WORKING CLIMATE-SMART: PROTECTING LIVELIHOODS AGAINST FUTURE CLIMATE RISKS

CONTENTS

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EXECUTIVE SUMMARY

This publication highlights the outcomes of the climate-smart livelihoods programming implemented under the Pilot Programmatic Partnership (PPP) between the European Commission's Civil Protection and Humanitarian Aid Operations Department and the International Federation of Red Cross and Red Crescent Societies (IFRC). Through case studies of activities in Burkina Faso, the Democratic Republic of the Congo, Ecuador and Honduras, it explores the role of National Societies in addressing climate-related humanitarian challenges that impact on livelihoods among marginalized communities, and climate-smart livelihoods programming as a solution.

KEY FINDINGS

IFRC network strengths

- **Addressing climate change lies at the core of the IFRC's work**. The IFRC responds to disasters, and disaster management and climate adaptation must go hand in hand.
- **National Societies are well positioned to support transitions to climate-smart livelihoods:** they have national influence, and their volunteers are trusted members of the community, present across communities around the world.

Challenges

- **Climate literacy gaps** remain among communities, limiting informed decision-making.
- **Limited access to localized climate data** constrains effective planning.
- **In emergencies,** short timelines and competing priorities can impede climate-smart responses.
- **Scaling up to increase reach:** successful climate-smart livelihoods activities demand a significant time investment among relatively few participants.
- **Funding:** the evolving funding landscape challenges the sustainability of climate-smart programming.

Good climate-smart livelihoods practices

- **Community partnership** from project design through implementation builds trust and ownership.
- **Technical partnerships** with local and national experts are mutually reinforcing, enhancing technical quality and make results more sustainable.
- **Capacity-strengthening** increases effectiveness. Being climate smart is an approach, not a solution, and requires knowledge sharing as well as tools and materials.
- **Longer-term programming** facilitates the development of partnerships, local ownership, capacity-strengthening and sustainability.
- **Flexible, adaptive programming** allows real-time adjustments based on changing contexts and community feedback.
- **Supporting women**: women are disproportionately impacted by climate change. These case studies find that supporting women can be transformative.

OPTIONS FOR ADAPTATION AND SCALE-UP: LEVERAGING STRENGTHS, OVERCOMING CHALLENGES, AND LEARNING FROM GOOD PRACTICE

1. Empower locally led adaptation

- Develop accessible climate literacy curricula and training.
- Facilitate community-led climate dialogues.
- Promote women-led livelihood exchange platforms.
- Establish local innovation labs for experimentation.
- Train volunteers as "community forecasters."
- Advocate for improved community access to actionable climate data.

2. Enable integrated, long-term programming

- Embed climate-smart approaches into emergency response design.
- Advocate for five-year programme cycles and flexible funding.
- Enhance digital feedback and adaptive management tools.
- Invest in internal expertise and cross-team coordination.
- Diversify the donor base and financing models.
- Strengthen partnerships with expert organizations.

3. Promote cross-learning within the IFRC network

- Identify and support 'champion' National Societies and communities.
- Create platforms for regular knowledge sharing and peer mentoring.
- Develop and disseminate a library of scalable climate-smart livelihood kits.
- Establish a 'Climate-Smart Livelihoods Investment Fund' for seed funding.
- Showcase IFRC's added value in delivering community-driven climate adaptation.

Climate-smart livelihoods programming helps to safeguard livelihoods against future climate risks, and it empowers communities to lead in their adaptation journey. By building on its strengths and learning from existing good practices, the IFRC network can scale effective, people-centred, and locally led climate action – ensuring resilience for the most vulnerable in a rapidly changing climate.


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INTRODUCTION: THE PILOT PROGRAMMATIC PARTNERSHIP AND CLIMATE-SMART LIVELIHOODS AT THE IFRC

The Pilot Programmatic Partnership (PPP) is a three-year partnership between the IFRC, member National Societies, and the European Union to support communities to reduce risks and prepare better for disasters and emergencies (see Figure 1). It has supported humanitarian action in 24 countries across Africa, Asia, Europe and Latin America, with the additional participation of 12 National Societies from the European Union.

THE PPP AND CLIMATE-SMART LIVELIHOODS

Pillar 1 of the PPP, disaster risk management, houses the climate-smart approach to the protection of livelihoods. According to the IMF, "investing in resilience may cut the costs of post disaster intervention by at least half": livelihoods are an important base for community resilience.[1]

Climate-smart livelihoods: what does it mean?

Climate-smart programming uses local knowledge, cross-sectoral knowledge, and climate data – across timescales – to inform assistance (see Figure 2).[2] It ensures that everyone involved in the design and planning of operations take climate data into account, so that activities will protect people from future climate risks as well as current impacts.

Figure 1. The PPP structure

The PPP: Five pillars of action, six cross-cutting components

1 Disaster risk management

2 Epidemic and pandemic preparedness and response

3 People on the move

4 Cash and voucher assistance

5 Risk communication, community engagement and accountability

Cross-cutting components

- anticipatory action
- climate-smart programming
- environmental sustainability
- digital transformation
- legal frameworks

1 Simison B. (2019) "Investing in resilience", *Finance and Development Magazine*, December.
2 The IFRC climate-smart livelihoods definition is adapted from the World Bank and Food and Agriculture Organization (FAO) definition of climate-smart agriculture, which the IFRC is also aligned with, and which pursues the triple objectives of sustainably increasing productivity and incomes, adapting to climate change, and reducing greenhouse gas emissions where possible and without undermining the livelihoods of poor and marginalized households. See FAO, Climate-smart agriculture, accessed 13 March 2025, and IFRC and the Red Cross Red Crescent Climate Centre (2023) A guide to climate-smart programmes and humanitarian operations: using climate information across timescales to enhance humanitarian efforts.

Figure 2. Combining knowledge to inform climate-smart programmes and emergency operations[3]

Risk information: hazards, exposure and vulnerability

- Who is most vulnerable to a specific hazard?
- Who is most exposed to a specific hazard?
- How are hazards, exposure and vulnerability changing due to climate change and transition processes?
- Enhanced Vulnerability and Capacity Assessment (EVCA) information

Local knowledge

- Observed changing weather, hazards and living conditions
- Locally applicable good practices that could be scaled up
- Locally co-designed sustainable interventions
- Locally co-designed climate services
- EVCA information

Cross sectoral knowledge

- Adaptation options – and their limitations
- Locally sustainable choices for interventions
- Strategies with expertise from flood modellers, agricultural extension services, climate adaptation practitioners, etc.
- Locally applicable sustainable practices, e.g. water harvesting techniques and crop types

Climate information

- Climate trends and projections
- Seasonal information
- Weather alerts
- Modelling & mapping of new risk zones (e.g. floods, sea level rise, vector-borne diseases)

CLIMATE-SMART LIVELIHOODS ACTIVITIES

IFRC's definition of climate-smart livelihoods:

Climate-smart livelihoods (including agricultural livelihoods) operations and programmes use climate information across timescales, including both short-term weather and seasonal forecasts and long-term climate projections in designing and/or adjusting interventions.

A crucial step on the IFRC's climate journey

The IFRC has an ambitious Climate Resilience Programme and investment platform, which aim to strengthen expertise and capacity in mitigation, adaptation and resilience.[4] They support each National Society to embark on its own Climate Action Journey to mobilize climate action, facilitate locally led adaptation at scale, and promote environmental sustainability, green response and climate change mitigation. The PPP's climate-smart livelihoods activities play a crucial role in advancing National Societies' work on climate-smart livelihoods, contributing to the Federation's Climate Resilience Programme.

THE PURPOSE OF THIS STUDY

Through four case studies in Burkina Faso, the Democratic Republic of the Congo, Ecuador and Honduras, this publication explores the climate-smart livelihoods programming in the PPP, and the unique role of each National Society in addressing the climate-related humanitarian challenges that are impacting on the livelihoods of marginalized, last-mile communities. It documents lessons learned and success stories, achievements and best practices, with insights for scale-up and the design of future climate-smart livelihoods initiatives.

3 IFRC and the Red Cross Red Crescent Climate Centre (2023) A guide to climate-smart programmes and humanitarian operations: using climate information across timescales to enhance humanitarian efforts.
4 IFRC, Global Climate Resilience Platform, accessed 13 March 2025.

BURKINA FASO: BEING CLIMATE-SMART IN CRISIS SETTINGS

Can climate-smart approaches be implemented in conflict zones, where people are frequently displaced or are living under a blockade, and are trying to survive in the absence of many basic necessities?

A CONTEXT OF CLIMATE CHANGE VULNERABILITY AND CONFLICT

Armed conflict escalated in 2019 in Burkina Faso and widespread violence persists, as Islamist armed groups continue to clash with the military. More than two million people have been displaced and hundreds of thousands of people are under blockade.

Agriculture is the main livelihood for much of the population, yet the sector is increasingly threatened by rising temperatures – especially in the north – and unpredictable rainfall. These shifts are disrupting the seasonal calendar, reducing planning reliability, and increasing food insecurity, particularly among displaced communities. Burkina Faso is highly climate-vulnerable, and the country's adaptive capacity in agriculture is of particular concern.[5]

The government adopted a National Adaptation Plan (NAP) in 2015 and has made progress in its work to promote environmental rehabilitation, green growth, and adaptation and resilience to climate change. However, challenges in technical capacity, funding and policy integration remain.[6]

TAKING A CLIMATE-SMART APPROACH TO LIVELIHOODS THROUGH THE PPP

PPP activities were undertaken in two regions: Centre-North and East, which are hosting some 494,000 and 220,000 displaced people, respectively.[7] Many had fled from rural areas to nearby towns, and many of these towns are now under blockade. With the population crowded into a highly restricted space, there is immense pressure on land, water and other resources.

The aims of the PPP's climate-smart livelihoods activities were to protect household production under crisis conditions, using climate information.

Informing design through data and dialogue

Following the climate-smart approach, the Burkinabe Red Cross commissioned a study, analysing climate information including long-term trends and more recent events to identify climate risks to livelihoods. It also investigated current livelihoods and climate adaptation strategies that were already being implemented, as well as other risks and vulnerabilities affecting livelihoods, and proposed potential climate-smart activities.

BURKINA FASO

RESPONSE CONTEXT
Conflict and insecurity; displacement and blockade; acute food insecurity

GDP PER CAPITA
883 USD

LIVELIHOODS
80% agriculture (primarily subsistence and rainfed) and livestock

CLIMATE HAZARDS
- Increased temperatures and heatwaves
- Drought and dryness
- Unpredictable rainfall
- Flooding

CLIMATE VULNERABILITY
162/187

Sources: World Bank, Regional Agency for Agricultural and Food, IPCC, Potsdam Institute for Climate Research, ND GAIN.

5 Notre Dame Global Adaptation Initiative (2022) Profile: Burkina Faso.
6 Burkina Faso Ministry of Environment, Green Economy and Climate Change (2021) Evaluation of Burkina Faso's National Climate Change Adaptation Plan (NAP) 2015-2020: Final report.
7 UNHCR (2023) Operational data portal: Burkina Faso.

Visit to a home garden in Diapaga. © Burkinabe Red Cross.
Photo: Roméo Balkouma.

Local studies of climate risk and vulnerability: how do they help?

Conducting local studies of climate risk and vulnerability greatly improves the chances of identifying climate-smart, relevant and high-impact activities. This is especially important in humanitarian settings where up-to-date climate data is limited or unavailable. In such contexts, localized analysis helps tailor interventions to real needs and evolving risks.

These studies also establish a culture of evidence-based programming from the outset, reinforcing the value of community dialogue and local knowledge. They lay the foundation for systematically integrating risk data throughout the project cycle, from design to monitoring and adaptation.

In addition to the study, the Burkinabe Red Cross collaborated with and received technical support from the IFRC Livelihoods Resource Centre and other National Societies – including the Spanish Red Cross and the National Societies of Niger and Mali.

Safeguarding the environment through sustainable forest livelihoods

Forests and trees play a vital role in climate resilience in Burkina Faso, where rising temperatures and increasingly erratic rainfall are disrupting agriculture and degrading ecosystems. Agroforestry and reforestation contribute to adaptation by improving soil health, retaining water, stabilizing microclimates, and reducing erosion. These nature-based solutions not only restore land but also create income opportunities – which are especially important in areas affected by crisis and displacement.

In partnership with the state Environmental Services, the Burkinabe Red Cross trained over 100 participants in forest nurseries across Bouroum, Bourzanga, Diapaga, Kongoussi, Pensa, and Rollo. Trainees learned to cultivate and sell drought-tolerant species such as moringa, baobab, and néré – trees adapted to shifting climate conditions and beneficial for soil and water. The initiative strengthened local supply chains and generated income through climate-resilient practices. In parallel, 141 people were trained in reforestation and planted 1,000 trees, restoring degraded landscapes and contributing to Burkina Faso's NAP.

In the same areas, 118 people, mainly women, were trained to produce shea butter soap, a livelihood based on sustainable use of non-timber forest products. These activities provide alternatives to deforestation-based coping strategies, which are common in displacement settings. Despite insecurity and delivery delays, some participants sourced materials independently and launched small-scale businesses, showing the adaptive potential of forest-based livelihoods. These approaches reduce environmental pressure while strengthening resilience to climate and conflict risks.

Needs assessment and feasibility studies among the selected communities provided local insights to refine the design. A committee comprising community leaders, representatives of the local Red Cross Committee, and representatives from the technical services of the Ministry for Humanitarian Action selected participants, considering vulnerability criteria (e.g. women heads of household) as well as livelihoods preferences.

Pre-empting rainfall deficits: growing more food with less in home gardens

The climate-smart approach to home gardens has been so successful that it is being replicated in other Burkinabe Red Cross projects, and in the strategy of the province's Ministry of Agriculture.

520 households across Bourzanga, Diapaga, Kongoussi and Pensa received improved seeds, which are adapted to a shorter, less predictable rainy season, and more resistant to disease. The PPP then supported a package of climate-smart training in cultivation techniques that require less water and can nonetheless increase productivity. In Bourzanga, a demonstration site showcased these techniques.

Results are promising. Shortly after the training, everyone in Bourzanga had started growing at least two kinds of vegetables. In Diapaga, most seeds had been sown and sales had been made, and in Pensa, 25% of people had sold at least one crop.

"Producers preferred to work only in the rainy season. But they know it's getting hotter, and that the rains are starting later and ending earlier. They now see that they can do market gardening, and diversify," said the Director of Agricultural Services in Bam Province.

The gardens are a source of pride, and participants are introducing the new techniques to their children and neighbours. Several people consider that being able to cultivate in this way is preventing displacement: "Even I am doing it, even traders are starting their own gardens. The project makes it possible for us to stay," said the Head of Technical Support for Agricultural Services in Diapaga.

"Despite everything, we are managing to provide for ourselves"

One woman who participated in the home gardens activities is living with her family under the blockade in Diapaga, and learning to cultivate despite limited access to water:

"I am 45, I am married, and I have 6 children. I used to work in agriculture, market gardening, some livestock farming, small trade, but I was displaced two years ago. There are concerns related to drought and poor rains, and the harvest has not always been so good sometimes. I received seeds and was trained in how to develop my garden, cultivate the vegetables off-ground and make fertilizer. I work with my husband, and I grow enough food to eat and to sell. If you came to visit you would see. There is less water available now, but despite everything, it is going well, we are managing to provide for ourselves."

HOW CAN WE BE CLIMATE-SMART IN CRISIS SETTINGS?

Lessons and achievements from the PPP's exploration of climate-smart livelihoods activities in a crisis setting.

Learning alongside the community

Staff, volunteers, and participants all seem highly motivated and appreciative of the activities. This has been fostered by an approach that prioritizes communication and accompaniment

- **Not everyone is immediately convinced by new ideas**, but participatory training, dialogue, a telephone hotline and 'listening tables'[8] all encouraged trust and engagement.
- **Time:** the primary – and possibly the most valued – investment in much of these activities was human and relational capital, rather than supplies or equipment.
- **Local Red Cross Committees,** "our entry point and our facilitators", promoted acceptance and trust in the project and the activities.

8 The listening tables were regular events during which a committee comprising representatives of the provincial Red Cross Committee, the local Red Cross volunteers, people with disabilities, women, religious leaders, and displaced people took in feedback from the community and project participants. The feedback was then referred to project staff for response.

© Burkinabe Red Cross. Photo: Roméo Balkouma.

- **Training:** participants requested training, and it was vital to effective implementation. Training sessions were dynamic, with good participation. They provided an opportunity to exchange and discuss the larger topic of climate change and the role of the climate-smart approach.

"For me, that's the best thing, when we have trained someone to do something, they have that knowledge, even if they have lost everything."

PPP Coordinator, Burkinabe Red Cross

Empowering women

Traditionally, women are responsible for sourcing vegetables, and women have benefited from the home gardens project. They are more climate resilient, they are saving time and money, and they have learned new methods of cultivation that enable improved production.

"We also ask the beneficiaries about their needs. This is not always the case with other structures, who impose their programmes and it doesn't always work."

Director of Agricultural Services, Bam Province

Partnerships with local services

For all activities, the Burkinabe Red Cross worked in close collaboration with state services. Agreements at provincial and regional level brought in state technicians and engineers, who provided technical expertise. These partnerships, in line with the country's NAP, have multiple benefits, as resources are pooled to increase expertise, enhance reach and acceptance, and increase the chances of climate-smart approaches continuing.[9]

Continuity, flexibility, durability?

The project improved as those involved learned from experience, thanks to

- the **local, evidence-based approach**, including monitoring and community feedback;
- the **flexibility** within the project, which facilitated iteration and feedback loops, enabling adaptive programming; and
- **a longer time frame** of three years, which permitted more sustained accompaniment, although this is still a short period to change habits.

There are limits to humanitarian, community intervention, however. A home garden can only supplement diets and livelihoods. In places, significant infrastructure work is needed to secure water supplies.

Addressing the reality of crisis situations

Working on longer-term, climate-smart responses in crisis settings requires a flexible approach.

- **Hyperlocal solutions:** when equipment could not be delivered, the project participants found local substitutes, e.g. using local plants as living fences.
- **Taking the lead locally:** when site visits by project staff were delayed, local volunteers took responsibility for follow-up.
- **Following participants:** when participants were displaced, they were still able to participate, as staff followed them to new locations.
- **When immediate survival is the priority**, the affected population cannot invest so much in thinking about longer-term goals. Response organizations can enable climate-smart choices through anticipatory design and crisis-sensitive delivery.

9 Government of Burkina Faso (2015) Plan national d'adaptation aux changements climatiques du Burkina Faso, p. 137.

Working within the PPP: the benefits of a longer time frame and a broader range of activities

Without Red Cross assistance in Matiacoali, the population would have been displaced, according to a community leader. The PPP's multisectoral, holistic approach meant that activities had a greater effect on the community. Coordination between water, sanitation and hygiene, food security and livelihoods, and cash activities had a stronger impact. And the community engagement team, working across all activities, ensured a people-centred response.

A stronger, more climate-smart Burkinabe Red Cross

"Climate change is limiting us and making us think again about how to do things. … now with climate change we need to take data into account to make sure to do the right thing."

Food Security and Livelihoods Project Manager, Burkinabe Red Cross.

The Burkinabe Red Cross has a long-standing commitment to addressing the country's difficult climatic and environmental conditions, with strong experience in food security. As climate related disasters increase, the National Society has expanded its efforts in this area, with the PPP making a significant contribution.

The recent appointment of a Climate Change Specialist, supported by senior leadership, is helping to mainstream climate-smart programming across the institution. Climate considerations are now integrated into the food security and livelihoods strategy, and a national climate strategy is being developed in alignment with Burkina Faso's NAP and Nationally Determined Contribution (NDC). The National Society has also mapped key climate and environmental risks, as well as relevant actors, and is building partnerships with meteorological services, local associations, and non-governmental organizations (NGOs) to strengthen technical collaboration. The use of climate data is becoming central in assessments, planning, and resource management. New projects, funded by the government, the World Bank and the Green Climate Fund, are reinforcing this shift.

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DEMOCRATIC REPUBLIC OF THE CONGO: ADAPTING TO UNPREDICTABLE RAINS AND FLOODING[10]

How can farmer field schools strengthen climate-resilient agriculture in the conflict-affected Ruzizi plain of South Kivu?

ENVIRONMENTAL DEGRADATION AND CLIMATE CHANGE

The city of Uvira and its surroundings face severe environmental pressure due at least in part to decades of conflict-driven population movements. This has led to loss of vegetation, which has heightened the impacts of climate change. Most residents rely on rain-fed, small-scale farming, but shifting weather patterns – rising temperatures, longer dry spells, and irregular rainfall – are disrupting traditional agricultural cycles. Climate change is contributing to more frequent and more severe drought, flooding, erosion, landslides and rising lake levels.[11]

Though DRC has a climate change policy and action plan (established in 2015 and updated in 2020), implementation is hindered by limited funding and capacity. In 2021, the country adopted its first NAP (2022–2026), prioritizing agriculture and improvements in climate data collection.[12]

DEMONSTRATING THE VALUE OF CLIMATE-SMART AGRICULTURE

In April 2020, flash floods affected approximately 70,000 people in Uvira.[13] The DRC Red Cross provided immediate relief, but sought to do more to foster resilience. PPP activities therefore focused on the vulnerable population of the city.

A study on forecast climate risks, as well as population vulnerabilities, was commissioned, and the DRC Red Cross conducted a community assessment and exchanged with technical experts, including the local Agricultural Inspectorate. An external workshop with state institutions, academics, UN agencies including the Food and Agriculture Organization, and international NGOs in the region also informed the design of climate-smart livelihoods activities.

Farmer field schools were proposed to teach climate-smart agriculture. The schools were set up in locations prone to drought, flooding and landslides, to demonstrate and experiment with how to tackle different climate risks. Three schools were initially set up in Uvira, then in September 2024 two more schools opened in Ruzizi, and a final school started in Fizi in January 2025.

Local Red Cross staff, committee members and volunteers, as well as staff from the Agricultural Inspectorate, were trained in key climate change concepts and the climate-smart approach to agriculture and livelihoods, and how to run a field school.

10 The project activities and case study were conducted before violence resumed in and around Uvira.
11 World Bank (2021) Climate risk country profile: Congo, Democratic Republic.
12 Democratic Republic of the Congo (2021) National adaptation plan to climate change (2022-2026).
13 IFRC, Emergency plan of action – DRC floods in Uvira, 5 May 2020.

SOUTH KIVU, DEMOCRATIC REPUBLIC OF THE CONGO

RESPONSE CONTEXT
Conflict and insecurity; protracted displacement; flooding and acute food insecurity

GDP PER CAPITA
1,615 USD

LIVELIHOODS
70-80% agriculture

CLIMATE HAZARDS
- Increased temperatures
- Drought and dryness
- Agricultural pests
- Unpredictable and intense rainfall
- Flooding
- Erosion, mudslides and landslides

CLIMATE VULNERABILITY
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Sources: World Bank, IPCC, ND GAIN.

“The involvement of technical services is key to success”:* the role of the Agricultural Inspectorate

A framework protocol agreement with the Agricultural Inspectorate at territorial level has resulted in a strong relationship.

Each field school was led by a technician from the Inspectorate, who helped to identify the site for field schools, trained the participants, and followed up on activities, working at the school almost every day.

The technicians have raised awareness of climate risks and climate-smart approaches, motivated and educated their groups, and built relationships with the community that will likely endure.

* Spanish Red Cross Delegate, Cash and Livelihoods.

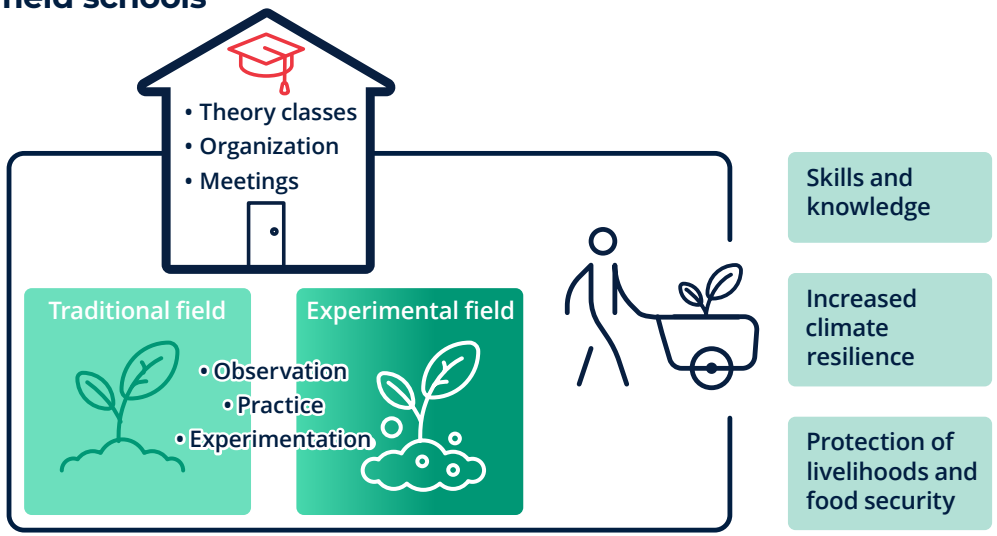
AT THE FIELD SCHOOL

At each school, the 20 participants elected a management committee, and a facilitator. Over 5-6 months, they attended weekly training sessions on key concepts of climate change and climate-smart agricultural techniques. Participants and volunteers ran experiments to support local validation of – and adaptation to – these techniques, testing them against traditional methods (see Figure 3). They included the use of compost and organic fertilizer, seeds that are better adapted to drought and resistant to disease, drip irrigation, and off-ground cultivation to reduce water consumption and avoid flood damage. Local Red Cross volunteers worked in the field schools alongside participants and went house-to-house in the community, raising awareness of climate change impacts and climate-smart approaches. At the end of the programme, the participants received seeds and tools to apply the new techniques at home.

Kakombe field school, Uvira. © IFRC. Photo: Esther Nspau.

Kakombe field school, Uvira. © IFRC. Photo: Esther Nspau.

Figure 3. Discovery-based learning: climate-smart farmer field schools[14]



Results: crops surviving climate-related hazards

Within three months, the field schools were producing food and proving the value of climate-smart techniques: in one school, amaranth cultivated off-ground had 50% higher yields than the plants grown in the ground. Participants shared the produce and sold any surplus, with many investing the income back into their school.

"We lost the plants grown in the ground [to floods], but not those that weren't. There was one metre of water, it was very muddy, and we had to move. We took all our plants with us. It's a portable field!"

Technician, Kasenga Field School

In January 2024, field schools were flooded. Climate-smart crops, grown off-ground, survived and were moved to safety, whereas the in-ground crops were destroyed.

"We adapt used 1.5L water bottles to set up a drip system. You don't have to water the plants twice a day any more, only once every two days ... It works."

Technician, Kasenga Field School

14 For more information on farmer field schools, visit the FAO Global Farmer Field School Platform, accessed 15 March 2025.

The climate-smart field schools have drawn a lot of attention. Passers-by ask questions, and then try out the techniques themselves. Dozens of formal requests have been made by local schools, churches and other organizations for support in setting up their own climate-smart field schools. Local representatives of international NGOs have expressed an interest. The concept also has the support of government ministries and educational institutions, with student interns joining the project from local schools.

LEARNING TO ADAPT TO UNPREDICTABLE RAINS AND FLOODING

Lessons and achievements from the PPP's exploration of climate-smart livelihoods activities through schools, under ongoing climate change-related pressures.

Overcoming reticence to change

Staff and trainers learned that **exchange, accompaniment, engagement and experimentation were vital** for acceptance and ownership, and that jargon and new terminology could provoke resistance.

- Experimentation demonstrated the value of new techniques: within three months, participants could see results for themselves.
- Awareness raising by peers tended to be better accepted, highlighting the value of local Red Cross volunteers, and there was a peer-to-peer multiplier effect as knowledge was transferred to neighbours.
- Exchange, repetition, and a gradual approach were important for the transfer of ideas.

"At first the community looked at the new techniques like they were crazy, but now they are motivated and appreciate the innovative approaches."

Activity Report from the Kasenga Field School, August 2023

Need to ensure continuity

Eastern DRC has a challenging aid environment, with many humanitarian and development agencies operating short-term projects, leading to wariness among local communities about new initiatives. The DRC Red Cross's permanent presence and the three-year PPP project helped build trust and embed the project locally. The field school approach strengthened relationships within communities and with authorities, promoting local ownership and continuity. However, a longer-term strategy is needed to institutionalize the changes.

"It's successful because ... people are facing a real problem, and they are looking for a solution. Many people have lost a lot of their crops because of climate change and have been discouraged ... With these techniques, we can cope better with that."

Technician, Kiliba Field School

How to take this to scale?

Climate-smart field schools have been very popular, and they are easily replicable. However, the school approach is a significant time investment and reaches relatively small groups of people. There is a need for innovative strategies to expand field schools to serve more people, and to scale climate-smart techniques to increase household benefits.

A lot to learn

Ideally, all field school students would graduate with a strong and comprehensive understanding of climate change and the climate-smart approach, enabling them to launch their own climate-smart initiatives. However, limited access to climate data, and the challenge of learning to interpret it alongside intensive agricultural training during the six-month course, make this difficult.

"Before, we failed to cultivate ... With this, we can continue"

One participant in the Kakombe field school in Uvira can speak to the impact of climate-smart approaches to agriculture:

"Climate change is a big problem in DRC and in Uvira, in all the districts: erosion, land disappearing where there were crops growing.

We learned how to cultivate both in the ground and out, how to make fertilizer and compost, and how to use it. We water and observe the plants. We found parasites and we learned about how to mix products that would heal the plants.

The drip system is fantastic. Before we found the plants very dry in the mornings and now the plant is fed all day long.

Before, we failed to cultivate, we didn't understand why it didn't work. With this we have understood that we can continue. We cultivated a lot of produce in a small space, when before we couldn't manage this much even in a larger space. We prefer off-ground cultivation now."

THE DRC RED CROSS: INCREASING ITS CLIMATE FOCUS

Climate-smart field schools have reached beyond South Kivu, with discussions to establish them in more provinces, supported by the DRC Red Cross Society's strategic focus on climate resilience. The PPP has helped strengthen internal capacity through staff training and internal workshops. National focal points for livelihoods and for climate change have been appointed, and there is an ambition to have focal points in all provinces, although expansion depends on securing significant funding in an uncertain context.

DRC faces diverse and severe climate risks – 17 provinces experienced flooding in 2024. To address this effectively, the Red Cross will need to prioritize its activities. New partnerships are underway, including a memorandum with the FAO and efforts to deepen collaboration with institutions like the national meteorological service Mettelsat and the National Institute for Agricultural Studies and Research (INERA), which offer vital technical and data support.

Kalundu field school, Uvira. © IFRC. Photo: Esther Nspau.

ECUADOR: INCREASING RESILIENCE ACROSS A MEGADIVERSE LANDSCAPE

Ecuador is megadiverse; it boasts a wide range of climates and ecosystems, demanding locally tailored approaches to climate-smart livelihoods.

Agriculture is a major source of employment in Ecuador. Farmers are often smallholders – small-scale family agriculture represents 84.5% of productive units – and rural communities face persistent poverty.[15]

Climate change in Ecuador is expected to bring continued temperature rises and varied impacts across regions. Heavy rains are expected to be more frequent on the coast, as well as in the highlands and the Amazon. Glacier retreat will exacerbate water shortages and increase flooding risks, while El Niño effects are likely to intensify, worsening drought and flooding.[16] The agricultural sector's ability to adapt is a significant concern.[17]

"We can no longer continue producing in the way we did before."

Climate Change Unit, Ministry of Agriculture & Livestock

Ecuador's second NDC, published in February 2025, shifts focus from disaster response to strengthening resilience. It outlines strategies to ensure food production can adapt to climate change, including agroecological zoning, improved irrigation, use of fertilizers, and pest and disease control.[18]

IMPROVING WATER MANAGEMENT TO ADDRESS EXCESS AND DEFICIT

Under the PPP, the Ecuadorian Red Cross engaged with communities living in very different settings, with different agricultural livelihoods, facing different climate risks.

As per the IFRC climate-smart approach, each project began with a climate risk and vulnerability assessment, conducted in collaboration with local community associations. In Manabí and Imbabura, the Ecuadorian Red Cross conducted agroecological zoning studies for maize and potato crops, which also supported a government programme. The studies were complemented by a vulnerability assessment. In Azuay and Guayas, the team used standardized IFRC network vulnerability assessment tools and conducted a climate risk assessment with a value chain focus.

The local Red Cross team then proposed activities to the communities, took in feedback and made adjustments. Local government supported and engaged with the project and the communities throughout – in Manabí, the local government signed an agreement with the local community and the Ecuadorian Red Cross to assure water supply. Experts in family farming from the Ministry of Agriculture and Livestock provided

15 FAO, FAO en Ecuador : Ecuador en una mirada, accessed 31 March 2025.
16 World Bank (2021) Climate Risk Country Profile: Ecuador.
17 World Bank (2021) Climate Risk Country Profile: Ecuador.
18 Government of Ecuador (2025) *Segunda contribución determinada a nivel nacional, 2026-2035.*

RESPONSE CONTEXT
Poverty and vulnerability to extreme climatic events

GDP PER CAPITA
6,610 USD

LIVELIHOODS
32% agriculture (51% services; 17% industry)

CLIMATE HAZARDS
- High temperatures
- Drought and dryness
- Agricultural pests
- Unpredictable and intense rainfall
- Flooding
- Erosion, mudslides and landslides
- Frost

CLIMATE VULNERABILITY
118/187

Sources: World Bank, IPCC, Ecuador Ministry of the Environment, Water and Ecological Transition, ND GAIN.

training in climate-smart agricultural practices, and continued follow-up after the projects. These partnerships reflect the programme's alignment with national policy for climate change management.

Preparing for dryness and drought

Water management was a critical climate risk in Nabón and Ibarra, located in the Ecuadorian highlands, and Tosagua, on the coast. Projected future droughts and unpredictable rainfall underscore the need for adaptation.

Producers received water harvesting tanks and water-saving irrigation systems (drip or sprinkler systems, according to need). Farmers who were experiencing a prolonged dry period received hydrogel beads for the first time, to combat water stress. They also built agroforestry systems, planting trees as protective barriers, to boost soil health and water retention, improve food security, bring additional livelihood resources and provide climate change mitigation co-benefits.

Technicians from the Ministry of Agriculture provided training in water conservation and pest management, and agriculture students, and the community itself, took part in installing the irrigation systems, while the local government supported marketing efforts. The farmers are now using significantly less water and at the same time maintaining crop yields, even during droughts.

The continuity of the climate smart approach bodes well: the communities have established local Water Boards, with the local government's support; and while their parents were in training, children have also been learning about climate change, so they too can be climate-smart.

Irrigation system installation in Azuay. © Ecuadorian Red Cross. Photo: Azuay Provincial Council.

Water tank and irrigation system in Azuay.
© Ecuadorian Red Cross.

Innovating with hydroponics to fill gaps in production

In another community of Nabón, water resources were so limited that water harvesting was not a feasible solution. Instead, the local Red Cross team worked with a local producer association and the Ministry of Agriculture to introduce a hydroponics system to grow fodder for guinea pigs, which uses far less water than traditional cultivation. The fodder grown through hydroponics provides a vital back-up, covering gaps in fodder production during dry periods and ensuring the guinea pigs continue to feed and develop.

Being smart about rice cultivation in a flood zone

In Salitre, at the heart of Ecuador's rice production area, heavy rainfall is already causing flooding – and such rains are predicted to increase in the coming years. This is compounded by the intensive use of chemical products, which are impacting on soil fertility and crop productivity.

32 small-scale farmers from a producers' association in Hacienda Nueva took part in the project. Two pumps were installed to control water levels, and participants planted trees to improve water management and soil quality, and provide an additional form of income, slightly reducing dependence on rice. Off-ground platforms were built for flood-protected vegetable cultivation.

The producers learned to make organic fertilizer and insecticides, and about climate change, nutrition, water use and hygiene, while their children took part in parallel sessions on climate change.

The participants' organic rice crops are now doing better than traditionally cultivated crops. One farmer said that he is now harvesting 40 sacks of rice instead of 25. The organic fertilizer has been so successful that the association has been able to sell some, and it intends to set up a brand to market it more widely.

TAILORING CLIMATE-SMART APPROACHES ACROSS DIVERSE ECOSYSTEMS

Lessons and achievements from the PPP's exploration of climate-smart livelihoods activities across a megadiverse country.

Collaboration for ownership and social cohesion

Project participants have taken ownership of activities and they have organized, which is a good sign for future resilience and sustainability of activities. A number of factors contributed to this:

- **Community involvement from the beginning:** early engagement to exchange on activities built trust. It enabled community participation in project design and facilitated project sustainability.
- **A holistic approach:** As the Climate Change Technician of the Ecuadorian Red Cross said: "We have to face the problems faces by communities in a holistic way, which means we need to work on integrated solutions". The PPP enabled a level of integration responding to diverse needs. For example, training was extended to cover first aid and health (including how to respond to the impacts of extreme climate events), nutrition and water, sanitation and hygiene.
- **Exchange and cooperation:** activities were designed as collective climate action. Technicians and volunteers worked alongside participants, who supported implementation by digging reservoirs, sourcing materials for fertilizers, and proposing solutions.

Strengthening – and sustaining – activities through partnership

The Ministry of Agriculture and Livestock was an active partner during the project. It has also gone on to include participants in its own programmes and has identified further opportunities for collaboration with the Ecuadorian Red Cross.

Local governments ensured coordination with other projects within their localities and have promised continued support, e.g. water delivery and marketing.

Climate change awareness and education require a mix of approaches

Over the course of the PPP, the Ecuadorian Red Cross has been able to develop and test various activities to strengthen capacity on climate change, learning that a range of approaches are valuable, including:

- **Peer learning and exchange**: discussing climate change impacts and adaptation measures, challenges and solutions, between participants of different projects.
- **Formal training**: formal group training activities are effective, but they do not guarantee application. They need support and sustained accompaniment in the capacity strengthening process.
- **Games, videos, booklets, audio messages**: these means of communicating messages can reach far more people. They must be adapted to ensure that they reach people in remote settings, for example, or people with low literacy.
- **Starting young**: young people are often more open and learn more quickly. They can get involved in the transition to becoming climate-smart, supporting their parents and the rest of the community.

"Good communication and decision-making with the population before, during and after activities was a factor for success … I think that the needs of the population were mostly listened to."

Technician, Ministry of Agriculture and Livestock

"We can keep the plants alive"

One participant of the project in Ibarra explains the new irrigation systems:

"There are two models of irrigation system. One works with storage tanks, a pump, and drip irrigation. We use this to water the seedlings and fruit. Before it was more difficult, now it is easier, and water is not wasted. The second model uses reservoirs of 90 cubic metres and a sprinkler irrigation system. Right now, the water comes down through the hose and irrigates everything, whereas before we had to wait for rain to come. We now keep half what we grow for our own consumption and sell half in the market."

Strengthening climate action at the Ecuadorian Red Cross

"A big challenge is time. Climate change is moving fast, hurting our most vulnerable communities faster than we can respond."

National Climate Change Adaptation Technician, Ecuadorian Red Cross

The Ecuadorian Red Cross has a national climate change strategy, and the ambition to integrate climate change considerations in every operation and across every sector, according to its National Policy on Disaster Risk Management. The PPP has supported its climate action journey, through:

- **Reorientation:** the Ecuadorian Red Cross has developed new or strengthened relationships with less traditional partners that can support climate-smart livelihoods. It is now better recognized as a climate actor, e.g. it is included in Local Technical Agroclimatic Committees, which are led by the Ministry of Agriculture and Livestock.[19] And these relationships have sparked ideas for future projects, such as cooperation with the Ministry of Agriculture on climate monitoring.
- **Local capacity-strengthening**: there is an increasing enthusiasm to work on climate change, particularly among younger members. Climate change teams have been established in several provinces.

The National Society's strong community work, broad coverage, ability to work across sectors and to act as a bridge between communities and less grounded institutions are all assets for its climate-smart livelihoods work. These four pilots have shown what can be done to develop a climate-smart livelihoods approach among vulnerable communities. They have strategic value and are replicable, serving as inspiration, and contributing to a strong positioning of the Ecuadorian Red Cross in the national climate space.

19 Local Technical Agroclimatic Committees, composed of local agricultural stakeholders, inform farmers about expected climate changes, their potential impacts on crops, and adaptive measures to mitigate negative effects. For more information, see Giraldo-Mendez D., Martínez-Baron D., Loboguerrero A.M., Gumucio T., Martínez J.D., Ramírez-Villegas J. (2019) Technical Agroclimatic Committees (MTA): A detailed guide for implementing, step-by-step. Cali, Colombia: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

Discussion of project activities in Azuay. © Ecuadorian Red Cross.

HONDURAS: SAFEGUARDING COFFEE LIVELIHOODS THROUGH CLIMATE-SMART PRODUCTION

Can climate-smart approaches protect a strong tradition of coffee production?

Honduras's population of more than 10 million is highly exposed to natural hazards and vulnerable to external shocks. In 1998, Hurricane Mitch devastated the country. In 2020, Hurricanes Eta and Iota caused major damage. Climate change is likely to intensify both the frequency and the severity of such extreme climate-related events, as well as increase temperatures.

The government published its climate change strategy in 2010 and legislated in 2013. It published a NAP in 2018 and submitted an updated NDC in 2021.[20] While not all sectors have an adaptation strategy, there is one for agriculture, although financing is a challenge.

CLIMATE RISKS FOR COFFEE PRODUCTION

Honduras is among the world's leading coffee exporters; coffee makes up 4% of GDP and employs around one million people. 95% of coffee is produced by small-scale farmers, on plots of an average of just over 2ha.[21] Producers are already perceiving changes in rainfall patterns and temperatures, and have experienced crop damage due to landslides, flooding, drought and hurricanes. Coffee plants can be destroyed by these events, while excessive or insufficient water can severely reduce yields.[22]

In addition, coffee rust disease has resulted in severe damage. Caused by a fungus, coffee rust spreads faster under hotter and more humid conditions, and can reduce yields by up to 50%. Since conditions are highly likely to get hotter, and there will be more humid periods in future, coffee rust epidemics are likely to become more frequent and severe.[23] Overall, projections suggest that climate change impacts will cause a significant drop in yields by 2050.[24]

SAN NICOLÁS: PILOTING CLIMATE-SMART COFFEE SYSTEMS IN A VULNERABLE REGION

San Nicolás is reliant on coffee farming, but has seen a decline in production, at least in part due to climate impacts and the lingering effects of the 2016 coffee rust epidemic. To address this, and future climate risks, the Honduran Red Cross supported the formation of Agricultural Development Committees in 10 communities without any such form of organization, enabling coordinated efforts to improve livelihoods. Recognizing the urgent need to support coffee farmers, the local Red Cross partnered with IHCAFE (the Honduran Coffee Institute) to promote climate-smart coffee production.

HONDURAS

RESPONSE CONTEXT
Poverty and vulnerability to extreme climatic events

GDP PER CAPITA
3,232 USD

LIVELIHOODS
23% agriculture (52% services; 23% industry)

CLIMATE HAZARDS
- Increased temperatures
- Drought and dryness
- More frequent and severe hurricanes
- Flooding

CLIMATE VULNERABILITY
145/187

Sources: World Bank, ILO, IPCC, ND GAIN.

20 Government of Honduras (2018) Plan nacional de adaptación al cambio climático: Honduras; Government of Honduras (2021) *Actualización de la contribución nacional determinada de Honduras.*
21 World Coffee Research, Honduras, accessed 12 March 2025; Bunn C., Lundy M., Läderach P., Girvetz E., Castro F. (2018) Climate smart coffee in Honduras. International Center for Tropical Agriculture (CIAT), United States Agency for International Development (USAID).
22 Nolvia, Gabriela Jimenez, *Vulnerability and adaptive capacity of small coffee producers in Honduras,* Presentation, Honduran Coffee Institute, 25 October 2018.
23 Gianessi L., and Williams A. (2011) *Climate change increases need for fungicides for coffee trees,* International Pesticide Benefits Case Study No. 15, August.
24 UNEP, Interactive country fiches: Honduras, climate change, accessed 12 March 2025.

IHCAFE and the Honduran Red Cross: a complementary partnership for climate-smart coffee production

The Honduran Coffee Institute, IHCAFE, is a not-for-profit dedicated to the sustainable development of coffee production. It has a bank of knowledge and resources to support climate-smart approaches.

IHCAFE had already conducted a study into coffee producers' vulnerability to climate change and developed a project to develop 'showcase' climate-smart coffee farms. These showcase farms employ a method to 'renovate without stopping production', which allows farmers to improve cultivation gradually, while maintaining an income.

In January 2024 the Honduran Red Cross signed a collaboration agreement with IHCAFE to carry out an adapted version of the showcase farms. IHCAFE supported the project development, provided training and follow-up, and shared its early warning information bulletins. The Honduran Red Cross supported adaptation of the concept for implementation with households that work small farms and have more limited resources. It provided equipment and materials, coordinated activities, and was involved in training, follow-up and the dissemination of information.

245 producers participated in the project. Each farm developed a tailored plan, although common activities included introducing a new coffee variety that is better adapted to higher temperatures and resistant to pests, and planting trees – a nature-based solution to reduce deforestation, improve water catchment, prevent landslides, and enhance vegetation.[25] Farmers were trained to produce organic fertilizers, manage soil acidity, and prune plants to boost productivity.

"The climate-smart approach has allowed us to establish the levels of risk and vulnerability more scientifically, allowing us to better address the issue of livelihoods in the area."

Italian Red Cross Focal point in Honduras

As well as coffee producers, the project worked with day labourers, who rarely own land, and are often more vulnerable. Five teams of day labourers (around 50 in total) were trained and equipped to better manage coffee plantations, meaning better coffee production and a more skilled workforce, improving their livelihood prospects.

The municipality supplied some equipment and materials and coordinated this programme with other coffee-related activities. For their part, the community Agricultural Development Committees took initiatives, raising awareness and providing local materials and labour, alongside their fellow Health and Emergency Committees.

By January 2025, all participants reported applying what they had learned, experiencing improved economic security and expressing confidence in continuing independently. They requested further technical training, and they continue to receive information from the early warning bulletins.

"We will improve coffee production despite climate change impacts"

The President of the Agricultural Development Committee in Choloma is pleased with the progress made in her community thanks to the climate-smart livelihoods activities:

"I have been with the project for three years, and I have met new people and made friends, it's really motivating. We have been trained in climate change, resilience, risk management and what to do in case of a disaster. We raise awareness among the population on climate change issues and we developed replicas of the climate change training we received, so that we can continue to inform people about climate change. The lack of water affects us all – prolonged droughts, pollution, and crop diseases. But we have created nurseries, we are doing reforestation, and we will improve coffee production despite climate change impacts."

"We are promoting reforestation, but participants weren't engaged at first. Now they are incredibly motivated, because they have seen results where there is more greenery."

Agricultural Field Technician, Honduran Red Cross

25 Reforestation is also in line with the demands of coffee buyers. For example, on 29 June 2023 the European Union's Regulation on Deforestation-free Products entered into force. The EU constitutes half of Honduras's export market for coffee.

HOW CAN WE PROTECT TRADITIONAL LIVELIHOODS?

Lessons and achievements from the PPP's exploration of climate-smart livelihoods activities among small-scale coffee producers and labourers.

Organization and cooperation: building the confidence to take risks

This project required substantial change and investment from the community. Several factors helped to build the necessary confidence.

- **Mutual support:** the Agricultural Development Committees provide a space for support, advice, wider sharing of information and local leadership, with potential for horizontal scaling of activities within the community.
- **A focal point and space to learn:** the Committees also provide a structure, facilitating meetings and formal training. They provide a space for exchange and to solve problems.
- **Continuity:** having a structure in place increases the chances that the climate-smart approach will be maintained in the community, compared to ad hoc activities with individual farmers,

Showcasing sustainability: seeing results is vital

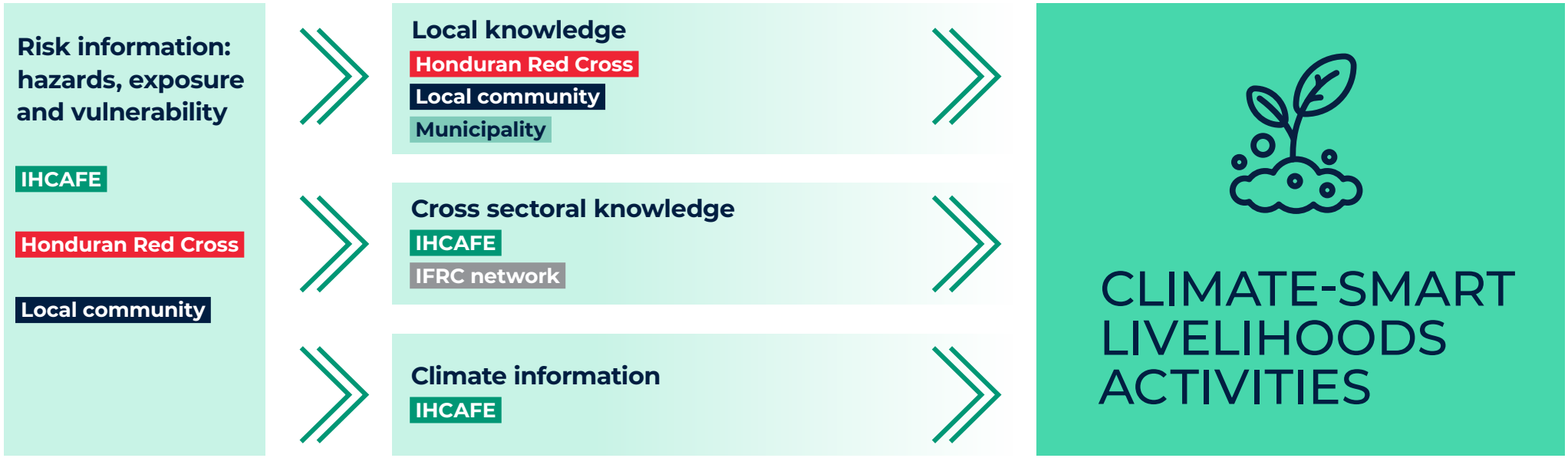
This project expected people to adopt a new variety of plant, reduce their cultivated area, and take time out to attend training and try new techniques, on the promise of future results. The showcase farms helped producers to have the confidence to make these changes by:

- serving as a visible focal point, attracting attention and bringing people together;
- demonstrating results, providing evidence that the techniques work; and
- providing an incentive, as people wanted the support and visibility that being a showcase farm offers.

Co-production

This project was very much about the integration of different actors: IHCAFE, the municipality, the community, and the National Red Cross Society all brought vital knowledge and other resources to make the project work (see Figure 4).

Figure 4. Co-production of climate-smart activities



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Empowering women

Women made up nearly 40% of the producers participating in the project, double the proportion working nationwide with IHCAFE. Many women are lone heads of household, facing the challenges of coffee rust and climate variability, and struggling to maintain their farms for lack of labour. "Women found themselves picking coffee alone, without workers, and feeling that their farms were falling apart … The exchanges and field schools have motivated many women", according to the PPP Coordinator of the Honduran Red Cross. Women participants have strengthened the project, and women have been elected to lead 7 out of 10 Agricultural Development Committees.

"We need our volunteers, our collaborators, to have the principles of climate-smart livelihoods. We need to internalize them more, deepen, and generate more awareness"

Programme Director, Honduran Red Cross

HONDURAN RED CROSS: USING CLIMATE-SMART APPROACHES TO PROTECT TRADITIONAL LIVELIHOODS

The Honduran Red Cross's National Development Plan (2021–2025) prioritizes climate change adaptation, emphasizing the use of climate data and community knowledge to address risks and vulnerabilities. The PPP has supported its progress. In 2023, an Environment and Climate Change team was established, and a Climate Change Policy was published, mandating that all programmes – especially those focused on livelihoods – include climate-smart strategies. Through the PPP, the National Society gained technical support from the Federation and partners like the Livelihoods Resource Centre, the Spanish Red Cross, and the Italian Red Cross, enhancing internal capacity.

The Honduran Red Cross is already well-positioned for climate-smart work: it has nationwide reach, deep local knowledge, strong community trust and multi-sector expertise. These strengths allow it to deliver integrated, community-based responses. These activities have strengthened partner relationships and serve as a replicable model for climate adaptation.

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CONCLUSION

THE STRENGTHS OF THE IFRC NETWORK IN CLIMATE-SMART LIVELIHOODS

Addressing climate change is central to the IFRC's work: the climate and environmental crisis is the first of five global challenges in the 2030 IFRC global strategy.[26] The IFRC cannot respond to disasters without addressing climate change, and it cannot 'do no harm' without incorporating climate-smart approaches.

"It is our vocation to help the most vulnerable. Climate change increases needs. The challenge is how to increase our help."

Climate Change Specialist, Burkinabe Red Cross

Trust in the IFRC facilitates the introduction of new, climate-smart livelihood approaches, and communities are more receptive to National Society volunteers, who are members of their community. Its **broad community reach** allows it to support last-mile communities with localized climate-smart interventions.

The National Societies' unique position as a humanitarian actor and auxiliary to the state fosters **strong partnerships with technical experts** across sectors such as agriculture, livestock, environment and meteorology. The structure of the IFRC network also provides **"in-house" expertise, with support from specialized institutions** like the Red Cross Red Crescent Climate Centre and the IFRC Livelihoods Resource Centre, and exchange between National Societies, allowing successful local projects to become global models for adaptation and replication.

CHALLENGES FOR CLIMATE-SMART LIVELIHOODS PROGRAMMING

Many of the project participants – in all four countries – had a relatively limited awareness of climate change, beyond their lived experience of changing seasons and more extreme climatic events. While these programmes improved awareness, a **climate literacy gap** persists, and most did not reach the stage where participants were using climate data to make informed decisions. Lack of access to or **availability of climate data** is also a contributing factor, hampering climate-smart approaches.

Emergency programmes with short time frames are not conducive to capacity strengthening or behavioural change activities, and it can be hard to prioritize climate-smart approaches in emergencies.

Even two to three years is a short time frame to guarantee lasting behaviour change, and such activities also present the **challenge of reach**. A relatively small number of people participated in these climate-smart activities – how to effect

© Burkinabe Red Cross. Photo: Romeo Balkouma.

26 IFRC (2018) *Strategy 2030*.

a lasting shift in behaviour to climate-smart livelihoods, which reaches more people?

Finally, the **humanitarian funding landscape** is shifting at the same time as the challenge of climate change is demanding a shift in programming. Some donors are integrating climate and sustainability criteria, while others are less inclined to fund long-term, behaviour-change-based interventions.

GOOD PRACTICES

Community partnership is essential to success. Engaging local communities from the start and maintaining involvement over time enables meaningful participation, and builds trust and ownership, making activities more effective and sustainable. In parallel, formal collaborations with local or national **technical partners** are crucial. They provide expertise, data and tools, and help sustain results beyond project completion.

Combining **multiple complementary activities** (e.g. the distribution of materials as well as training in a range of techniques) yields better outcomes and reinforces the climate-smart message.

Longer-term programming allows for capacity strengthening and deeper behavioural change. **Capacity-strengthening** also fosters social cohesion, accountability and mutual support, which all contribute to resilience and the development of social capital. Projects benefit from ongoing feedback, monitoring, and flexibility. The PPP's **adaptive approach** enabled adjustments based on community input and evidence, improving impact.

Supporting women's resilience has been a significant success. Women – disproportionately affected by climate change – have taken strong leadership roles in climate-smart activities, earning recognition and respect within their communities.

OPTIONS FOR ADAPTATION AND SCALE-UP: LEVERAGING STRENGTHS, OVERCOMING CHALLENGES, AND LEARNING FROM GOOD PRACTICE

The case studies all highlight successful climate-smart livelihoods programmes. What can the IFRC network do to replicate, adapt and scale up?

Empower locally led adaptation by strengthening climate literacy and data accessibility

- **Develop a climate-smart literacy curriculum,** specifically designed for all community members (including young people, older people and women) as well as volunteers. Use accessible language and visual tools to bridge identified literacy gaps. A robust training programme could be transformative, assuring the quality and sustainability of peer learning and inspiring participants to initiate their own climate-smart livelihoods activities.
- **Facilitate community climate dialogues** for anticipatory action around livelihoods, particularly adaptation to seasonal changes and unpredictability. These dialogues should include technical staff from local public services, the National Society and community members. This approach shifts the community's role from recipient to decision maker.
- **Create women-led climate-smart livelihood exchange networks** or platforms. Women often play a central role in household economies and livelihoods, and their engagement in these projects has been particularly impactful. Prioritizing women's leadership in climate-smart livelihoods approaches is likely to amplify results.
- **Innovate locally** through community experimentation and adaptation labs that encourage learning by doing, and foster leadership and local ownership.
- **Transform volunteers to become "community forecasters".** Leverage their community presence to gather local knowledge and new data. Equip them with both high- and low-tech know-how (from direct observation to piloting drones and geospatial imaging), so that they can collect and interpret data that is actionable within the community.
- **Advocate at the national level for better community access to climate data and information.** This includes improving data collection and sharing, as well as translating data into accessible formats for public use.

Enable integrated climate-smart livelihoods programming through advocating for longer-term nexus programming cycles, flexible funding and internal adaptation

- **Design emergency responses with integrated climate-smart components, ready to deploy even in short-term crisis responses.** It is possible to take a climate-smart approach to protect livelihoods, without compromising the emergency response. For example, climate-smart livelihoods kits can supply drought-resistant seeds, tools and materials for more water-efficient approaches, and information on their use.
- **Promote minimum five-year programming cycles and flexible funding,** which integrate emergency response into resilience strengthening, allow for adaptive management, and provide time for behavioural change, skills development and the sustainable adoption of new approaches.
- **Improve mechanisms for adaptive management.** This could include real-time digital feedback loops, using lightweight digital tools to gather information and exchange with participants and the wider community more frequently, to capture perception, performance and risks to livelihoods activities.

- **Align internal structures to support the integration of climate-smart approaches**, including investing in climate change specialists and focal points, cross-team collaboration, regular training and effective dissemination of harmonized tools in collaboration with the Red Cross Red Crescent Climate Centre, the IFRC Livelihoods Resource Centre and other network actors, so that National Societies are equipped to run context-appropriate climate-smart livelihoods activities.
- **Diversify funding sources,** tapping into less traditional donors and blended financing models, which are more flexible and align better with climate-smart livelihoods programming.
- **Create or strengthen strategic partnerships** with organizations such as FAO, CGIAR/CIAT, the International Union for Conservation of Nature (IUCN), World Wildlife Fund, state technical services, and local experts. Where relevant, engage in knowledge exchange, staff secondments and joint programming to leverage complementary expertise.

Cross-learning and leveraging the strengths of the movement

- **Identify and support 'champions' of climate-smart livelihoods activities** among National Societies and communities, who become centres of excellence and mentors for others. Potentially implement a climate-smart certification programme for National Societies that recognizes and encourages organizational learning and expertise.
- **Create platforms for knowledge sharing and exchange**, scaling up existing regional networks of climate and livelihoods focal points. Use these platforms to highlight the work of climate champions and foster cross-learning.
- **Develop a bank of 'model' climate-smart livelihoods kits,** adaptable to local contexts. These could include agroforestry, adapted seeds and materials, composting and organic fertilizer production, organic pesticides, plastic recycling and the pre-positioning of emergency livelihoods kits. Focus on scalable, sustainable models.
- **Create a 'Climate-Smart Livelihoods Investment Fund'** within the IFRC network to provide seed funding for innovative approaches and support peer learning, with the goal of attracting broader donor support and scaling up.
- **Showcase the unique value and impact of the IFRC network** in advancing climate-smart livelihoods.

These case studies highlight the potential impact of climate-smart livelihoods activities, which extends beyond the immediate objectives. Climate-smart livelihoods programming is a means to empower communities by shifting leadership and decision-making on climate change adaptation and resilience into their hands. The IFRC network is well positioned to support this shift toward people-centred, locally led adaptation.


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ABOUT THIS PUBLICATION

Methodology

Research and analysis were carried out between January and March 2025. Data sources comprise internal and external documentation, and face-to-face and telephone or online interviews with staff from the local National Society, supporting National Societies, the IFRC Secretariat, external partners, volunteers and project participants. Among interviewees, diversity across roles, gender, age and other identifiers was sought to achieve as full a picture as possible. The research was supplemented by the work of the IFRC Livelihoods Resource Centre.

Limitations: As with all research, there are budgetary and time constraints: not all potential interviewees were reached, and not all documentation was available. Security and access constraints meant that only one country visit, to Ouagadougou, Burkina Faso, took place. Most interviews were held online or by phone, some with the support of an interpreter.

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The International Federation of Red Cross and Red Crescent Societies (IFRC) is the world's largest humanitarian network, with 191 National Red Cross and Red Crescent Societies and around 16 million volunteers. Our volunteers are present in communities before, during and after a crisis or disaster. We work in the most hard to reach and complex settings in the world, saving lives and promoting human dignity. We support communities to become stronger and more resilient places where people can live safe and healthy lives, and have opportunities to thrive.

This publication complements existing reporting on the PPP, which can be accessed at https://www.ifrc.org/taxonomy/term/6522

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