP supported GEF financed projects have been developed over time. The evaluator is expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact,** as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects. A set of questions covering each of these criteria have been drafted and are included with this TOR (*see Annex C*). The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

The evaluation must provide evidence- based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. Interviews will be held with the following organizations and individuals at a minimum:

Key stakeholders:

- Ministry of Energy and Industry of the KR;
- State Agency on Environment Protection and Forestry& GEF Focal Point;
- State Agency for Fuel and Energy Complex Regulation
- Directorate for Small and Medium-scale Power Projects in the Kyrgyz Republic
- UNDP Country Office;
- UNDP Environment for Sustainable Development Programme;
- UNDP/UNEP Poverty & Environment Initiative Project
- Project team;
- UNFCCC FP
- UNDP-GEF Regional Technical Advisor, Istanbul Regional Hub;
- Karakol Energy
- Chandalash Energy
- Kalininskaya SHP
- Ibragimova LLC
- Inkraft CJSC

Other stakeholders:

- «Energy» The Kyrgyz Scientific and Technical Center
- Renewable Energy Association
- Small Hydropower Plants Association
- BIOM

The evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, midterm review, progress reports, GEF CCM tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-

[7] For additional information on methods, see the Handbook on Planning, Monitoring and Evaluating for Development Results, Chapter 7, pg. 163

based assessment. A list of documents that the project team will provide to the evaluator for review is included in Annex B of this Terms of Reference.

EVALUATION CRITERIA & RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see Annex A), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: **relevance, effectiveness, efficiency, sustainability and impact.** Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in Annex D.

Evaluation Ratings:			
1. Monitoring and Evaluation	***rating***	**2. IA& EA Execution**	***rating***
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	
Overall quality of M&E		Overall quality of Implementation / Execution	
3. Assessment of Outcomes	**rating**	**4. Sustainability**	**rating**
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental :	
		Overall likelihood of sustainability:	

PROJECT FINANCE / COFINANCE

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (type/source)	UNDP own financing (mill. US$)		Government (mill. US$)		Partner Agency (mill. US$)		Total (mill. US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants	0.950	0.827 (TBC)					0.950	0.827 (TBC)
IA/EA own	0.100	0.100					0.100	0.100
• In-kind support			0,800	0.800			0.800	0.800
• Other					20.480	23.862 (TBC)	20.480	23.862 (TBC)
Totals	1.050		0.800	0	20.480		22.330	25.589 (TBC)

MAINSTREAMING

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

IMPACT

The evaluator will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.[8]

CONCLUSIONS, RECOMMENDATIONS & LESSONS

The evaluation report must include a chapter providing a set of **conclusions**, **recommendations** and **lessons**.

IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the UNDP CO in Kyrgyzstan. The UNDP CO will contract the evaluator and ensure the timely provision of per diems and travel arrangements within the country. The Project Team will be responsible for liaising with the Evaluator to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

EVALUATION TIMEFRAME

The total duration of the evaluation will be **20 working days** according to the following indicative plan:

Activity	Timing (indicative)	Completion Date (indicative)
Preparation (desk review)	*3* days (6-8 January, 2016)	9 January *2016*
Evaluation Mission (in-country field visits, interviews)	*5* days (11-15 January, 2016)	16 January *2016*
Draft Evaluation Report	*6* days (18-22 January, 2016)	23 January *2016*
Final Report	*6* days (25-29 January, 2016)	30 January *2016*

EVALUATION DELIVERABLES

The evaluator is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception Report	Evaluator provides clarifications on timing and method	No later than 1 week before the evaluation mission.	Evaluator submits to UNDP CO and Project
Presentation	Initial Findings	Last day of the field mission	Project Team, UNDP CO and key stakeholders, members of Project Board

[8] A useful tool for gauging progress to impact is the Review of Outcomes to Impacts (ROtI) method developed by the GEF Evaluation Office: ROTI Handbook 2009

Draft Final Report	Draft evaluation report, (per annexed template) with annexes	Within a week time after the field mission	Project team, CO, reviewed by RTA, GEF OFP
Final Report*	Final report addressing and integrating feedback and comments	Within a week time after receiving comments on the draft	Sent to CO for uploading to UNDP ERC.

*When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report.

TEAM COMPOSITION

The evaluation team will be composed of *1 international evaluator*. The consultant shall have prior experience in evaluating similar projects. Experience with GEF financed projects is an advantage. The international Consultant will bear responsibility over submission of a final report. The evaluator selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

International evaluator must present the following qualifications:

- Master degree or equivalent in natural or social or energy related sciences;
- Minimum 10-years of professional experience in the field of renewable energy;
- At least three years of proven track record of application of results-based monitoring approaches to evaluation of projects focusing on environment/ climate change mitigation (relevant experience in the CIS region and within UN system would be an asset);
- Familiarity with priorities and basic principles of renewable energy and relevant international best-practices;
- Knowledge of and recent experience in applying UNDP and GEF M&E policies and procedures;
- Excellent English communication skills,

EVALUATOR ETHICS

Evaluator will be held to the highest ethical standards and is required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluations'

PAYMENT MODALITIES AND SPECIFICATIONS

The service provider will be responsible for all personal administrative and travel expenses associated with undertaking this assignment including office accommodation, printing, stationary, telephone and electronic communications, and report copies incurred in this assignment. For this reason, the contract is prepared as a lump sum contract.

The remuneration of work performed will be conducted as follows: lump sum payable in 1 installment, upon satisfactory completion and approval by UNDP of all deliverables, including the Final Evaluation Report.

%	Milestone
100%	Following submission and approval (UNDP-CO and UNDP RTA) of the final terminal evaluation report

APPLICATION PROCESS

Recommended Presentation of Proposal:

a) **Letter of Confirmation of Interest and Availability** using the template[9] provided by UNDP;
b) **CV** and a **Personal History Form** (P11 form[10]);
c) **Brief description of approach to work/technical proposal** of why the individual considers him/herself as the most suitable for the assignment, and a proposed methodology on how they will approach and complete the assignment; (max 1 page);
d) **Financial Proposal** that indicates the all-inclusive fixed total contract price and all other travel related costs (such as flight ticket, per diem and etc.), supported by a breakdown of costs, as per template attached to the Letter of Confirmation of Interest template. If an applicant is employed by an organization/ company/ institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the applicant must indicate at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP.

All application materials should be submitted to the e-mail address (procurement@pmu.undp.kg) with indicating the following reference "Terminal Evaluation Consultant for UNDP-GEF Project on Small Hydro Power Development in Kyrgyzstan" by ***29 December 2015, 3.00 pm of GMT+6.*** Incomplete applications will be excluded from further consideration.

EVALUATION PROCESS

Criteria for Evaluation of Proposal: Only those applications which are responsive and compliant will be evaluated. Offers will be evaluated according to the Combined Scoring method – where the educational background and experience on similar assignments will be weighted at 70% and the price proposal will weigh as 30% of the total scoring. The applicant receiving the Highest Combined Score that has also accepted UNDP's General Terms and Conditions will be awarded the contract.

[9] https://intranet.undp.org/unit/bom/pso/Support%20documents%20on%20IC%20Guidelines/Template%20for%20Confirmation%20of%20Interest%20and%20Submission%20of%20Financial%20Proposal.docx

[10] http://www.undp.org/content/dam/undp/library/corporate/Careers/P11_Personal_history_form.doc

ANNEX A: PROJECT LOGICAL FRAMEWORK

Project Title:
Small Hydro Power Development

Project Strategy	Indicator	Baseline	Targets End of Project	Source of Verification	Risks and Assumptions
Objective					
To assist the Government in addressing the barriers to significantly increase grid-connected small hydropower capacity.	285,140 MWh of electricity generated by project completion and 250,000 tons of CO_2 avoided.	GHG in the electricity generation sector scheduled to increase from 1.75 million tons/year to almost 3 million tons/year by the year 2020. Negligible investments taking place in the grid-connected small hydropower sector.	Investment in at least 5 small hydropower sites by end of project. Reduction of 250,000 tons of CO_2 over the 4-year MSP project life cycle.	Project's annual reports, GHG monitoring and verification reports. Project final evaluation report.	Continued commitment of project partners, including Government agencies and investors/developers.
Outcomes					
Outcome 1: Streamlined and comprehensive market-oriented energy policy and legal/regulatory framework for small hydropower development.	Framework finalized and available for consultation by potential investors.	None available at the present time.	To be completed within 6 months of project initiation and approved by Government by the end of year 1.	Published documents. Government decrees/laws.	Commitment of the various Government institutions.
Output 1.1: Report streamlining land tenure, water use rights and review of Law on Renewable Energy to define/redefine role of DSMP.	Report confirming that policy and framework arrangements are in place.	Overlapping responsibilities of various Government institutions make the decision process very	To be completed within 6 months of project initiation and approved by the Government by the end of year 1.	Published documents.	Commitment of the various Government institutions.

		complicated.			
Output 1.2: Procedures for the introduction of competition in the award of sites/concessions for development.	Guidelines available.	Not available at the present time.	To be completed within 6 months of project initiation and approved by the Government by the end of year 1. Competitive bidding for sites/concession areas completed by the end of 1.5 years after project start.	Published documents. Signed agreements.	Commitment of the various Government institutions and project developers.
Output 1.3: Standard PPA to facilitate DSMP negotiations with IPPs.	Document available.	Not available at the present time.	To be completed within 6 months of project initiation and approved by the Government by the end of year 1. All PPAs for 20 MW of capacity signed by the end of 1.5 years after project start.	Published documents. Signed agreements.	Continued investor interest.
Output 1.4: One-stop shop for issuance of construction licenses and permits to developers.	One-stop shop is operational. Information brochure and website are available.	Under the business-as-usual scenario, the average time to secure all required construction licenses and permits are 13 months.	All construction licenses and permits are issued within 4-6 months.	Signed documents.	Continued investor interest.

Outcome 2: Capacity available within DSMP to evaluate the economic and financial viability of small hydropower projects and within the Ministry's RE Unit to monitor and enforce regulations related to SHP.	Number of DSMP/Ministry staff who participated in and successfully completed capacity development programme.	None available at the present time.	5 projects evaluated by Government staff by the end of year 1. Six Government staff trained during first 6 months of project.	Training modules/number of staff trained. Project report.	Concerned institutions willing to release staff for training.
Output 2.1: Suitable methodology for the economic/financial evaluation of small hydropower plants.	Methodologies applied by DSMP	Not available at the present time.	To be completed within 6 months of project initiation and applied by Government thereafter.	Project report.	Cooperation of Government entities and staff.
Output 2.2: Standard financial evaluation methodology for calculating small hydropower tariffs to be paid to IPPs/to be charged to consumers.	Methodologies applied by DSMP	No such evaluation methodology available.	To be completed within 6 months of project initiation and applied by Government thereafter.	Project documentation.	Cooperation of Government entities and staff.
Output 2.3: Financial and other incentives to be provided to project developers.	Document available.	Not comprehensive document available at the present time.	To be completed within 6 months of project initiation and applied by Government thereafter.	Project documentation.	Cooperation of Government entities.
Output 2.4: Guarantee and risk mitigation instruments that facilitate IPP investment.	Instruments developed.	No such instruments available at the present time.	Instruments designed in year 1 and applied to IPP investments by year 2.	Project reports.	Lending institutions ready to come on board.
Output 2.5: PIN and PDD to pursue options under CDM.	CDM projects registered.	None available to date.	To be completed by the end of year 2.	Project documentation.	Cooperation of Government entities.
Output 2.6: Capacity developed within the Ministry's RE Unit to monitor and enforce regulations related to SHP.	Number of Ministry staff successfully trained.	None available at the present time.	Five to Six Government staff trained during first 6 months of project.	Number of staff trained. Project report.	Cooperation of Ministry and staff.

Outcome 3: Capacity available to assess hydrological resources, design, evaluate and implement projects, and provide maintenance and repair services.	Teams trained in various categories of activities. Technical assessment of projects. Guidelines for maintenance, repair and modular SHP design.	No such activity being implemented.	5 projects technically assessed in year 1. Manual for operations & maintenance developed in year 1, O&M procedures applied in at least 5 sites by end of project. 40 people trained in the various categories by the end of the project.	Project reports.	
Output 3.1: Programme for updating the 30-year old hydrological data.	Instrumentation to measure river flow installed. Software developed for interpretation of data.	Hydrological data presently available date back to the 1970s.	Update of 5 sites (in addition to the 5 targeted for development) completed by the end of project.	Project documentation.	Cooperation of concerned Government institutions.
Output 3.2: Guidelines and technical standards for small hydropower development.	Published guidelines.	Not presently available.	Completed within first 6 months of project. Applied in 5 project development sites.	Project reports.	Participation of Government institutions in drafting guidelines.
Output 3.3: Capacity developed within DSMP to design, evaluate and implement projects.	Capacity development material available.	Not presently available.	Six DSMP staff trained during first 6 months of project.	Project documentation.	Participation of Government entities in training programme.
Output 3.4: Local capacity for maintenance and repair services.	Availability of qualified and certified companies for maintenance and repair services.	None available now.	30 people trained by the end of the project.	Project reports.	Availability of people with basic technical education.
Outcome 4: Full feasibility and technical design studies for 5 small hydropower sites followed by construction of power stations.	Feasibility reports.	Not presently available.	Construction of 5 small hydropower stations completed by the end of the project.	Site visits to power stations. Project reports.	Commitment and participation of Government institutions and project developers.

Output 4.1: Reports on feasibility and design studies.	Reports available.	Non-existent at the present time.	Completed within 9 months of project start.	Project documentation.	All data made available to consultants.
Output 4.2: Reports on financial closure with identified investors.	Reports available.	Not presently available.	Completed within 12 months of project start.	Project reports.	Complete socio-economic survey of targeted population is undertaken.
Output 4.3: Report on completion of construction of the 5 hydropower stations.	Completion report.	No construction is being undertaken.	Five small hydropower stations constructed by the end of project. 130.5 GWh of electricity generated annually at project end.	Site visits and project reports.	Supportive institutional, legal and regulatory framework.
Outcome 5: Outreach programme and dissemination of project experience/best practices/lessons learned for replication throughout the country.	Outreach programme formulated. Project experience compiled, analyzed and disseminated.	Lack of sufficient information to pursue programme.	8-10 projects initiated in other areas of Kyrgyzstan within 3 years of MSP completion.	Project final report and web site.	Growth of programme will be sustained.
Output 5.1: Plan to implement outreach/promotional activities targeting domestic and foreign investors.	Plan available.	No such plan available.	Completed within 6 months of project initiation.	Project documentation.	
Output 5.2: Capacity development of DSMP to monitor and document project experience.	Capacity development material prepared.	No capacity development programme.	10 Government staff of trained by the end of project.	Project reports.	Appointment of staff by Government.
Output 5.3: Published materials on project experience/best practices and lessons learned.	Project experience and best practices compiled, published and available on website.	Lack of information on best practices and lessons learned.	Completed within 3 months of project end.	Project documentation and web site.	

ANNEX B: LIST OF DOCUMENTS TO BE REVIEWED BY THE EVALUATOR

General documentation

- UNDP Programme and Operations Policies and Procedures (POPP);
- UNDP Handbook for Monitoring and Evaluating for Results;
- GEF Monitoring and Evaluation Policy;
- GEF Guidelines for conducting Terminal Evaluations.

Project documentation

- Project document;
- Annual Work Plans;
- Annual Project Reports;
- Project Implementation Reviews;
- GEF Operational Quarterly Reports;
- Midterm Evaluation Report (MTE);
- Management response to MTE;
- Inception report;
- Project Board Meeting minutes;

ANNEX C: EVALUATION QUESTIONS

This is a generic list, to be further detailed with more specific questions by CO and UNDP GEF Technical Adviser based on the particulars of the project.

Evaluative Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?			
•	•	•	•
•	•	•	•
•	•	•	•
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
•	•	•	•
•	•	•	•
•		•	•
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?			
•	•	•	•
•	•	•	•
•	•	•	•
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?			
•	•	•	•
•	•	•	•
•	•	•	•
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?			
•	•	•	•
•	•	•	•

ANNEX D: RATING SCALES

Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution	***Sustainability ratings:***	***Relevance ratings***
6: Highly Satisfactory (HS): no shortcomings 5: Satisfactory (S): minor shortcomings 4: Moderately Satisfactory (MS) 3. Moderately Unsatisfactory (MU): significant shortcomings 2. Unsatisfactory (U): major problems 1. Highly Unsatisfactory (HU): severe problems	4. Likely (L): negligible risks to sustainability 3. Moderately Likely (ML):moderate risks 2. Moderately Unlikely (MU): significant risks 1. Unlikely (U): severe risks	2. Relevant (R) 1.. Not relevant (NR) ***Impact Ratings:*** 3. Significant (S) 2. Minimal (M) 1. Negligible (N)
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A)		

ANNEX E: EVALUATION CONSULTANT CODE OF CONDUCT AND AGREEMENT FORM

Evaluator:

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 imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form[11]

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: _____

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 *place* on *date*

Signature: _____

[11] www.unevaluation.org/unegcodeofconduct

ANNEX F: EVALUATION REPORT OUTLINE[12]

i. Opening page:
- Title of UNDP supported GEF financed project
- UNDP and GEF project ID#s.
- Evaluation time frame and date of evaluation report
- Region and countries included in the project
- GEF Operational Program/Strategic Program
- Implementing Partner and other project partners
- Evaluation team members
- Acknowledgements

ii. Executive Summary
- Project Summary Table
- Project Description (brief)
- Evaluation Rating Table
- Summary of conclusions, recommendations and lessons

iii. Acronyms and Abbreviations
(See: UNDP Editorial Manual[13])

1. Introduction
- Purpose of the evaluation
- Scope & Methodology
- Structure of the evaluation report

2. Project description and development context
- Project start and duration
- Problems that the project sought to address
- Immediate and development objectives of the project
- Baseline Indicators established
- Main stakeholders
- Expected Results

3. Findings
(In addition to a descriptive assessment, all criteria marked with (*) must be rated[14])

3.1 Project Design / Formulation
- Analysis of LFA/Results Framework (Project logic /strategy; Indicators)
- Assumptions and Risks
- Lessons from other relevant projects (e.g., same focal area) incorporated into project design
- Planned stakeholder participation
- Replication approach
- UNDP comparative advantage
- Linkages between project and other interventions within the sector
- Management arrangements

3.2 Project Implementation
- Adaptive management (changes to the project design and project outputs during implementation)
- Partnership arrangements (with relevant stakeholders involved in the country/region)
- Feedback from M&E activities used for adaptive management
- Project Finance:
- Monitoring and evaluation: design at entry and implementation (*)
- UNDP and Implementing Partner implementation / execution (*) coordination, and operational issues

3.3 Project Results

[12]The Report length should not exceed *40* pages in total (not including annexes).

[13] UNDP Style Manual, Office of Communications, Partnerships Bureau, updated November 2008

[14] Using a six-point rating scale: 6: Highly Satisfactory, 5: Satisfactory, 4: Moderately Satisfactory, 3: Moderately Unsatisfactory, 2: Unsatisfactory and 1: Highly Unsatisfactory, see Guidelines for conducting Terminal evaluations: http://www.thegef.org/gef/node/1905.

- Overall results (attainment of objectives) (*)
- Relevance(*)
- Effectiveness & Efficiency (*)
- Country ownership
- Mainstreaming
- Sustainability (*)
- Impact

4. Conclusions, Recommendations & Lessons

- Corrective actions for the design, implementation, monitoring and evaluation of the project
- Actions to follow up or reinforce initial benefits from the project
- Proposals for future directions underlining main objectives
- Best and worst practices in addressing issues relating to relevance, performance and success

5. Annexes

- ToR
- Itinerary
- List of persons interviewed
- Summary of field visits
- List of documents reviewed
- Evaluation Question Matrix
- Questionnaire used and summary of results
- Evaluation Consultant Agreement Form
- Co-financing table

ANNEX G: EVALUATION REPORT CLEARANCE FORM

Evaluation Report Reviewed and Cleared by

UNDP Country Office

Name: _____

Signature: _____ Date: _____

UNDP GEF RTA

Name: _____

Signature: _____ Date: _____