UN environment programme | CTCN UN Climate Technology Centre & Network

Climate Change and Security Programme
Impact, Lessons Learned and Final thoughts

UN CTCN

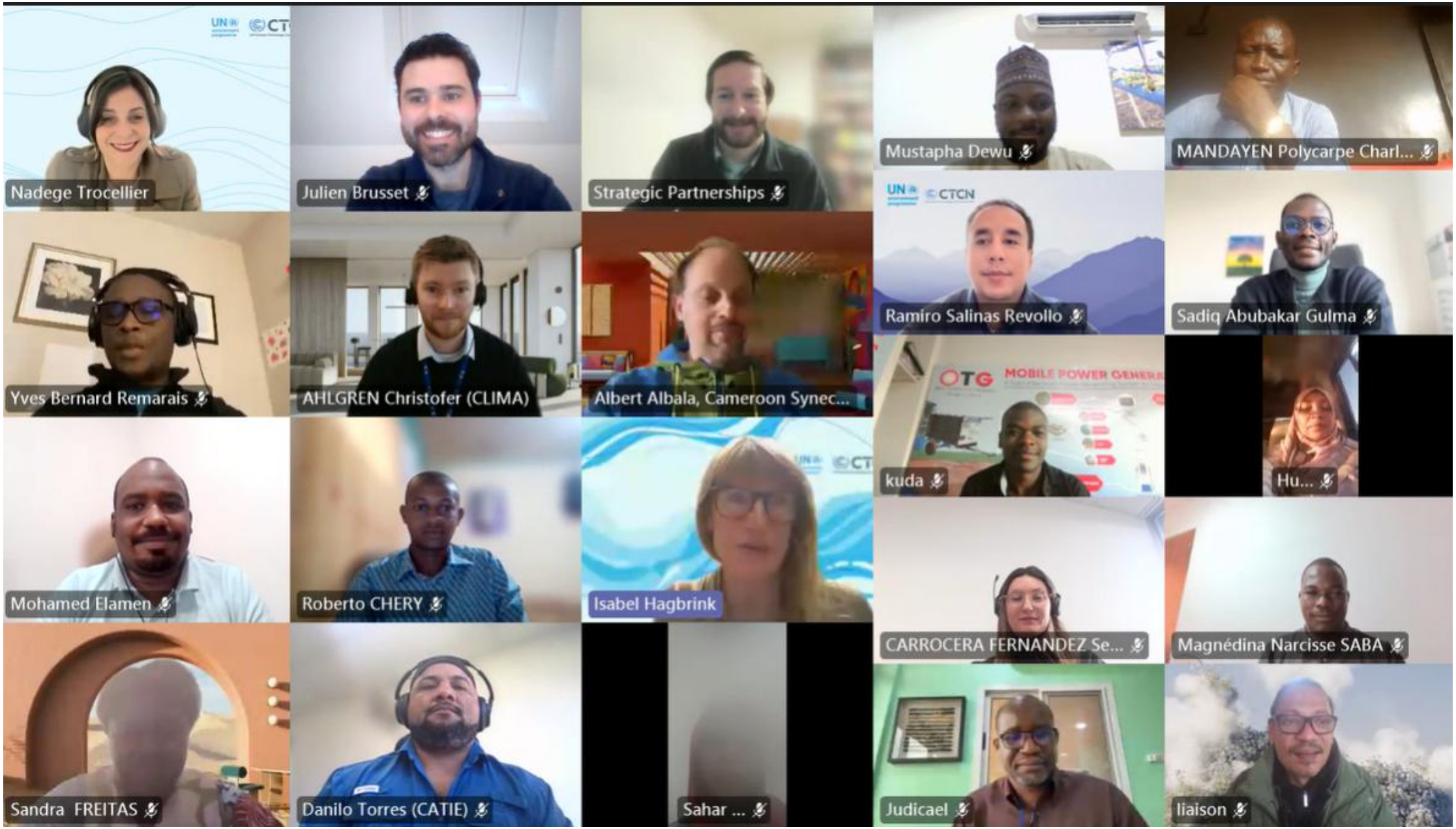
16 December 2025

Funded by the European Union

Agenda

- Introduction
- Group Photo
- Overview of the programme
- Voices from the ground
- Next Steps
- Feedback

Group photo!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Programme Objectives

10
Initiatives

200K
Up to €200k ear

Climate change leads to instability. Unpredictable weather and increased hazards – such as cyclones, heat waves, floods and droughts – challenge our way of life, particularly for those who are most vulnerable.

While a changing climate may not directly cause conflict, it indirectly pushes people into tension as they escape natural disasters , fight over scarcer resources or venture into unfamiliar lands in search of better conditions.

Insecurity decreases resilience against climate shocks! Communities already living in conflict are not well prepared for the compounding effects of natural disasters.

Funded by
the European Union

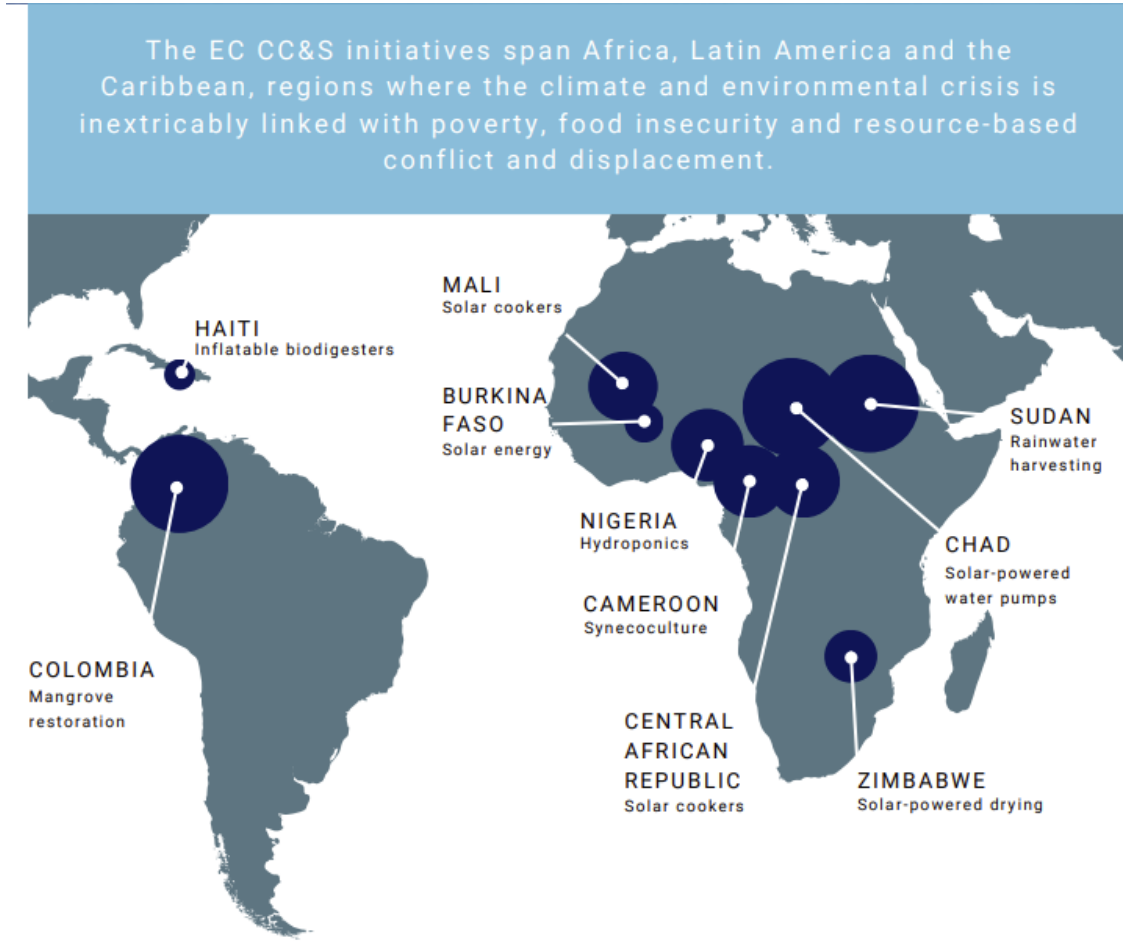
Overview of Programme

Main numbers:

-10 projects in 10 countries on 2 continents
-8,166 direct beneficiaries
-515,700 indirect beneficiaries
-63% female beneficiaries
-42% youth beneficiaries

Technologies:

- Food security
- Water security
- Energy security



The portfolio of the programme

CLIMATE 15 SECURITY 21 SAFETY 36

COUNTRY	ND-GAIN INDEX (/187)	CURRENT CONFLICTS	CLIMATE HAZARDS
Burkina Faso	147	Terrorist insurgency	Heat, land degradation
Cameroon	161	Terrorist insurgency	Drought, land degradation
CAR	186	Terrorist insurgency	Deforestation
Chad	187	Terrorist insurgency	Water scarcity
Colombia	93	Civil war / Drug war	Storm surges
Haiti	176	Civil war / Gang war	Severe weather conditions
Mali	169	Terrorist insurgency	Deforestation
Nigeria	157	Terrorist insurgency	Drought, land degradation
Sudan	184	Civil war	Water scarcity
Zimbabwe	174	NA	Deforestation

EC CC&S INITIATIVE	EC CC&S TECHNOLOGY	IMPACT*		
Energy technology	Off-grid solar energy systems	2	2	2
Agriculture technology	Synecoculture	1	2	6
Cooking appliances	Solar-powered cookers	2	1	4
Water harvesting	Solar-powered water pumps	1	4	1
Environment restoration	Mangrove restoration	1	1	4
Energy technology	Inflatable waste management tank	2	2	3
Cooking appliances	Solar-powered cookers	2	2	3
Agriculture technology	Hydroponics	1	2	7
Water harvesting	Crescent terraces	1	2	2
Cooking appliances	Solar drying	2	3	5


Quick video

Lessons Learned

Practice locally-led Climate Action

1.Devolve support and decision-making to the lowest possible level. Every community knows their own stressors intimately, and thus know how best to keep themselves safe.

eg In **Northern Nigeria**, building a local hydroponics system allowed the community to flourish

Scale Through Knowledge Sharing and Education

2. Grow skills and capacity within the community, allowing locally-led climate actions to flourish and embed into the next generation

eg. In **Cameroon**, young people are learning about sustainable agriculture and will retain a relationship to the land for life

Pilot Appropriate Technologies

3.Test and pilot new ideas, gather data and adapt to the needs of the community. Those who are most vulnerable may need careful tailoring of a technology to their unique needs

eg In **Burkina Faso**, pay-as-you-go energy was adopted when data was gathered on economically vulnerable groups, and a system tailored to their needs

Lessons Learned

Create Combined Wins

4. Initiatives like ecosystems restoration or renewable energy build resilience against future climate impacts and support livelihoods while limiting or reducing emissions.

eg. Cook stoves in **Mali** help both mitigation and adaptation to create a win-win solution

Generate Attention

5. Activities that demonstrate co-benefits beyond a single objective are more attractive to funders and policymakers who support their longevity.

eg. The drying facility in **Zimbabwe** offers a variety of livelihoods opportunities and access to new markets

Rebuild Ecosystems

6. Functional ecosystems replenish soils, lock in water, flourish and grow. They are protective and supportive to human environments.

eg. **Colombia's** mangrove forests protect from hurricanes and also provide livelihoods

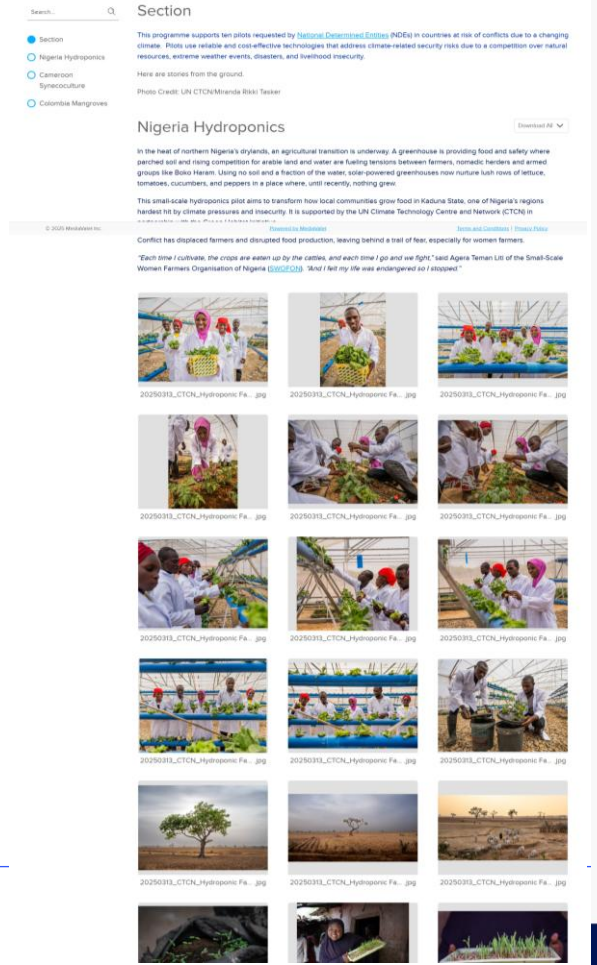
Where can you see the Impact of these projects?

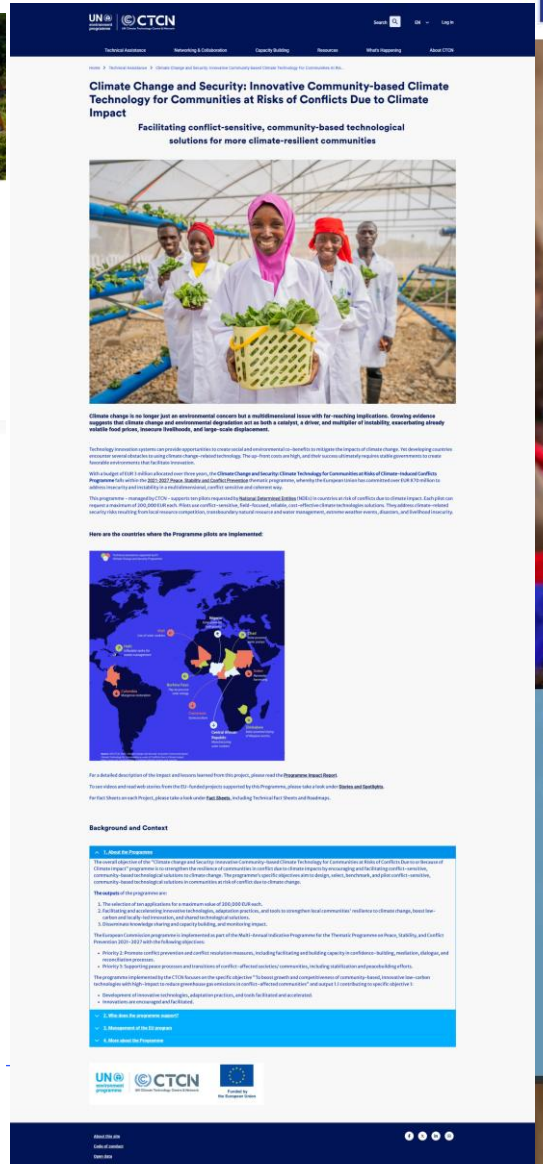
1) Impact Report

2) Videos and Web stories
- Nigeria
- CAR
- Cameroon
- Colombia
- Zimbabwe
- Burkina Faso

3) Webpage

4) MediaValet Portal
- project photos to download





Impact on the Ground

Let's now watch a video from the Nigeria Hydroponic project

News facts

Objective

Adaptation

Source organisation

Climate Technology Centre and Network

Sectors

Agriculture
Renewable energy
Human health
Infrastructure and Urban planning

Approach

Community based
Gender

Cross-sectoral enabler

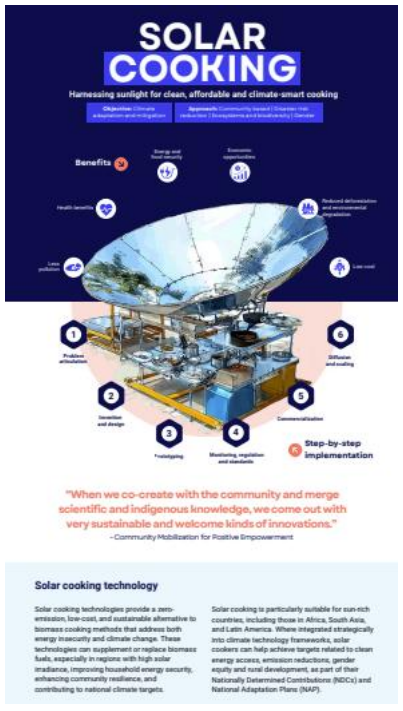
Growing food without Fear: Hydroponics Sows Peace Where Soil Fails in Northern Nigeria

27 Oct 2025 - 12:00 PM

In the heat of northern Nigeria's drylands, an agricultural transition is underway. A greenhouse is providing food and safety where parched soil and rising competition for arable land and water are fueling tensions between farmers, nomadic herders and armed groups like Boko Haram. Using no soil and a fraction of the water, solar-powered greenhouses now nurture lush rows of lettuce, tomatoes, cucumbers, and peppers in a place where, until recently, nothing grew.

More ways we are showing Impact

3 Technical Fact Sheets: Rainwater harvesting, Hydroponic farming, Solar Cooking

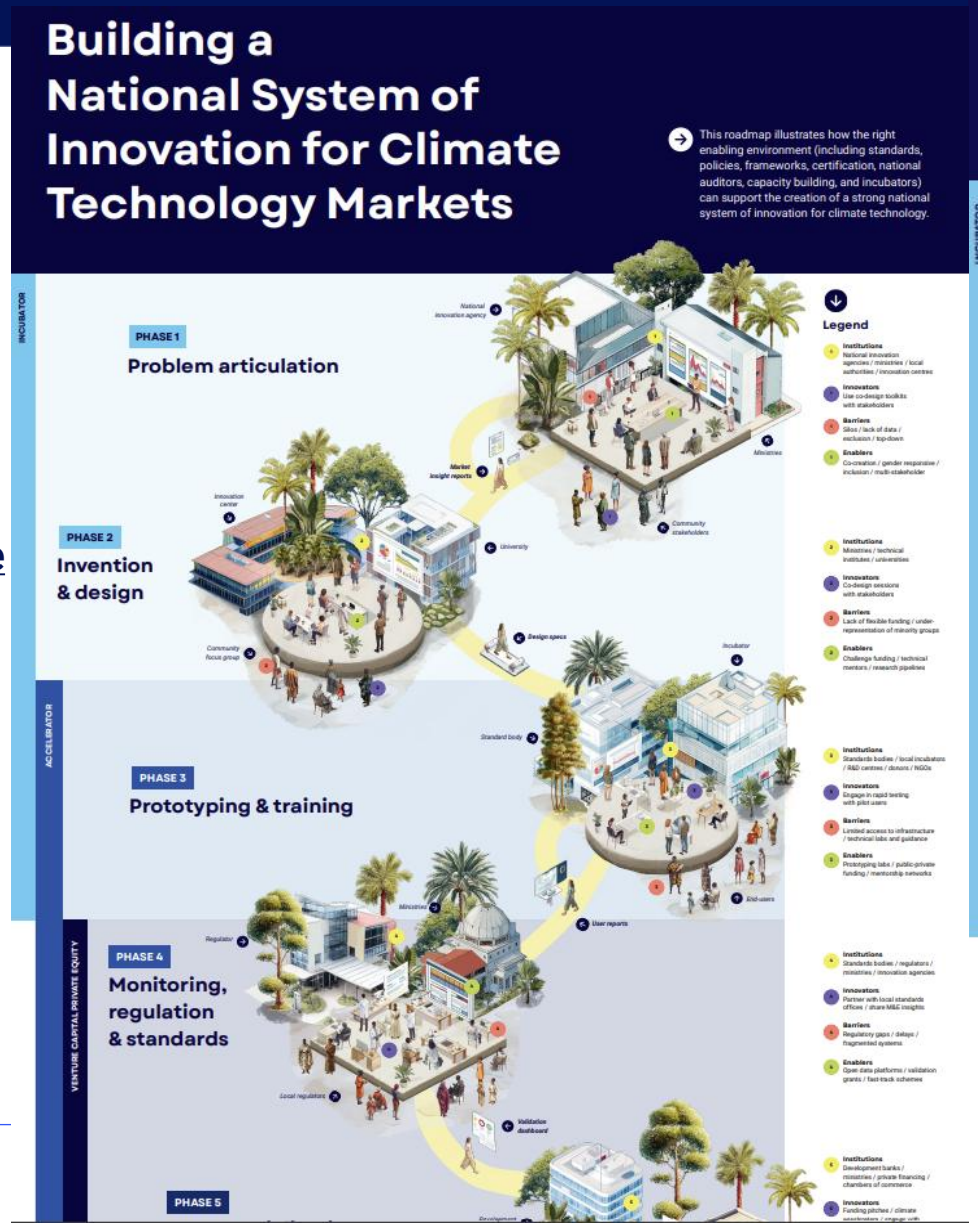


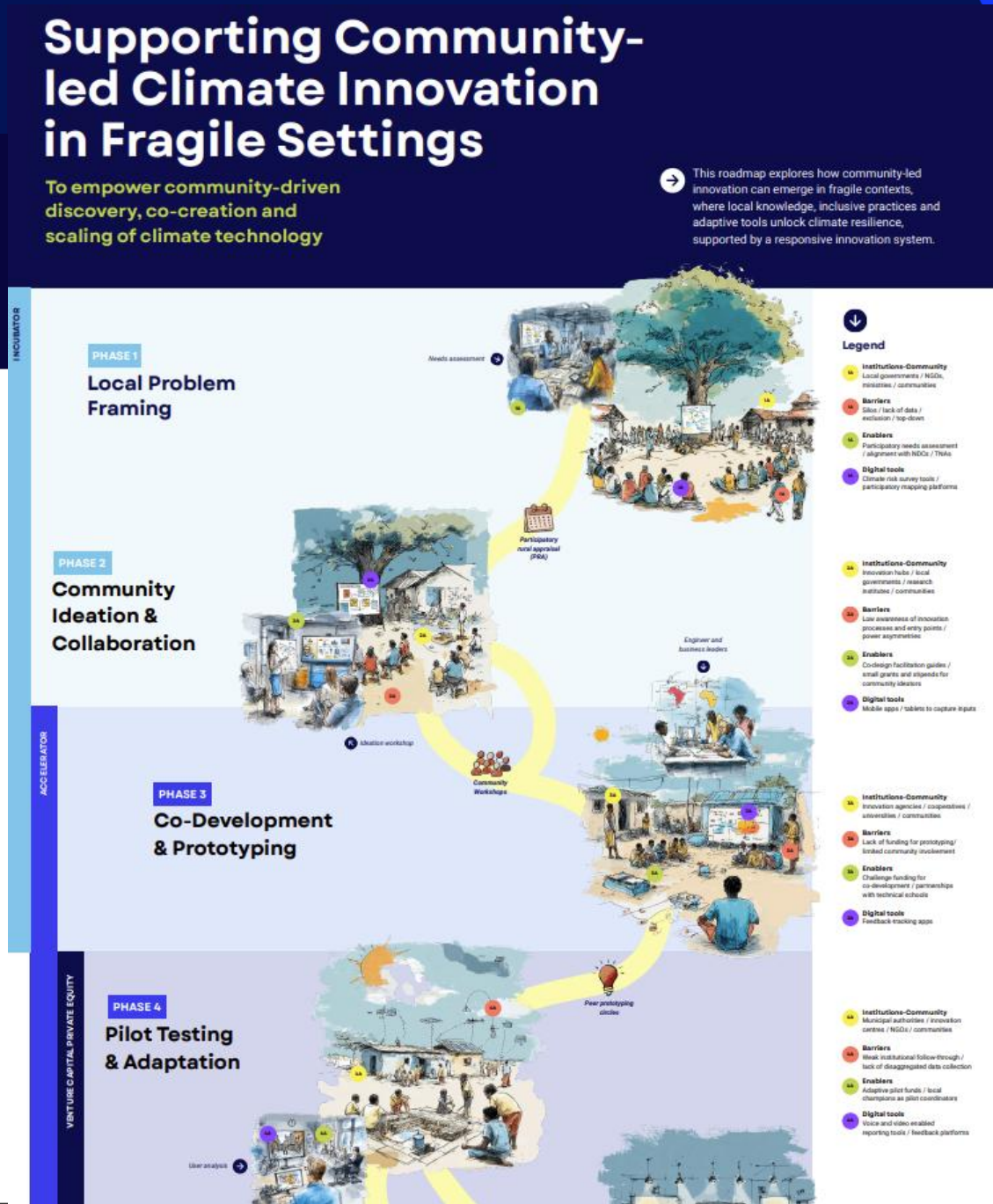
More ways to show Impact

2 Roadmaps:

-Building a national Innovation for Climate Technology Markets

-Supporting Community-led Climate Innovation in Fragile Settings





VOICES FROM THE GROUND

Burkina Faso Pay-as-you-use Solar Energy

Judicaël Zongo

The EC CC&S technical assistance

Burkina Faso tested off-grid solar systems on a pay-as-you-go basis to bring affordable sustainable energy to communities who need to build afresh.

Indicators	Burkina Faso
Direct beneficiaries	300
% of women	75%
% of youth	25%

Next Steps:

Monitor the impact of the new Pay as you go systems

Spread the use of Renewable Energy by making solar energy accessible to all.

Cameroon Synecoculture

Albert Albala

"ALL YEAR LONG, WE HAVE GREEN, AND GREEN IS A SOURCE OF CARBON CAPTURE. WE FIGHT CLIMATE CHANGE WITH SYNECOCULTURE. IT'S MORE THAN A PHILOSOPHY; WE USE NATURE AS OUR GUIDE."

RUTH LANGSI YELOMA, PRESIDENT, TERRE DES JEUNES

Indicators	Cameroon
Direct beneficiaries	550
% of women	50%
% of youth	50%

CAMEROON

The goal is to scale up the initiative and embed synecoculture into the national curriculum for schools.

CAR Solar Cookers

Keith Wingeard

In the Bangui region of the Central African Republic (CAR), women and girls spend hours collecting firewood. They walk into dangerous territories, risking violence and damage to the forest ecosystem.

Indicators	CAR
Total beneficiaries	1,780
% of women	50%
% of youth	46%

Next Steps

- Formulating a Master Programme for the university
- Transform the university as an observatory (auditors) of clean cooking appliances.

Chad Solar Powered Water Pumps

Sandra Freitas

Indicators	Chad
Direct beneficiaries	3,200
% of women	50%
% of youth	25%

Next Steps

- Operationalize the digital monitoring platform that controls the water use.
- Monitoring the impact of this access to water for the community.

Colombia Mangroves

Julio Cesar Rodriguez Pelaez

"WE'RE PLANTING TREES SO THE ECOSYSTEM HOLDS UP, AND THAT'S GONNA LET US HAVE MORE MANGROVES OVER TIME FOR OUR KIDS AND FUTURE GENERATIONS. THE PROJECT HELPS BECAUSE OUR ECONOMY DEPENDS ON THE MANGROVE."

GILMA MARINA ANGULO, EL CUERVAL COMMUNITY COUNCIL

Indicators	Colombia
Direct beneficiaries	510
% of women	51%
% of youth	49%

Next Steps

- Secure the new value chains and protect the mangroves against the business as usual.
- Expand mangrove restauration through much larger source of funding.

Haiti Biodigesters

Roberto Chéry

"BY TURNING ORGANIC WASTE INTO FUEL FOR COOKING AND LIGHTING, WHILE REDUCING EMISSIONS, THIS PROJECT PUTS VULNERABLE WOMEN, YOUTH AND FAMILIES AT THE HEART OF CLIMATE ACTION. IT IS A STEP TOWARDS RESILIENCE, DIGNITY AND A FUTURE WHERE OUR ENVIRONMENT IS RESTORED AND OUR PEOPLE CAN THRIVE."

MOÏSE FILS JEAN PIERRE, MINISTER OF ENVIRONMENT OF HAITI

Indicators	Haiti
Direct beneficiaries	1,500
% of women	50%
% of youth	25%

Next Steps

- Increase waste recovery and transformation
- Manufacture the technology on the ground
- Continue to inform the population

Mali Solar Cookers

Seydou Coulibaly

In Banamba and Commune V of Bamako, Mali, women also travelled increasing distances into dangerous and unfamiliar territories for firewood.

Indicators	MALI
Direct beneficiaries	2,471
% of women	49%
% of youth	51%

Next Steps

- Spreading the use of cooking appliances
- Continue trainings
- Continue to demonstrate impact

Nigeria Hydroponics

Mustapha Dewu

The EC CC&S technical assistance

Nigeria tested local hydroponic greenhouses on small plots to increase food production locally, regardless of soil quality and nearby security risks.

Indicators	Nigeria
Total beneficiaries	11,412
% of women	30%
% of youth	80%

Next Steps:

- Embed hydroponics in Kaduna's agricultural master plan
- Create incubators for youth-led and women-led agribusinesses and processing units.
- License successful hydroponic cooperatives to replicate the system in other Nigerian states.

Sudan Rainwater Harvesting

Mohammed Elamen

Next Steps

- Ensure Sustainability of project.
- Duplicate the initiative with the support of other donor agencies (such as FAO, UNDRR, WFP, IOM or others)

Indicators	Sudan
Total beneficiaries	10,000
% of women	49%
% of youth	68%

Zimbabwe Mopane Worms

Kuda Pedzisai

The Gwanda Rural District in Zimbabwe piloted solar technologies with a focus on mopane worms.

The EC CC&S initiative set up a solar-powered drying facility in the village of Garanyemba near Gwanda. The facility keeps women out of the forests, where drying processes took up to three days and are now achieved safely in town in just 10 hours.

Indicators	Zimbabwe
Direct beneficiaries	870
% of women	62%
% of youth	38%

Next Steps

- Building a strong business model to attract private banking institutions to replicate the model in other parts of Zimbabwe.

Feedback

We want to hear your voices!

The good, the bad and the ugly:

What worked

What needs to be adjusted

What needs to be eliminated

What comes next?

Institutional alignment & scaling

What

This involves **expanding successful innovations beyond their pilot communities,** embedding them into broader systems through advocacy, institutional partnerships and strategic replication.

Why

Scaling ensures that **locally developed solutions reach more communities and contribute to national climate resilience.** As projects demonstrate impact, they attract broader institutional backing and investment, enabling replication in other regions.

Expect Iteration – Innovation is not linear

Roadmap phases provide structure, but real-world innovation rarely follows a straight path: need to return to earlier phases, refine ideas, or pivot entirely. Feedback loops, validation, and the flexibility to adjust direction are essential features of effective innovation journeys

Learn from Global Experiences

Other countries have tested various technologies and innovation models. Users are encouraged to participate in masterclasses, peer learning and cross-regional dialogues to identify insights, avoid pitfalls and adopt good practices

Adapt to National and Local contexts

Each country's political, regulatory and infrastructure landscape affects how innovation unfolds. Roadmap users should tailor strategies based on the needs and capacities of the NDE institutions and communities. Innovation can mean different things to different counties: something tried and tested for one country is innovative for another!

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Thank you!

Gracias!

Merci!

One last video from Colombia!

UNFCCC_CTCN

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