DRAFT MID TERM EVALUATION REPORT

Towards Climate Smart Villages: Promotion of Affordable and Replicable Adaptation and Mitigation Practices to Enhance Livelihoods of Vulnerable Communities in The Kavrepalanchowk District, Nepal

Contents

SUMMARY

The project titled "Towards Climate Smart Villages: Promotion of Affordable and Replicable Adaptation and Mitigation Practices to Enhance Livelihoods of Vulnerable Communities in the Kavrepalanchowk District, Nepal" is being implemented by AEIN Luxembourg in collaboration with the Association for Rural Development (ARD). This initiative is a continuation of the previous project, focusing on different settlements and households. The primary objective is to enhance resilience to climate change within vulnerable communities in Bethanchowk Rural Municipality by implementing cost-effective, replicable climate-resilient initiatives.

The mid-term evaluation aimed to assess progress from April 1, 2022, to March 31, 2024, based on OECD DAC criteria. It sought to compare project targets with actual outcomes, examining both direct and indirect impacts through participatory analyses. The evaluation involved consultations with beneficiaries and local government representatives, along with a review of project-related documents.

A participatory consultative approach was employed, including Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs). The evaluation also involved desk reviews and field visits, ensuring a comprehensive understanding of project implementation.

Relevance: Given the Kavrepalanchok District's high vulnerability to climate change impacts, the project's focus on climate-smart practices is timely and directly addresses the challenges of temperature variations, unpredictable rainfall, and environmental stressors. While the project fits within government policies, there are opportunities to further refine some interventions to better suit local needs. For example, while biogas plants have shown limitations for larger households during colder months, interventions like plastic tunnels have provided significant economic benefits. This presents an opportunity for future projects to explore more tailored, locally relevant solutions.

Coherence: The project successfully aligns with both local and national climate resilience strategies, incorporating local government priorities and broader frameworks like the National Adaptation Plan (NAP) 2021-2050 and the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR). This coherence ensures that the project contributes to larger climate adaptation goals. While the project has demonstrated strong alignment with these strategies, there is still room for strengthening coordination at the local level. Advocacy and technical support in developing comprehensive local strategies for climate resilience and improving inter-agency collaboration could further reinforce long-term sustainability and project effectiveness.

Community engagement has been positive, with ward representatives actively participating in project activities. The Rural Municipal Chairperson expressed a commitment to creating a Local Adaptation Plan for Action (LAPA) at the last Annual General Meeting of ARD. However, recent consultations with the Chairperson were not possible due to ongoing disaster recovery efforts following a severe flood and landslide, which have shifted municipal priorities towards immediate relief and recovery. No official decisions regarding the LAPA have been finalized yet

Effectiveness: The project has achieved commendable success, particularly through initiatives such as improved cattle sheds and tunnel farming, which have enhanced agricultural productivity and provided new income streams, particularly for women. The adoption of climate-smart agriculture (CSA) practices is encouraging, assisted with continuous technical support. While these achievements are significant, there remains a promising area for growth—developing more robust market linkages for cash. Strengthening these connections will ensure that the livelihood initiatives continue to offer long-term economic benefits to the communities.

Efficiency: The project's operational efficiency has been one of its strong points. Resources have been mobilized effectively, keeping local contexts in mind, and integrated interventions like drip irrigation and bio-pesticide usage have led to improved farming practices. While the project has been resourceful in its operations, there is potential to enhance staff development further. Continuous training and capacity-building initiatives would not only improve adaptability but also increase the overall efficiency of the project as it progresses.

Impact: The project has already begun to demonstrate positive impacts on community resilience. Agricultural productivity has increased, particularly through tunnel farming and better livestock hygiene practices, which have reduced workloads and boosted farm outputs for women. Other interventions, such as lifting irrigation systems, are showing great potential in securing a reliable water supply for agricultural activities. While these impacts are encouraging, integrating climate change adaptation more fully into local government planning will strengthen these gains. Additionally, addressing the challenge of outmigration, which has led to a decline in younger populations in the villages, will be essential for ensuring the long-term sustainability of these efforts.

Sustainability: Several elements of the project are already showing potential for long-term sustainability. For example, initiatives like the operation and maintenance (O&M) funds for irrigation systems and the strong involvement of women in various interventions have fostered a sense of ownership, a key factor in sustaining community resilience. To further enhance sustainability, there is an opportunity to incorporate more climate-resilient components into water management systems (such as source protection measures, recharge ponds, engineering structures that can withstand probable flood or landslide) and strengthen knowledge transfer to local governments. This will ensure that the benefits of the project are sustained and expanded over time.

Concerns:

- **Selection Criteria:** A more thorough assessment of social and economic vulnerabilities would enhance the beneficiary selection process, ensuring that aid reaches the most marginalized communities. This critique pertains to the previous approach to selecting both individual beneficiaries and clusters. For future interventions, it would be more effective to base beneficiary selection on existing climate vulnerability assessments.
- **Tailored Interventions:** There is potential to further align interventions with specific local needs, moving beyond standard procedures to create more impactful solutions.
- **Maintenance and Sustainability:** Ensuring operation and maintenance (O&M) plans for community infrastructure before project handovers will help secure long-term sustainability.

Recommendations:

- **Enhance Market Linkages:** Strengthening market connections, especially for crops like kiwi, can help ensure lasting economic benefits for communities.
- **Integrate Climate Resilience:** Incorporating climate-resilient features into irrigation and water systems will support long-term adaptability to climate changes.
- **Broaden Community Participation:** Encouraging wider community involvement in planning and decision-making, along with feedback mechanisms, will enhance local ownership and effectiveness.
- **Institutionalize Knowledge:** Developing strategies to transfer knowledge to local government institutions will support the continuity of climate resilience initiatives.
- **Engage Youth:** Creating initiatives that retain and engage younger populations will help build leadership and sustain future community resilience efforts.

Conclusion:

The project has made significant progress toward building community resilience, and while challenges exist, they represent opportunities for further growth and refinement. By addressing areas such as beneficiary selection and alignment with local needs, future initiatives can become even more effective in meeting the evolving needs of communities.

This evaluation highlights the importance of continuous stakeholder engagement, adaptive management practices, and knowledge sharing to ensure the project's long-term sustainability in the face of climate change challenges. Through these efforts, the foundation for sustainable development in vulnerable communities will continue to strengthen.

1. INTRODUCTION

The project (Phase II) Towards Climate Smart Villages: Promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in the Kavrepalanchowk District, Nepal is being implemented by AEIN Luxembourg in support of local partner Association for Rural Development (ARD), Kavreplananchok, Nepal.

Project Name	Towards Climate Smart Villages: Promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in the Kavrepalanchowk District, Nepal
Phase	II
Project Location	Ward no. 1, 2, 3 and 4 of Bethanchowk Rural Municipality of Kavrepalanchowk District
Project Start date	1st April, 2022
Project completion date	31st January, 2026
Implementing organization	AEIN Luxembourg in support of local partner Association for Rural Development (ARD)
Funding Organization	Luxemburg Ministry of Environment, Climate and Biodiversity (90%) and AEIN Luxemburg (10%)
Budget	Total Budget: NPR 5,08,56,676
Mid-Term Evaluation Period	1st April 2022 – 31st March 2024

Phase II of the project is a continuation of the "AEIN_2018_01_projet_01_Népal" initiative, maintaining the same title and similar activities. However, the settlements chosen for Phase II are different, and with households completely different than the previous phase. Out of the four project wards, Wards 1, 2, and 3 were already part of the "AEIN_2018_01_projet_01_Népal" project, while Ward 4 is newly added in this phase.

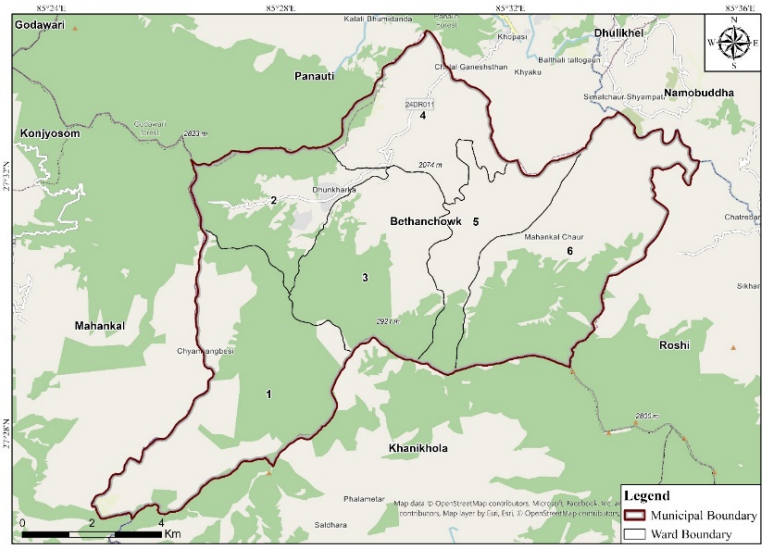

Figure 1:Study Area Map

The general objective of this project is to increase overall resilience to climate change of the target communities by moving towards "Climate-Smart Villages" in the project area. The primary goal of this project is strengthening the resilience of vulnerable communities in Bethanchowk Rural Municipality by implementing cost-effective and replicable climate-resilient initiatives. It includes a range of activities aimed at making the local community climate-smart and knowledgeable in areas like water management, sustainable agricultural practices, biodiversity conservation, and

environmental protection, while also enhancing their livelihoods through the promotion of forestry, agriculture, fruit cash crops, and agroforestry practices.

1.1 OBJECTIVE OF THE MID-TERM EVALUATION

The primary objective of the independent midterm evaluation was to review the progress made from April 1, 2022, to March 31, 2024 (Years 1 and 2), in line with the OECD DAC criteria. Additionally, the evaluation aimed to compare the targets set in the project proposal with actual outcomes, assessing both direct and indirect impacts, as well as short, medium-term, intended, and unintended results through participatory impact analyses.

This evaluation relied on consultations with project beneficiaries, local government representatives, and data provided by AEIN Luxembourg and ARD, along with project-related documents such as budgets, reports, meeting minutes, training documents, and government guidelines. It also sought to evaluate the project's current implementation status, document key achievements, assess the likelihood of meeting the targets by the project's end, examine the appropriateness of the exit strategy, and offer recommendations to improve the project's efficiency and effectiveness for long-term sustainability, given that the project is set to conclude in January 2026.

1.2 EVALUATION PROCESS

The evaluation process employed a participatory consultative approach, through multistakeholder consultation such as Key Informant Interviews (KIIs) and Focus Group Discussions (FGDs). This was supplemented by desk reviews, field visits, and direct field observation. The process began with a comprehensive desk review of project documents, including the Baseline Report, Data Collection Tools, Progress Reports and consultation with project implementation team.

Data collection tools included:

- KIIs with local stakeholders (Ward Chairperson, beneficiaries and ARD staffs)
- FGDs with beneficiary groups/households,
- Field observations of project interventions along with climate smart practices

The field assessment plan was designed to be flexible, considering local travel logistics, availability of representatives, and local customs. ARD field staff were instrumental in arranging meetings with respondents.

2. SITUATION ANALYSIS

Nepal's climate influenced by the Himalayan Mountain range and the South Asian monsoon, varies significantly both by seasonal and topography resulting a distinct climatic zones and significant climate variability (DHM, 2017; World Bank, 2021). Nepal being one of the most vulnerable countries to climate change experiences significant and direct impacts in water, energy and agriculture. Agriculture sector accounts for 23% to Nepal's GDP and nearly 66% of the total employment, of which 57.3% population is directly engaged in agriculture-related economic activities (GoN, 2021a; MoALD, 2023; NSO 2023). Small landholding, subsistence farming practices and crop-livestock integration are characteristic of Nepalese agriculture (MoALD, 2023) heavily reliant on climatic factors and soil moisture, thus being highly sensitive to precipitation and temperature changes. However, this climatic variability offers opportunities for building resilient agricultural systems and simultaneous complex climate risks (World Bank, 2021 MoALD, 2019). Nepal is among the most climate-vulnerable countries, and the promotion of Climate Smart Villages (CSV) aims to increase resilience, particularly in rural areas. The CSV initiative aligns with the government's broader climate adaptation strategies and focuses on mitigating climate-induced risks while promoting sustainable livelihoods for vulnerable communities.

Situation analysis of CSV approach and ecosystem-based intervention in Bethanchok Rural Municipality (RM) of Kavrepalanchok District, Nepal, highlights the complex interplay of socio-cultural, socio-economic, political, and ecological factors influencing agricultural resilience and adaptation to climate change.

Bethanchok RM is characterized by diverse agricultural practices and a significant population heavily reliant on farming for their livelihoods. The region faces significant challenges due to climate variability, which impacts crop yields and food security. Implementing the CSV model aims to address these challenges through localized interventions that promote Climate Smart Agriculture (CSA).

Socio-Cultural Factors

Community Engagement: The CSV approach emphasizes the importance of community involvement in decision-making processes. Local cultural practices and traditional knowledge play a crucial role in shaping agricultural practices. Engaging farmers in the design and implementation of CSA technologies fosters trust and encourages adoption. Education and Awareness Raising awareness about climate change and its impacts is essential. Educational programs that incorporate local customs can enhance understanding and motivate farmers to adopt innovative practices that align with their cultural values.

Socio-Economic Factors

CSVs help diversify incomes through climate-smart agricultural practices, including off-season farming, organic production, and water management. These practices aim to improve household resilience, increase crop yields, and enhance food security, ultimately reducing economic vulnerability to climate change Many farmers in Bethanchok RM face financial limitations that hinder

their ability to invest in new technologies. The CSV model should focus on providing access to credit and financial resources to facilitate the adoption of CSA practices. Improving market access for agricultural products is vital for enhancing income levels. Strengthening local cooperatives can help farmers collectively market their produce, thus increasing profitability and encouraging investment in sustainable practices.

Political Factors

Policy support is critical for the successful implementation of CSV initiatives. Local government policies on climate can help to prioritize and mainstream climate adaptation and CSA activities in regular development planning. However, there is not any climate related policies within the local government except the ward level LAPA developed in earlier phase. Collaboration between governmental bodies, NGOs, and community organizations is essential for effective policy implementation. Effective governance structures that facilitate communication among stakeholders are necessary for scaling up CSV efforts. Establishing clear roles and responsibilities among different institutions can enhance coordination and resource mobilization

Ecological Factors

Bethanchok RM's varied ecological zones according to altitudinal changes require tailored interventions that consider local environmental conditions. Understanding soil types, water availability, and biodiversity is crucial for implementing appropriate CSA technologies. The region's vulnerability to climate change necessitates adaptive strategies that enhance resilience. Implementing water management techniques, soil conservation practices, and crop diversification can mitigate the impacts of climate variability on agricultural productivity.

Conclusion

The Climate Smart Village approach in Bethanchok RM represents a promising strategy for enhancing agricultural resilience amidst climate change challenges. By addressing socio-cultural, socio-economic, political, and ecological factors, the CSV model can foster sustainable agricultural practices that improve food security and livelihoods and ultimately enhance resilience capacity. Continued collaboration among stakeholders will be essential for scaling up successful interventions and ensuring long-term sustainability in the face of evolving climatic conditions.

3. FINDINGS AND DISCUSSION

This chapter forms the crux of the report and analyzes the project's performance. This assesses the project performance in terms of the criteria of relevance, effectiveness, efficiency, sustainability, impact, and cross-cutting issues, following the OECD- DAC project evaluation criteria and the objective of this evaluation. The information in this section is drawn from the Focus Group Discussions (FGD) and Key Informant Interviews (KII). Further, the discussion embeds concern, and the recommendation has been put together to ensure complete picture under each criterion.

3.1 RELEVANCE

This project envisions the to enhance climate resilience of rural communities in Bethanchowk Rural Municipality based on an “Ecosystem-based Adaptation” approach and the “Climate Smart Village” concept stipulated in "Climate Smart Village procedure – 2073 B.S. (2016 A.D.)" by the Government of Nepal.

The National Adaptation Programme of Action (NAPA, 2010) designated Kavrepalanchok District as a "low rank” vulnerable district in overall vulnerability index and “moderate rank” vulnerable district in overall climate change vulnerability index. However, the latest VRA (Vulnerability and Risk Assessment) for NAP (National Adaptation Plan) has categorized this district as “high risk” district in terms of overall risk of climate change. Similarly, under both RCP 4.5 and RCP 8.5 scenarios, Kavrepalanchok is ranked as very high-risk district in projected risks of climate change impact in 2030 with projected increases of temperature by 0.9– 1.1 degrees Celsius (°C) along with (MoFE, 2021). From this it is evident that Kavrepalanchok district has been facing climate change impacts and is in the forefront to witness further unprecedented impacts.

Further, this has been manifested by severe impact in rural infrastructural and livelihood sectors (particularly agriculture) coupled with human casualties due to recent monsoonal rainfall (26th -28th September 2024) in Bethanchok Rural Municipality. Existing risk, exposure to climate induced hazards and vulnerability conditions indicates the significance of project initiatives.

Majority beneficiaries are women farmers, and their perception of climate change is deeply knotted with their livelihood, hardship posed by changing climate and immediate pressure in resources required to sustain farming activities. Over the last decade, the most significant changes affecting their livelihoods have been the shifting rainfall patterns, which have become more unpredictable, a rise in pest infestations in crops, and the depletion of water sources, particularly springs. Other perceived changes are increased landslides and dry spells. Beneficiaries reported the increased use of pesticide and inorganic fertilizers however possess significant health threats degrades soil quality (not due to climate change).

The project has already implemented and will continue array of activities, including technical capacity enhancement trainings, sensitization and awareness raising associated with climate change, adaptation, organic gardening, multi-cropping, seasonal/off-season vegetable farming, and commercial fruit farming. Also field intervention such as smart agricultural infrastructure, mini tiller

support, small irrigation system renovation, lifting irrigation, and plastic tunnels for farming, livestock shed improvement and so on are being implemented in different phases of project cycle. .

Through these climate smart interventions and technical support mainly in farming and livelihood diversification, project has been addressing observable challenges such as reduced water availability, increasing pest infestation, degraded soil quality, and supporting in diversification of livelihood that ultimately enhances the community resilience.

Improved cattle sheds are highly appropriate locally, as they have reduced the incidence of mastitis through promoting better livestock hygiene. Beneficiaries noted that this intervention has lessened the time and workload of women. Additionally, the separation of urine and dung has simplified farmyard manure management. Cultivating off-season vegetables, especially tomatoes and coriander, in plastic tunnels during rainy and cold conditions boosts income. Tunnel-based tomato farming requires fewer pesticides, which in turn helps to manage soil acidity.

The different interventions have also promoted social mobilization and leadership development among women through various trainings. Mechanized agriculture, such as tiller support, is efficient and slashed the workload of women as are readily available and can be operated by women unlike the traditional ploughing using oxen.

Continuous technical support has been supportive to uptake of climate-smart practices along with guidance on the safe use of pesticides to minimize health risks and environmental damage. Additionally, the local production of biopesticides has evolved into an eco-friendly alternative to chemical pesticides, aligning with climate-smart agricultural practices to safeguard agro-ecosystems and reducing dependency on external inorganic inputs.

Community seed banks hold great potential as they reduce local dependence on external seed sources, especially during market disruptions. Strengthening farmers' capacity to produce high-quality seeds locally can enhance their resilience and self-sufficiency, ensuring sustainable agricultural practices and improving food security. Community seed bank is planned as one of the interventions however hasn’t been started yet. During the discussion with farmers, it was understood that reliance on external seed suppliers is high hence community seed banks hold a greater importance.

Even when an intervention aligns with official policy, it may not sometimes be able to accommodate the actual beneficiaries and the local need. Activities implemented are within the frame of government procedure, however the local needs are beyond this procedural provisions. For instance, biogas plants which is not inappropriate however require space for structures, maintenance, and may not be practical for larger families, and have limited production in winter months. Interventions such as improving sheds, use of plastic tunnels, or upgrading to high-tech tunnels offer more economic benefits. These alternatives optimize space, reduce operational

demands, and provide better productivity in agriculture. Plastic tunnels, for example, allow year-round cultivation, protect crops from weather extremes, and reduce input costs, offering a more feasible and cost-effective solution compared to biogas plants. Rather than expanding the biogas support it would make more sense to shift towards improved shed, plastic tunnel support.

The selection criteria of clusters and beneficiaries is not well understood. Selection mechanism with proper documentation based on climate vulnerability could enhance the project's relevance. Discussions revealed that beneficiary selection for different interventions within the group was based on mutual agreements, with some prerequisites however household vulnerabilities are not evident. This practice could sometime overlook the more vulnerable household who can't raise voices. Any perceived inequities or inefficiencies in selection can lead to community dissatisfaction and reduced effectiveness.

Despite these challenges, the comprehensive approach encompassing different elements such as capacity building, climate smart practices, livelihood support, and constant technical support provides valuable lessons for future projects. The project's emphasis on building long-term resilience through activities such as climate smart village, lifting irrigation, renovation of traditional ponds is particularly commendable. Two villages Gorkhali Gaun and Patne Khola have met indicators and were in line with the climate smart village requirements. However recent floods and landslides have severely impacted the locality in terms of human and physical damage. In this scenario the local government priority is shifted completely towards relief, recovery and reconstruction hence the declaration seems challenging.

These forward-thinking initiatives lay a solid foundation for improved community resilience in the future.

To build upon the successes and address its shortcomings, several recommendations emerge:

- Review and improve beneficiary selection criteria for support initiatives thorough vulnerability assessments and deeper community consultations to ensure that support initiatives are well-targeted, culturally appropriate, and have the potential for sustainable impact ensuring the selection of marginal and poor household/community.
- Enhance community participation: Building on the inclusive approach, future projects should further emphasize community engagement throughout the planning and implementation processes. This could include establishing community feedback mechanisms, involving local government in decision-making, and promoting community-led initiatives within the broader recovery framework.
- Strengthen monitoring and evaluation: Implementing a robust monitoring and evaluation system can help identify and address challenges early in the project lifecycle. This should include regular assessments of project impacts, beneficiary satisfaction, and the

effectiveness of different interventions. Monitoring and evaluation should be done more frequently to further support the exit strategy.

- Promote knowledge sharing: The experiences and lessons learned should be thoroughly documented and shared with other initiatives. This knowledge transfer can contribute to the continuous improvement both within Nepal and in other regions.

In conclusion, the project, despite facing some challenges, has made significant strides in building long-term resilience. By addressing its shortcomings and building upon its strengths, future initiatives can be even more effective in meeting the complex needs of affected populations and fostering sustainable community development. This initiative serves as a valuable case study in the ongoing effort for resilient communities in the face of climate change.

3.2 COHERENCE

The Project has demonstrated notable strengths in its coherence with national policies and partial coherence with local priorities (recommendations based on ward level LAPA) and resilience building strategies. However, it also revealed areas where improvements coordination and mainstreaming in local planning could enhance future sustainability.

One of the key strengths was its passive coherence with local government priorities. This alignment ensured that the project's activities complemented existing local development plans and initiatives, rather than working in isolation or at cross-purposes. Such coherence is crucial for long-term sustainability and helps to build local capacity and ownership.

The promotion of climate-smart villages (CSV) involves integrating project activities by linking farmer groups with cooperatives (intra project coherence). CSV promotion aligns with the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR) and the National Adaptation Plan 2021-2050(NAP), supporting broader climate and disaster resilience goals.

However, the project also revealed concern regarding coherence and strategic planning at the local level. A primary issue was the lack of a local government strategy on climate resilience. The absence of such a strategy can led to increased vulnerability to climate change impact. The interventions have taken account of the recommendation from ward LAPA developed during the first phase however the local government hasn’t developed municipal climate strategy/plan.

To address these concerns and build upon the project's strengths, several recommendations emerge:

- Develop a local plan/framework for climate resilience building with local government: This strategy should be developed in close collaboration with local authorities and community stakeholders. It should incorporate lessons learned from this project, as well as the latest

understanding of climate induced hazards and vulnerabilities. The strategy should provide a clear framework for enhancing community resilience.

- Strengthen inter-agency coordination: While the project demonstrated some level of coherence with local priorities, there is room for improvement in coordination between different agencies involved. Establishing regular coordination meetings or a inter-agency coordination could help ensure better alignment of efforts and more efficient use of resources.
- Integrate climate change adaptation into local development planning: Building on the risk perceived by locals, efforts should be made to mainstream climate change adaptation considerations into all aspects of local development planning.

3.3 EFFECTIVENESS

The project demonstrated several strengths in its effectiveness while also revealing areas for improvement. This analysis focuses on the project's successes, challenges, and recommendations for enhancing the effectiveness of future resilience building initiatives.

A key strength of the project was the effective promotion and adoption of cattle sheds, which improved animal health and hygiene, thereby supporting dairy production—a major source of livelihood. Additionally, the plastic tunnels and drip irrigation systems supported climate-smart agriculture (CSA) practices, enabling off-season vegetable farming. This has notably contributed to women's economic empowerment and strengthened community resilience. Systematic technical support is evolving as key means to sustain interventions, enhance knowledge and techniques related to CSA, address pest infestation problems and sustain the project outputs mainly in cases of horticulture interventions.

Field interventions as livelihood diversification support and CSA promotions possess ripple effects beyond the immediate beneficiaries. By supporting cash crop farming like kiwi, lemon and walnut, the project may have showed prospects economic enhancement in the affected areas, potentially creating new job opportunities and stimulating local markets.

Recently completed lifting irrigation system is expected to be crucial in ensuring consistent water supply for agricultural productivity to counter the changing rainfall patterns and drying of spring resources. Proposed community seed banks hold significant potential for future climate resilience by preserving local crop varieties, which are more adaptable to the region's unique environmental stresses. This initiative not only reduces dependence on external seed sources but also promotes sustainable agricultural practices and increased resilience. Pond renovation will contribute to local farmers' resilience, as restored ponds can serve as reliable water storage systems, helping to mitigate the impacts of drought, promoting water recharge and ensuring water availability for crops during dry spells. Together, these measures provide a comprehensive strategy for enhancing climate resilience and improving livelihoods.

However, the project also faced few challenges that could potentially affect its effectiveness. One concern was about selection of kiwi variety, low market price and lack of market linkages. While the kiwi and other cash crop support is expected to show positive results, requires connecting beneficiaries with market opportunities. Without strong market linkages, the long-term impact and sustainability of these initiatives could be limited, potentially failing to provide lasting economic benefits to the vulnerable communities.

Based on these strengths and concerns, several recommendations emerge for improving the effectiveness of future projects:

- Strengthen market linkages in livelihood support programs: Livelihood initiatives should include a strong focus on market analysis and development of sustainable market connections. This could involve conducting thorough market assessments before initiating livelihood programs, facilitating connections between producers and buyers, and providing training in marketing and business skills. Collaborations with cooperative, private sector actors and existing market networks could also be explored to enhance the sustainability of these initiatives. The cooperative in operation is expected to act as forum for market linkage and livelihood support.

- Enhance community participation and ownership: Building on the success of user engagement in lifting irrigation systems, future projects should aim to involve community members in all phases of project planning and implementation. This could include participatory needs assessments, community-led project design, and the establishment of local management and strengthening of committees for infrastructure projects. There exists a management committee for the infrastructure project.
- Implement robust monitoring and evaluation systems: To identify and address effectiveness issues early, comprehensive monitoring and evaluation systems should be put in place. These should track not only project outputs but also outcomes and long-term impacts, allowing for adaptive management throughout the project lifecycle.

In conclusion, while project demonstrated several strengths in its effectiveness, particularly in animal shed improvement, lifting irrigation, and plastic tunnel support, it also revealed important areas for improvement. The lessons learned from the project provide valuable insights emphasizing local need, strong technical follow up, and robust market linkages in livelihood support initiatives.

3.4 EFFICIENCY

This project demonstrated both strengths and areas for improvement in terms of efficiency. This analysis focuses on the project's resource utilization, integration of components, and operational challenges, along with recommendations for enhancing efficiency in future initiatives.

One of the notable strengths was the operational efficiency with judicious mobilization of available technical human resources considering the local need and context. This approach likely resulted in

cost-effective output as beneficiaries are getting constant and reliable inputs to sustain the interventions mainly related with farming. By tailoring human resource mobilization to local needs and conditions, the project is likely to achieve a higher return on investment and avoid risk that can occur when standardized approaches are applied without consideration of local factors.

Another significant strength was the integration of multiple components withing climate smart village to provide holistic support. This integrated approach likely led to synergies between different project elements, potentially reducing overall costs and improving outcomes. For instance, combining tunnel support with bio pesticide and drip irrigation has streamlined logistics, reduced duplication of efforts, and ensured that communities had access to essential services. This holistic approach not only enhances efficiency but also contributes to more comprehensive and sustainable resilience outcomes.

Another significant concern was the limited training opportunities for staff. In the complex and often rapidly evolving context of climate change, ongoing staff training is crucial for maintaining and improving operational efficiency. Exposure visits and learning sharing visits in other parts of country CSV activities and best practices adopted could enhance knowledge and skills of staff contributing to efficiencies in project implementation.

Based on these strengths and concerns, several recommendations emerge for improving the efficiency of future disaster recovery projects:

- Increase training/exposure opportunities for project staff: To enhance operational efficiency and adaptability, exposure and learning sharing program could be implemented based on
  Enhance resource allocation strategies: Building on the project's strength in judicious resource use, future initiatives should conduct thorough needs assessments and context analyses aligning with local government plans. The project could plan capacity building training and workshops to the staffs for their better understanding and performance.

By addressing these concerns and implementing the recommended actions, future projects can enhance their overall efficiency, ensuring more effective use of resources and improved outcomes for affected communities.

3.5 IMPACT

The Project demonstrated significant positive impacts across multiple domains, particularly in enhancing community resilience and diversifying income and well-being. These solutions aim to enhance the sustainability of water, reduce reliance on pesticides and chemical fertilizers, and increase farm productivity and income thus ultimately contributing to community resilience.

The project has started to demonstrate notable impact in enhancing agricultural productivity and improving the livelihoods of local communities, particularly among women farmers. Livestock shed improvements have been highly impactful, resulting in a decrease in *mastitis* incidences and better

overall hygiene for livestock. This has eased the workload for women, who are traditionally responsible for livestock care. Improved shed has reduced the demand for litter, thereby decreasing dependence on forest resources. Moreover, the introduction of managed sheds and the use of *Jholmal*, a cattle-urine-based biopesticide and fertilizer, possess significant contribution in the quality of farmyard manure (FYM).

The introduction of tunnel farming has enabled off season vegetable production, generating income-opportunities for women. This initiative has made tomato farming in relatively colder climates, reduced pesticide needs and decreased soil acidity. Additionally, the project has offered essential technical assistance to farmers and has been fostering connections between women's groups and cooperative. By promoting sustainable practices like kitchen gardens and constructing recharge ponds, the project has improved vegetable farming practice and strengthened community resilience.

This impact extends beyond the immediate beneficiaries, as the adoption bio pesticide, attraction towards improved shed and plastic tunnel by non-beneficiaries indicates a broader cultural shift towards climate smart practices, amplifying the project's long-term impact on community resilience. The installation of lifting irrigation systems has had a transformative effect on income and social dynamics which are crucial factors in long-term resilience.

The project's success in enhancing women's leadership in farmers group is particularly noteworthy, as it contributes to gender equity and social inclusion. This empowerment of women in decision-making roles not only addresses immediate project needs but also has the potential to catalyze broader social change, challenging traditional gender norms and creating more inclusive community governance structures. The long-term impacts of this shift could include more equitable resource allocation, improved representation, and enhanced social resilience.

However, the project’s impact on climate adaptation prioritization at the local government level appears to have been limited. This gap is concerning, as local government buy-in and prioritization of climate change adaptation are crucial for sustaining and scaling up climate resilience efforts beyond the project's lifespan.

To address these concerns and maximize the long-term impact of future projects, it is recommended that implementers strengthen their advocacy efforts for climate adaptation activities prioritization at the local government level. This could involve developing targeted awareness campaigns for local officials, facilitating peer learning exchanges with municipalities that have successfully integrated climate change issues into their planning processes, and providing technical support to help local governments incorporate resilience building considerations into their budgeting and policy-making processes. By addressing these areas, future initiatives can build on the project successes while ensuring that the impacts on climate resilience and community well-being are sustained and amplified over time.

3.6 SUSTAINABILITY

Smallholder farmers are often conservative in their practices. It is always challenging to persuade them to adhere to new alternative approaches in situations where they have been facing multiple risks due to different hazards, climate change and reduced resource availability. If the trials failed, their risks increase. Farm characteristics and farmers' perceived behavior control significantly influence the adoption and continuation behavior of climate resilient/smart agriculture solutions. Fostering awareness, capacity building, and skill development and establishing both market and non-market incentives are essential for improving the adoption of new solutions for climate resilience in agriculture (Shrestha, 2024).

The project has demonstrated several strengths in terms of sustainability, while also revealing areas that require attention to ensure long-term resilience and continued benefits for the communities. This analysis focuses on the project's achievements in creating sustainable systems, fostering community ownership, and raising awareness, as well as addressing concerns and providing recommendations for enhancing sustainability in future initiatives.

One of the notable strengths was the establishment of operation and maintenance fund for lifting irrigation projects. This approach is crucial for ensuring the long-term functionality and benefits of the water infrastructure. Linking the women group with cooperative is remarkable effort as the groups gets intact even after the project closure. The cooperative approach can link their production with market, enhance financial literacy and motivate to continue income generation activities. However, an open-dialogue process engaging the community and local governments could sustain project interventions and facilitate farmers to adopt the recommended practices.

Another significant achievement was the high level of women engagement across various interventions. This inclusive approach is fundamental to sustainability, as it ensures that the community has a vested interest in maintaining and protecting the project outcomes. When community members are actively involved in implementation and management, they are more likely to take responsibility for the long-term upkeep of infrastructure and continuation of initiatives. This sense of ownership can lead to better maintenance, more effective use of resources, and greater resilience in the face of future challenges.

The increased awareness on safe pesticidal use, inclination towards bio pesticide along with wider acceptance of animal shed improvement indicates sustainability. By promoting knowledge and understanding on these low-cost climate smart practices the project has laid the groundwork for ongoing improvements resilience, even beyond the immediate scope of the project.

However, the project also faced several challenges that could impact its long-term sustainability. One significant concern was the lack of climate-resilient consideration/components in the water lifting systems. Given the increasing impacts of climate change, including changes in precipitation patterns and water availability, the absence of climate-resilient features could compromise the long-term viability and effectiveness of these water systems. This oversight may lead to increased

vulnerability to climate-related stresses and potentially reduce the systems' ability to meet community needs in the face of changing environmental conditions.

Another area of concern was the limited institutionalization of knowledge at the local government level. While the project succeeded in raising awareness among community members, the lack of systematic knowledge transfer to local government institutions could hinder the sustainability of climate smart efforts. Without strong institutional capacity and embedded knowledge within local governance structures, there is a risk that the lessons learned, and best practices developed during the project may not be fully integrated into ongoing local development and climate resiliency processes. Refresher training for the local government personnel and other stakeholders with an aim to enhance the knowledge and understanding is planned which can address support in integration of climate resiliency.

The absence of young population in villages, likely due to outmigration, presents a significant challenge to long-term resilience. This demographic shift can impact the sustainability of project outcomes in several ways, including reduced labor availability for maintenance of infrastructure, potential loss of traditional knowledge, and challenges in community mobilization for ongoing efforts. Based on these strengths and concerns, several recommendations emerge for enhancing the sustainability of future projects:

- **Integrate Climate and Disaster Resilience in Irrigation Projects**: Future irrigation initiatives should prioritize disaster and climate-resilient features through vulnerability assessments to guide system design, water conservation strategies and exploring alternative water sources for increased resilience and designing flexible systems that can adapt to evolving climate conditions.
- **Plan advocacy and capacity building of farmers group** to integrate the learning from CSV implementations and need based interventions in annual and periodic local level planning holds the greater possibility to ensure sustainability.
- **Establish Knowledge Institutionalization Strategies at Local Government Levels**: To ensure project insights and best practices endure beyond their implementation, it is essential to embed this knowledge within local governance. This could involve Creating comprehensive training programs for local officials and advocating for the incorporation of project insights into local development plans.
- **Address Demographic Challenges in Resilience Planning**: To counteract the effects of youth outmigration on community resilience, future projects should conduct demographic analyses to understand population trends and develop targeted strategies to engage and retain youth in rural areas through livelihood opportunities.
- **Enhance Capacity Building for Sustainable Resource Management**: Future projects should focus on developing local capacities for resource management by offering training on financial management and resource mobilization and establishing connections with local financial institutions for ongoing funding support.
- **Promote Adaptive Management Approaches**: To ensure long-term sustainability amid changing conditions, projects should implement regular review processes to assess project relevance and effectiveness, develop flexible frameworks that allow adjustments based on

emerging challenges and create feedback mechanisms that incorporate community insights into ongoing management.

- **Strengthen Multi-Stakeholder Partnerships**: Sustainable project outcomes require robust collaboration across sectors. Future initiatives should focus on building partnerships among local governments, civil society organizations, and private sector actors to support project maintenance and development and facilitate knowledge-sharing networks among communities to exchange best practices and lessons learned.

In conclusion, while the project demonstrated significant strengths in establishing sustainable systems and fostering community ownership, it also revealed important areas for improvement, particularly in addressing disaster and climate resilience, institutional knowledge transfer and mainstreaming in local planning process, and demographic challenges. By implementing the recommended actions, future projects can enhance their overall sustainability, ensuring that the benefits of recovery efforts are maintained and built upon in the long term.

3.7 OVERVIEW OF IMPLEMENTATION PARTNER

Organizational Capacity: Established in 1993, ARD (Association for Rural Development) has extensive experience implementing development activities across Nepal. With a strong focus on climate change and contemporary development issues. ARD demonstrates high capacity in managing large-scale projects related to Water Supply, Sanitation, and Hygiene (WASH), as well as energy and environmental sustainability. Its successful partnerships with key government bodies and international organizations, such as the Rural Water Supply and Sanitation Fund Development Board and UNICEF, highlight ARD's ability to coordinate, manage, and implement multi donor programs.

Motivation and Ownership: ARD's commitment to community-driven development is evident in its focus on empowering vulnerable groups especially children, youth, women, and marginalized communities. The organization has actively engaged in social mobilization for promoting leadership at the local level and encouraging policy implementation follow-ups. ARD's long-standing partnerships, including projects funded by the World Bank and support from Luxembourg's International Climate Fund, demonstrate the organization's ownership of sustainable climate adaptation and mitigation practices. ARD's motivation is clearly driven by its mission to uplift communities, enhance livelihoods, and build resilience to climate change impacts.

Human Resources: ARD employs a skilled technical team, including specialists in climate-smart agricultural practices, water management, and social mobilization. The team's successful management of climate-related projects such as "Towards Climate Smart Villages" and "SoluWaTree" showcases its capacity for implementing innovative and replicable adaptation solutions. The technical team's strong performance during project evaluations, particularly in Kavrepalanchok, Bhaktapur, and Solukhumbu districts, reflects ARD's capacity to drive project outcomes. ARD's representation in various UN-led clusters further enhances its human resource network, allowing for cross-sector collaboration and knowledge sharing.

Partnerships and Collaboration: ARD maintains strong collaborative ties with both national and international partners. Over the years, ARD has worked closely with Terre des Hommes–Germany, AEIN Luxembourg, the Ministry of Energy, and the Alternative Energy Promotion Center (AEPC). Such partnerships have enabled ARD to scale up its interventions in multiple sectors. By aligning its activities with governmental and donor agencies, ARD has ensured the sustainability and long-term impact of its initiatives.

Conclusion: With over three decades of experience, ARD has developed a solid organizational capacity, motivated by its mission to foster sustainable development. Its ownership of diverse development initiatives coupled with skilled human resource base positions ARD as a key player in advancing climate-resilient and sustainable efforts in rural Nepal.

4. APPROPRIATENESS OF EXIT STRATEGY

The envisioned exit strategy lies primarily in handing over activities and infrastructure to local beneficiaries, who have been empowered during different phases of project cycles.

The delegation of forest-related activities to Community Forest User Groups (CFUGs), with training and close involvement in project activities, transferring responsibility for water ponds, irrigation schemes, and agriculture-related initiatives to farmer groups, under local government supervision is promising however active collaboration with local governments to secure financial and technical support better ensures the sustainability of project activities. Considering the local context following considerations would help to bolster the appropriateness of proposed exit strategy:

- Institutionalization of women's group (beneficiary group) through formal registration as farmer group and linking them with local government to access budget and technical guidance. The institutional innovation around CSV has been instrumental in making farmers aware of CSA technologies. This has been done largely through collaboration among public, private, civil society organizations, and communities.
- Revision of forest operational plans and activities handover to CFUG in close coordination with Bethanchok Rural Municipality and Sub-Divisional Forest Office.
- Preparation of Local Adaptation Plan of Action (LAPA) enhances local government performance in alignment with the Local Government Institutional Capacity Self-Assessment (LISA) Guideline of Federal Government. However, their financial capacity and priority in context of post disaster context after the recent monsoonal havoc is challenging.
- Exit approach having planned advocacy and capacity building of farmers group to integrate the learning from CSV implementations and need based interventions in annual and periodic local level planning holds the greater possibility to ensure sustainability.

Post Disaster Context

Bethanchok Rural Municipality suffered both human and physical loss by the recent devastating rainfall. Based on a preliminary report 12 individuals died, and more than 600 families has been displaced. Following the disaster condition the Federal Government has declared Rural Municipality as disaster threatening area. However detailed assessment of loss and damage by the government authority hasn't been completed. Wards 2,3,4 and 5 suffered a huge loss witnessing the damage in individual household, assets along with public infrastructure such as rural road, electricity and water supply. The road connectivity and electricity in Bethanchok was restored after more than a week period.

Moreover, rural livelihood has been severely disrupted as community infrastructure such as road and water supply has been damaged. Rural Municipal office resumed lately as whole building was damaged by flood. Currently the local government priority is relief, recovery and reconstruction.

Sustainable recovery and reconstruction activities demand significant budget and other necessary support which is beyond the capacity of local government. In this context it would be more appropriate to invest in the recovery and reconstruction activities based on post disaster need assessment.

5. CONCERNS, RECOMMENDATIONS & CONCLUSION

5.1 CONCERNS

The midterm evaluation has identified several concerns that demand careful consideration for future initiatives. These concerns highlight areas where project implementation and sustainability could be significantly enhanced.

- The future selection criteria of clusters and beneficiaries should be based on existing climate, social and economic vulnerability and hardship. During project planning and preparation assessments should equally focus on selection mechanism and criteria.
- Interventions should be tailored and based on beneficiaries' needs beyond government procedure (which is not legally binding). The CSV guideline identifies several climate smart activities, however this doesn't mean that all activities should be in the same place. The activities that are more context specific and possess more economic benefit should be implemented. For example, biogas has been installed as one of the components of CSV however improved cow shed, and plastic tunnel farming are comparatively more appropriate locally and demanded by beneficiaries.
- Operation and maintenance fund and mechanism should be insured prior to inception of any kind of community infrastructure support.
- Implement robust grievance handling mechanisms and conduct thorough staff orientation on their critical importance to project transparency and accountability.
- Promote and implement sustainable practices in livelihood support initiatives, with particular attention to self-reliance strategies such as seed purchasing and production.

5.2 RECOMMENDATIONS

Integrate Farmer Field Business School (FFBS) Model: The FFBS model is a transformative approach that promotes experiential learning among farmers by integrating practical field-based activities with business management principles, enabling them to make informed decisions about their agricultural practices. In CSVs, the FFBS model empowers farmers to enhance technical knowledge, adopt sustainable agricultural techniques, enhance productivity, and ultimately improve resilience against climate change impacts.

Institutionalization of Women's Group: Registration of women's groups as formal farmers' groups to enable access to agricultural support and legal recognition while maintaining cooperative linkages. Registering women's groups as formal farmer groups has proven to be an essential step toward empowering rural women and promoting sustainable agricultural development. These groups provide a platform for women to collectively enhance their agricultural practices, share resources, and advocate for their rights. Registered women farmer groups help women access agricultural services, credit, and training that would otherwise be limited. Further linking them with National Farmers Group Federation (NFGF) that advocates for marginalized and disadvantaged women, facilitating their registration into formal farming groups. This registration not only strengthens their economic resilience but also promotes leadership and entrepreneurship among women, empowering them to take on larger roles within their communities.

Promotion of Agro-ICT: Agro ICT plays a vital role in advancing Climate-Smart Agriculture (CSA) by providing farmers with timely information, tools, and resources needed to adapt to changing climatic conditions. The integration of Information and Communication Technology (ICT) into agricultural practices empowers farmers to enhance productivity, improve resilience, through effective use of agro ICT, farmers can monitor and manage their operations more efficiently, ensuring sustainable agricultural practices that align with CSA principles.

Strengthen Market Access: Develop strong market linkages, particularly for women-led initiatives, to improve farmers' access to markets and enhance economic opportunities.

Expand CSA Activities: Broaden Climate-Smart Agriculture (CSA) practices to include a wider range of crops and sustainable farming techniques, ensuring greater climate resilience beyond the CSV framework.

Involve Communities in Infrastructure Maintenance: Ensure community participation in the operation and maintenance (O&M) of key infrastructure, such as irrigation systems, to enhance sustainability and ownership along with other shared resources such as ponds and springs.

Regulate Pesticide Use: Advocate for the creation and enforcement of guidelines promoting eco-friendly pest control, reducing environmental and health risks associated with chemical pesticides.

Promote Agro-Insurance: Encourage the adoption of agricultural insurance to provide farmers with risk management strategies and protection from climate-related losses.

Prioritize High-Demand Interventions: Allocate more resources to widely accepted practices like cattle shed improvement and tunnel farming, based on rapid needs assessments.

Support CFUGs: Assist Community Forest User Groups (CFUGs) by revising their forest operational plans and support based on approved plans ensuring their long-term engagement in ecosystem-based adaptation and climate-smart initiatives.

Link with Early Warning Systems: Support to strengthen access of climate and early warning services to help farmers prepare for extreme weather events and protect livelihoods through timely, evidence-based decisions.

5.3 CONCLUSION

The mid-term evaluation of the "Towards Climate Smart Villages" project in Kavrepalanchowk District reveals significant progress in strengthening community resilience to climate change. The project's alignment with national strategies like the Climate Smart Village (CSV) framework and the National Adaptation Plan (NAP) ensures its relevance, as it directly addresses climate vulnerabilities, particularly in agriculture and water management. Interventions such as tunnel farming, improved livestock sheds, and water conservation have positively impacted agricultural productivity and livelihoods, especially for women, showcasing the project's effectiveness.

Despite these achievements, the project faces several challenges that present opportunities for further refinement. The need for stronger market linkages, particularly for high-value crops, is crucial for long-term economic sustainability. Additionally, improving coordination among local stakeholders, including government bodies, will enhance the project’s coherence and scalability.

The selection of beneficiaries, which was identified as needing a more targeted approach, can be strengthened by integrating deeper assessments of climate and economic vulnerability. The project's operational efficiency is commendable, with resources being utilized effectively to implement climate-smart agricultural practices. However, further investment in capacity building for staff and stakeholders, particularly in technical training and resource management, will help maintain momentum and adaptability as the project progresses. The absence of climate-resilient components in certain infrastructure, such as water systems, also highlights an area for improvement.

The project’s long-term impact is evident, with significant improvements in community resilience, income diversification, and social inclusion, particularly through women's leadership roles. The establishment of community seed banks and the adoption of eco-friendly pest control methods are promising indicators of sustainability. However, the challenges of youth outmigration and limited institutionalization of knowledge at the local government level remain concerns. Addressing these will be critical to ensuring that the project’s outcomes are maintained and scaled up in the future.

In conclusion, the project has laid a strong foundation for building climate-resilient communities in Kavrepalanchowk. By addressing identified challenges—such as enhancing market linkages, ensuring climate-resilient infrastructure, and strengthening local government involvement—the project can further solidify its long-term sustainability and impact. The lessons learned from this initiative provide valuable insights for future projects aiming to foster sustainable development and climate adaptation in vulnerable rural areas.

6. REFERENCES

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7. ANNEX

7.1 ToR

For the external midterm review of the project "(Phase II) Towards Climate Smart Villages: promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in the Kavrepalanchowk District", Nepal, funded by Aide à l'Enfance de l'Inde et du Népal (AEIN Luxembourg) and implemented by Association for Rural Development (ARD), in Bethanchowk Rural Municipality of Kavrepalanchowk (Kavre) District in Bagmati Province.

AEIN project number: [AEIN reference N°: 654] / [Ministry reference N°: AEIN_2022_02_projet_05_Népal_03]

Project title: (Phase II) Towards Climate Smart Villages: promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in the Kavrepalanchowk District

Project country: Nepal

Sector: Mainly agriculture related climate change adaptation and mitigation activities

Project term: 01.04.2022 – 31.01.2026

Project budget:

Year	Budget in EUR	Budget in NPR
1	99 160	12 395 025
2	99 105	14 118 331
3	99 112	12 389 036
4	99 060	12 382 495
Total	**396 437**	**50 856 676**

(Financed by the Luxembourg Ministry of Environment, Climate and Biodiversity (*90%*) and AEIN Luxembourg (*10%)*)

1. Introduction

The project "(Phase II) Towards Climate Smart Villages: promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in the Kavrepalanchowk District" (the "PROJECT") has been introduced on 1 April 2022 and spans over a period of nearly 4 years. The project is implemented in Ward no. 1, 2, 3 and 4 in Bethanchowk Rural Municipality of Kavrepalanchowk (Kavre) District (Bagmati Province) by the local partner organization Association for Rural Development (ARD), the "PROJECT PARTNER". The project (Phase II) is a continuation of project "AEIN_2018_01_projet_01_Népal" (same title and similar activities), but within the selected wards, the settlements selected for Phase II are new and the target households have not been covered by the previous project "AEIN_2018_01_projet_01_Népal". Among the 4 project wards, Ward no. 1, 2 and 3 were already covered by project "AEIN_2018_01_projet_01_Népal" and Ward no. 4 is a new ward.

The overall objective of the PROJECT is to enhance the resilience of the vulnerable community of Bethanchowk Rural Municipality through affordable and replicable climate-resilient activities. The PROJECT covers a selection of activities, supporting the local community in becoming climate smart and knowledgeable in terms of water use, agricultural practices, biodiversity and environmental protection, while improving their livelihood conditions through the promotion of forest, agriculture, cash crop (fruit) and agroforestry related activities.

The project is targeting 435 households with a population of 2.277 habitants (1.086 females and 1.141 males) in Ward no. 1, 2, 3 and 4 of Bethanchowk Rural Municipality.

The PROJECT covers the following components:

[1] Trainings and awareness raising

- Climate change sensitization, adaptation and mitigation
- Organic kitchen gardening and multi-cropping
- Seasonal and off-seasonal vegetable farming
- Commercial fruit farming (kiwi, lemon and walnut)
- Livestock rearing
- Pest control and disease management of crop and fruit species
- Agroforestry practices
- Waste management in schools and at community level
- Policy level discussion/interaction with the local government for capacity building of community forest user groups on silviculture techniques
- Institutional development and support

[2] Field level actions

- Implementation of agriculture-smart technical infrastructures and related development activities
    - Acquisition of mini tillers for ploughing
    - Renovation of small irrigation system and lifting irrigation project
    - Installation of plastic tunnels for seasonal and off-seasonal vegetable farming
    - Installation of drip irrigation systems
    - Promotion of organic kitchen gardens and multi-cropping practices
    - Promotion of agroforestry practices
    - Promotion of Integrated Pest Management (IPM)
    - Establishment of a seed bank for local varieties of crops and post-harvest material support
    - Support for the construction of improved animal sheds
- Tree plantation on barren/degraded land and promotion of alternative energy sources
    - Tree nursery
    - Conducting a tree plantation programs
    - Installation of biogas plants
- Conservation of water sources and increase of water availability during dry season
    - Installation of plastic ponds for water collection
    - Installation of rooftop rainwater harvesting sets
    - Natural spring water source conservation activities
    - Renovation of permanent water ponds
- Promotion of fruit (cash crop) farming through the cultivation of climate-smart species with high market value (kiwi, lemon and walnut trees)

[3] Establishment of "climate smart villages" following-up of the water-smart practices, carbon and energy-smart practices, agriculture-smart practices, biodiversity-smart practices as laid down in the “Climate Smart Village procedure – 2073 B.S. (2016 A.D)” of the Government of Nepal

[4] Communication and knowledge management

- Video documentation
- Publication of climate change sensitization brochure
- Publication of learning documents

[5] Capacity building

- Exposure visit of ARD staff to learn more climate change adaptation options
- In house training of ARD project staff on climate related themes

[6] Partnership with local government and other stakeholders

- Project learning and sharing with the local government
- Ownership of the project activities by the local government
- Monitoring of the project progress by the local government

2. Objective of the midterm evaluation

The midterm evaluation will assess the accomplishment of the progress made for the period from 1st April 2022 to 31 March 2024 (Year 1 and Year 2).

The primary objective of the independent midterm evaluation is to use participatory impact analyses and a target/actual comparison based on the project proposal and indicators to determine the project results and impacts achieved (direct and indirect, short and medium-term, intended and unintentional). The evaluation is based on information provided by AEIN Luxembourg and the PROJECT PARTNER, project related documents (project description form, budgets, financial and narrative reports, annual log frame reports, guidance documents, monitoring reports etc.), training reports, minutes of meetings, baseline reports and results, relevant local government guidelines as well as on project visits, discussions with all participants in the project (stakeholders).

The midterm evaluation is intended to assess the implementation status of the PROJECT. In addition to documenting key results and the likelihood and/or conditions to meet the set out target values until the end of the project, the evaluation shall, in particular, also assess the appropriateness of the defined exit strategy and come up with recommendations on how the effectiveness and efficiency of the PROJECT can be further enhanced in order to ensure sustainability and long lasting benefits, knowing that the project will come to its end in January 2026. The project exit strategy is laid down in chapter 6.4 of the project description form. In terms of the appropriateness of the exit strategy, the midterm evaluation should assess in particular:

- until what extent the Community Forest User Groups, the concerned farmer groups and communities and the local government are capable to continue or even expand/upscale the implemented project activities, after phasing out of the project,
- until what extent the local government is prepared / able to engage in terms of providing (continuous) future financial and technical support to the local groups / communities (e.g. through the preparation and implementation of the LAPA and through the obligation raising from the Climate Smart Village declaration - “Climate Smart Village procedure – 2073 B.S. (2016 A.D)” of the Government of Nepal),
- whether there is prospect for any long-term employment of an extension specialist (e.g., agricultural, forest technician), as mentioned in the exit strategy,
- the efficiency of the mechanisms developed by ARD to support the take-on of ownership by the beneficiaries and the local government.

Comment: To this regard, the evaluator shall also investigate to which extent activities implemented under the previous project (Phase I) are still successfully operational or in case of failure, define the specific needs / prerequisites for a successful exit strategy under the current project.

The midterm evaluation shall provide recommendations for the remaining duration of the project and beyond.

The midterm evaluation is commissioned by AEIN Luxembourg to assess the impact of the PROJECT against set objectives, the sustainability of the PROJECT outcomes from social, financial, and institutional

perspectives and the appropriateness of the exit strategy of the PROJECT. The evaluation is funded by AEIN Luxembourg and the Luxembourg Ministry of Environment, Climate and Biodiversity.

The midterm evaluation is based on the usual DAC criteria (efficiency, effectiveness, relevance, impact and sustainability).

3. Period of evaluation

From 15 September 2024 to 15 October 2024 and submission of final report by 15 October 2024.

4. Type of evaluation

Midterm evaluation with participatory evaluation methods

5. Structure of the evaluation report

The language of the evaluation report is English. A summary of three pages in English will be given. The report is structured as follows:

I. Summary 3 pages

II. Main text (up to 20 pages without attachments)

Introduction (maximum 2 pages)

- Objective of the midterm evaluation, evaluation process and method selection

Project outline (maximum 3 pages)

- Key data of the project, situation analysis and framework conditions, socio-cultural, socio-economic, political and ecological factors

Relevance

Relevance is concerned with assessing whether the action correctly identified problems and real needs and whether the project funded were in line with local needs and priorities as well as with donor policy.

One should therefore analyze:

- Relevance with regard to the core problems of the target group, orientation to the priorities of the target group, gender orientation, relevance for the partner country and for the objectives of AEIN Luxembourg, coordination with other project participants.

Impact (outcome and impact)

Impact looks at the wider effects of the action. Impact can be short or long-term, intended or unintended, positive or negative, macro (sector) or micro (household).

This section should therefore show:

- Socio-cultural, ecological and socio-economic impacts, intended and unintended impacts, assessment of possible risks, organizational and institutional effectiveness at the organizational and target group level

Effectiveness

Effectiveness measures the extent to which the activities funded under the action achieve their purpose, or whether this can be expected to happen based on the results. Therefore, effectiveness should indicate the real difference made in practice by the activities funded, how timely the intervention was; how far means were used to their maximum effect, how far the intended beneficiaries really benefitted.

The points to be taken into consideration will therefore be:

- Project planning and preparation, evaluation of target group, situation and project goal analysis, analysis of project documents (impact chain) and project conception
- Evaluation of the project implementing organizations, personnel / qualification, equipment, administration / financial administration and M&E system, motivation, ownership and legitimacy of the PROJECT PARTNER.
- Execution of the planned activities (quality and quantity), organizational implementation, evaluation of the applied approaches, instruments and methods.
- General evaluation of the project implementation, involvement of the target groups, collective empowerment of women from marginalized communities, and government organizations' commitment to support the activities.

Efficiency

Efficiency measures how well the various activities transformed the available resources into the intended results (outputs) maximizing quality, quantity and timeliness. This links with the question "were things done in the best way possible?" and thereby also addresses the concept of value-for-money, that is whether similar results could have been achieved more by other means at lower cost in the same time.

An analysis of Efficiency will therefore focus on:

- Budget evaluation, previous cost-benefit ratio, deviations from the planning and, if necessary, budget adjustments, project management
- Management of personnel, information, supplies, etc.
- Relations/co-ordination with local authorities, institutions, beneficiaries, respect of deadlines
- Suitability of the chosen indicators of efficiency; did any unplanned results arise from the activities?

Sustainability

Sustainability is concerned with measuring whether an activity is likely to continue after donor funding has been withdrawn and also whether its longer-term impact on the wider development process can also be sustained at the level of the sector, region or country.

The points to be taken into consideration will therefore be:

- Socio-cultural, organizational, institutional and political sustainability

General findings (lessons learnt – main issues / challenges / risks)

Recommendations

- project-specific, sector-specific and overall recommendations
- suggestions regarding their implementation
- PROJECT PARTNER's view on the EVALUATOR's recommendations and on his/her suggestions for their implementation

Appendix (TOR, project planning matrix, evaluation protocol, schedule, list of interview partners, literature and other sources, pictures and maps, etc.)

6. Subject

The evaluation should throw light on the following:

- check the areas of intervention of the PROJECT.
- get to know the opinion on the PROJECT of the target groups (male and female farmers): what, according to them, has improved since the implementation of the project, what are those needs

that are still not met? How well are they able to cope with climate change and improve their livelihood conditions, also compared to their peers living in neighboring areas not covered by the project ?

- policy influence: efficiency of the project to have local government officials actively participate in the project interventions and to incorporate the project in their policies, plans and programs, mainly through the preparation and implementation of Local Adaptation Plans of Actions (LAPAs). A LAPA has been developed under project "AEIN_2018_01_projet_01_Népal". The present project has been set up taking into account those LAPA recommendations. The present project is targeting 2 new wards (ward no. 1 and 4) for which no LAPAs have been developed so far. The local government is focusing on preparing a LAPA for the whole rural municipality learning from the previous project ("AEIN_2018_01_projet_01_Népal"). The current project shall provide technical support if the Rural Municipality plans to develop a new integrated LAPA over the project period. The evaluator shall assess the current status / progress in this process.
- progress and status in terms of the achievement of the establishment of "Climate smart villages" in accordance with the "Climate Smart Village procedure – 2073 B.S. (2016 A.D)" of the Government of Nepal.
- social and economic status of famers: efficiency of the project to improve the social & economic status of farmers and their working conditions, in particular women farmers.
- Find out what the project staff of the PROJECT PARTNER thinks of the PROJECT: e.g. challenges met during the implementation in the field etc.
- Give recommendations for activities in the future, if the financial support by AEIN is discontinued after January 2026 (see requests in terms of exit strategy under point 2).
- What aspects should be mainly taken into consideration if the project be expanded to other wards, villages in the same district and/or adjoining districts from 2026?

7. Organization of the evaluation

The midterm evaluation is planned in the month of September to October, 2024 for a total period of 30 days (including reporting). It comprises the following phases:

1. Preparation / study of documents [5 days]

Exchange with the PROJECT PARTNER to discuss the evaluation after reviewing the documents (respectively relevant project documents such as applications, reports and other background information), discussion and clarification of special questions and the special focus of the midterm evaluation, as well as for clarification of logistical questions.

2. Field phase [5 days, including 1 day of travel]

Conceptual planning of the field phase with the PROJECT PARTNER, collection of the relevant data using participatory methods (semi-structured interviews, discussions with focus groups, participatory analysis of the achieved results, evaluation of the effects achieved) involving project participants from all levels. The results are verified by field visits, participating observations, on-site inspections and technical assessment of the facilities, as well as by triangulation of the information obtained.

3. Reporting [max. *10* days, including final meeting]

A **first draft** of the evaluation report in English (including a summary) will be sent to the PROJECT PARTNER and AEIN Luxembourg, for response and clarifications. The evaluation report will be available at the latest 4 weeks after the end of the project visit. Obvious defects in the report must be remedied without further compensation. The final version of the evaluation report is submitted as a print product and as a file (Word and PDF). This final version will be shared with the Luxembourg Ministry of Environment, Climate and Biodiversity.

8. Evaluation Quality and Ethical Standards

The external evaluator should take all reasonable steps to ensure that the evaluation is designed and conducted to respect and protect the rights and welfare of people and the communities of which they are members, and to ensure that the evaluation is technically accurate, reliable, and legitimate, conducted in a transparent and impartial manner, and contributes to organizational learning and accountability.

9. Expert profile (requirements for the assessor)

Ideally, the evaluator should meet all the following criteria:

- University degree or comparable degree (PhD preferred) in any of the field such as agricultural science, environmental science/management, forestry, natural resource management or climate studies.
- More than 10 years of experience in national / international development cooperation with a focus on agriculture, climate change, rural development and/or livelihood
- More than 5 years of prior experience in the implementation of impact-oriented evaluations of projects and programs in the fields of agriculture and climate change adaptation and mitigation activities
- Excellent knowledge of community based and participatory evaluation methods
- Knowledge of the conditions, guidelines and quality requirements for projects funded by AEIN Luxembourg
- Excellent English language skills
- Good knowledge of the country and of the project area
- Preferably at least 2-3 reference projects, which he/she evaluated
- Impartiality