

Struggling to mainstream climate issues?

Lessons learnt from CDKN's knowledge brokering experience

CDKN

Climate & Development Knowledge Network

Challenge 7

Limited support hinders climate integration at the community level

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This document was written by Lucia Scodanibbio, CDKN Learning and Knowledge Brokering Lead. The experiences summarised in this series refer to the collective work of a much larger team of CDKN colleagues and partners, who generously shared their knowledge brokering lessons and approaches to mainstreaming climate change issues through interviews and joint learning sessions. Thanks to the following colleagues for their contributions and insights: Arsema Andargatchew and Robi Redda (Ethiopia); Chris Gordon, Prince Ansah and Amanda April (Ghana); Edna Odhiambo (Kenya); Margaret Angula and Cecil Togarepi (Namibia); Revocatus Twinomuhangi (Uganda); Claudia Martinez and Patricia Velasquez (Colombia); Gabriela Villamarín (Ecuador and Latin America); María José Pacha (Latin America); Sandra Isola and Jessica Huertas (Peru); Nivedita Mani (India); Kamal Devkota, Kaustuv Neupane and Geeta Sandal (Nepal); Bedoshruti Sadhukhan (South Asia); Lisa McNamara (Global).

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Cover Image: Trader selling groundnut paste at the local market. *CDKN Ghana*

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Agriculture in South Asia. Sara Hylton / Climate Visuals Countdown

Introduction

Background

Since 2010, the Climate and Development Knowledge Network (CDKN) has supported decision-makers in designing and delivering climate-resilient development in focal countries in Africa, Latin America and South Asia through a combination of knowledge, research and advisory support. Our approach has been to facilitate locally-owned and -led processes, working in partnership with governmental and non-governmental actors at multiple scales.

Through this work we have become aware of the important, often invisible, role that ‘intermediaries’ or ‘brokers’ play in linking knowledge producers with knowledge users, and in managing complex processes for effective decisions and actions on climate change. In 2018, we shifted our attention to focus on knowledge brokering to help accelerate and amplify climate action. We work closely with stakeholders to promote evidence-based decision-making by fostering learning, collaboration and leadership through capacity strengthening and integrating diverse types of knowledge.

Along the way, CDKN has sought to document our learning and that of our partners to better understand how knowledge and evidence of climate change can inform and translate into policy and action. This reflection process has investigated different tools and approaches for enhancing the use of knowledge in decision-making, the barriers encountered in facilitating change, and the lessons that may be useful for others who are navigating similar challenges.

The lessons showcased in this document initially emerged during a series of learning exchanges that brought together CDKN’s partners in Asia and Africa to discuss the ways in which they had sought to mainstream climate issues in decision-making processes. They identified core challenges that they had come across during these processes and brainstormed different solutions and approaches to overcome them. A series of detailed interviews with CDKN’s different focal country partners followed, to identify, document and share some of the strategies and approaches they had used.

As a result of this learning work, we identified seven **challenges** to mainstreaming climate issues across governance scales and sectors, including with national to local government decision-makers and community members on the ground. These seven challenges have been used to structure this series. Each challenge has a number of **pathways** and **case studies** that demonstrate the knowledge brokering approaches that were used, as well as **key takeaways** that exemplify the main lessons learned in each of the case studies. This series is not intended as a definitive guide about climate mainstreaming, but we hope that others may gain some tips about knowledge brokering approaches and tools that could help as they seek to integrate knowledge about climate issues into their own contexts.

IT IS HOPED THAT THE LESSONS PRESENTED HERE CAN:

-  Influence researchers and decision-makers about the importance of knowledge brokering
-  Enable learning exchanges with other knowledge brokers in the global South
-  Encourage donors to think differently about the design of future programmes, to ensure sufficient time for impact and openness to being adaptive as new demands emerge

What is knowledge brokering and who are knowledge brokers?

Knowledge brokering is the process of moving knowledge into action. Knowledge brokers link producers of knowledge and users of knowledge to facilitate the generation, dissemination and eventual use of that knowledge.¹ The range of activities they are involved in can be understood along a spectrum that goes from working with information flows to seeking to bring about systemic change (see figure below). Whilst knowledge brokers have often focused on making knowledge more relevant and accessible (the left-hand side of the spectrum), the scale and urgency of the climate crisis today calls for knowledge brokering practice to move towards innovation brokering (on the right side of the spectrum).²

INFORMATIONAL **RELATIONAL** **SYSTEMS**

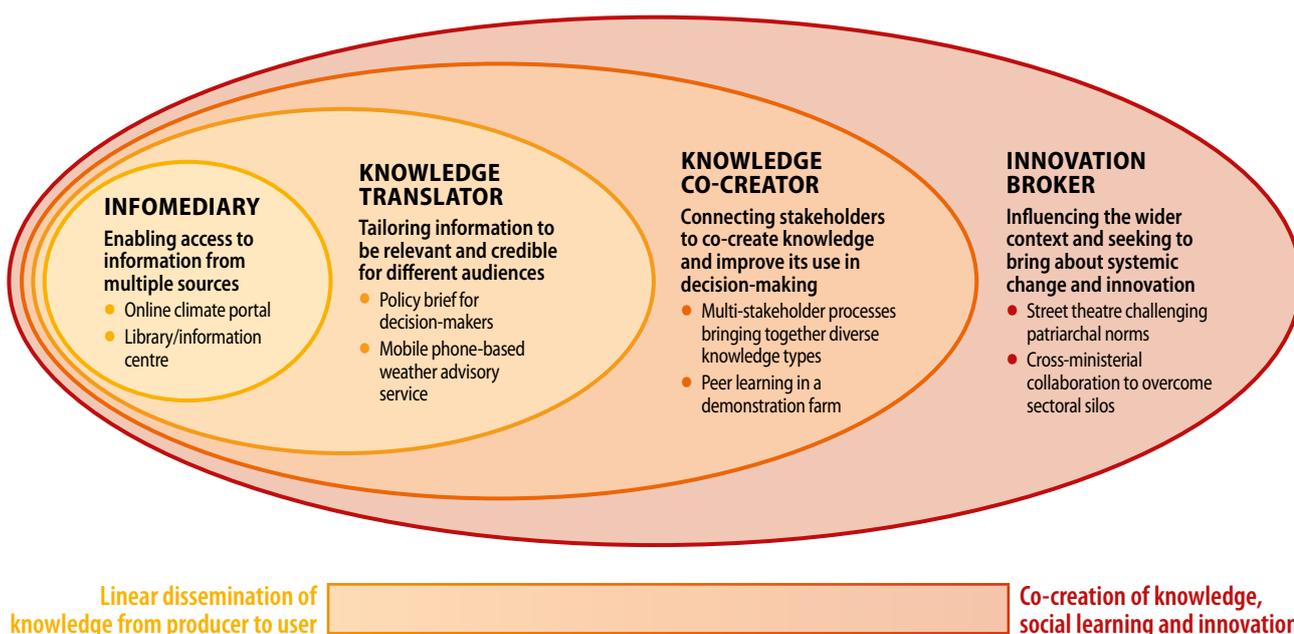


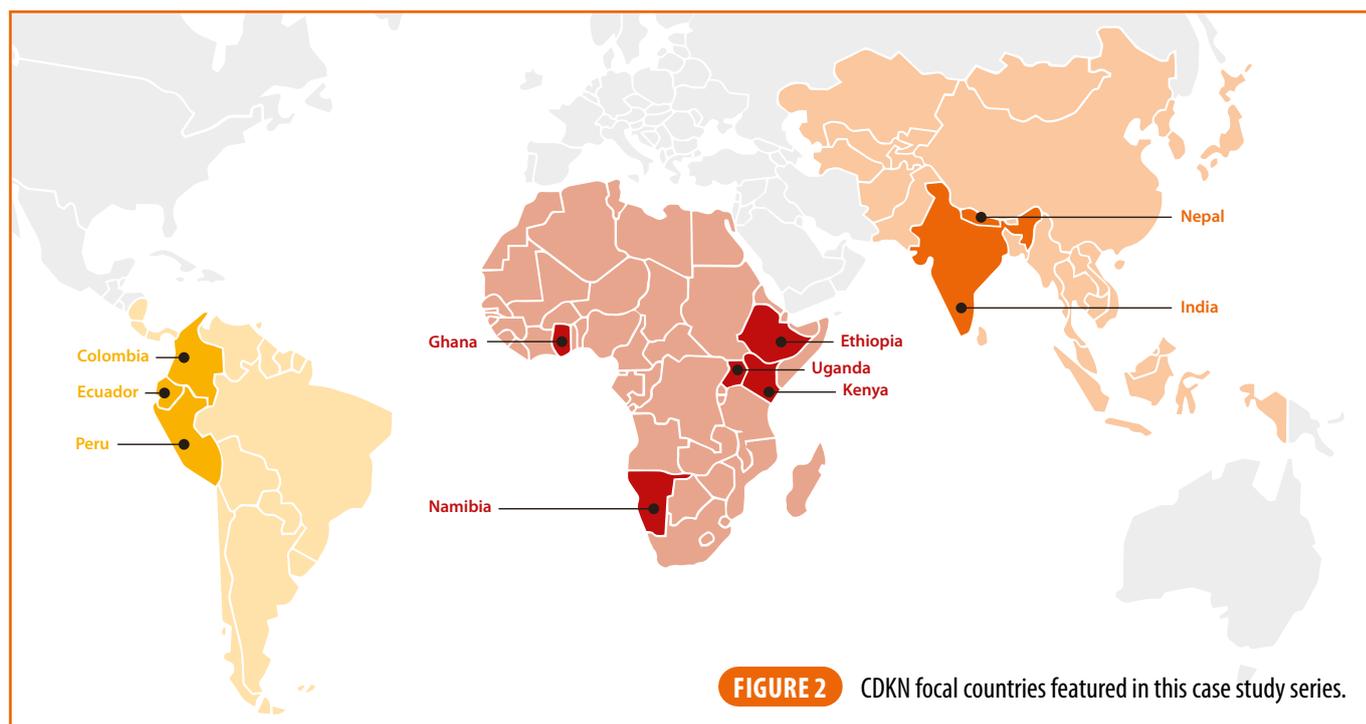
FIGURE 1 Spectrum of knowledge broker roles, adapted from Harvey et al. (2012)³ and Shaxson et al. (2012).⁴

This series is structured as follows:

CHALLENGE

HOW KNOWLEDGE BROKERS CAN RESPOND

<p>1 Key stakeholders lack sufficient information about the significance and urgency of climate change</p>	<p>Build a critical mass of tailored and accessible knowledge, highlighting the extent of climate change impacts on different sectors or groups. Knowledge, however, is not sufficient by itself, and needs to be combined with a range of engagement strategies, including to collaboratively develop responses to the challenges being faced.</p>
<p>2 Climate change is not sufficiently high on political agendas or part of institutional mandates</p>	<p>Invest time and effort in understanding the governance landscape. Be creative at finding different ways of aligning your messages with government policies, visions and mandates.</p>
<p>3 Climate change is mainly seen as an environmental responsibility, with little cross-sector collaboration</p>	<p>Assist by creating or building on existing platforms for different stakeholders to discuss climate issues and strengthen relationships.</p>
<p>4 Subnational actors lack guidance and support to implement climate change frameworks set at the national level</p>	<p>Provide support through existing vertical government and governance structures; mainstream climate issues into other related, better-decentralised sectors; or collaborate with strategic institutions to advance the climate mainstreaming process.</p>
<p>5 Limited capacities and resource allocation prevent climate change integration and implementation</p>	<p>Think carefully about the medium of knowledge transfer beyond outputs. Do this by co-organising training and engagement activities jointly with stakeholders and promoting learning and understanding about climate resilience from on-the-ground experience.</p>
<p>6 When gatekeeping and bureaucracy become obstacles to project progress</p>	<p>Know your context well, using multiple tactics while maintaining flexibility. Work both with government actors with continuity in the system and in partnership with other key actors to overcome challenges.</p>
<p>7 Limited support hinders climate integration at the community level</p>	<p>Connect local groups to different sources of knowledge and to intermediaries that can enhance access to specific resources.</p>



Challenge 7:

Limited support hinders climate integration at the community level

CASE STUDIES

PATHWAY A

Connect local groups to different sources of knowledge



GHANA

Building an integrated communications package to reach diverse audiences in **Ghana**



REGIONAL

Equipping field officers in **East Africa** to provide tailored climate advice and improve farmer outreach



NEPAL

Promoting climate-smart agriculture in **Nepal** through inclusive training and gender-responsive tools



INDIA

Empowering women farmers with eco-friendly practices for climate resilience in **northern India**

PATHWAY B

Connect local groups to intermediaries that can enhance access to specific resources



REGIONAL

Connecting **East African** farmers with training and local providers to enhance grain quality and prices



GHANA

Registering women's groups and linking them with local banks to unlock financing in **Ghana**



Farmer in Ghana clearing weeds on farmland for next planting season. *CDKN Ghana*



Farmers in Ghana clearing land and digging *zai pits* for dry season farming. *CDKN Ghana*

Limited support hinders climate integration at the community level

Communities and groups affected by climate change often lack the necessary support to effectively adapt to its impacts. Many have limited exposure to technical knowledge, such as drought-resistant cultivars, innovative techniques for managing water scarcity, or inclusive approaches to decision-making. They may also face barriers to accessing essential resources like markets, service providers and finance. Knowledge brokers play a vital role in bridging these gaps by facilitating access to both information and support, while also helping to overcome socio-economic obstacles that hinder access to services and resources. For this role to be effective, knowledge brokers must deeply understand the communities they serve – identifying existing knowledge, needs and resources, and building from that foundation. They must also consider factors such as literacy levels, preferred languages, cultural norms and behaviours, and the most appropriate and respectful ways to engage.

PATHWAY
A

Connect local groups to different sources of knowledge

CASE STUDIES



GHANA

Building an integrated communications package to reach diverse audiences in **Ghana**

- 1 Conducting scoping work with target audiences helps identify their communications needs and preferred modes, taking into account factors such as literacy levels, language, frequency and timing.
- 2 Running interactive radio shows that incorporate listener questions and feedback can be a powerful communication tool. Pairing broadcasts with offline listening groups allows audiences to engage with the content, reflect in small groups, and participate at convenient times.
- 3 Partnering with local groups, such as women's associations, to co-produce communication outputs informed by local context can support sensitisation and serve as an effective dissemination strategy.



REGIONAL

Equipping field officers in **East Africa** to provide tailored climate advice and improve farmer outreach

- 1 Using digital platforms like the 'Climate Information for Grains' tool to broker tailored climate knowledge helps stakeholders across the grain value chain plan short-term farming, storage and processing activities.
- 2 Training field officers to input clear, localised advisories supports farmers to take timely action in response to changing weather conditions.



NEPAL

Promoting climate-smart agriculture in **Nepal** through inclusive training and gender-responsive tools

- 1 Training women in climate-smart and gender-responsive agricultural techniques and tools – through programmes, demonstration sites and locally-adapted materials – delivers multiple co-benefits, including reduced chemical use, time and energy savings, and greater agency to share knowledge across the region.



INDIA

Empowering women farmers with eco-friendly practices for climate resilience in **northern India**

- 1 Training organised groups of women in climate-smart agriculture techniques and equipping them with practical tools strengthened their collective voice, thereby enabling many to step into leadership roles, including training others in clear and accessible ways.
- 2 Working with both women and men promoted transparency and co-ownership of agricultural knowledge within families.
- 3 Designing training materials with clear, simple language, integrating local and scientific knowledge, and presenting them in a user-friendly format enhanced learning and practical application.

KEY TAKEAWAYS

Connect local groups to different sources of knowledge

Connecting local groups to diverse sources of knowledge is key to strengthening local climate adaptation. Knowledge brokers can do this by working closely with community projects, farmers and women's groups, learning from their practices, wisdom and everyday decision-making in response to climate impacts. In turn, they can help facilitate access to scientific, technical and policy-related knowledge, creating opportunities for mutual learning. For this process to be effective, knowledge brokers must engage meaningfully with communities, taking time to understand their needs and communication habits, such as preferred mediums, meeting times, frequency and types of engagement. It's also important to explore the extent to which communities wish to participate in co-producing knowledge. Crucially, brokers should avoid assuming that local groups are homogenous. Instead, they should design tailored processes and products that reflect the diversity within their target audiences, considering factors such as age, gender, ethnicity and religion.



Compost pit manure is what Stella uses at her farm in Ghana. *Greenpeace Africa*

GHANA



KEY TAKEAWAYS

- 1** Conducting scoping work with target audiences helps identify their communications needs and preferred modes, taking into account factors such as literacy levels, language, frequency and timing.
- 2** Running interactive radio shows that incorporate listener questions and feedback can be a powerful communication tool. Pairing broadcasts with offline listening groups allows audiences to engage with the content, reflect in small groups, and participate at convenient times.
- 3** Partnering with local groups, such as women's associations, to co-produce communication outputs informed by local context can support sensitisation and serve as an effective dissemination strategy.

[View more Ghana case studies in Challenge](#)

CASE STUDY

Building an integrated communications package to reach diverse audiences in Ghana

In Ghana's semi-arid Upper West region, the Digital Tools for Agriculture and Livelihoods (DigiTAL) project aimed to increase access to relevant, accurate, timely and user-friendly information on climate-smart agriculture (CSA) and water management. This initiative helped to enhance the resilience and food security of diverse social groups.

The project began with a scoping exercise to identify specific communication needs and preferences, including language, frequency and modes of engagement. It also explored innovative mechanisms and local tools for sharing information with three target audiences: smallholder farmers (including women and youth), traditional authorities, and knowledge providers (e.g. extension officers and non-governmental organisations). The scoping revealed a strong demand for information on climate, improved agricultural productivity and alternative livelihood options. Given the region's low literacy rates, preferred communication methods included local-language radio shows, songs and face-to-face meetings.

Based on these insights, the project team designed a series of interconnected activities:

- **A series of weekly radio shows:** Originally planned for six months, the series was extended to a full year due to its popularity. Topics were selected in consultation with an advisory group comprising representatives from the Department of Agriculture, traditional authorities, and women and youth groups. Themes covered key issues along the agricultural value chain (from land preparation to marketing), alternative livelihood options (e.g. shea processing) and other relevant issues (e.g. Village Saving and Loan Associations, nutrition). Each 45-minute panel discussion was followed by a 15-minute call-in segment. Listener feedback shaped future episodes, with some topics repeated to ensure understanding.

- **Listening groups:** Existing women's groups, such as Village Saving and Loan Associations, formed listening groups to hear recorded radio episodes and discuss the content at their convenience. This approach increased access for those without radio devices. During these sessions, group leaders recorded feedback and questions for the radio host, which was addressed in subsequent broadcasts. The discussions also surfaced new ideas for interventions and capacity strengthening, which the project team helped link to potential partners. Importantly, the listening devices served multiple purposes, enabling women to use them for other awareness-raising and advocacy activities, such as those related to childcare, adding further value.
- **Local songs:** Each radio show began and ended with one of five **songs** produced by the women's groups to express the needs and concerns of women farmers. Song-making is an impactful form of communicating important issues in the region, often used during festivals and gatherings, but rarely recorded – limiting its reach. During the project, women's song-making skills were recognised as powerful mediums for sharing messages on climate adaptation. Through co-creation workshops, women's knowledge and scientific insights on climate change were merged to develop lyrics that were collectively refined. These songs became powerful tools for advocacy, enabling women to share messages about climate adaptation and environmental management in their own voices. The recordings were broadcast on radio and used in community settings, helping to combine research findings with local knowledge in a format that was both credible and accessible. The content of the songs reflected deep concerns about climate impacts on livelihoods and family well-being, and their use demonstrated how traditional forms of expression can be harnessed to support behavioural change and resilience.
- **Climate Advisory Resource Centres (CARCs):** Two CARCs were established in municipal offices of the Ministry of Agriculture to act as digital information centres. These were equipped with a television, a computer with webcam and internet access, a mobile extension unit to bring information to the farm level and a telephone for farmer inquiries.

The CARCs offered a resource library with training materials and instructional videos (translated into local languages) from partners such as the Ministry of Agriculture and research projects on sustainable agriculture practices, climate change adaptation, water management and additional areas relevant to both farmers and extension officers. They also served as meeting spaces for workshops and discussions on climate adaptation. Setting up the CARCs enabled access to audiovisual material (farmers' preferred means of communication) while overcoming the challenge posed by the absence of tools (e.g. smartphones) to watch such material. To further expand access, two additional CARCs were set up in input dealer shops, enabling farmers to view advisory videos on drought-resistant planting techniques and other climate adaptation practices while purchasing seeds or fertilisers.

These activities complemented and strengthened each other in several ways. The weekly radio shows, for instance, encouraged listeners to visit the CARCs, where visual information such as videos reinforced the information shared on air. This was particularly important given the low extension officer-to-farmer ratio in the area. The listening groups further supported the radio shows by providing feedback and amplifying the content in offline settings. Having all these activities interlinked and part of a broader package, developed through numerous partnerships, helped ensure their sustainability.



▲ Community members in Brutu during CDKN engagements.
CDKN Ghana

REGIONAL



KEY TAKEAWAYS

- 1 Using digital platforms like the '**Climate Information for Grains**' tool to broker tailored climate knowledge helps stakeholders across the grain value chain plan short-term farming, storage and processing activities.
- 2 Training field officers to input clear, localised advisories supports farmers to take timely action in response to changing weather conditions.

CASE STUDY

Equipping field officers in East Africa to provide tailored climate advice and improve farmer outreach

The East African Grain Council (EAGC) links key stakeholders along the grain value chain (producers, traders and processors) to prepare, disseminate and promote the exchange of information about the regional grain industry. In late 2020, EAGC launched the **Climate Information for Grains (CI4G) tool**, an online platform designed to help farmers and others in the grain sector plan short-term activities, such as when to plant, harvest or store crops, based on tailored weather forecasts, while also building resilience to medium-term climate variability. To support farmers effectively, EAGC works through a wide network of field officers across different regions who serve as the main link between EAGC and local farmers, playing a key role in knowledge uptake and engagement.



▲ Training field officers to input information into the Climate Information for Grains tool. EAGC

When the CI4G tool was launched, many field officers were not well-equipped to provide written descriptions of their advisories – the mechanism through which the CI4G tool delivers tailored information to farmers in specific areas. Through two training sessions, EAGC supported its field officers to input more customised information into the CI4G tool, with additional support from two Nairobi-based staff who manage the information system. The field officers now understand the structure of the advisories and the basic input procedures, and can make their messages clear and relevant to the farmers they work with.

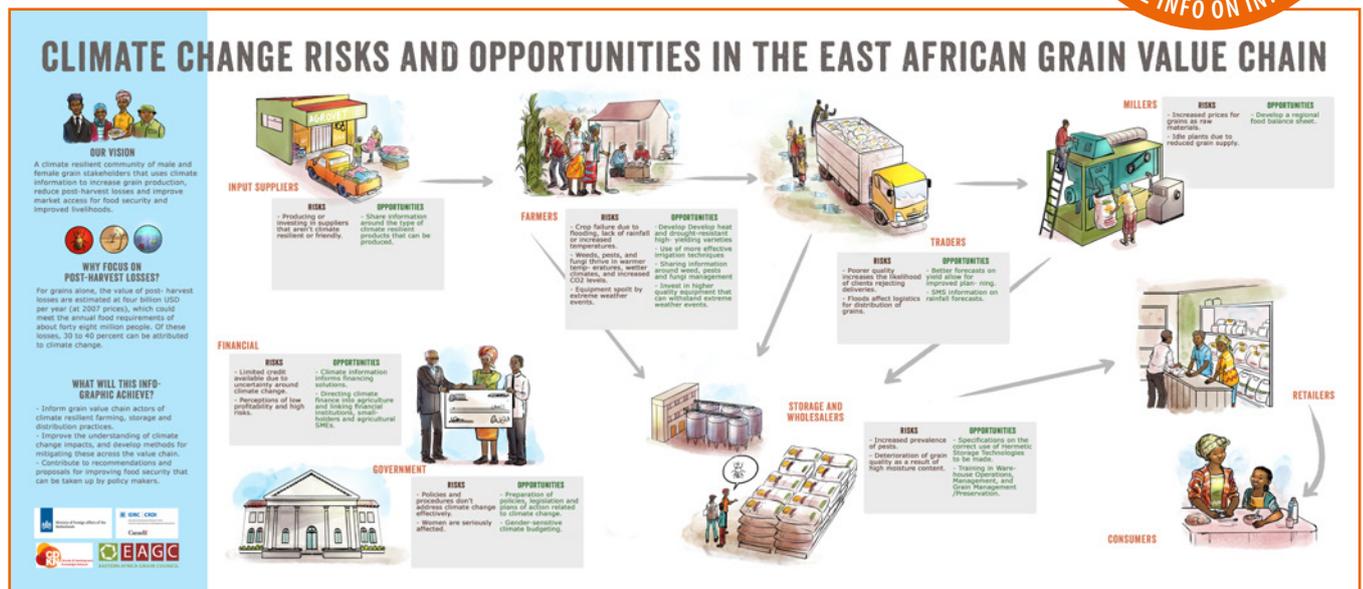
By inputting localised crop advisories into the CI4G tool, they guide farmers on best practices to reduce crop quality deterioration and losses due to weather changes. These advisories also encourage crop diversification, often promoting varieties better adapted to local conditions.

Through its partnership with CDKN and insights from other collaborators, EAGC reaffirmed the value of localised, context-specific climate knowledge and integrated this into its field officer training.

Read more about EAGC’s experience [here](#).



▲ Grain value-chain infographic is presented during the African Grain Trade Summit in October 2019. EAGC



▲ The EAGC seeks to improve the understanding of climate change impacts and mitigate these across the grain value chain, by promoting climate-resilient farming, storage and distribution practices. EAGC

NEPAL



KEY TAKEAWAY

- 1 Training women in climate-smart and gender-responsive agricultural techniques and tools – through programmes, demonstration sites and locally-adapted materials – delivers multiple co-benefits, including reduced chemical use, time and energy savings, and greater agency to share knowledge across the region.

[View more Nepal case studies in Challenges and](#)

CASE STUDY

Promoting climate-smart agriculture in Nepal through inclusive training and gender-responsive tools

In Nepal, farmers strengthened their knowledge and skills on climate change and its impacts on agriculture through a **training and interaction programme** run by the NGO Local Initiatives for Biodiversity, Research and Development (Li-BIRD). Local actors, including farmers, cooperatives and local government staff, also enhanced their understanding of climate change and climate-smart agriculture (CSA) practices through Li-BIRD's training programmes, **on-site demonstrations**, and locally-translated posters and flyers. These activities were particularly relevant for female farmers, given the high rate of male urban migration. As a result, women have been able to share ideas on these technologies and encourage others to adopt more efficient agricultural production approaches. This has led to reduced use of chemical fertilisers such as urea, diammonium phosphate and potash, and increased use of organic inputs like farmyard manure, various bio-fertilisers and bio-pesticides (e.g. yellow sticky traps).



▲ Gender-friendly tools like the corn sheller are critical to reducing women's drudgery. *Li-BIRD*

Adopting these practices has lowered fertiliser costs, reduced greenhouse gas emissions and boosted agricultural production. In consultation with women, special efforts were made to **identify gender-friendly tools** that improve well-being and food security – such as the jab planter (for sowing crops like maize), farm rake and hand corn sheller – and to strengthen their capacity to use them. These tools save time and energy while reducing drudgery for women farmers. A three-day capacity strengthening training on CSA was jointly organised by Li-BIRD and the Ministry of Land Management, Agriculture and Cooperative (MoLMAC) of Gandaki Province for 30 participants from farmers’ cooperatives. As a result, farmer groups and cooperatives are now better equipped to prepare and advocate for more specific and targeted CSA technologies and practices from MoLMAC and local governments.

The infographic features the CDKN logo and the title "CDKN ESSENTIALS" with the date "September 2020". The main headline is "Climate-smart agriculture takes off, thanks to 'women-friendly' tools and a gender-smart approach".

Key messages

A climate-smart agriculture initiative by Local Initiatives for Biodiversity, Research and Development (Li-BIRD) across different agro-ecological areas of Nepal demonstrates key 'success factors' for achieving climate-resilient rural development. These include:

- 1. Work with women farmers** to understand how climate-smart agriculture technologies can deliver multiple development and wellbeing benefits for them and their families. In particular, identify site-specific solutions that could reduce women's workloads while delivering improved income stability and food security.
- 2. Integrate climate-smart agriculture** into the government's regular work programme at provincial and municipal levels. In this case, Li-BIRD established how the Chief Minister's Environment Friendly Model Agriculture Village Programme (CMEFMAVP) of Gandaki province could be effectively integrated into local agricultural strategies.
- 3. Engage women political leaders** in the process. In Nepal, 'travelling seminars' enabled female politicians to have interactive discussions with farmers and learn about on-the-ground realities of agriculture and climate change. Through this initiative, women political leaders developed important messages for sharing in policy processes.

There is an urgent need for climate-smart agriculture in Nepal. Climate change is affecting the livelihoods of the two-thirds of Nepalis who work in agriculture. Many farmers already follow farming practices that cause long-term environmental damage, such as hazardous over-application of chemicals and unsustainable natural resource use, which degrade soil quality and fertility. Climate change compounds these detrimental effects.

Nepal has three agro-ecological regions: high hill, mid hill and Terai (flat plains) regions. All three suffer from climatic hazards. Villages located at higher altitudes are exposed to drought, landslides and hailstorms. The Terai is exposed to floods, cold and heat waves and drought. These climatic hazards negatively affect agricultural productivity and yields, for example, by eroding top soils. This has knock-on effects on communities' income and food security.

There is a lack of information among Nepal's farming communities and across the country's agro-ecological regions for tackling these climate hazards and their subsequent social, economic and environmental impacts. Women are especially hard hit. They face structural power inequalities and, as such, have especially poor access to information and resources that could bolster their climate resilience. Furthermore, a male exodus for overseas employment has made rural women's position more precarious. That is why a gender-responsive approach to climate-compatible development is vital.

Women's group works at plant nursery, Nepal.



▲ Women’s group growing seedlings to make a vegetable nursery. Li-BIRD

INDIA



KEY TAKEAWAYS

- 1 Training organised groups of women in climate-smart agriculture techniques and equipping them with practical tools strengthened their collective voice, thereby enabling many to step into leadership roles, including training others in clear and accessible ways.
- 2 Working with both women and men promoted transparency and co-ownership of agricultural knowledge within families.
- 3 Designing training materials with clear, simple language, integrating local and scientific knowledge, and presenting them in a user-friendly format enhanced learning and practical application.

[View more India case studies in Challenges and](#)

CASE STUDY

Empowering women farmers with eco-friendly practices for climate resilience in northern India

In India, although most household-level farming activities are carried out by women, they have little influence in agricultural decision-making. This challenge is compounded by extension mechanisms (such as training) that are not gender friendly. In Uttar Pradesh, the Gorakhpur Environmental Action Group (GEAG) **trained women farmers in climate-smart agriculture techniques** – using demonstration sites – and provided weather forecast information by SMS to help them plan for increasingly unpredictable rains. Among other skills, they learned improved storage methods to prevent crop spoilage and how to use cow manure as a substitute for costly fertilisers. GEAG's focus on groups of organised women, such as self-help groups, and its use of participatory tools to build confidence strengthened their collective voice and bargaining power. Equal emphasis was placed on working jointly with men and women to ensure transparency and foster co-ownership among husbands and wives.



▲ Farmer Ms Shanti Devi preparing bio compost for her crops. *GEAG*

As a result of the training, several women assumed new leadership roles, such as coordinating farmer field schools that teach different agricultural techniques monthly, managing community-based agricultural input centres, or serving as master trainers in eco-friendly farming.

One of GEAG's key lessons was that investing in women's knowledge is cost-effective and impactful, as they can replicate and disseminate what they learn, leveraging their ability to build trust and explain concepts in ways other farmers easily understand. To enable this, the GEAG team ensured training materials used simple, clear language supported by images, infographics and photographs, and integrated local knowledge alongside scientific insights. The team also adapted engagement to women's convenience and availability. Once women understood, experimented and saw results in their fields and livelihoods, they became natural brokers and agents of change, even breaking social and cultural barriers.



INSIDE STORIES
on climate compatible development

Climate & Development Knowledge Network

September 2020

Key messages

A project in the villages of Campierganj, Uttar Pradesh in northern India, has demonstrated how training women in climate-smart agriculture can:

- develop women farmers' skills effectively
- make the agriculture sector more climate-resilient, with more reliable yields
- improve income for women
- develop women's personal confidence and improve women's standing in the community – including instances of more female involvement in community decision-making and fewer early marriages among girls.

The project was carried out by the Gorakhpur Environmental Action Group (GEAG), an Indian non-governmental organisation, with the support of SRED Division, Ministry of Science and Technology, Government of India. In the project area, women make up at least 40% of the agricultural workforce.

Instrumental to the success of the climate-smart agriculture initiatives in improving both climate resilience and gender equality were GEAG's strategies, as follows:

- to reach out and involve local women's groups in agricultural trainings, so that women attain collective bargaining power and influence
- to support women to adopt leadership roles in community-based agricultural institutions
- to involve both women and men as beneficiaries in agricultural training so that there is transparency and co-ownership between the sexes regarding both contributions to and benefits from the programme.

Authors:
Nivedita Mani, Shiraz Wajih and Mairi Dupar

Empowering women as climate-smart agriculture leaders proves key to resilience

A cluster of about 90 villages called Campierganj, in northern India's Uttar Pradesh state, floods every year. Villagers plan their farming activities around the floods. However, farmers have experienced considerable changes in the climate in recent years. Summers are longer, winters are sometimes harsher, and the rains are more unpredictable.

Now the area has become prone to flash floods, as large amounts of rain fall within a short space of time. These sudden events cause more damage than previous rainfall patterns did. Uttar Pradesh is one of India's poorest states. The grandmothers of the village had low social status in the past, from the time when they were young women. They married in their teens, bore children soon after and spent much of their lives cooking food and taking care of livestock. This region in India has among the highest child marriage rates and the lowest participation of women in the workforce in the country.

Women – who make up more than 40% of the agricultural workforce in the area – have often proven to be the most open to adopting new ideas. With the added information and help they are receiving, women are increasingly the ones making decisions on the farms. GEAG provides women farmers with weather forecasts and alerts via text message as well as giving them climate-resilient seeds. At GEAG-organised trainings, women have also learned about retaining moisture in the soil to protect crops from drought.

Women are bold in adopting climate-smart techniques

Gorakhpur Environmental Action Group (GEAG) has been offering climate-smart agriculture training in Campierganj to help local people address climate change and its impact on agriculture.



VIEW ENTIRE STORY



▲ Woman farmers using Cycle Weeder, a locally made innovative tool to reduce women's drudgery in weeding crops. GEAG

PATHWAY B

Connect local groups to intermediaries that can enhance access to specific resources

CASE STUDIES



REGIONAL

Connecting **East African** farmers with training and local providers to enhance grain quality and prices

- 1 Creating a local directory of trusted suppliers of relevant technology and agricultural inputs enabled the East African Grain Council to connect farmers and, in some cases, negotiate trade between them.
- 2 Investing in post-harvest equipment has helped farmers reduce production losses, increase incomes, and share these practices with neighbouring farmers, amplifying the benefits across communities.

KEY TAKEAWAYS



GHANA

Registering women's groups and linking them with local banks to unlock financing in **Ghana**

- 1 Facilitating legal registration gave women's groups access to financing and formal recognition, opening doors to skills-building, entrepreneurship and partnerships with savings and loans companies and government units.
- 2 Connecting women's groups and district officials created opportunities for additional group registrations, sparked discussions on women's land rights, and revived training for livelihoods that were previously unavailable.

Connect local groups to intermediaries that can enhance access to specific resources

Knowledge brokers play a vital role in connecting local community stakeholders with service providers, financiers and local governments. These connections help stakeholders access the resources they need to adopt climate-compatible practices. Knowledge brokers can also facilitate training workshops in collaboration with diverse partners who provide essential services – such as extension officers explaining how to access climate-smart technologies, or government officials and local banks offering low-interest loans. In some cases, knowledge brokers help overcome structural barriers. For example, they can assist communities in obtaining legal or governmental support when identity documents or legal permits are missing, enabling access to critical resources.



A part of the black Volta, with farmer pictured digging *zai pits*. CDKN Ghana

REGIONAL



KEY TAKEAWAYS

- 1** Creating a local directory of trusted suppliers of relevant technology and agricultural inputs enabled the East African Grain Council to connect farmers and, in some cases, negotiate trade between them.
- 2** Investing in post-harvest equipment has helped farmers reduce production losses, increase incomes, and share these practices with neighbouring farmers, amplifying the benefits across communities.

CASE STUDY

Connecting East African farmers with training and local providers to enhance grain quality and prices

Previously, the East African Grain Council (EAGC) focused on facilitating trade among stakeholders along the grain value chain. Through its collaboration with CDKN, the organisation identified that the greatest risks to the supply chain originated with farmers themselves. When farmers experience poor harvests, all actors along the value chain face reduced trade volume and lower-quality grain, which impacts incomes. Grain shortages caused by post-harvest losses can also drive up prices, worsening food insecurity.

To address this, EAGC began supporting farmers to build resilience to increasingly variable climates. They developed localised crop advisories and best practices to reduce post-harvest losses, and created a directory of suppliers offering relevant technology and agricultural inputs. Acting as matchmakers across the grain supply chain, EAGC connected trusted suppliers with farmers and sometimes helped negotiate trade agreements.



▲ Farmers are trained on better responding to changing climate impacts, including through the use of improved post-harvest practices. *EAGC*

As a result of EAGC's training, matchmaking and recommendations, farmer organisations purchased post-harvest handling equipment – such as tarpaulins and hermetic bags – and adopted practices like proper drying to improve grain quality and reduce aflatoxin contamination. These farmers also promoted the use of these technologies within their communities, leading to adoption by neighbouring farmers. After attending training with EAGC field officers, farmer groups organised themselves, raised finance and procured the necessary equipment.

During a training on climate information, the Kangumo youth group, for example, learnt about the use of **Hermetic Storage Technologies**. Through EAGC, they were linked to a supplier (A to Z Textiles) and purchased an average of 10 bags each. These bags allow them to store grain for later sale, giving farmers greater flexibility on when to sell.

Oinoptich cooperative members received EAGC training and were linked to a supplier through the EAGC grain hub, enabling them to purchase 30 tarpaulins. These have enabled faster drying of the grain and maintaining good grain quality, helping members access better markets. These farmers are going beyond adapting their own practices and are sharing this knowledge with their neighbours and broader communities.



▲ Farmers plot seasonal rainfall patterns as part of training on the interpretation and application of climate information. *EAGC*



▲ Hermetic bags enable better grain storage by reducing the oxygen available to pests and preventing food grain contamination. *EAGC*

GHANA



KEY TAKEAWAYS

- 1** Facilitating legal registration gave women's groups access to financing and formal recognition, opening doors to skills-building, entrepreneurship and partnerships with savings and loans companies and government units.
- 2** Connecting women's groups and district officials created opportunities for additional group registrations, sparked discussions on women's land rights, and revived training for livelihoods that were previously unavailable.



[The registration] has now made us authentic and we can access all forms of help from the District Assembly and other financial institutions"

– A member of a women's group, on receiving a registration certificate

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CASE STUDY

Registering women's groups and linking them with local banks to unlock financing in Ghana

Many women's groups in Ghana that CDKN has worked with are informal organisations, not legally recognised or registered. This is largely due to a lack of funds to cover registration costs and limited knowledge about the registration process and its requirements. Through numerous workshops and engagements with District Assembly officials, the CDKN team identified the need to equip women from four of these organisations with information on registering as cooperatives and to support them with registration costs. The aim was to increase their access to livelihood and economic support opportunities at the Assembly level and, in turn, enhance their agency.

When handing over the registration certificates, the project team explained the significance of formal registration. The certificate and supporting documents could now be used to access credit from savings and loan companies. Representatives from these institutions were invited to the training workshop to present financing options available to the groups. Thanks to their new, legally-registered status, the women's groups have been approached for partnerships and further capacity strengthening by government agencies within their regions. For example, the Business Advisory Units in Keta and Sogakope Districts plan to empower women and youth in various economic ventures and have pledged to help identify other informal women's groups within their catchment areas to support their registration. An additional outcome of CDKN's training and capacity strengthening workshops is that the Business Advisory Units plan to hold regular seminars where landowners, District Administrators and development agencies engage to deepen understanding of women's land rights.



▲ Training women on different economic ventures, coupled with access to finance, can unleash new livelihood opportunities. *E-mages Multimedia*

Endnotes

1. Bielak, A. T., Campbell, A., Pope, S., Schaefer, K. and Shaxson, L., (2008), 'From science communication to knowledge brokering: The shift from science push to policy pull.' In *Communicating Science in Social Contexts: New Models, New Practices*, edited by Cheng, D., Claessens, M., Gascoigne, T., Metcalfe, J., Schiele, B. and Shi, S., pp. 201–226, Amsterdam, the Netherlands: Springer.
2. Scodanibbio, L., Cundill, G., McNamara, L. and du Toit, M., (2023), 'Effective climate knowledge brokering in a world of urgent transitions', *Development in Practice*, 33(7), pp. 1–7. doi: [10.1080/09614524.2022.2159932](https://doi.org/10.1080/09614524.2022.2159932)
3. Harvey, B., Lewin, T. & Fisher, C. (2012), 'Introduction: Is development research communication coming of age?', *IDS Bulletin*, 43(5), pp. 1–8. doi: [10.1111/j.1759-5436.2012.00356.x](https://doi.org/10.1111/j.1759-5436.2012.00356.x)
4. Shaxson, L., Bielak, A.T., Ahmed, I., Brien, D., Conant, B., Fisher, C., Gwyn, E., et al. (2012), 'Expanding Our Understanding of K*(KT, KE, KTT, KMB, KB, KM, etc.) A Concept Paper Emerging from the K* Conference Held in Hamilton, Ontario, Canada, April 2012.' Hamilton, ON: UNU-INWEH. Retrieved from: https://www.researchgate.net/publication/235930863_Expanding_our_understanding_of_K_KTKEKTKMbKBKM_etc_A_concept_paper_emerging_from_the_K_conference_held_in_Hamilton_Ontario_Canada



Connecting women with district officials opens doors to training and entrepreneurship opportunities. *E-mages Multimedia*

THIS SERIES IS STRUCTURED AS FOLLOWS:

- CHALLENGE 1** Key stakeholders lack sufficient information about the significance and urgency of climate change
- CHALLENGE 2** Climate change is not sufficiently high on political agendas or part of institutional mandates
- CHALLENGE 3** Climate change is mainly seen as an environmental responsibility, with little cross-sector collaboration
- CHALLENGE 4** Subnational actors lack guidance and support to implement climate change frameworks set at the national level
- CHALLENGE 5** Limited capacities and resource allocation prevent climate change integration and implementation
- CHALLENGE 6** When gatekeeping and bureaucracy become obstacles to project progress
- CHALLENGE 7** Limited support hinders climate integration at the community level

ABOUT CDKN

The Climate and Development Knowledge Network (CDKN) works to improve the well-being of the most climate-affected people in the global South, especially marginalised groups, through transformative climate action. CDKN is managed by SouthSouthNorth, in partnership with Fundación Futuro Latinoamericano (FFLA) and ICLEI South Asia, and co-funded by the Ministry of Foreign Affairs of the Netherlands and Canada's International Development Research Centre (IDRC).

We work in partnership with public, civil society and private sectors to mobilise knowledge, leadership and capacity in the global South in support of locally-owned and -led climate action.

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