Evaluation of the Project

"Towards Climate Smart Villages: Promotion of Affordable and Replicable Adaptation and Mitigation Practices to Enhance Livelihoods of Vulnerable Communities in Bhaktapur and Kavrepalanchowk Districts of Nepal"

Report submitted to

Aide à l'Enfance de l'Inde et du Népal

&

Association for Rural Development

Submitted by

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Executive Summary

The global climate change trend is seriously affecting communities living in the highlands of Nepal. These highlands (hills and mountains) are particularly vulnerable to climate change impacts in comparison to the country's lowlands. Nepal is a predominantly agricultural, rural and mountainous country with only 15 percent of the land low and fairly flat. The agricultural sector contributes to about one-third to the country's gross domestic product (GDP). This sector offers the base of livelihoods for nearly 80 percent of the total population and employs two-thirds of the total labour-force in the country.

Overall rise in temperature is a widespread phenomenon in Nepal. Days and nights are becoming warmer with less cold days round the year. Similarly, significant variations in monsoon rainfall, erratic torrential rainfalls, longer drought periods, rapidly melting glaciers and expansion of glacial lakes have been observed in the county. Farmers are facing such extreme negative climate change impacts as longer dry periods, depleted productivity of their arable lands, drying off of natural water resources and rising scarcity of available drinking water, severe land degradation, loss of livestock, high levels of deforestation and overutilization of natural resources. It is especially the poor and marginal communities, more particularly women and children that are heavily exposed to climate change induced risks and threats in food and water security and overall livelihoods. Addressing the serious lack of proper knowledge and understanding of environmental and climate change problems in the communities is therefore an urgent need. To protect local communities from adverse climatic effects, to reduce negative effects of agricultural practices and induced behavioural changes, formulation and execution of an action plan covering both adaptation and mitigation measures has become most essential.

The Constitution of Nepal attributes rights and given authority to local governments to plan, implement and finance activities falling within climate relevant areas. Also, the administrative procedure foresees that climate change activities including Local Adaptation Plans of Action (LAPAs) are to be recognized, validated and endorsed into local municipality plans. However, newly elected local representatives have not been sufficiently acquainted with climate change adaptation concepts and policies. There was therefore an urgent need to sensitize local government representatives and stress the importance of accountability and responsiveness towards climate change issues, by getting them engaged constructively in policy-making and development of strategy planning and implementation.

The United Nations Framework Convention on Climate Change (UNFCCC) has recognized Nepal as a least developed and most vulnerable country in terms of climate change risks. The country is facing such diverse disadvantages as its rugged mountainous topography, high poverty rate in rural areas and unstable political situation. Climate change has adversely impacted people's lives and livelihoods – depleting agricultural production, food insecurity, water scarcity, degradation of forest and rangelands, rising human health problems, and inadequate, weak and fragile physical and institutional infrastructure.

The Government of Nepal released the National Adaptation Programme of Action (NAPA) in 2010. NAPA has been developed as a requirement under the UNFCCC to access funding for the most urgent and immediate adaptation needs from the Least Developed Country Fund (LDCF). In 2011, Nepal government developed and released the Local Adaptation Plan for Action (LAPA) Framework. This framework is expected to provide the effective delivery of adaptation services to the most climate vulnerable areas and populations in the country. The LAPA is intended to strengthen the rural communities' understanding of climate change, local assets, vulnerabilities and offers prospective solutions and adaptation strategies, funding mechanisms and priority action plans.

Financed by the Luxembourg Ministry of Environment, Climate and Sustainable Development under the International Climate fund (90%) and AEIN Luxembourg (10%) through contributions provided by The Mangrove Foundation, this project entitled Towards Climate Smart Villages: Promotion of Affordable and Replicable Adaptation and Mitigation Practices to Enhance Livelihoods of Vulnerable Communities in Kavrepalanchowk and Bhaktapur Districts of Nepal has been funded by Aide à l'Enfance

de l'Inde et du Népal (AEIN Luxembourg) and implemented by Association for Rural Development (ARD) Nepal.

The three-year project period started in March 2019 and will end in February 2022. It mainly carries out agriculture-related climate change adaptation and mitigation activities with the overall objective of building resilience of local communities to climate change by adopting a select set of climate-smart activities aimed at reducing negative climate change effects based on priorities in the following five major practice areas delineated by the Government of Nepal in its Climate Smart Village Procedure 2073BS (2016AD):

(i) water-smart practices;
(ii) carbon and energy-smart practices;
(iii) agriculture-smart practices;
(iv) biodiversity-smart practices; and
(v) knowledge-smart interventions.

The project's working areas include Naichal village in ward 8 and Nankhel village in ward 9 of Suryavinayak Municipality in Bhaktapur District; and Chyamrangbesi village in ward 1, Chorande, Kolkate, Kamikhoriya and Muldanda villages in ward 2, and Boldshirthali village in ward 3 of Bethanchowk Rural Municipality in Kavre District, Nepal. The project sites are the hills zone and have a subtropical climate. A total of about 470 households comprise the main direct target beneficiaries of the CSV Project that focuses chiefly on farmers, women and children belonging to ethnic groups.

The specific objectives of the project are as follows:

i. To enhance the awareness and capacity levels of farmers to take up climate change adaptation and mitigation measures;
ii. To increase and diversify farmers' income by adopting climate-smart agricultural practices;
iii. To support stakeholders and the local government in the setup and implementation of NAPA and LAPA policies;
iv. To increase forest greenery in deforested and degraded lands and protect natural water sources;
v. To promote improved livestock husbandry in terms of animal health, productivity and output of quality products; and
vi. To promote cash crop farming through the cultivation of climate-smart crop species with high market value.

This evaluation was intended to assess the implementation status of the project with regard to its climate-smart activities. Besides, it was expected to come up with a set of recommendations on how the project can be rendered more effective and efficient for the sustainability of its impacts. The evaluation was commissioned by AEIN Luxembourg and funded by the Luxembourg Ministry of Environment, Climate and Sustainable Development, and the AEIN Luxembourg.

The methodology used was a judicious combination of both evaluative and exploratory types. Both quantitative data and qualitative information and insights were used to meet the objectives. Various relevant documents were referred for most of quantitative data to substantiate findings against the indicators to be measured. The sources of important qualitative information on and insights into the performance of the project activities were intensive interviews and discussions held with a variety of stakeholders, especially a large number of project beneficiaries. Besides, observations were made of a large number and types of project activities in the project sites.

The findings generated through conduct of evaluation of the implementation and impact aspects of the diverse types of climate adaptation and mitigation related activities initiated and supported by the CSV Project have offered substantively insightful and useful learnings. They chiefly reflect and represent the core needs and demands of the direct project beneficiaries as well as the experienced opinions of closely related stakeholders, and bear strong potential to serve as important clues in identifying and prioritizing areas of intervention especially for a most potential next phase of the project.

Whereas most of those learnings have been presented in the third chapter of this report, some prominent ones that emerged as strong preferences, demands and suggestions include: second phase

of the project; more durable plastic tunnels (e.g. with steel/iron poles used) and permanent ponds with strong fencing; ensured complete set of accessories in the plastic tunnel system; improved animal sheds, compost pits with zinc sheet roof, maintenance/renovation of some more irrigation channels, more mini-tillers, extension of project activities to adjoining areas, cost mandatory for beneficiaries in obtaining project supported materials and other resources, solution to white grub and viral disease infestation of crops, better technical guidance for drip irrigation, long-term solution to plastic garbage management.

Based on the in-depth findings, conclusions have been presented in Chapter 3. Some of them include: the project has been very successful on the whole in bringing about distinct and impressive impacts on target areas and beneficiaries through execution of its set of climate adaptation and mitigation related activities; the financial accounting, transparency and efficiency, programme planning, documentation, communication and coordination aspects of the project appear to be strong; monitoring, supervision and documentation dimensions in terms of coverage and quality may need improvements; the beneficiaries as well as stakeholders are much appreciative of the project intervention and its positive impacts on target beneficiaries in particular and other related individuals and institutions in general; under such current adverse conditions where Covid-19 pandemic prevails and certain sections of the road and trail networks connecting the project sites are very fragile and risky hampering smooth transportation and physical contacts in the rugged high-altitude terrain, the impacts that the project activities have made so far in only a relatively short time period of two and a half years should be considered considerably high and the project deserving commendations; impressed and encouraged from the nature of the project activities and their positive impacts, the beneficiaries and stakeholders are strongly anticipating and demanding the launch of a second phase to the project; beneficiaries and local government representatives and officials have realized and recommended the need for further expansion of project activities and facilities such as Improved Animal Shed (IAS), biogas, renovation of traditional irrigation systems, large cemented water-jars, seeds and saplings of improved varieties of some fruits, fodders, spices and grasses, and mini-tillers; the above-reflected specific and special interests and expectations are the outcome of the impressive positive impacts of the project supported activities/practices/facilities; *project activities and contributions, including LAPA formulation, introduction and implementation support to the local government system, have created substantially high awareness, information and interest among beneficiaries and local representatives and officials towards climate change adaptation and mitigation measures and mechanism.*

Recommendations for planning and project intervention have been presented in Chapter 3. They chiefly include: extension of the project for a next phase of three-years to ensure greater and lasting impacts of activities proved to be very successful so far and attracting demand from increasing number of beneficiaries; a thorough discussion among stakeholders, and with present and potential beneficiaries, to identify and prioritize the most suitable and feasible sites prior to formulating and executing a plan of action; a specialized Baseline Survey of prospective project areas and beneficiaries; a serious discussion on transforming Bethaanchok Rural Municipality's major settlements as Climate Smart Villages (CSVs) according to the Climate Smart Villages Procedure 2078BS (2016AD) of the Government of Nepal.

Acknowledgments

This evaluation report has been possible with support and contribution the evaluator received from various individuals and institutions. First, the evaluator is thankful to AEIN Luxembourg, particularly Executive Director Mrs. Francoise Binsfeld, for entrusting the role of external evaluator for the Climate Smart Villages (CSV) Project. The evaluator appreciates Mrs. Binsfeld and Project Manager Ms. Jeanne Bormann for their useful inputs to finalizing the evaluation methodology package and for feedback on the draft report. Thanks to AEIN Nepal Coordinator Mr. Ramesh Twayana, ARD Executive Director Mr. D.N. Timalsina and ARD Project Manager Mr. Bheem Raj Rai for providing background information on the CSV Project and for supporting the field-based evaluation process.

During the field visits, cordial support was available

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All respondents comprising beneficiaries, local representatives and officials in the project sites were very receptive, amicable and responsive to the inquiries made. The evaluator admires them all, named in annex tables 1 to 16, for their valuable inputs. Various publications and reports of some organizations and individuals were useful as sources of related data and information in the report production process. They have been listed in the References section and deserve appreciation.

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List of Tables, Boxes and Photos

Abbreviations

AD	Anno Domini (the Gregorian calendar era)
AEIN	Aide à l'Enfance de l'Inde et du Népal
AF	The Asahi Glass Foundation
ARD	Association for Rural Development
ARD CCPT	Association for Rural Development Climate Change Project Team
BS	Bikram Samvat (the Nepalese calendar era)
CSV	Climate smart village
DIS	Drip irrigation system
F	Female
FGD	Focus group discussion
GoN/NPC	Government of Nepal, National Planning Commission
GQ	Guided question
HH	Household
hh	Household
IPM	Integrated pest management
KII	Key informant interview
km	Kilometre
LAPA	Local Adaptation Plan of Action
LPG	Liquefied petroleum gas
M	Male
MECCD-GDL	Ministry of Environment, Climate and Sustainable Development, Government of the Grand Duchy of Luxembourg
m	Metre
NAPA	National Adaptation Programme of Action
NB	Please note (nota bene)
no.	Number
p.	Page
PIT/ARD	Project Implementation Team / Association for Rural Development
RM	Rural Municipality
SAKs	Sustainable agriculture kits
,	Foot/feet
”	Inch/inches
ud.	Undated

Names of Some Major Local Plant Species

Aaanp	*Mangifera indica*	Mango
Aaaru	*Prunus persica*	Peach
Aaarubakharaa	*Prunus domestica*	Plum
Ambaa	*Psidium guajava*	Guava
Anaar	*Punica granatum*	Pomegranate
Angur	*Vitis venifera*	Grape
Dhegre Sallaa / Loth Salla	*Taxus baccata*	Himalayan yew
Dhupi sallaa	*Juniperus* sp.	Pine tree
Kaagati	*Citrus aurantifolia*	Lime
Kalakee	*Callistemon citrinus*	Bottlebrush
Katus	*Quercus indica* / *Castanopsis indica*	Hazelnut
Keraa	*Musa paradisiac*	Banana
Khanyoo	*Ficus semicordata*	Nepal fodder fig
Kimboo	*Morus nigra*	Black mulberry
Naaspaatee	*Pyrus communis*	Pear
Nimaaro	*Ficus auriculata*	Eye's apron
Okhar	*Juglans regia*	Walnut
Rai Khanoo	*Ficus montana*	Drooping fig
Rittho	*Sapindus mukorossi*	Soap-nut
Syaauu	*Malus pumila*	Apple
Timmur	*Zanthoxylum armatum*	Nepalese pepper

Some Most Common Local Terms in the Project Context

Bhakaaro	Animal shed/bed
Duund	Gutter
Gaunt	Urine (of buffalo, cow, goat, sheep)
Ghatta	Water turbine
Ghyaampo	A large cemented jar
Gobar	Dung
Kholaa	Stream
Kulo	Channel (for irrigation)
Pokharee	Pond
Ropani	A unit of measurement for area) one of the traditional land measurement units in Nepal; mostly used in hilly reas of the country. One ropani, divided into 16 aanaa, is equal to 5,476 square feet. Equivalent to 0.126 acre [1 acre = 7.9 ropani = 0.597 bigha = 4,046sq.m.]

I. INTRODUCTION

The major aspects presented in this chapter include background and project relevance, introduction to the Climate Smart Villages (CSV) project, objectives of the project evaluation, methodology of the evaluation, field-based evaluation schedule and techniques followed, depiction of the project sites, tables containing the summary of categories and number of respondents of the fact-finding process, and of types, numbers and locations of project activities visited and observed. Besides, the scope and limitation of the evaluation process has also been included.

A. Background and Project Relevance

Compared with the past, there has been increase in large natural disasters such as droughts, heavy rains, floods and epidemics across our globe. Such anomalous changes are induced largely by human activities. The global warming has caused extreme climate change and various natural disasters that in turn accelerate food and water shortages resulting in a number of negative consequences and crises. The depletion of water resources for instance generates a vicious cycle of adversities for people and other living things on the earth. In order to avoid and ameliorate such a situation we need to devise and dispense appropriate and effective measures and mechanisms (AF 2010). Climate change adaptation and mitigation related interventions constitute one such package of practices being promoted of late, and in this regard the approach and activities adopted by CSV Project is a case in point.

The global climate change trend is heavily affecting communities living in highland regions of Nepal. The highlands (hills and mountains) of the country are particularly vulnerable to climate change impacts in comparison to its lowlands. Nepal is a predominantly agricultural, rural and mountainous country with only 15 percent of the land low and fairly flat. The agricultural sector contributes to about one-third to the gross domestic product (GDP). This sector offers the base of livelihoods for almost 80 percent of the total population and employs two-thirds of the country's total labour-force.

Overall rise in temperature is a widespread phenomenon in Nepal. Days and nights are becoming warmer with less cold days round the year. Similarly, significant variations in monsoon rainfall, erratic torrential rainfalls, longer drought periods, rapidly melting glaciers and expansion of glacial lakes have been widely observed in the county over the decades and years. Farmers in the project area were facing such extreme negative climate change impacts as longer dry periods, depleted productivity of their arable lands, drying off of natural water resources and rising scarcity of available drinking water, severe land degradation, loss of livestock, high levels of deforestation and overutilization of natural resources.

It was especially the poor and marginal communities, more particularly women and children, in the project area that were heavily exposed to climate change induced risks and threats in food and water security and overall livelihoods. Therefore, addressing the serious lack of proper knowledge and understanding of environmental and climate change problems in the communities was urgently needed. In the same vein, to protect local communities against adverse climatic effects, to reduce negative effects of agricultural practices and induced behavioural changes, and immediate action plan covering both adaptation and mitigation measures was to be formulated and implemented.

The Constitution of Nepal has attributed rights and given authority to local governments to plan, implement and finance activities falling within climate relevant areas. Also, the administrative procedure foresees that climate change activities including Local Adaptation Plans of Action (LAPAs) are to be recognized, validated and endorsed into local municipality plans. However, newly elected local representatives were not acquainted with climate change adaptation concepts and policies. There was therefore an urgent need to sensitize local government representatives and stress the importance of accountability and responsiveness towards climate change issues, by getting them engaged constructively in policy-making and development of strategy planning and implementation.

The United Nations Framework Convention on Climate Change (UNFCCC) has recognized Nepal as a least developed and most vulnerable country in terms of climate change risks. The country is facing such diverse disadvantages as its rugged mountainous topography, high poverty rate in rural areas and unstable political situation. Climate change has adversely impacted people's lives and livelihoods – depleting agricultural production, food insecurity, water scarcity, degradation of forest and rangelands, rising human health problems, and inadequate, weak and fragile physical and institutional infrastructure.

The Government of Nepal released the National Adaptation Programme of Action (NAPA) in 2010. NAPA has been developed as a requirement under the UNFCCC to access funding for the most urgent and immediate adaptation needs from the Least Developed Country Fund (LDCF). In 2011, Nepal government developed and released the Local Adaptation Plans for Action (LAPAs) Framework. This framework is expected to provide the effective delivery of adaptation services to the most climate vulnerable areas and populations in the country. The LAPA is intended to strengthen the rural communities' understanding of climate change, local assets, vulnerabilities and offers prospective solutions and adaptation strategies, funding mechanisms and priority action plans.

The CSV project, described in the following section, set out activities to fit fully into the NAPA and LAPA strategy of the Government of Nepal. Thus, the project is in line with the agenda of the Intended Nationally Determined Contributions (INDC) proposed by Nepal to the UNFCCC (ARD 2018).

B. The Climate Smart Villages (CSV) Project

Financed by the Luxembourg Ministry of Environment, Climate and Sustainable Development under the International Climate fund (90%) and AEIN Luxembourg (10%) through contributions provided by The Mangrove Foundation, this project entitled Towards Climate Smart Villages: Promotion of Affordable and Replicable Adaptation and Mitigation Practices to Enhance Livelihoods of Vulnerable Communities in Kavrepalanchok and Bhaktapur Districts of Nepal has been funded by Aide à l'Enfance de l'Inde et du Népal (AEIN Luxembourg) and implemented by Association for Rural Development (ARD) Nepal. The three-year project period started on 1 March 2019 and will end on 28 February 2022. It mainly carries out agriculture-related climate change adaptation and mitigation activities with the overall objective of building resilience of local communities to climate change by adopting a select set of climate-smart activities aimed at reducing negative climate change effects based on priorities in the following five major practice areas delineated by the Government of Nepal in its Climate Smart Village Procedure 2073BS (2016AD):

(i) water-smart practices;
(ii) carbon and energy-smart practices;
(iii) agriculture-smart practices;
(iv) biodiversity-smart practices; and
(v) knowledge-smart interventions.

Nepal is divided into seven provinces, 77 districts, six metropolitan cities, eleven sub-metropolitan cities, 276 municipalities and 460 rural municipalities, for administrative, developmental and political purposes. The areas covered by the CSV Project fall in Bhaktapur and Kavre districts both of which belong to the Bagmati Province, of which Kathmandu city – the capital city of Nepal – is a part.

The working areas of the project comprise *Naichal* village in ward 8 and *Nankhel* village in Ward 9 of Suryavinayak Municipality in Bhaktapur District; and *Chyamrangbesi* village in Ward 1, *Chorande*, *Kolkate*, *Kamikhoriyaa* and *Muldanda* villages in Ward 2, and *Boldeshirthali* village in Ward 3 of Bethanchowk Rural Municipality of Kavre District, Nepal. All the project sites lie in the hills zone and bear a subtropical type of climate.

A total of about 470 households, in the two project districts combined, comprise the main direct target beneficiaries of the CSV Project that focuses chiefly on farmers, women and children belonging to ethnic groups. Of those 470 households, there are 328 with a population of 1,824 (901 females and 923 males) in Kavre district and 143 constituting a population of 658 (337 females and 321 males) in Bhaktapur district.

The specific objectives of the CSV Project are as follows:

vii. To enhance the awareness and capacity levels of farmers to take up climate change adaptation and mitigation measures;
viii. To increase and diversify farmers' income by adopting climate-smart agricultural practices;
ix. To support stakeholders and the local government in the setup and implementation of NAPA and LAPA policies;
x. To increase forest greenery in deforested and degraded lands and protect natural water sources;
xi. To promote improved livestock husbandry in terms of animal health, productivity and output of quality products; and
xii. To promote cash crop farming through the cultivation of climate-smart crop species with high market value.

C. Objectives of the Project Evaluation

The primary objective of the evaluation was to determine the project's results and impacts (direct and indirect, short and medium-term, intended and unintended) so far through the use of participatory impact analyses and a target versus actual comparison based on the project proposal and success indicators. The evaluation was based on information provided by AEIN Luxembourg and the project partner ARD, project-related documents (baseline report and results, plans and budgets, narrative and financial reports, guidance documents, monitoring visit reports, training reports, meeting minutes), and relevant local government guidelines and policies, as well as a visit to the project areas and discussions with all beneficiaries and stakeholders in the project activity sites. The evaluation has been based on the usual DAC criteria namely – relevance, impact, effectiveness, efficiency and sustainability.

The evaluation was intended to assess the implementation status of the project as regards the project's climate-smart activities. Besides, it was expected to come up with recommendations on how the effectiveness and efficiency of the project can be enhanced for sustainability in these sectors.

The evaluation was commissioned by AEIN Luxembourg to assess the impact of the project against set the objectives, but also possible extension and expansion of the project, sustainability of the project outcomes from social, financial, institutional and environmental perspectives, and appropriateness of the project partner's exit strategy for the project. It was funded by the Luxembourg Ministry of Environment, Climate and Sustainable Development, and the AEIN Luxembourg.

D. Methodology for the Evaluation

The methodology adopted for the project evaluation is a blend of both evaluative and exploratory types of research. Both quantitative data and qualitative information and insights have been used to cater to the requirements of the evaluation and the nature of the project under evaluation. While the various documents prepared in the recent past were the sources of most of quantitative data to substantiate the findings against the indicators to be measured, the sources of important qualitative information on and insights into the performance of the project activities were the intimate and intensive consultations and discussions made with a variety of stakeholders, especially a large number of beneficiaries, of the project and the direct observation of a large number and types of project activities in the project covered sites.

With the intent to gain relatively more consensus-based, consorted, concrete, concise, conclusive, integrated, structured, multipronged and authentic information, views, opinions and suggestions pertaining to the various vital dimensions of project activity performance, success and sustainability, the evaluator took the opportunity of inquiring / interacting with donor, partner and project executive and staff members at the centre and the government representatives and officials at the municipality level.

The schedule prepared by the ARD Nepal, and finalized in consultation with AEIN Luxembourg and the evaluator, was the guiding framework in making visits to various project activity sites for consultations with sampled and targeted respondents and observation of their activities being carried out with support from the project (Table 1).

Table 1: **Schedule of Activities for Climate Smart Village (CSV) Project Evaluation, 2021**

S. N.	Major activities and achievements stipulated for the evaluation work	Date
1	Preliminary discussion and negotiation among the Evaluator, ARD, and AEIN on the project evaluation plan	27 July
2	Project evaluation contract agreement between AEIN and Evaluator	29 July
3	Collection and review of project-related documents; production of field-study methodology	1-5 August
4	Evaluator's consultation with AEIN Luxembourg and ARD Nepal on evaluation process and methodology (techniques, tools, respondents, activities and sites); finalization of methodology package and detailed field study/visit plan; completion of preliminary management formalities and arrangements CSV-related consultations (KIIs) with related ARD staff; completion of preparations for the field-based evaluation visits to Bhaktapur and Kavre	6 August
5	Additional review of literature, report format design, other preparations for the field trip	7-8 August
5	Visit to Bhaktapur and conduct of field-based evaluation in select (sampled) project sites in the district (interactions, FGDs, KIIs, observations, photos, field-notes, case studies)	9 August
	Departure for Kavre and conduct of field-based evaluation in select (sampled) project sites in the district (interactions, FGDs, KIIs, observations, photos, field-notes, case studies)	10-14 August
6	Organization of field-based study findings; preparing the write-up; draft report preparation	15-24 August
7	CSV project draft report submission to AEIN and ARD for review and feedbacks	25 August
8	AEIN and ARD feedbacks on the draft received	28 August
9	Final report submission to AEIN and ARD	31 August

Before setting out for field-based evaluation process, the evaluator reviewed the project-related documents. Such documents chiefly included project proposal, project activity completion reports of different periods, monitoring reports, and the terms of reference for the evaluation. Chiefly in line with the Terms of Reference for the Evaluation, and with a few innovative dimensions added to it, a package of techniques for data and information collection was determined based on the list of questions and issues to get answers for from diverse types of respondents. That methodology package was finalized and confirmed in consultation with concerned executives and staff members of AEIN and ARD. Accordingly, checklists for use in consultations and discussions with various respondents of interaction meetings, FGDs, KIIs, one-to-one interviews and observation were prepared. Substantial revisions and refinements were made while administrating them, based upon needs and circumstances. The lists of names and affiliations of all participants of fact-finding events/discussions have been presented in tables A.1 to A.17 (Annex 1). The evaluation methodology and schedule followed in the field is presented in Table 2.

Table 2: **A Summary of the Field-based Evaluation Methodology and Schedule Followed, 2021**

Day and date	Activities (events/techniques, respondents, locations)
Monday, 9 August	Visited Naichal (1,691m) of Suryavinayak Municipality Ward 8, Bhaktapur; conducted home/farm visits, observation, one-to-one interviews and focus group discussions with project beneficiaries.
Tuesday, 10 August	Visited Kakrabari and Tallo Kakrabari, Nankhel (1,644m) of Suryavinayak Municipality Ward 9, Bhaktapur; conducted home/farm visits, observations, one-to-one interviews and focus group discussions (FGDs) with project beneficiaries. Observed and inquired about plantation in Hariyali Community Forest at Naichal. Traveled to Bethanchowk Rural Municipality in the evening and stayed at Dhungkharka, Bethanchowk, Kavre.
Wednesday, 11 August	Conducted an interaction programme at Dhungkharka (1,600m) with local government representatives, in the Bethanchowk Rural Municipality Office meeting hall. Traveled to Kolkate (2,000m) of Bethanchowk - 2 and held FGDs with project beneficiaries – women's group and mixed group, and made farm/home visits and conducted one-to-one interviews. Visited Kamikhoriya (2,190m) and held a FGD with project beneficiaries. Visited beneficiary houses/farmers and conducted observation and one-to-one interviews with beneficiaries. Conducted a KII with Bethanchowk Rural Municipality Chairperson, in the evening.
Thursday, 12 August	Conduced a KII with the Principal of Parvatl Higher Secondary School at Dhungkhark, Bethanchowk – 2, 6:35 – 7:30am. Visited Boldesirthali (2,240m) of Bethanchowk – 3 in the morning, made observations and conducted one-to-one interviews with project beneficiary farmers at their farms/homes. Held a FGD with members of Muldanda Chorande Community Forest Users Committee at Muldanda of Bethanchowk – 2. Held a FGD with a project beneficiary mixed group at Muldanda, Bethanchowk – 2. Held a focus group discussion with a project beneficiary mixed group at Chorande, Bethanchowk – 2. Conducted a KII with Bethanchowk Rural Municipality Ward 3 Chairperson, in the evening.
Friday, 13 August	Conducted a KII with Bethanchowk Rural Municipality Deputy Chairperson. Conducted a one-to-one interview with Bethanchowk Rural Municipality Administrative Officer. Conducted a one-to-one interview with Rural Women's Vegetable Production Cooperative Manager at Dhungkharka. Observation of tree nursery at Patnekhola, Dhungkharka, Bethanchowk -2 and one-to-one interview with nursery caretaker. Conducted a KII with a local herb specialist, project beneficiary and entrepreneur at Dhung Kharka. Departed for Chyamrangbesi. Conducted a FGD with project beneficiaries at Mathillo Gaun, Bethanchowk – 1. Conducted a FGD with project beneficiaries, at Chyamrangbesi, Bethanchowk -1 Ward Office. Stayed overnight at Chyaamraang Besee (1,350m).
Saturday, 14 August	Visited project beneficiary farms, made observations and one-to-one interviews with beneficiaries around Chyamrangbesi. Observed the Ghattekhola irrigation channel in general and its causeways in particular. Departed for and arrived back in Kathmandu.
Thursday, 19 August	Visit to Bhaktapur to attend the LAPA handover and endorsement programme at Suryavinayak Municipality Ward 8 Office.

NB: The tools used in techniques for conducting the evaluation process have been presented in Annex 1.

During all the interview and interaction events (Table 3), the evaluator took diary notes in detail to record all responses emanating from interview and discussion sessions with all targeted respondent individuals and groups in the fact-finding process, including the KII with AEIN and ARD executive members, a few representatives in the local government, knowledgeable executives and staff of a few other select institutions, and a few lead farmers from the project sites. Photographs of relevant events, project supported activities, materials, equipment and services in the sampled and visited people and places in the working areas of the project (Table 5). A select set of photographs reflecting the various dimensions of project activities and impacts at project working areas have been incorporated in the main body of the report and in the Brief Case Studies presented in Annex 3.

P.1: A sample physical setting of the project sites.

P.2: One of fact-finding sessions in project's working area.

Table 3: **Category and Number of Respondents, and Evaluation Techniques Used**

Technique	Number by district		Total number of events	Total number of respondents
	Bhaktapur	Kavre		
One-to-one interview	14	29	43	43
Focus group discussion	2	8	10	173
Key informant interview	4	11	*16	16
Case study	8	9	17	17
Interaction with local representatives	1	1	2	37
Interaction with project staff	1	1	2	15
	30	***59***	***89***	***301***

Based on: Field-based study, 9-14 August 2021. * Including 2 from AEIN Luxembourg and 3 from ARD.

Having accomplished the central level and field-based fact-finding processes, the draft report format predetermined was followed to incorporate essential contents into the document. Literature review especially of some relevant select publications and project-related reports was further made to glean supporting facts and figures, including the related maps, for compilation and their tabulation in appropriate contents and formats and their suitable incorporation in the draft report. Similarly, the primary data and information collected for the project evaluation was organized in topical chapters, sections, and related data-tables. After the main body of the report was complete in all its essential components, especially the findings and discussion chapter, the conclusions and lessons learnt were drawn and based on their critical analysis a set of related specific and practical recommendations were presented in the report.

The completed draft report was shared with AEIN Luxembourg and ARD Nepal for their comments and suggestions. Addressing the feedbacks received, revisions have been made in this report before submitting it to AEIN Luxembourg and ARD Nepal.

E. Scope and Limitation of the Evaluation Process

The evaluation covered all the crucial dimensions pertaining to the implementation, performance and impacts and impressions of the project, including issues for its sustainability and prospects for extension to a second phase. This was made possible largely through intensive and intimate inquiries with various

stakeholders and partners of the project, the largest mass being that of the project beneficiaries. Such dimensions covered were economic, social, technical, institutional, commercial, environmental, and political.

Reaching some remote areas of beneficiary farmers was not possible due to time limits and difficulties and much risks involved in transportation and travel. Similarly, observations could not be made of the very far and steep lands reported to have been planted with tree saplings. In-depth research on all individual project supported activities and beneficiaries was neither practically possible nor essential and intended for the evaluation. However, a very rich sample size in terms of the types and number of places and people covered by project activities was managed very well with the sincere willingness and efforts on the part of all persons involved in the evaluation process team.

II. CORE FINDINGS AND CONCISE DISCUSSION

This chapter presents the essence of the findings obtained through various field-based evaluation techniques including key informant interviews, interactions with stakeholders, one-to-one interviews with project beneficiaries, keen observations and photography, and also the core data sets (pertaining to performance and impacts of the diverse types of project activities embraced under the four major thematic areas namely, knowledge-smart, agriculture-smart, water-smart, and biodiversity/carbon/ energy-smart practices) gleaned from various reports on the CSV Project. Based on those premises, it assesses the project chiefly in such crucial aspects as relevance, outcomes and impacts, effectiveness, efficiency, and sustainability. The full text of the respondents' responses has been presented in Annex 2.

A. Activities Undertaken and Their Relevance

From the review of the various activity completion reports of the project, it has been found that sets of diverse types of climate change adaptation and mitigation related activities categorized under four major thematic areas have been carried out by the project in the past two and a half years period until recently (Table 4).

Table 4: **CSV Project Activities Carried Out as of July 2021**

Thematic area, activity/practice	Number of beneficiaries			Remark
	Bhaktapur	Kavre	Total	
Thematic area 1: *Knowledge-smart practices*				
Community level orientation workshop on climate change	97	180	277	1 day
Climate change sensitization, adaptation and mitigation training	32	50	82	3 days
Interaction workshop with local elected bodies about NAPA and LAPA framework	53	36	89	1 day
Organic kitchen garden and multi-cropping training	135 + 41	149+154	284+ 95	3 days, 1 day
Kiwi and grape farming training (no.)	50	54	104	3 days
Lemon and walnut farming training (no.)	29	58	87	3 days
Integrated pest management training (no.)	25	48	73	3 days
Forest management and silviculture techniques training (no.)	-----	50	50	3 days
Waste management and environment conservation training (no.)	32	73	105	2 days
Livestock rearing training	------	34	34	3 days
Seasonal and off-season vegetable farming training	46	67	113	3 days
Community orientation workshop on climate change project in the selected project area	97	180	277	1 day
Workshop on NAPA and LAPA framework	23	20	43	3 days
Thematic area 2: *Agriculture-smart practices*				
Soil test @ [78 in Bethanchok 1, 98 in Bethanchok 2]	89	@176	265	
Sustainable agriculture kits (SAKs) (no.)	55	47	102	
Plastic tunnel installation (no.)	63	37	100	
Drip irrigation installation (no.)	63	33	96	
Construction of improved animal shed (no.)	16	70	86	
Distribution of 60-litre drum for organic pesticide/fertilizer (no.)	63	37	100	
Distribution of 60-litre drum for urine collection (no.)	----	70	70	
IPM technique shared	25	48	73	
Organic kitchen garden setting up support	135	149	284	Seed support
Seeds distributed for seasonal and off-season vegetable farming	114	75	189	
Grape saplings distributed (no.)	101	466	567	No. of plants
Kiwi saplings distributed (no.)	200	320	520	No. of plants
Lime saplings distributed (no.)	1,588	1,557	3,145	No. of plants
Walnut seedlings distributed (no.)	70	256	326	No. of plants
Grass/fodder crop saplings distributed (no.)	11	207	#218	
Thematic area 3: *Water-smart practices*				
Plastic pond construction (no.)	13	75	88	
Installation of gutters for rainwater harvesting (no.)	13	75	88	
Construction of large cemented jar (no.)	-----	5	5	
Construction/renovation of community irrigation channel	-----	1	1	Chyamraang
Thematic area 4: *Biodiversity/carbon/energy-smart practices*				
Tree nursery establishment	----	1	1	Number
Forest plant saplings distributed (types, no.)	5,385	20,115	25,500	*
Plantation (no. of sites/area/plants)	**1	***3	4	****
Biogas plant installation	1	14	15	
Garbage and waste management system	120	156	276	

Gleaned from: Various ARD Project Activity Reports, as listed in the References.

NB: # Recipients of Napier, Phalaris, Le Joint vetch, Rai grass, Badame, Mako, Mulberry; * Besides, 3000 plants planted in public land (Plant species: Kimbu, Dhupi, Kalki, Katus, Kapur, Lapsi, Ritha, Nimaro, Utis, Loth salla, Timur); ** Hariyali Samudayik Wan, Naichal: 7 ropani;
*** Jan Jagriti Samudayik Wan: 10 ropani; Bharange Samudaayik Wan: 5 ropani; Narayanthan Samudayik Wan: 10 ropani;

The CSV Project activities are found to have been aimed at contributing to Government of Nepal's National Adaptation Programme of Action (NAPA) released in 2010 and its constituent components the Local Adaptation Plans of Action (LAPA) Framework developed and released in 2011, and have thus followed, in their formulation and implementation process, the Climate Smart Village Procedure 2073BS (2016AD) of the Nepal Government. The various types of CSV Project activities observed and inquired about as samples during field-based evaluation have been presented in Table 5.

Table 5: **Project Activities Observed during One-to-One Interviews with Project Beneficiaries**

S. N.	Activity	Location		Total
		Bhaktapur	Kavre	
1	Plastic tunnel with accessories	7	11	18
2	Drip irrigation in plastic tunnel	7	8	15
3	Organic pesticide/fertilizer bin	7	10	17
4	Kitchen garden	1	2	3
5	Improved animal shed	4	10	14
6	Plastic pond / water harvesting	3	8	11
7	Irrigation channel	-	1	1
8	Rainwater collection big jar	-	2	2
9	Rain-gauge	2	1	3
10	Kiwi	5 (30)	4 (30)	9 (60)
11	Lime	3 (35)	2 (34)	5 (69)
12	Grape	1 (5)	5 (21)	6 (26)
13	Walnut	-	2 (11)	2 (11)
14	Mini-tiller	-	1	1
15	Corn-shelling machine	-	1	1
16	Plantation in community forest	1*	1**	2
17	Plantation in private land		1#	1
18	Tree nursery	-	1***	1
19	Avenue tree plantation	-	1@	1
20	Waste management	5	11	16
21	Biogas plant	1	1	2

Based on: Field-based observation cum inquiries, 9-14 August 2021.

* Area = 7 Ropani at Naichal; ~4,00 seedlings of various native species, e.g. *Taxus baccata* (Himalayan yew / Dhegre salla), *Juniperus* sp. (Pine / Dhupee sallaa), *Ficus semicordata* (Nepal fodder fig / Khanyoo), *Zanthoxylum armatum* (Nepalese pepper / Timur), *Morus nigra* (Black mulberry / Kimbu), *Callistemon citrinus* (Bottlebrush / Kalaki), *Ficus auriculata* (Eye's apron / Nimaaro) and 3,000 seedlings of *Sapindus mukorossi* (soap-nut / Rittho). ** Many seedlings esp. of *Taxus baccata*. # Some *Taxus baccata* saplings offered by the project and growing well to the height of about 1.5m on average by now. *** Saplings standing at present include Rai Khanyu (5" height) – 500; Katus (5" height) – 200; Pinus sp. (6") – 100; Nimaaro (4") – 100. @ A few bottlebrush seedlings were seen planted along the roadside in Boldesirthali village. For fruits, figures in parentheses indicate number of growing plants. Fodder saplings distributed were found planted in a few private lands on the way to Chorande village and saplings in bags at the Tree Nursery in Patnekhola, Bethanchowk. Observations could not be made of the very far and steep lands reported to have been planted with tree saplings.

The project activities were found to be in strong congruence with the target objectives not only of the donor agency (AEIN Luxembourg) and partner organization (ARD Nepal) but also of other national and international development and climate change related agencies and agenda such as the ICF, the SDGs, and NAPA and LAPA Strategy and CSV Procedure 2016 of Government of Nepal (Boxes 1 to 5).

Box 1: Congruence between CSV Project Interventions and the International Climate Fund Strategy (ICF)

Luxembourg's International Climate Fund Strategy targets policy, technology and project initiatives that create climate change mitigation and/or adaptation benefits through the following processes under the *Natural Capital, Biodiversity, and Land-Use* thematic area:

- Conserving, restoring and enhancing natural ecosystems, including forests, grasslands, peatlands as well as coastal wetlands, and their ecological services;
- Targeting biodiversity-rich afforestation and reforestation campaigns;
- Using renewable energy sourcing and energy efficiency measures to enhance nature and biodiversity investments;
- Implementing organic agricultural systems, agroforestry, sustainable forestry, sustainable pasture grazing, sustainable aquaculture, as well as natural carbon farming practices to sustainably build fertile top-soils;
- Developing climate-friendly sustainable agricultural technologies and practices that do not harm the environment or threaten the integrity of ecosystems and thus contribute to long-term resilience of communities; and
- Building resilience with nature-based solutions in infrastructure planning, design and implementation (MECSD-GGDL, 2021).

The CSV Project clearly and strongly shows the potential for replication of its activities (intervention pattern and process) in other areas - communities or settlements and countries having similar socioeconomic and environmental circumstances similar to the ones that prevail in its current working areas in Nepal. Substantial attention given by the CSV project to the gender equity aspect, i.e., greater importance to the involvement of rural women in the climate change adaptation and mitigation processes also distinctly reflects its strong accord with the climate change related interventions and support schemes of the International Climate Fund (ICF).

Box 2: **Congruence between CSV Project Interventions and the Sustainable Development Goals (SDGs)**

The sustainable development goals (SDGs) are set to reduce risks and vulnerabilities especially of fragile places and marginalized people. Therefore, proactive risk assessments, followed by mitigation measures, will be given higher priority. In this regard, partnering with multilateral and bilateral donors becomes important for mobilizing more resources towards attaining the SDGs. The major climate change related interventions include (i) building resilience and adaptive capacity, (ii) reducing emissions, (iii) strengthening data and monitoring of climate change, and (iv) climate-proofing technology for infrastructure. A robust monitoring system with credible data sets is crucial for the success of the SDGs. Only an effective government with a strong statistical system can assess and incentivize progress across the goals (GoN/NPC 2017).

The CSV project objectives and intervention areas are found to be closely in line with the above views and visions of the Government of Nepal in the context of the SDGs, most particularly the following ones:

SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture
SDG 5: Achieve gender equality and empower all women and girls:
SDG 6: Ensure availability and sustainable management of water and sanitation for all
SDG 7: Ensure access to affordable, reliable, sustainable and modern energy for all
SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
SDG 13: Take urgent action to combat climate change and its impacts
SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
SDG 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Box 3: **Relevance and Role of the CSV Project in Women Development Process**

"…Women have shaped cultures, societies and economies of humankind in many important ways throughout recorded history. However, in many cases – especially in developing countries – they have limited control over resources including institutional services and facilities. That restricts their ability to generate income and improve their socioeconomic standing. Thus, it is now being increasingly realized that excluding women from taking part in the development process is to ignore half of the needs, aspirations and potential of humanity, and that any developmental intervention that excludes women implicitly or explicitly is bound to fail. With this growing realization, there have been constant emphasis laid on development mechanisms that could contribute to the advancement of those women living hitherto a backward, tough and poverty-stricken rural life (Ojha and Weber 1993)."

In view of the above-stated kinds of development-related realities and realizations too, the Climate Smart Village Project's special focus on women as its main target beneficiaries of the support for various climate change adaptation and mitigation practices clearly appears to be taking up a most relevant course of intervention towards making substantial contribution to that end.

Box 4: **CSV Project Objectives and Activities in Line With Government of Nepal's NAPA and LAPA Strategy**

The Government of Nepal formulated and released the National Adaptation Programme of Action (NAPA) in 2010 and as its constituent part the Local Adaptation Plans for Action (LAPAs) Framework in 2011. This framework is expected to provide the effective delivery of adaptation services to the most climate vulnerable areas and populations in the country. The LAPA is intended to strengthen the rural communities' understanding of climate change, local assets, vulnerabilities and offers prospective solutions and adaptation strategies, funding mechanisms and priority action plans. The CSV project activities fit fully into the NAPA and LAPA strategy of the Government of Nepal. Thus, it is in line with the agenda of the Intended Nationally Determined Contributions (INDC) proposed by Nepal to the UNFCCC.

The CSV project has been chiefly implementing agriculture-related climate change adaptation and mitigation activities in its working areas with the overall objective of building resilience of local communities to climate change by adopting a select set of climate-smart activities aimed at reducing negative climate change effects based on priorities in the following five major practice areas delineated by the Government of Nepal in its Climate Smart Village Procedure 2073BS (2016AD): (i) water-smart practices; (ii) carbon and energy-smart practices; (iii) agriculture-smart practices; (iv) biodiversity-smart practices; and (v) knowledge-smart interventions.

So far, the CSV project has formulated, based on consultations with local people and representatives, and handed over three LAPAs for Bethanchok Rural Municipality Ward 3, Bethanchok Rural Municipality Ward 3 of Kavre District, and Suryavinayak Municipality Ward 8 of Bhaktapur District, respectively. Whereas the first two LAPAs had been handed over to the respective wards and got endorsed by them early on, the third one was handed over by AEIN and ARD personnel to, and endorsed by, the authority of Ward 8 of Suryavinayak Municipality on 19 August 2021 amidst an introductory programme held at the Ward Office. Concerned authorities of the Wards have expressed their appreciation for the production of the LAPAs and have been supportive towards their full-fledged implementation. Additional text is presented in Section 7 of Annex 2.

Box 5: **Adoption of Government of Nepal's 'Climate Smart Villages' Procedure, 2016**

The CSV Project had implemented, in March 2019, climate-smart activities under five major thematic areas, viz. agriculture-smart, biodiversity/carbon/energy-smart, knowledge-smart, and water-smart practices, following the Government of Nepal's Climate Smart Village Procedure 2073BS (2016AD). The two objectives of Nepal Government's Climate Smart Village (CSV) Program are: (i) To promote climate-friendly activities in five areas – agriculture, biodiversity, education, energy and water; and (ii) To motivate the community towards climate smart and sustainable development (ARD 2018).

The CSV Project is found to have selected Muldanda and Kamikhoriya villages of Bethanchok Rural Municipality in Kavre District, Nepal to develop them as model 'Climate Smart Villages,' by making maximum use of appropriate technologies to adopt climate change adaptation and mitigation measures as regards agricultural practices, water management practices, carbon-smart practices, tree plantation activities, in line with the above-stated procedure. It was expected that successful practices in the two model (demo) villages would then be replicated to other settlements by highly encouraging the villagers to get engaged more in climate smart practices, although they were also covered by the project's climate smart related activities.

Based on all the findings (from consultations with and responses from respondents as well as keen observations) of this evaluation, the external evaluator could not see anything so distinctly different in those two villages from the remaining villages (Naichal and Nankhel in Bhaktapur District, and Boldeshirthali, Chorande, Chyamrangbesi, Kolkate in Kavre district) covered by the project as its working areas, even with respect to sustainable agriculture kits (SAKs) distribution and use. The concrete conclusion based on the elaborate and in-depth fact-finding has been that it is still early (rather immature) to firmly come up with a conclusion that any of the villages has yet reached a stage where it could be befitting its declaration as a Climate Smart Village (CSV). The CSV declaration would therefore depend clearly on how CSV-related activities and impacts accumulate and appear over time by the end of its current phase (with another approximately six months remaining) and possibly beyond that period of time.

B. Outcomes and Impacts

Overall, the CSV Project has been successful in bringing about very distinct and impressive impacts on target areas and beneficiaries through execution of its set of climate adaptation and mitigation related activities. Such activities, structures or facilities as Improved Animal Shed (IAS), biogas, renovating traditional irrigation systems (channels and ponds), large concrete/cemented water-jars, seeds and saplings of improved varieties of some fruits, fodders, spices and grasses, and mini-tillers have created a variety of benefits to the beneficiaries. For example, the irrigation channel renovation at Chyamrangbesi has made it possible for the villagers to bring back their land to irrigation and increased crop yields. Some such prominent impacts have been delineated further in the Brief Case Studies presented in Annex 3.

P.3: Project-supported mini-tiller at Muldanda.

P.4: A plastic-cover pond support at Kolkate.

The beneficiaries as well as stakeholders are much appreciative of the way the project intervention has taken place and made positive impacts on the target beneficiaries in particular and the other related individuals and institutions in general. The demonstration effect of most of the project activities/practices have been very strong and has far-reaching and far-wider positive impacts in terms of the rise in local people's awareness, knowledge, trust and interest in most of those activities/practices. Plastic tunnel and ponds have also gained attraction among beneficiaries.

The overall nature and impacts of project activities are seen to be very good in financial, social and environmental dimensions, and thus deserving their replication and expansion. A strong reflection of the overall impressive outcomes and impacts of the CSV Project on its target beneficiaries can also be vividly seen in the following excerpt from the full text of respondents' responses presented in Annex 2:

> "ARD project support in improved animal sheds, lime cultivation, irrigation channel maintenance and operation has created a very positive impact. The programme is transparent in such matters as distribution of financial and materials support to its beneficiaries. It would be best if it is extended for another two to four years. Ghattekholo irrigation system has become successful, serving at least 52 households in Chyamrangbesi. It has generated additional employment and income…
>
> …Due to ARD, there has been a lot of services and facilities available to farmers – plastic tunnel, container for organic pesticide/fertilizer, container to collect urine, tomato seeds, methods to plant and take care of the plants. Information and training were given about plant protection / pesticide and skill to treat blast disease. Planting of grass and tree species was done in community forest throughout the month of Shravan (June - July 2021)." Annexes 2 and 3 present elaborations.

C. Effectiveness

Given that climate change also has increased prospects for the cultivation of new and important crops in the project's working areas and the impacts of climate change have largely been adverse in such forms as drying off of water resources, increased infestation of insects and crop diseases, and depletion in forest resources, the adaptation and mitigation related interventions of the project have been most relevant, timely, essential, and much advantageous in many important ways. The Local Adaptation Plan of Action (LAPA) formulation, introduction and implementation support to the local government system have created substantially high level of awareness, information and interest among the beneficiaries and local representatives and officials towards climate change adaptation and mitigation measures and mechanisms. So far, LAPAs have been formulated for a total of three project sites (Suryavinayak Municipality Ward 8, Bethanchowk Ward 2 and Bethanchowk Ward 3) and presented before the respective local representatives and handed over to the authorities for their (LAPA's) implementation. These LAPAs have also been translated into English and shared with AEIN Luxembourg for their information and perusal.

All the stakeholders (beneficiaries, local government representatives and officials, and partner) have realized and recommended the need for further expansion and execution of interventions. Impressed and encouraged from the nature of the project activities (practices) and their remarkably great positive impacts, the beneficiaries and stakeholders are strongly anticipating and demanding the launch of a second phase to the project. Beneficiaries and other stakeholders are highly supportive to project initiatives and willing to offer continued contribution in all ways practically possible for them. However, to enhance and maintain effectiveness of project intervention, a strong and effective monitoring, supervision, feedback and follow-up system has been suggested most – to avoid / mitigate various avoidable costs and losses (e.g. pertaining to the use of saplings, drip irrigation system, machines; problems relating to insect pests such as white grubs and plant diseases such as the blight; damaged plastic tunnels; no use or misuse of improved animal shed zinc sheets).

P.5: The 'twin-tunnel of Nankhel'.

P.6: A bamboo bin for litter collection at Kamikhoriya.

D. Efficiency

Financial resources are understood to be flowing to the partner organization timely. Half of the project budget is disbursed to the partner agency upon the signing of the project/programme agreement document. Transparency in financial matters is maintained well. AEIN Luxembourg check ledger and all aspects of the accounts, invoices and so on. Besides, AEIN Luxembourg get annual external auditing of the project expenses done. Unforeseen costs are to be informed about beforehand. The financial accounting, transparency and efficiency, programme planning, communication and coordination aspects of the project appear to be very good. Fund transfers, payments, procurements related matters are known to be taking place in a smooth and timely manner. Expenditure-related documents such as the vouchers are checked on a regular basis by representatives of the donor agency and annual auditing of project accounts is being done through a registered independent auditor agency in Nepal.

Lockdown enforced in the country because of the Covid-19 caused delays in the supply of seeds, seedlings and other materials to beneficiaries. Transportation of materials to project sites happened to be costlier and more time consuming. Political instabilities and troubles cause now and then serious problems and constraints in the smooth functioning of project activities. Most notably, under the current adverse conditions where Covid-19 pandemic prevails and certain sections of the road and trail networks connecting the project sites are very fragile and risky hampering smooth transportation and physical contacts in the rugged high-altitude terrain, the impacts that the project activities have made so far in only a relatively short time period of two and a half years should be considered considerably high and have thus demonstrated a good efficiency.

E. Sustainability

If a next phase of the CSV project is not undertaken, LAPA may not be much effective and useful. Therefore, for sustainability of CSV related activities and continued impacts, support for the activities would have to be continued for a few years more. That is, a second phase of the current project would be essential for long-term substantial benefits to target beneficiaries and climate change adaptation and mitigation related impacts. For instance, the seedlings of fruit and fodder trees will take some years before they could in aggregate show a distinct positive impact in areas covered by the project;

Promotion of the production of off-season and seasonal vegetables, preparation and use of organic pesticides and fertilizers and so on are all related to climate change, especially with the adaptation dimension, and these can contribute to the sustainability of climate adaptation activities and impacts. Positive changes are to be seen taking place rapidly in terms of the cultivation, production, consumption and sale of seasonal crops. However, many perennial tree species such as fruits require

some more years to generate yields and show full impacts and their sustainability. Non-financial outcomes are very important. Such impacts include the local people's growing awareness, interest, knowledge and gradual practice of climate adaptation and mitigation related activities in farming, forestry, water resource use and waste management, for instance. These can contribute to sustainability of the practices introduced so far.

The formulation of LAPA document is also very important and equally or even more important is its full-fledged implementation. It is likely to generate long-term positive impacts on the local people and their environment and livelihoods. Three years is a relatively too short a time to see the target settlements being declared as CSVs. If there is a next phase to the project, undertaking specific additional activities such as research, innovation, comparative studies, extension in the project coverage to include neighboring wards, baseline survey of adjoining areas for potential activities, selective number and types of activities for integrated, balanced and matching outcomes for best impacts would be possible.

The project appears to have been able to somehow cope up with political and other constraints. Financial constraints might depend upon the rising demands of the people for project support. Corona pandemic has created some constraints in carrying out project activities as scheduled. It creates difficulties to deliver items in time under the fair-weather road conditions.

Contributing 20 percent of the cost in project-supported activities does not seem to be a problem for most beneficiaries. Besides, the beneficiaries are found willing to contribute their lobour in project supported activities for them. This is an advantage for sustainability of the practices introduced by the CSV Project in its target areas. Greater emphasis to commercial farming of fruit and vegetable cultivation and livestock rearing, especially for women farmers, might benefit greatly if a cold storage system could be available to them for their sustainable enterprise and livelihoods.

F. Empirical Rating of Outcomes, Impacts and Other Related Aspects

Table 6: **Rating of the Outcomes and Impacts of the Various CSV Project Activities**

Thematic area, activity/practice	Performance level				
	Excellent	Very good	Good	Fair	Poor
Thematic area 1: *Knowledge/capacity-smart practices*					
1. Capacity building		√			
2. Information and communication technology			√		
3. Temperature and rain measurement		√			
4. LAPA preparation		√			
5. Garbage/waste management			√		
Thematic area 2: Agriculture-smart practices					
1. Improved animal shed	√				
2. Organic pesticide/fertilizer	√				
3. Drip irrigation system		√			
4. Drought-resistant crop seeds			√		
5. Plastic tunnel for vegetable cultivation		√			
6. Organic kitchen garden			√		
***T*hematic area 3:** *Water-smart practices*					
1. Rainwater harvesting	√				
2. Plastic ponds		√			
3. Cemented water jar		√			
4. Small irrigation activity	√				
Thematic area 4: *Biodiversity/carbon/energy-smart practices*					
1. Tree nursery		√			
2. Plantation			√		
3. Biogas plant	√				

NB: The information and insights gained from various sources during the evaluation process form the basis for the external evaluator's ranking of each of the project activities the project has envisaged and enlisted. Performance level summary: Excellent – 5 (28%) activities; Very good – 8 (44%); Good – 5 (28%).

Table 7: **Rating of the Various Overall Aspects Related to the CSV Project**

S. N.	Aspect	Score (%)
1	Relevance of the intervention in the current global context	95.0
2	Coherence between needs, demands and interventions	90.0
3	Effectiveness in meeting the set objectives	90.0
4	Efficiency in matters of resource utilization	90.0
5	Overall impacts of the activities/support/services	90.0
6	Sustainability of the benefits generated	80.0
7	Policy and planning	90.0
8	Financial management and transparency	95.0
9	Value for money	90.0
10	Project formulation and implementation	90.0
11	Monitoring, feedback and follow up	70.0
12	Innovative and forward-looking approach in intervention	75.0
13	Demonstration effect for creativity in the project site communities	90.0
14	Communication and collaboration with stakeholders	85.0
15	Overall impression of beneficiaries about interventions	90.0
16	Coverage of documentation	90.0
17	Quality of documentation	75.0
18	Quality of beneficiary participation	85.0
19	Demand from non-beneficiaries for inclusion in project intervention	95.0
20	Suitability and need for extension of the project period	95.0
21	Potential for expansion/replication	95.0
22	Performance of the overall field-based activities/support/services	80.0

Based on: Findings and conclusions of the project evaluation, August 2021.
Score summary: 90-95% - 15 (68%) aspects; 80-85% - 4 (18%) aspects; 70-75% - 3 (14%) aspects.

III. RECOMMENDATIONS AND GENERAL LEARNINGS

Based on the critical analysis of core findings from evaluation process, recommendations have been presented below under topical sections, largely aimed at indicating ways to render the project outcomes and impacts even more successful and beneficial for all related agencies in general and the target beneficiaries of the CSV project in particular. Finally presented in this chapter are the general learnings that had emanated from the in-depth interactions made with various types and substantially large number of beneficiaries and the needs and demands they expressed in the course of the evaluation-related interaction sessions that took place at various project sites. The summarized list of general learnings draws on the full text of the respondents' responses presented in Annex 2 of the report.

A. Recommendations

Policy, planning and programme implementation related

- Extension of the project for the next phase of a three-year period to ensure greater and lasting impacts of activities proved to be very successful already so far and attracting demand from increasing number of beneficiaries.
- Second phase of the project with a more systematic and strong approach, including better monitoring, research and extension of technical knowhow (strongest demand).
- A thorough discussion among stakeholders (donor, partner, local representatives and officials), and separately with groups of present and potential beneficiaries, to identify and prioritize the most suitable and feasible intervention areas prior to formulating and implementing a concrete plan of action.
- A specialized (concise/focused) Baseline Survey of the prospective project areas and beneficiaries would be essential and useful in planning, designing and dispensing interventions of the second phase of the project.
- A detailed discussion to come to conclusion on transforming and declaring the entire Bethanchowk Rural Municipality (BRM) or its select settlements (e.g. Muldanda and Kamikhoriya) as Climate Smart Villages (CSVs) according to the Climate Smart Village Procedure 2073BS (2016AD) of the Government of Nepal.
- Special thrust in the remaining six months of the current project phase period to increase the positive impacts further by the end of the current phase of the project.
- More intensive communication, on implementation aspects of LAPAs, with local representatives and officials, field-based project staff and individual beneficiaries, for greater advantages.
- Emphasis to ensured staff retention of and contribution by field-based staff in particular, for higher benefits from and impacts of project activities.
- Preventing possible frequent and abrupt transfer of field staff from one site to another, as such a turnover can have serious negative implications for project activity operation and impacts.
- Raising incentive and motivation factors for the field level project staff for greater project effectiveness.
- Increased provision of specialized training and refresher training to field-based technical staff.

Knowledge/capacity-smart practices related

- Further increased mobilization of women's groups as in Rural Women's Vegetables and Fruits Cooperative Ltd., Dhungkharka, Bethanchowk.
- Further increase in involvement of project beneficiaries and other stakeholders in LAPA related activities to render Climate Smart Villages programme most successful for settlements covered by the project intervention.

Agriculture-smart practices related

- Increased special thrust to the promotion of mechanization in farming (e.g. mini-tillers for personal usage and renting-out by beneficiary);
- Support for a more powerful mini-tiller (9HP instead of a 7HP powered) for an easier tillage of the soil.
- Assessing the feasibility of an automatic/semi-automatic zinc or translucent plastic sheet roof for improved animal sheds in areas where they are demanded and needed, in order to avoid unuse or misuse of the zinc sheets offered as part of the support.
- Further expansion of the coverage of improved animal sheds in number as they have gained most popularity owing to their multiple benefits to the farmer.
- Promoting the construction and use of Roofed Compost Pit widely as a model "Compost Campaign," as it has such multiple benefits as soil improvement, increase in crop yields and cleanliness of the homestead surroundings.
- Ensured more effective monitoring for proper operation, maintenance, repair and management of machinery, equipment and production/processing methods.

Biodiversity/carbon/energy-smart practices related

- Greater focus on selection of pocket areas (denuded public lands, barren private lands) for consolidated plantation of herbs, fruits, and multipurpose tree species.
- Increased expansion of biogas plant installation and use in suitable areas.
- Distributing seeds and saplings only with a certain amount of price charged as mandatory for the recipient beneficiary to ensure proper utilization of the items distributed.

Water-smart practices related

- Renovation of promising and potential irrigation channels in some more select/prioritized sites.
- Renovation of traditional ponds, using bioengineering methods, using local resources such as clay, stones, wooden logs, and grasses/shrubs/trees.
- Provision for additional number of cemented large jars for needy project sites, such as Kamikhoriya.

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B. General Findings (lessons learnt – main issues / challenges / risks)

- Strong and effective monitoring, supervision, feedback and follow-up system (suggested most) – to avoid/mitigate various avoidable costs and losses (e.g. pertaining to the use of saplings, drip irrigation system, machines; problems relating to insect pests such as white grubs and plant diseases such as the blight; damaged plastic tunnels; no use or misuse of improved animal shed zinc sheets);
- Durable plastic tunnels (e.g. with steel/iron poles used) and permanent ponds with strong fencing; ensured complete set of accessories in the plastic tunnel system;
- Compost pits with zinc sheet roof – high demand and great prospects in the project areas;
- Cold storage system, fodder/fruit/spice/vegetable drying/processing techniques/skills and technology;
- Saplings and large-scale plantation, in hillsides, of chyooree, timur, and (in Jhinge Daanda);
- Commercial propagation of bee-keeping skills and modern bee-hives;
- Permanent and large water tanks on top of village watersheds; renovation of traditional ponds for irrigation without the use of artificial materials such as plastic and cementation, but with use of clay, stones, logs and vegetation as appropriate;
- Expansion / extension of project activities to other three wards to cover the entire Bethaanchok Rural Municipality;
- Backpack style pesticide sprayer for organic pesticide/fertilizer spraying, water can, and sprinkler irrigation system;
- Gender awareness / equality related training for mix groups (of men and women) so that men fully realize and acknowledge the problems, needs and aspirations of their spouse and be supportive to them in all related spheres of life;
- Cleaning the forests off weeds and spiny shrubs to boost forest protection and growth;
- Do not remove support for zinc sheet roofs for improved animal sheds; (some of the beneficiaries however do not feel the need for using a roof for animal shed);
- Improved/regulated market to avoid the monopoly and exploitation by middlemen in the sale of farm produce such as vegetables;
- Exchange programme (tours) for teachers, students and parents (especially farmers) for their greater awareness, knowledge, motivation about best practices, e.g. in farming and waste management;
- Technical guidance for drip irrigation;
- Highlighted problems: White grubs and blight in crops; damage of crops by wild animals (porcupine and boar); damage of plastic tunnel poles by termites and rot; kiwi not fruiting in some cases; very good support but not long-lasting and strong in some aspects; plastic pollution on the rise – likely to create environment and health havoc in the near future.

REFERENCES

AEIN, 2021, "Terms of Reference (ToR) for the external evaluation of the project "Towards Climate Smart Villages: promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in the Kavrepalanchowk and Bhaktapur Districts, Nepal," funded by Aide à l'Enfance de l'Inde et du Népal (AEIN Luxembourg) and implemented by Association for Rural Development (ARD), in Kavrepalanchowk and Bhaktapur districts", Aide à l'Enfance de l'Inde et du Népal (AEIN Luxembourg), 28 July 2021, Luxembourg.

AF, 2010, *Conditions for Survival*, The Asahi Glass Foundation (AF), Tokyo.

ARD, 2021, "Local Adaptation Plan of Action for Bethanchowk Rural Municipality - Ward 2, Kavre", Association for Rural Development (ARD), Bhaktapur.

ARD, 2021, "Local Adaptation Plan of Action for Bethanchowk Rural Municipality - Ward 3, Kavre", Association for Rural Development (ARD), Bhaktapur.

ARD, 2021, "Local Adaptation Plan of Action for Suryavinayak Municipality - Ward 8, Bhaktapur", Association for Rural Development (ARD), Bhaktapur.

ARD, 2021a, "Discussion on Indicators for Climate Change Smart Village Establishment and Presentation on the Completed Activities", 17 Saaun 2078 (1 August 2021), Bethanchowk Rural Municipality, Dhungkharka.

ARD, 2021b, "Progress Report – Year 2 (Reporting period: 1 March 2020 – 28 February 2021) on the project "Towards Climate Smart Villages: promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in the Kavrepalanchowk and Bhaktapur Districts, Nepal", Association for Rural Development (ARD), Banepa.

ARD CCPT, 2020, "Activity Completion Report of Seedling Production in Forest Nursery at Bethanchowk for the second year project period March 1, 2020 to February 28, 2021", Association for Rural Development Climate Change Project Team (ARD CC PT), August 2020.

ARD, 2020, *Annual Progress Report 2019: "Towards Climate Smart Villages: promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in Bhaktapur and Kavrepalaanchok Districts, Nepal,"* Association for Rural Development (ARD), Banepa, April 2020.

ARD, 2020, "Progress Report – Year 1 (Reporting period: 1 March 2019 – 29 February 2020), on the project "Towards Climate Smart Villages: promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in the Kavrepalanchowk and Bhaktapur Districts, Nepal", Association for Rural Development (ARD), Banepa.

ARD, 2018, "Detail Proposal Copy for Project on Climate Change Adaptation and Mitigation Entitled in "Towards Climate Smart Villages: promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in Bhaktapur and Kavrepalaanchok Districts, Nepal," Association for Rural Development (ARD), Banepa.

ARD, ud., “Report on RCC Pillars Support for Kiwi Staking and Improved Animal Shed Construction by Utilization of Exchange Gain Budget,” Association for Rural Development (ARD), Bhaktapur.

ATT/ARD, 2020, “Activity Completion Report of Install Plastic Ponds for Water Collection for the second year Project period March 1, 2020 to February 28, 2021”, Agriculture Technical Team (ATT) / Association for Rural Development (ARD), Bhaktapur.

ATT/ARD, 2020, “Activity Completion Report of Kiwi, Grape Fruits Farming Training in the second year project period March 1, 2020 to February 28, 2021”, Report Prepared by: Agriculture Technical Team (ATT) / Association for Rural Development (ARD), November 2020.

ATT/ARD, 2020, “Activity Completion Report on Conduct a 3-days Training Course on Seasonal and Off-seasonal Vegetable Farming for the second year project period March 1, 2020 to February 28, 2021”, Agriculture Technical Team (ATT) / Association for Rural Development (ARD), November 2020.

ATT/ARD, 2021, “Activity Completion Report of Conduct Waste Management and Segregation Program for the second year Project period March 1, 2020 to February 28, 2021”, Agriculture Technical Team (ATT) / Association for Rural Development (ARD), Bhaktapur.

ATT/ARD, 2021, Activity Completion Report of Conduct Waste Management and Segregation Program for the second year Project period March 1, 2020 to February 28, 2021, Agriculture Technical Team (ATT) / Association for Rural Development (ARD), Bhaktapur.

ATT/ARD, ud., “Activity Completion Report of Conduct a 3- days training courseon Livestock Rearing in the second year project period March 1, 2020 to February 28, 2021”, Agriculture Technical Team (ATT) / Association for Rural Development (ARD), undated.

ATT/ARD, ud., “Activity Completion Report of Install Bio-Gas Plant for the second year Project period March 1, 2020 to February 28, 2021”, Agriculture Technical Team (ATT) / Association for Rural Development (ARD), Bhaktapur.

ATT/ARD, ud., “Activity Completion Report of support the Construction of Animal Improved Shed House for the second year Project period March 1, 2020 to February 28, 2021”, Agriculture Technical Team (ATT) / Association for Rural Development (ARD), Bhaktapur.

ATT/ARD, ud., “Activity Completion Report on Installation of Drip Irrigation System for the second year project period March 1, 2020 to February 28, 2021”, Agriculture Technical Team (ATT) / Association for Rural Development (ARD), Bhaktapur.

ATT/ARD, ud., “Activity Completion Report on Installation of Drip Irrigation System for the second year project period March 1, 2020 to February 28, 2021”, Agriculture Technical Team (ATT) / Association for Rural Development (ARD), Bhaktapur.

Chaudhary, O.P., 2020, “Activity Completion Report IPM and Pit Composting Training in the second year Project period March 1, 2020 to February 28, 2021”, Association for Rural Development (ARD), Bhaktapur, August 2020.

Chaudhary, O.P., ud., "Activity Completion Report of Distribution and Installation of Plastic Tunnel/House in Kavre and Bhaktapur for the second year project period March 1, 2020 to February 28", 2021, Association for Rural Development (ARD), Bhaktapur.

Chaudhary, O.P., ud., "Activity Completion Report of Distribution and Installation of Plastic Tunnel/House in Kavre and Bhaktapur for the second year Project period March 1, 2020 to February 28, 2021", Association for Rural Development (ARD), Bhaktapur.

Chaudhary, O.P., ud., "Activity Completion Report of Kiwi and Grape Fruit farming in the second year Project period March 1, 2020 to February 28, 2021", Association for Rural Development (ARD), Bhaktapur.

Chaudhary, O.P., ud., "Activity Completion Report of Organic Kitchen Gardens & Multi-Cropping Practice in second year project period March 1, 2020 to February 28, 2021", Association for Rural Development (ARD), Bhaktapur.

Chaudhary, O.P., ud., "Activity Completion Report of Organic Kitchen Gardens & Multi-Cropping Practice in second year project period March 1, 2020 to February 28, 2021", Association for Rural Development (ARD), Bhaktapur.

Chaudhary, O.P., ud., "Activity Completion Report of Promote Crop farming of Lemon and Walnut in the second year Project period March 1, 2020 to February 28, 2021", Association for Rural Development (ARD), Bhaktapur.

GoN/NPC, 2017, *Nepal's Sustainable Development Goals: Status and Roadmap: 2016-2030*, Government of Nepal, National Planning Commission, Kathmandu.

MECCD-GDL, 2021, "International Climate Finance Strategy 2021 – 2025", Ministry of Environment, Climate and Sustainable Development, Government of the Grand Duchy of Luxembourg (MECSD-GGDL), July 2021.

Ojha, E.R. and K.E. Weber, 1993, *Production Credit for Rural Women: An Impact Evaluation of the PCRW Project around Gajuri, Nepal*, xxxiii,221p., Human Settlements Development Monograph 32, Asian Institute of Technology (AIT), Bangkok, ISBN 974-8209-71-7.

PIT/ARD, 2020, "Activity Completion Report of Small Irrigation System for the second year project period March 1, 2020 to February 28, 2021", Project Implementation Team (PIT) / Association for Rural Development (ARD), October 2020.

PIT/ARD, 2021, "Activity Completion Report on Installation of Rooftop Rain Water Harvesting Set for the second year Project period March 1, 2020 to February 28, 2021", Project Implementation Team (PIT) / Association for Rural Development (ARD), 2021.

Rajbhandari, B.P. and Twayana, R., 2021, "Towards Climate Smart Villages: promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in the Kavrepalanchowk and Bhaktapur (PROJECT FOLLOW-UP: 1 March 2020 – 28 February 2021)", April 2021.

Rajbhandari, B.P., 2021, “Towards climate smart villages: promotion of affordable and replicable adaptation and mitigation practices to enhance livelihoods of vulnerable communities in Kavrepalanchowk and Bhaktapur Districts, Nepal (BRIEF REPORT OF PROJECT MONITORING)”, 11 May 2021.

Subedi, Y.R., 2020, “Activity Completion Report on conduct a 3-days Training Course on Climate Change Sensitization, Adaptation and Mitigation for the second year project period March 1, 2020 to February 28, 2021”, Association for Rural Development (ARD), Bhaktapur.

Subedi, Y.R., 2021, “Activity Completion Report of Conduct a 3-days orientation Workshop on the NAPA and LAPA of the Government of Nepal in the second year project period March 1, 2020 to February 28, 2021”, Association for Rural Development, February 2021.

Subedi, Y.R., ud., “Activity Completion Report on Prepare Two LAPAs for the second year Project period March 1, 2020 to February 28, 2021”, Association for Rural Development, Kavre.

Subedi, Y.R., ud., “Activity Completion Report on Prepare Two LAPAs for the second year project period March 1, 2020 to February 28, 2021”, Association for Rural Development (ARD), Kavre.

Thapa, H.B., 2021, “Activity Completion Report on a 3-days Training Course on Forest Management and Silviculture Techniques in the second year project period March 1, 2020 to February 28, 2021”, Khopasi, Kavrepalaanchok, January 2021.