Climate & Development Knowledge Network

INSIDE STORIES on climate compatible development

July 2016

Key messages

- There is an urgent need for climate-smart agriculture in Nepal, given that the impacts of unpredictable weather patterns are already making themselves felt.
- Climate-smart agricultural interventions should be designed using socially disaggregated vulnerability assessments, which articulate the local context and climate risks.
- Communities are more likely to accept climate-smart agriculture technologies that have multiple benefits and fit well in their integrated system of agriculture.
- Targeting and building the capacity of existing agricultural development institutions facilitates the implementation of climate-smart agriculture programmes.
- Climate-smart agriculture has a better chance of success when different stakeholders match and apply leverage to share and obtain each other's resources. These can include the private sector, government extension offices and non-governmental organisations.
- Implementation of climate-smart agriculture becomes more effective if technologies are piloted and promoted in a package or portfolio of measures. This yields better results than in isolation, and also helps to sustain outcomes.

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Climate-smart agriculture: learning from three agro-ecological regions of Nepal

Nepal's agriculture sector, which accounts for around three-quarters of employment and one-quarter of the country's gross domestic product, is strongly affected by current climate variability, uncertainty and extremes. Many farmers operate at small scales, with 26.69% having less than 0.2 hectares (ha)[1] and 47.31% with less than 0.5 ha.[2] Large numbers of these farmers are already poor and extremely vulnerable to climate change. The impacts on agriculture are more pronounced among women and smallholders, who have poor access to natural resources and public services, and limited livelihood options. Such producers are highly exposed and sensitive to climatic threats, such as droughts, floods, soil erosion, landslides, pest outbreaks, and heat and cold waves.

Outmigration of young men has led to a high proportion of women and the elderly in farming populations. This has had a negative effect on many women's lives, due to their increased workload. Women also face structural power inequalities, as well as poor access to resources and information[3] that could help to bolster their resilience against climate-induced shocks and stresses. Although the remittance economy is helping people to cope with climatic challenges in agricultural production, it cannot offset the reduced production and growing hardships faced by families in Nepal. The public distribution system is largely concentrated in accessible parts of the country, mostly in urban areas and the Terai (the country's southern plains), with limited supplies in the remote mountains.

Box 1. What is climate-smart agriculture?

The term 'climate-smart agriculture' integrates the three dimensions of sustainable development – economic, social and environmental – by jointly addressing food security and climate challenges. It is composed of three main pillars: sustainably increasing agricultural productivity and incomes; adapting and building resilience to climate change; and reducing and/or removing greenhouse gas emissions, where possible.

Source: FAO.2013. Climate-smart agriculture source book. FAO, Rome, Italy. (http://www.fao.org/docrep/018/i3325e/i3325e.pdf)

CDKN has a growing portfolio of work in states, provinces, cities and districts. It is committed to capturing the lessons learned, and to better understanding what makes low-carbon and climate-resilient development efforts work well at the subnational level. CDKN and ICLEI – Local Governments for Sustainability have set up a joint learning programme to distil and share these lessons with others. This *Inside Story* is one output of the learning programme. For more in the series, visit: www.cdkn.org/cdkn_series/inside-story

There is a compelling need for current and future agricultural development in countries such as Nepal to be responsive to climate variability and long-term climate change, paying special attention to the vulnerability of smallholder women farmers. Climate-smart agriculture can point the way forward.

In Nepal, a few key government policies, plans and strategies highlight the importance of climate change adaptation in agriculture and allied sectors, through a climate-smart agriculture approach. These include the National Adaptation Programme of Action, the Climate Change Policy 2011, the Local Adaptation Plan for Action (LAPA), the Agriculture Development Strategy 2014, the Nepal Biodiversity Strategy and Action Plan 2014–2020, and the Second National Communication to the United Nations Framework Convention on Climate Change. At the grassroots level, the adoption of climate-smart agriculture complements the main steps defined in the LAPA process, by providing smart agricultural interventions to include when designing and implementing LAPAs. As a result, climate-smart agricultural practices and technologies for different agro-ecological regions, and the integration of these into the climate change adaptation plan or programme, could play a crucial role in developing a climate-resilient agricultural system in Nepal.

Funded by the Climate and Development Knowledge Network (CDKN), the 'Scaling-up of climate-smart agriculture in Nepal' project seeks to increase the resilience of farming communities in varying agro-ecosystems, by promoting climate-smart agricultural technologies and practices. The project aims to develop portfolios of 'champion' climate-smart agriculture initiatives, assessing challenges, strategies and key enabling factors for scaling out this approach in the process. It also seeks to identify pathways and implementation plans for scaling up climate-smart agriculture, so as to advance climate change adaptation in agriculture for poor farmers, with a particular focus on women.

The climate-smart agriculture project has four objectives:

1. To identify and recommend the climate-smart agricultural technologies and practices for different agro-ecological zones of Nepal.

2. To assess the policies and institutional mechanisms for scaling up identified climate-smart agricultural technologies and practices.

3. To prepare a plan for scaling up and implementing climate-smart agriculture in Nepal.

4. To strengthen the capacity of government extension agencies and local institutions in climate-smart agriculture.

The project has identified a set of potential climate-smart agricultural interventions to promote in the pilot villages, which represent three distinct agro-ecological zones (Terai, mid-hills and high hills) through a review of literature and consultations with stakeholders and local communities.

Specifically, the project set out to identify potential relevant climate-smart agricultural technologies and practices that could sustain crop productivity (leading to food security), promote adaptation to climate variability and long-term changes in temperature and precipitation (contributing to resilience), and foster energy efficiency and/or carbon sequestration (contributing to climate change mitigation). The initiative also aims to generate evidence from the pilot villages as to whether or not the climate-smart agricultural technologies and practices bring about positive changes in the material wellbeing and leadership prospects of women and poor farmers at the community level. The pilot villages are Majhthana Village Development Committee of Kaski district, Agyouli Village Development Committee of Nawalparasi district and Ghanapokhara Village Development Committee of Lamjung district (see Figure 1). The project will directly benefit 300 farmers through the piloting of climate-smart agricultural interventions over a period of two years.

Delivering climate-smart agriculture

It became clear that climate-smart agriculture in Nepal can achieve positive and intended results when the project plan acquires a sense of ownership by local stakeholders, such as village development committees, farmers' groups and women's groups. For this reason, the plan should clearly reflect the local context of livelihoods and climatic risks and challenges, as well as farmers' needs and priorities in responding to climatic threats. It should also foster better coordination among local stakeholders.

Climate-smart agriculture planning should involve careful analysis. Assessment of meteorological data from weather stations near the pilot sites showed mixed results, with no clear linear trend in rainfall patterns. However, the minimum and maximum temperatures are rising annually at Majhthana and Ghanapokhara, with both the daily maximum temperatures and the daily minimum temperatures are increasing over time.

Farmers at all three sites are experiencing changes in temperature, precipitation and the occurrence of natural hazards, such as thunderstorms, hail, windstorms, snowfall, fog, drought, landslides, flooding, fire, pests and diseases. The top hazards include

Figure 1. Map of the project pilot districts and sites

flooding and drought in Agyouli; hailstorms, drought and insects in Majhthana; and hailstorms, drought, insects and torrential downpours in Ghanpokhara. Hailstorms and heavy rainfall, which often occur during harvest, are severely affecting crop yields – and household incomes as a result. Climate-smart agricultural practices that address these challenges can reduce the risk of hazards, improve local adaptation capacities and improve crop yields.

The project analysed local contexts and needs through consultation with farmers and other stakeholders, using different timescales and targeting different groups, including men and women, lower-caste groups such as *dalits*,[4] and indigenous groups such as *janajatis*.[5] This process is time-consuming, but helps local communities to become aware of climate change and the potential of climate-smart agriculture.

As a result of this consultation, it emerged that a technology that is acceptable to one community may not be accepted by another. For example, in Nawalparasi, a group of Tharu (an indigenous tribe) farmers from Aghyouli showed an interest in rice-and-duck farming. Benefits include increased rice production, less need for manure, reduced weeding for women and widely appreciated duck meat. However, Tharu farmers from another village did not embrace this combination, due to the low market value of the imported duck species required – compared with the local breed, which is unsuitable for integration in rice production – and the risk of predation by foxes and jackals. In this latter context, the technology could work if farmers were linked to markets and equipped with knowledge and technologies to respond to the risk of predation.

The project identified rice-and-duck farming as a potential climate-smart agricultural intervention, because ducks eat weeds, which proliferate in drought conditions. Since weeding is usually the responsibility of women, integrating ducks with rice farming can help to reduce their workload. Ducks also produce droppings in the rice fields, thereby reducing the amount of chemical fertilisers needed (and, in doing so, mitigating greenhouse gas emissions) and supplying organic manure, which improves soil health and water-holding capacity. The case of the second group of Tharu farmers from Nawalparasi district showed that the climate-smart agriculture approach should not only focus on farming, but should also address other issues, such as improving access to markets and dealing with human–wildlife conflict.

It became clear that climate-smart agricultural interventions should be closely linked to the community context. In the Kaski Village Development Committee, drought and water shortages led local farmers to prioritise interventions that promote access to, and conservation of, water. Examples include the multiple use of water systems, utilising spring water and rainwater at the community level, and rainwater-harvesting ponds.

Climate-smart agriculture implementation is effective when it adequately targets the interests and preferences of project beneficiaries, and when these people are made fully aware of the current and future climate risks and challenges in their areas. The project observed that communities accept technologies that have multiple benefits and fit well in their integrated system of agriculture. Farmers at all pilot sites showed a strong preference for technologies such as cattle-shed improvement, linked to the improved storage and use of farmyard manure. This is because such interventions directly meet the immediate needs of farmers, who have seen production decline due to poor soil quality, coupled with frequent droughts. Improved storage and use of farmyard manure increases vegetable and field crop production (contributing to food security), adds organic matter to soil, improving its water-holding capacity (adaptation to drought) and minimises nitrogen loss in the form of nitrous oxide. It also reduces the need for chemical fertilisers (mitigation). In addition, by improving cattle sheds, farmers can collect urine from their livestock to use in preparing biopesticides for home gardens and/or commercial vegetable production.

Local communities were unfamiliar with some innovations that had

been introduced – such as keeping a climate diary, solar-based irrigation and short message service-based (SMS) agro-advisories – but showed a keen interest after understanding the potential benefits. Farmers were more reluctant to test some other technologies, such as minimum tillage in the Ghanapokhara village of Lamjung, because they remained unconvinced and continued to believe that tillage is essential to obtain good crop yields and manage weeds.

From the experiences in Kaski, Lamjung and Nawalparasi districts, the project revealed that key factors in the acceptance, adoption and use of climate-smart agricultural technologies by farmers include an understanding of local climatic risks and challenges, the knowledge and capacity of the farmers themselves, the multiple benefits of the technologies, and the integration of local knowledge and practices – all backed up by technical facilitation.

Incorporating climate-smart agriculture into development plans

At the subnational level, the project has engaged actively with the District Development Committee and the District Agriculture Development Office, in order to integrate climate-smart agriculture into local development plans (see Figure 2). Since climate-smart agriculture offers an opportunity to work beyond agro-ecosystems, this strategy may be used as an entry point for introducing broader climate compatible approaches into development as a whole, beyond the agriculture sector.

At the district level, a role exists for additional stakeholders, such as the District Livestock Service Office, the District Forest Office, the District Soil Conservation Office, the District Irrigation Office, the District Education Office, the District Public Health Office, the District Women Development Office, the District Chamber of Commerce and Industries[6] and Federations.

At the village development committee level, engagement with the council, ward citizen forum and key local institutions (such as farmers' groups and cooperatives, local forestry groups, women's groups, *dalit* groups and community awareness centres) should be a priority. This should start at the beginning of the village development committee planning process.

Financing for climate-smart agriculture

The sustainability of climate-smart agriculture can best be ensured by promoting synergies and opportunities to use leverage to access resources, particularly at the local level. The grant or full subsidy approach will not be sustainable in all settings.

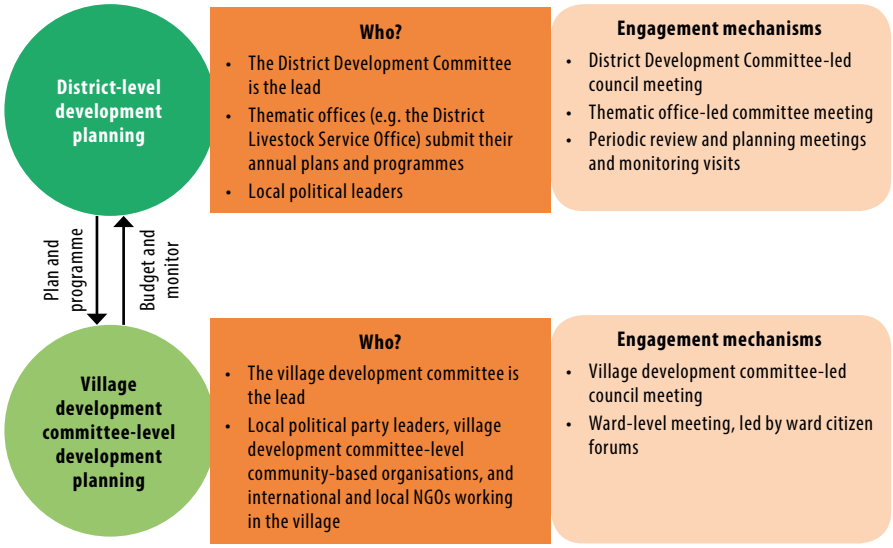
In the case of community-level interventions, a mandatory contribution (cash and/or in-kind) from the group or local institution promotes local ownership and improves sustainable use. In the piloting of multiple use of water systems in Majhthana, Kaski, the project used its leverage to obtain cash contributions from communities totalling as much as 24% of the total estimated cost of 280,000 Nepalese Rupees (around US$2,650), with 7% contributed by the village development committee.

For household-level interventions, contributions should be specific to the wellbeing of farmers. A medium to rich farmer should pay for the technology, and the project can connect them to a supplier. But in the case of a poor farmer, a partial or full subsidy scheme – along with an in-kind contribution – works better to improve producers' income status, as well as the negotiating skills of service providers. The project has applied this strategy to promote climate-smart agricultural technologies. At the Kaski pilot site, the project provided cash support to *dalit* households for improved cattle sheds and farmyard manure for purchasing materials (such as cement, drums for collecting urine and transport costs) from the market, and each household made an in-kind contribution in the form of labour to build the cattle shed. This combination of matching cash support and labour inputs has increased a sense of ownership, encouraging households to maintain the sheds.

At the Lamjung pilot site, the project provided full cash support for purchasing an improved cardamom dryer, as part of a climate-smart agriculture approach, and also supported transport costs. Communities agreed to invest their cash and labour to set up the dryer and protect it by constructing a small hut. Compared with the traditional cardamom dryer, the improved version uses less fuel wood, making a direct contribution to lowering carbon emissions and reducing deforestation, leading to enhanced carbon sequestration. The new device also improves the quality of dried cardamom, since it generates no smoke, thereby ensuring a better price at market.

Since the District Agriculture Development Office, the District Development Committee and the District Chamber of Commerce and Industries are promoting cardamom cultivation in the high altitude belt of Lamjung district, the area under cardamom cultivation on marginal land (sloping lands that are not suitable for cultivating rice and other crops) has been growing each year. This will lead to an increase in the amount of land under cardamom-alder tree coverage (alder trees are planted with cardamom to maintain shade) in this and adjoining districts, resulting in the stabilisation of degraded lands and

Figure 2. Key stakeholders and mechanisms to integrate climate-smart agriculture at the subnational level



improved carbon sequestration. This approach is also likely to foster other microenterprise opportunities, since the trunk of the alder tree can be used to produce Shiitake mushrooms.

The project revealed that involvement of the business sector is a prerequisite for commercial agricultural development, and promotion of climate-smart agriculture in Nepal. The pilot testing of an SMS-based agro-advisory in all climate-smart agriculture pilot sites showed that the private sector has the capacity to deliver certain specific services through a fast-track approach, using information and communications technology and marketing local products. However, private sector involvement should complement the involvement of non-governmental organisations (NGOs). For example, during the testing of the SMS-based agro-advisory, the project worked with the private sector agency SMILES to send text messages containing weather forecasts and market information. In consultation with the District Agriculture Development Office, the technical team from Local Initiatives for Biodiversity, Research and Development (LI-BIRD) provides information on crop cultivation and management practices, addressing specific climatic threats. The information is relayed to SMILES, which sends it out in the form of an SMS to 120 farming households in all three pilot villages. This partnership demonstrated that climate-smart agriculture is more likely to be embraced when different stakeholders link their resources to each other's, including the private sector, government extension offices and NGOs. Private sector involvement is contingent upon investment and marketing opportunities.

Experience at the Lamjung pilot site showed that a facilitating agency (in this case LI-BIRD) can help to strengthen the link between service providers and vulnerable communities. Such an agency may take the form of an NGO, a cooperative or the private sector. This process gradually strengthens local institutions, which will, in the long term, enable them to access resources from multiple stakeholders. For example, the project facilitated the Conservation Area Management Committee of the Ghanapokhara Village Development Committee in Lamjung district to access resources from the District Soil Conservation Office, in order to apply bio-engineering techniques along the roadside and reduce the risk of soil erosion due to heavy rainfall. The District Soil Conservation Office provided 50 gabion boxes and 1,600 saplings. The project supported the cost of transporting the gabion boxes and saplings, as well as the cost of stone filling, and the Conservation Area Management Committee took responsibility for planting the saplings. After monitoring the work by the District Soil Conservation Office, the project committed to providing 210 additional gabion boxes in the area. At the subnational level, stakeholders have not yet reached out to vulnerable sectors and communities. By the same token, these have yet to access service providers, to strengthen their livelihoods and resilience.

Facilitating equitable outcomes

The project carried out separate vulnerability assessments for women, the *dalit* community and the *janajati* community. This helped to identify community-specific climatic vulnerabilities and appropriate adaptation interventions. It emerged that among these groups, the level of understanding of climate change and climate-smart agriculture varies, but is inadequate overall. Generally, people were more concerned about current weather extremes, and have little idea of future trends.

In Lamjung, a few *janajati* women were able to talk about climate change, but no women or men from *dalit* communities knew anything about the issue. *Janajati* women probably have more awareness – although the sample is not really large enough – due to their greater exposure to local-level meetings and workshops.

The project plan should include priorities for project beneficiaries, identified through a participatory consultation with each of these. For example, almost none of the *dalit* households in Ghanapokhara has its own land for rice cultivation, and they mostly have upland plots (less than 0.2 ha), where they grow maize, millet, fodder and forage. During the discussion, *dalit* households showed their preference for interventions that could improve their current food and nutrition security situation, with less of an interest in commercial activities, such as initiatives to develop home gardens. In contrast, the *janajati* households, which have comparatively more land than the *dalit*, prioritised market-driven interventions, such as commercial vegetable, cardamom and coffee production. It therefore became apparent that the type of climate-smart agricultural interventions to promote in the area depends on landholdings, household wellbeing and the priorities of subnational governmental plans and strategies, and should therefore be designed accordingly. In Lamjung, for example, cardamom is a priority commodity of the district agricultural development plan.

Engaging grassroots organisations

The involvement of grassroots organisations – which represent the most vulnerable members of a community – in the planning, consultation and monitoring of the project, from beginning to end, provides an opportunity for these to include their priorities and inputs. LI-BIRD sees itself as an intermediary, whose role is to implement the project by mobilising grassroots organisations that represent local communities.

By selecting such organisations in the three villages as pathways to access village development committees, the project piloted the climate-smart agriculture approach. Through these grassroots organisations, the project organised its inception meeting and conducted consultations to identify pilot villages and communities. It also joined forces with them to integrate climate-smart agriculture into village-level government programmes. The Agriculture Development and Conservation Committee,[7] the Village Climate Change Coordination Committee[8] and the Conservation Area Management Committee[9] are the key grassroots organisations with which the project is engaged in the pilot villages of Nawalparasi, Kaski and Lamjung respectively. In addition, the project has identified farmers' groups, women's groups and women's power groups,[10] as well as local-level institutions, such as community awareness centres and ward citizen fora, to pilot climate-smart agriculture in the selected villages.

Box 2. Sharing knowledge and resources

Systematically documenting climate-smart agriculture is critical to understanding where and why it can be effective, and developing the most suitable technologies and practices for different climatic contexts. In practice, cross visits between beneficiaries and joint monitoring by other project stakeholders – including the private sector and the media – have proved valuable in helping to fine-tune interventions, as well as in guiding planning for the future. In the longer term, such exchanges help to build platforms for the sharing of resources needed for climate-smart agricultural implementation.

Long-term viability

Experience has shown that, when linked to existing development initiatives, climate-smart agricultural interventions have a good chance of being sustainable after a project ends. For example, the project has worked closely with the District Agriculture Development Office, the District Development Committee and the District Chamber of Commerce and Industries in Lamjung to plan and promote cardamom production and drying, as described earlier.

Meanwhile, in Kaski district, consultations with the District Agriculture Development Office led to the idea of combining climate-smart agricultural technologies and practices in a package. The result was the initiative to improve cattle sheds and link this with the collection of urine and manure. This strategy confirmed the results of talks with farmers, which revealed that technologies proposed in isolation are sometimes less sustainable in the long term than if they are promoted together as a package, in which individual components complement each other (see Figure 3).

Challenges of climate-smart agricultural implementation

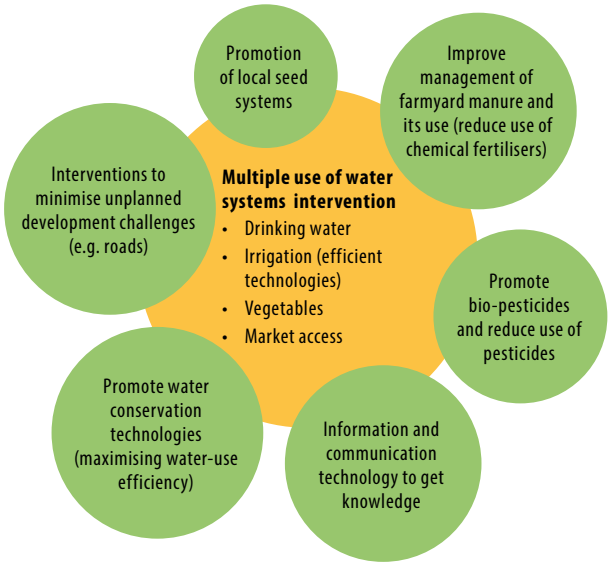
Political instability further increases the vulnerability of agricultural sector

The vulnerability of the agriculture sector is multi-dimensional. In countries such as Nepal, which have undergone a political transition, internal and regional political stability can both be important factors for reducing agricultural vulnerability. In Nawalparasi, the project team was unable to meet with representatives from the District Agriculture Development Office and the District Development Committee on a regular basis, for project updates and planning.

Integrating a disaster risk reduction approach into climate-smart agriculture

Given Nepal's susceptibility to disasters such as earthquakes, there

Figure 3. Example of a package of multiple use of water systems interventions



is a strong case for incorporating disaster responses into climate-smart agricultural interventions, despite the extra cost that this may entail. The massive earthquake that struck Nepal in April 2015 pointed to the importance of ensuring that climate-smart agriculture planning is flexible and that it promotes resilience. However, this combined approach still requires further research and documentation.

Enabling factors

Stakeholder engagement and balanced planning

The engagement of project stakeholders at the subnational level is critical for climate-smart agricultural implementation. Planning should balance bottom-up and top-down approaches and include the activities that have been identified based on consultations with project beneficiaries, knowledge of climate risks and challenges, and the local livelihood context. This will increase the value of project interventions and help to ensure adequate understanding of climate-smart agricultural technologies and practices among project beneficiaries.

Strengthening capacity gaps

District agriculture development offices have shown appreciation for the project's capacity-strengthening component, since this provides opportunities for their own staff to learn about climate-smart agriculture and share experiences. Staff members who attended a short course held in the pilot districts have since helped to integrate climate-smart agriculture into subnational planning and programmes. Climate-smart agriculture has better prospects of being adopted if agricultural officers have a good understanding of this approach and its potential benefits in the short, medium and long term, and how these link to broader development goals and aspirations.

Flexibility in design and implementation

The project learned that interventions are more likely to be sustainable if the plan is flexible, adjusting to feedback from groups that either affect or are affected by the initiatives. This ensures ownership of the project by its stakeholders. From the outset, it is important to engage with those involved in the project, so that their experiences and inputs are reflected in climate-smart agriculture planning, implementation and monitoring.

Sharing and interaction

Close collaboration with the key agency responsible for local development is central for initiating the integration of climate change adaptation into development plans, programmes or projects. In this project, regular and frequent interaction (planning, updates and discussion) with the District Development Committee and the District Agriculture Development Office has been working positively. In Nepal, changes in staffing (particularly transfers) are common due to the transitioning socio-political context. Frequent interactions to update project results and learning with the District Development Committee, the District Agriculture Development Office and district-level agencies are helpful so that the project history and context are alive even in the situation of leadership transition in these agencies.

Implications and recommendations for others

For a climate-smart agriculture programme to be effective, it is important to identify the preferences and needs of the population at whom the technologies and practices are aimed. For example, this project defined its impact group as the women and poor farmers of the pilot sites. As a result, project interventions had to be shaped to fit the needs and perspectives of these targeted project beneficiaries, such as *dalits*, farmers with small landholdings and women farmers.

- Unlike the conventional approach of promoting technologies in isolation, climate-smart agricultural implementation becomes effective if the technologies are piloted and promoted in a package of measures. The portfolio includes interventions that are interlinked

and the interaction of the technologies yields better results than in isolation, while helping to sustain outcomes.

- A climate-smart agriculture approach should not only prioritise the improvement of material conditions, such as reducing workloads and drudgery, improving nutrition and increasing incomes. It should also seek to bring positive change in the leadership positions of women and socially excluded groups. This may involve increasing access to, and control over, decisions, income, information and participation.
- Capacity-building of grassroots organisations on current and projected climate risks and adaptation opportunities should be an important component of a climate-smart agriculture programme. LI-BIRD's experience showed that tools such as joint monitoring visits to pilot sites, travelling seminars and customised short courses can provide an enabling environment for strengthening climate-smart agriculture.
- The integration of climate compatible development into development plans and programmes should be process-led. This involves identifying important stakeholders and mechanisms, targeting the key people and positions with whom to meet and interact, organising consultations and periodically presenting and sharing evidence. At the subnational level, it is crucial to ensure strategic engagement[11] with the agencies and their structures (such as thematic committees, citizen fora and district and village councils) responsible at the critical stages of planning and programming.

Endnotes

1 Central Bureau of Statistics (2013) *National sample census of agriculture 2011/12.* Kathmandu: Commission Secretariat, Government of Nepal.

2 According to the Central Bureau of Statistics (Ibid), the average size of landholdings in Nepal is 0.68 ha.

3 Mainlay, J. and Tan, S.F. (2012) 'Mainstreaming gender and climate change in Nepal'. Climate Change Working Paper No. 2. London: International Institute for Environment and Development.

4 According to the National Dalit Commission, *dalit* are "those communities who, by virtue of atrocities of caste based discrimination and untouchability, are most backward in social, economic, educational, political and religious fields, and are deprived of human dignity and social justice". (www.dwo.org.np/dalit.php).

5 Indigenous Nationalities" means a tribe or community as mentioned in the Schedule having its own mother language and traditional rites and customs, distinct cultural identity, distinct social structure and written or unwritten history. (http://www.nfdin.gov.np/securi/?page_id=184)

6 The District Chamber of Commerce and Industries is a district chapter of the Federation of Nepalese Chamber of Commerce and Industries, which is a federation of Nepalese business entrepreneurs and a leading private sector association.

7 Previously, agriculture development and conservation committees were called biodiversity conservation and development committees. These were formed by LI-BIRD to implement agro-biodiversity management interventions, which later became community-based organisations managed by local farmers.

8 This is a local-level institution formed to implement LAPAs. It has members from village-level groups and institutions.

9 This is a village development committee-level committee formed to manage conservation areas through local communities, with a strong focus on the management of natural resources.

10 Power groups are formed by the District Soil Conservation Office from women and ethnic minorities to implement their annual programmes in the identified village development committees and wards. These groups exclusively target watershed management activities.

11 The 14-step local development planning process begins in early December in Nepal.

Front cover photo: Neil Palmer/CIAT | Editing, design and layout: Green Ink (www.greenink.co.uk)

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Funded by:
UKaid from the British people
Ministry of Foreign Affairs of the Netherlands

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