Terminal Evaluation Review form, GEF Independent Evaluation Office, APR 2015

1. Project Data

Summary project data			
GEF project ID		3471	
GEF Agency project ID		P078550	
GEF Replenishment Phase		GEF-4	
Lead GEF Agency (include all for joint projects)		IBRD	
Project name		Sustainable Land Water and Biodiversity Conservation and Management for Improved Livelihoods in Uttarakhand Watershed Sector	
Country/Countries		India	
Region		Asia	
Focal area		Multi Focal Area: Land Degradation, Biodiversity, Climate Change	
Operational Program or Strategic Priorities/Objectives		N/A	
Executing agencies involved		Watershed Development Department, Uttarakhand	
NGOs/CBOs involvement		--	
Private sector involvement		--	
CEO Endorsement (FSP) /Approval date (MSP)		June 2009	
Effectiveness date / project start		July 2009	
Expected date of project completion (at start)		July 2013	
Actual date of project completion		August 2013	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	0	0
	Co-financing	0	0
GEF Project Grant		7.49	7.49
Co-financing	IA own	70.00	75.44
	Government	16.85	21.99
	Other multi- /bi-laterals	0	0
	Private sector	0	0
	NGOs/CSOs*	3.15	9.46
Total GEF funding		7.49	7.49
Total Co-financing		90.0	106.89
Total project funding (GEF grant(s) + co-financing)		97.49	114.38
Terminal evaluation/review information			
TE completion date		February 25, 2014	
Author of TE		Edward William Bresnyan, Jr. and Ranjan Samantaray	
TER completion date		December 14, 2015	
TER prepared by		Caroline Laroche	
TER peer review by (if GEF IEO review)		Molly Watts	

*in-kind contribution from beneficiaries

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	S	S	S	S
Sustainability of Outcomes	--	MS	MS	ML[1]
M&E Design	--	S	S	S
M&E Implementation	--	S	S	S
Quality of Implementation	--	S	MS	S[2]
Quality of Execution	--	S	S	S
Quality of the Terminal Evaluation Report	--	--	HS	S

3. Project Objectives

3.1 Global Environmental Objectives of the project:

This GEF project, often referred to as the SLEM (Sustainable Land, Water and Biodiversity Conservation and Management for Improved Livelihoods in Uttarakhand Watershed Sector) was approved as Additional Financing to the pre-existing Gramya 1 (Uttarakhand Decentralized Watershed Development) project in 2005. The SLEM project was set up so as to provide incremental financing to the Gramya project with the aim of "enhancing the sustainability of the on-going watershed activities" already taking place, with the specific goal of by including adding 20 micro-watersheds to the project (PD p.9).

As an extension to the Gramya project, the SLEM project had the same GEOs and PDOs. The wording of the GEO for this project is the following: "*to restore and sustain ecosystem functions and biodiversity while simultaneously enhancing income and livelihood functions, and generating lessons learned in these respects that can be up-scaled and mainstreamed at state and national levels" (TE p.2).*

[1] The sustainability assessment done in the TE and by the World Bank Team are based on the whole "Uttarakhand Decentralized Watershed Development" (Gramya 1) project, whereas this TER focuses only on the GEF component "Sustainable Land, Water and Biodiversity Conservation and Management for Improved Livelihoods in Uttarakhand Watershed Sector " (SLEM) project**.** We explain the divergence in sustainability rating to the fact that the TE and WB reviews of the TE focused on the Gramya project. Sustainability concerns expressed in the TE and WB reviews pertain to a component of the Gramya project that is not part of the SLEM project.

[2] We also explain the divergence in "Quality of Implementation" rating to the fact that the WB review pertained to Gramya project, the implementation of which was criticized for not having had an adequate original funding envelope. This problem was solved by the GEF's additional funding, and this criticism therefore does not apply to the SLEM project.

3.2 Development Objectives of the project:

The SLEM component of this project did not have specific development objectives assigned.

The PDO for the initial Gramya project was "*to improve the productive potential of natural resources and increase incomes of rural inhabitants in selected watersheds through socially inclusive, institutionally and environmentally sustainable approaches*. " (TE p.1)

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

The GEO remained unchanged throughout the project implementation.

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: **Satisfactory**

The TE assesses this project as having been highly relevant. This TER rates relevance as satisfactory given that the project tackled issues that were of high importance to the Uttarakhand Government, and well aligned to the strategic priorities of both the World Bank and the GEF.

The Government of Uttarakhand (GoUK), an implementation partner in this project, specifically made a request to build upon the Gramya project in order to augment efforts related to sustainable land and water management. The SLEM project approved was part of the India Sustainable Ecosystem and Land Management Partnership Program approved by the GEF Council in November 2007. (PD p.6)

In addition to supporting the priorities of the GoUK, the SLEM project also contributed to India's 10th Five Year Plan (2007-2012), which included goals related to sustainable development of the natural resource base, and the sustainable development of watersheds (PD p.14).

The SLEM project was also well aligned with the World Bank's Country Assistance Strategies (2001-20014, 2005-2008) and Country Partnership Strategies (2009-2012 and 2013-2017) in India, which stressed the importance of "accelerating growth and pro-poor rural development based on a sustainable utilization of the natural resource base" (PD p.14).

4.2 **Effectiveness**	Rating: **Satisfactory**

The TE assesses the effectiveness of the project as substantial. This TER, which uses a different scale, rates effectiveness as satisfactory due to 10 out of 13 of the intermediate results indicators having been exceeded or achieved, and to overall impressive realizations achieved as part of the project.

The TE (in the unnumbered section at the beginning of the document) reports on the SLEM against the 13 intermediate indicators of the results framework. Out of 13 indicators, 10 are achieved, 1 is partially achieved and 2 are not achieved. The indicator that was partially achieved (Increase in vegetative cover and biomass by 10% in the treated 20 MWS) was rated as partially achieved due to the final impact evaluation not having measured biomass. The two indicators not achieved ("Study on impact of climate change on mountain ecosystems completed" and "Formulation of strategy for managing impact of climate change in mountain ecosystems at the end of the project") were unsuccessful due to the lack of technical capacity in climate change in the implementing agency, which delayed State government clearance for the studies).

We provide below more information on the main accomplishments of the project under its main two components[3]:

i. Component 1: **Participatory Watershed Development and Management**

As part of the SLEM, 20 micro watershed management plans were developed and implemented in 468 Gran Panchayats (GPs), representing 26.3% of all GPs covered by the Gramya project, and covering a population of 74,256 (TE p.27). Major outputs of this project component include 536 vegetative check dams, 12,819 square meter of retaining wall 10,755 m of diversion drains, 125 water harvesting tanks and 318 ponds built.(TE p.29) The activities on the ground appear to have been very effective: "For their excellent work in comprehensive stream rejuvenation and drainage line treatments to stop and reverse stream bank erosion and gully formation with the SLEM financing, Selalekha GP in Nainital division was awarded in 2010 the National Ground Water Augmentation Prize by the Ministry of Water Resources. The beneficiary contribution was about three times more than the appraisal estimate, and the cost sharing facilitated ownership and sustainability in the project investments, in particular, water harvesting structures."

The joint activities of Gramya and SLEM also appear to have worked in ensuring effective environmental outcomes: "In integrating land-water management and source rehabilitation by enhancing moisture

[3] The Gramya projet had three components and 8 sub-components, but the GEF-funded SLEM project only funded two components. The third component, which was not funded by the GEF, was 'Institutional Strengthening'. As part of those two components, the SLEM project "implemented the following six activities: (a) participatory development of micro-watershed development plans (MWDPs), (b) land degradation control at the micro-watershed level, (c) reduction in pressure and dependence on the natural resource base, (d) biodiversity conservation and management, (e) two studies on climate change adaptation in natural resource-based production systems, and (f) project management" (TE p.5).

retention and biomass production, Gramya I and SLEM interventions contributed directly to rehabilitate dried up stream sources and capillary-based water springs, by establishing rainfall runoff capture and infiltration ponds at strategic locations in the watersheds. The additional water retained at higher levels of the catchments resulted in about 68 percent increase in water discharge rate. It also resulted in increased water flows throughout the year as opposed to only seven to eight months of the year before the project. In addition, as flow rates were more even over the year, the erosive power of sudden discharges that result from storm events was also mitigated, resulting in reduced soil erosion and reduced losses of soil carbon. The treatment of 167,556 ha of non-arable lands by Gramya I and SLEM reduced runoff and soil erosion. The outcome of SLEM soil conservation was an estimated 142,438m3 of soil loss reduction, which protected topsoil on 185 ha and increased gross cultivable land to 278 ha." (TE p.12) "Over two years, the SLEM interventions increased the biomass coverage by an estimated 5.5 percent in the targeted 125 GPs. SLEM also contributed to biodiversity conservation in the targeted areas, as the richness in shrubs was significantly higher than the baseline values" (TE p.13).

The Final Impact Assessment reports that the productivity of land increased by 21%, and irrigated land area increased by 27%.

ii. Component 2: **Enhancing Livelihood Opportunities**

Overall, "there was a 50 percent increase in the number of beneficiaries engaged in the alternative livelihood activities that reduced their dependency on the natural resource base through pine needle briquetting, traditional water mills, and medicinal and aromatic plan cultivation" (TE p.11). SLEM piloted livelihood activities that could reduce the pressure on the natural resource base. Such activities included biogas installation, pine needle briquetting, solar energy and medicinal plant cultivation. The project also financed income generation activities.

The installations supported by the project appear to have been successful. For example, the biogas installations in the project area "reduced fuelwood use by 75 percent", and "saving in collection of firewood, cooking and cleaning of utensils are estimated at 3 hrs per day", with a reported "net saving of 2.5 hrs per woman per household" per day (TE p.37). The pine needle briquetting project was accompanied by a fire control training, as a result of which "the fire affected areas were reduced by 61 percent in the targeted forests, which also contributed to reduction in emissions of greenhouse gases (TE p.14). The refurbishment of gharats, which were equipped with micro hydro electricity generators, led to the generation of clean energy and therefore contributed to a reduction in fossil fuel GHG emissions.

The Final Impact Assessment reports that the income of rural inhabitants increased by 57%, or 17% when adjusted for inflation. This clearly demonstrates a positive impact of the project in improving livelihoods.

4.3 **Efficiency**	Rating: **Satisfactory**

The TE rated the efficiency of the project as substantial. This TER rates the efficiency as satisfactory, and commends the TE for the clear evidence provided on this topic.

Indeed, the TE presents a very thorough and concise description of the financial and economic cost-benefit analyses done for this project. The financial analysis estimated a financial rate of return (FRR) for the overall Gramya project (of which the GEF-funded SLEM was only one component) of 17.7 percent and a Net Present Value of Rs 2.4 billion (approximately $36 million). The economic analysis estimated a financial rate of return of 16.7 percent, and a Net Present Value of Rs 1.8 billion (approximately $27 million) (TE p.15). Those returns are above normal, and provide good evidence for the efficiency of the project.

The TE does not mention any misuse of funds or mismanagement. Funds appear to have been spent well and in a timely fashion.

4.4 **Sustainability**	Rating: **Moderately Likely**

The TE rates the risk to the GEO outcomes of this project as Moderate. This TER assesses the sustainability of this project as Moderately Likely due to the low risk to the continuation of project benefits after project completion.

Financial Risks: Likely

According to the TE, financial risks are low. This is due to the beneficiaries having an incentive to "maintain the water harvesting structures, because of their own investment through cost sharing". This TE notes that cost sharing is not always a predictor of user ownership, and the TE unfortunately provides little evidence supporting this statement.

In addition to potential user ownership, financial sustainability might be facilitated due to the fact that "The users also saved and used some of the funds for operation and maintenance during the Gramya I implementation", and that the livelihoods activities taking place as part of the project appear likely to be sustained (TE p.19).

Socio-political risks: Highly Likely

The project had a high level of community participation in its various components, which contributed to its sustainability by increasing the likelihood that the activities will be continued after project completion.

The micro-watershed approach taken in this project will be replicated by the Government of Uttarakhand. As part of the 2009-2017 Uttarakhand Perspective and Strategic Plan, 537 micro-

watersheds will be treated by 2027. As of the production of the TE, a Gramya II project was being negotiated with the Government of India. This project would maintain the Gramya I approach and would "support the farmer federations formed under Gramya I to improve their sustainability by building their capacity in managing agribusiness." (TE p.10).

For all the above, the socio-political risks are very low.

Environmental Risks:

Not applicable

Institutional risks: Likely

Capacity:

Capacity-building was a core component of both Gramya and SLEM. Capacity in "participatory decision making, planning and implementation, transparency and social accountability, financial management, procurement, and safeguards" was built within the GPs, and several community-level institutions were built to provide training. In addition, important investments were made in building GP administrative capacity to ensure better participation and fund disbursement as part of project activities.

Governance:

In December 2011, a Government Order was issued to "hold GPs accountable for sustainability of the assets created by Gramya I and SLEM, such as water harvesting structures and livelihood activities by the Vulnerable Groups". This not only demonstrates the high level of country ownership for this project, but also increases the likelihood of the project environmental benefits being maintained going forward. (TE p.20)

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

Given that co-financing made up most of the SLEM budget, it was absolutely essential to the project, which would not have been possible without it. The planned co-financing was to be provided by the World Bank (US$75.44), the Uttarakhand Government (US$21.99m), and the beneficiaries themselves (US$9.46m) as in-kind contributions.

All expected co-financing contributions were exceeded.

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

> The SLEM planned to undertake a study on the climate change impact on mountain ecosystems and develop a mitigation strategy. These were not completed because of delay caused by the limited capacity in developing highly technical ToRs. This was also coupled with the delay in state government clearance and identification of an appropriate institution to conduct the study. The shelving of this study was unfortunate given emerging scientific evidence of the decline of mountain forests in the Himalayas as a result of increased mean ambient temperatures in recent decades."(TE p.19)

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

> It is the Government of Uttarakhand that is at the origin of this project. Indeed, the Government of Uttarakhand "requested Bank support through GEF to augment the project efforts on sustainable land, water and biodiversity conservation and management" (PD p.6).
>
> In December 2011, a Government Order was issued to "hold GPs accountable for sustainability of the assets created by Gramya I and the SLEM, such as water harvesting structures and livelihood activities by the Vulnerable Groups". This not only demonstrates the high level of country ownership for this project, but also increases the likelihood of the project environmental benefits to be maintained going forward. (TE p.20)
>
> In addition, the micro-watershed approach taken as part of SLEM will be replicated by the Government of Uttarakhand. As part of the 2009-2017 Uttarakhand Perspective and Strategic Plan, 537 micro-watersheds will be treated by 2027. As of the production of the TE, a Gramya II project was being negotiated with the Government of India. This project would maintain the Gramya I approach and would "support the farmer federations formed under Gramya I to improve their sustainability by building their capacity in managing agribusiness." (TE p.10).
>
> The above examples demonstrate the high level of country ownership for this project, which is assuredly going to improve the sustainability of outcomes going forward.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: **Satisfactory**

The TE rates M&E Design, Implementation and Utilization as Substantial. This TER assesses M&E Design as satisfactory due to the overall sound and complete M&E design, but notes some weaknesses in the indicators chosen as part of the results framework.

The PD for the SLEM project includes a very detailed results framework, featuring specific outputs and intermediate results indicators, data collection instruments, and responsibility for data collection (PD Annex A). An M&E Strategy was already in place for the Gramya Project, and was simply extended to the GEF additional financing. As should be, additional monitoring components were added to the original M&E plan of the project (PD pp. 16-18). Part of that strategy included the contracting of an external agency to conduct a baseline survey, mid-term evaluation and final evaluation of the project. "Participatory Monitoring and Evaluation (PME) was carried out in all project GPs by a GP level PME team representing all stakeholders" (TE P.68).

While the M&E design was overall complete and relevant to the needs of the project, there were a few issues with it. First, the TE (p.8) argues that the target values for some of the indicators could have been more ambitious. Second, it argues that the indicators could have better captured some of the environmental outcomes the project aimed to improve. The only science-based outcomes included in the results framework are Indicator 3 (Increase in vegetative cover and biomass by 10%) and Indicator 8 (Increase in presence of key species of flora and fauna). The TE (p.8) argues that measuring the increase in water discharge rate, stream flow duration, and area under irrigation could have been better indicators of outcomes. The TER strongly agrees with this criticism, but notes that the final impact assessment did capture several of those indicators, despite their absence in the official project results framework.

6.2 **M&E Implementation**	Rating: **Satisfactory**

The TE rates M&E Design, Implementation and Utilization as substantial. This TER assesses M&E Implementation as satisfactory due to the planned M&E activities being carried out, and the monitoring data being fed back to project stakeholders and staff so as to improve project implementation.

The planned baseline, mid-term and final assessments did take place as planned, and so did the regular monitoring planned for the project. According to the TE (p.8), "The key physical outputs and outcomes were regularly monitored through WMD's well-established management information system (MIS), and these were reported at every Bank mission (…) The information was used to update the results framework, in particular, measuring the project outcomes, and preparing case studies, good practice notes (including 11 notes prepared by the SLEM), and various reports, including the Bank and government ICRs. The results and outcomes of Gramya I and SLEM were widely disseminated to stakeholders at the GP, division, and the state levels."

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: **Satisfactory**

The TE rates Project Implementation as satisfactory (p.6). This TER agrees with this assessment and also assigns a rating of Satisfactory due to the overall adequate supervision provided by the World Bank, especially given the challenges of such a complex multi-sectoral project.

As the World Bank was the GEF's implementation partner for this project, this TER focuses on the performance of the WB in its discussion of project implementation. The following description of project implementation provided in the TE gives a good summary of the successful implementation of this project: "The SLEM took full advantage of the skills, experiences and lessons learned of the Gramya I trained staff in its implementation. To ensure the sub-grants were fully disbursed, two reallocations between categories were approved by the Bank. These were to strengthen GP mobilization by reallocating funds earmarked for two climate change studies, which were not carried out due to lack of implementing agency capacity in this emerging subject (…) The SLEM fully disbursed the GEF grant and satisfactorily implemented most of the planned activities before project closing". (TE p.7)

The TE rates the Bank's performance as satisfactory, and describes their support to the project as having been always adequate and proactive. The TE provides little information about the specific assistance provided to the SLEM component of the project.

7.2 **Quality of Project Execution**	Rating: **Satisfactory**

The TE does not specifically rate project execution. This TER rates execution as Satisfactory due to the smooth running of the Gramya and SLEM projects, especially given the multiplicity of actors involved in the project.

The Government of Uttarakhand UK's Water Management Department (WMD) was the executing agency for this project. However, large parts of the project were executed directly by the GPs. For

example, “GPs executed about 80 percent of procurement under the project (…) Some delays in procurement of PNGOs occurred but did not impact overall implementation significantly (TE pp. 9-10).

The WMD appears to have fulfilled its program obligations adequately. Its roles as contractor, project manager and GP mobilizer were well met. WMD also successfully ensure that all staff were “adequately trained in the project’s concept and activities”(TE p.22).

Overall, the TE always refers to the WMD and the GPs as having been good executing agencies, and there is no evidence of unnecessary delays or implementation problems having been caused by those agencies.

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

> As part of the project, 20 micro watershed management plans were completed and being implemented. Activities conducted as part of the project have effectively improved environmental outcomes. SLEM interventions successfully increased the water discharge rate in the area targeted, increased and evened out water flows throughout the year, and reduced soil erosion (TE pp. 12-13). “The outcome of SLEM soil conservation was an estimated 142,438m3 of soil loss reduction, which protected topsoil on 185 ha and increased gross cultivable land to 278 ha.” (TE p.12) “Over two years, the SLEM interventions increased the biomass coverage by an estimated 5.5 percent in the targeted 125 GPs. The SLEM also contributed to biodiversity conservation in the targeted areas, as the richness in shrubs was significantly higher than the baseline values” (TE p.13).
>
> The Final Impact Assessment reports that the productivity of land increased by 21%, and irrigated land area increased by 27%.

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities

contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The report estimates that, as a result of the project, there were 50% more "beneficiaries engaged in the alternative livelihood activities that reduced their dependency on the natural resource base" (TE p.11). The Final Impact Assessment for the overall project (Gramya and SLEM) reports that the income of rural inhabitants increased by 57%, or 17% when adjusted for inflation. This clearly demonstrates a positive impact of the project in improving livelihoods.

Those changes were due to the success of the livelihood-enhancing activities piloted as part of the project, including "pine needle briquetting, traditional water mills, and medicinal and aromatic plan cultivation" (TE p.11). Those activities both reduced the pressure on the natural base and generated income for the participants.

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. "Capacities" include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. "Governance" refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities

Capacity-building activities were a core part of this project, and were essential in contributing to the success of the watershed planning and implementation (PD p.10). Little information is provided on the nature of those activities.

b) Governance

Not Applicable

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

Although this was not an objective of the project, the project led to better food and nutrition security due to the introduction of high value vegetable crop production. This was reported by the beneficiaries as part of the impact assessment. In addition, farming practices promoted as part of this project were replicated to non-targeted GPs (TE pp.18-19).

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end.

Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

The micro-watershed approach taken in this approach will be replicated by the Government of Uttarakhand. As part of the 2009-2017 Uttarakhand Perspective and Strategic Plan, 537 micro-watersheds will be treated by 2027. As of the production of the TE, a Gramya II project was being negotiated with the Government of India. This project would maintain the Gramya I approach and would "support the farmer federations formed under Gramya I to improve their sustainability by building their capacity in managing agribusiness." (TE p.10).

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

The TE (pp. 68-70), in the Summary of SLEM ICR section, presents the following lessons learnt (bolding added by the author of this TER to highlight lessons):

- SLEM project focused on biodiversity conservation and sustaining of ecosystem functions while simultaneously enhancing livelihood opportunities for the rural inhabitants. All project interventions directly and indirectly resulted in conservation of biodiversity at the MWS level in the project area.

- Watershed development planning with community participation was done at the MWS level and **(RF) and GP areas interventions were proposed by the community for both inter GP areas**. This **integrated approach** has resulted in comprehensive watershed treatment at the MWS level. The MWS **plans also provide for convergence with other departments** at the MWS level.

- **Involvement of community institutions** such as Van panchayat and Biodiversity groups constituted under Biodiversity act 2002 in natural resources management activities at the local level is a progressive step **resulting in greater ownership at the community level**.

- Drying up of the traditional water sources such as Naula, Dhara is a major concern in the state of Uttarakhand with some of the areas facing drought conditions in summer months. SLEM project focused on improving water source sustainability in MWS areas where the discharge in the traditional water sources had been reduced or had dried up. About 423 such sources were treated and water availability was improved. **Interventions for waters source sustainability should be an important component related to land development in the hill state in future projects.**

- **Decentralized approach to watershed management with the local institutions as *de facto* planners and implementers resulted in greater ownership of project at local level.**

- **Capacity development of Gram panchayat and other local institutions** (viz RVC, User Groups, SHGs, Van panchayat) has resulted in strengthening of these institutions vis a vis administrative capacity, financial working and skill development. This has resulted in improvement in governance.

- **The project had a definite focus on women related issues.** SLEM project provided mandatory 50% representation of women in project committees, separate Mahila Aam Sabha for integrating women concerns in MWS plans, women ward member as cosignatory for operating project account, drudgery reducing interventions, local level employment generation and financial assistance for taking up income generating activity. **All these interventions have led to capacity building of women in the project area**.

- SLEM project successfully promoted the use of alternative energy fuels like pine needle briquettes, biogas and solar cookers. This has resulted in reducing dependence on forest based fuel wood to some extent. Due to **high adoption rate**, these activities can be scaled up in future projects.

- Pine briquetting can become a major livelihood activity with an efficient marketing system. **The marketing system should be strengthened to attract enough people to scale up pine briquette production as a viable IGA**.

- Project has resulted in the revival of traditional water mills (Gharat) which has been a major success and has also yielded high economic return. **Convergence with the state agency for renewable energy development (UREDA)** was successful in conversion of traditional Gharats for micro hydro electricity production at the village level which has helped in rural electrification and reduced GHG emissions via substitution of diesel and fuel wood .

- Uttarakhand has tremendous potential for cultivation of medicinal and aromatic plants while simultaneously contributing to the conservation of wild germ plasm of these plants that had been depleted in recent years by predatory harvesting practices. Cultivation and marketing of medicinal and aromatic plants (MAP) was promoted in the project through package of practices, marketing support and linkage with State Medicinal Plant Board (SMPB). **All these interventions will go a long way in enabling the MAP growers and FIGs to get technical support, extension facilities, quality planting material and viable market linkages**.

- Under the SLEM project, **the importance of post project sustainability of project interventions was duly recognized and the sustainability issues were addressed right from the project conceptualization and design stage to project implementation at field level.** The state government order vide letter no. 251/XIII (II)/2011-31(05)/2011 dated 08 Dec. 2011 regarding the utilization and maintenance of the various assets created during the project period has resulted in convergence with line departments for Operation and maintenance of assets.

9.2 Briefly describe the recommendations given in the terminal evaluation.

There were no additional recommendations made outside of those included in the 'lessons learned' section.

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	**GEF IEO comments**	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	All outcome and output indicators are very clearly reported against, and a thorough discussion of impact is provided.	**HS**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The report is consistent, clear and well structured. All evidence is complete and ratings are always well substantiated.	**S**
To what extent does the report properly assess project sustainability and/or project exit strategy?	Sustainability is addressed, but is not directly assessed. Most factors contributing to the sustainability of the project are discussed.	**MS**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	The lessons learned are always supported by the evidence presented, and appear comprehensive.	**S**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	The report includes all costs (total and per activity), as well as all co-financing used.	**HS**
Assess the quality of the report's evaluation of project M&E systems:	All relevant monitoring and Evaluation information for the project was provided, and the assessment of the project's M&E was well substantiated and clearly presented.	**HS**
Overall TE Rating		**S**

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).

No additional material was used in the preparation of this terminal evaluation report.