

Evidences

Study #2986

Contributing Projects:

- P1604 - Digitally integrated approaches for managing climate risk and increasing food security
- P262 - Research and engagement for scaling climate-smart agriculture in Latin America

Part I: Public communications

Type: OICR: Outcome Impact Case Report

Status: Completed

Year: 2020

Title: Two regional organizations and two national governments adopt cross-scale climate risk management approaches

Short outcome/impact statement:

CCAFS scientists worked together with 2 regional organizations (CAC, CRRH) and two governments (Guatemala, Honduras) within the SICA (Central American Integration System) to boost pro-active CRM. To achieve this, CCAFS scientists: (1)co-developed and scaled decision-support tools so that regional organizations and national governments better understand the expected climatic variability and its implications on farming systems; (2)enabled the cross-scale information management, involving the integration of decision-makers at national/local levels with regional-scale processes.

Outcome story for communications use:

Major regional and national coordination efforts are required to address climate variability in Central America (CA). CCAFS scientists worked together with 2 regional organizations (CAC, CRRH) and two governments (Guatemala, Honduras) within the SICA (Central American Integration System) to boost pro-active CRM. To achieve this, CCAFS scientists: (1) co-developed and scaled decision-support tools so that regional organizations and national governments better understand the expected climatic variability and its implications on farming systems; (2) enabled the cross-scale information management, involving the integration of decision-makers at national/local levels with regional-scale processes.

Regarding the first aspect, work involved two key components. First, the adoption of the NextGen forecast system developed by ACToday-CCAFS. NextGen is now the center of attention for the CA meteorological services and the CRRH (ref.1). Through the CA-COF, NextGen capacities have been built in all CA countries, therefore allowing the generation of a consistent and high-performance climate outlook with local relevance but regional coverage. The second component was to leverage a cooperation agreement with CAC for the creation of capacities in the CAC, CRRH, and all CA agricultural ministries in the translation of climate forecasts into agricultural recommendations. This has been achieved by making crop modeling tools available at the CA-COF, while at the same time establishing a regional agricultural discussion group (RADG) within the CA-COF. CCAFS scientists supported meetings, trained ministry specialists, and facilitated discussions at the RADG (ref.19). The RADG now meets every CA-COF, producing agronomic recommendations that are then scaled down to local levels.

The second was a transformation in cross-scale climate information management. An outcome harvesting study shows that knowledge democratization, understanding and connection of agroclimatic information, and political advocacy are three transformations that have occurred as a result of CCAFS work (ref.22). This required CCAFS scientists to form strategic alliances with the national governments of Honduras and Guatemala to facilitate national-level coordination on CRM with 150+ other institutions (farmer organizations, the private sector), to deliver timely and accurate agroclimatic information to users. In Guatemala (Honduras), CCAFS CRM approaches have been adopted in 18(11) out of 22(17) departments. These CRM approaches bridge across scales, with LTACs connecting directly and tailoring the outputs of the CA-COF to the local context, while at the same time generating local recommendations and capacities in support of decision making for local organizations, extension agents, and farmers, and feeding back local needs to the regional scale.

Links to any communications materials relating to this outcome:

- <https://iri.columbia.edu/news/advanced-training-for-latin-american-forecasters>
- <https://cgspace.cgiar.org/handle/10568/108948>
- <https://cgspace.cgiar.org/handle/10568/107914>
- <https://tinyurl.com/ybg9jha2>
- <http://www.cac.int/node/2319>
- <https://tinyurl.com/yasl3a66>
- <https://www.youtube.com/watch?v=6tU5xUPRCU0>
- <https://iri.columbia.edu/news/partners-in-growth>
- <https://tinyurl.com/ybsmfuuc>

Part II: CGIAR system level reporting

Link to Common Results Reporting Indicator of Policies : No

Stage of maturity of change reported: Stage 2

Links to the Strategic Results Framework:

Sub-IDOs:

- Enhanced adaptive capacity to climate risks (More sustainably managed agro-ecosystems)
- Conducive environment for managing shocks and vulnerability, as evidenced in rapid response mechanisms

Is this OICR linked to some SRF 2022/2030 target?: No

Description of activity / study: N/A

Geographic scope:

- Multi-national
- Regional

Region(s):

- Central America

Country(ies):

- Guatemala
- Honduras

Comments: SICA countries, with special emphasis in Honduras, Guatemala

Key Contributors:

Contributing CRPs/Platforms:

- CCAFS - Climate Change, Agriculture and Food Security

Contributing Flagships:

- FP4: Climate services and safety nets

Contributing Regional programs:

- LAM: Latin America

Contributing external partners:

- CRRH - Comité Regional de Recursos Hidráulicos
- MAGA - Ministerio de Agricultura, Ganadería y Alimentación (Guatemala)
- The Earth Institute, Columbia University
- CIV - Ministerio de Comunicaciones, Infraestructura y Vivienda (Guatemala)
- COPECO - Comisión Permanente de Contingencias (Honduras)
- CAC - Consejo Agropecuario Centroamericano
- IRI - International Research Institute for Climate and Society
- SAG - Secretaría de Agricultura y Ganadería (Honduras)

CGIAR innovation(s) or findings that have resulted in this outcome or impact:

Rodriguez, J., Esquivel A. 2020. AgroclimR: Agro-Climate Seasonal Forecast in R. Alliance Bioversity-CIAT. Software Tool. Cali, Colombia. Alliance Bioversity-CIAT. 2020. R-CPT Interface for the Automation and Improvement of Seasonal Forecasts. Alliance Bioversity-CIAT. Software Tool. Cali, Colombia.

Innovations:

- 1139 - NextGen seasonal forecast system (<https://tinyurl.com/2qch64tg>)
- 1742 - R-CPT interface for the automation and improvement of seasonal forecasts (<https://tinyurl.com/2ry8ybka>)
- 289 - Local Technical Agroclimatic Committees (LTACs) approach generating climate forecasts and crop response (<https://tinyurl.com/2mtjxpvg>)

Elaboration of Outcome/Impact Statement:

Major regional and national coordination efforts are required to address climate variability in Central America (CA). CCAFS scientists worked together with 2 regional organizations (CAC, CRRH) and two governments (Guatemala, Honduras) within the SICA (Central American Integration System) to boost pro-active CRM. To achieve this, CCAFS scientists: (1) co-developed and scaled decision-support tools so that regional organizations and national governments better understand the expected climatic variability and its implications on farming systems; (2) enabled the cross-scale information management, involving the integration of decision-makers at national/local levels with regional-scale processes.

Regarding the first aspect, work involved two key components. First, the adoption of the NextGen forecast system developed by ACToday-CCAFS (ref.1-3). NextGen is now the center of attention for all CA meteorological services and the CRRH (ref.4-7). Through the CA-COF, NextGen capacities have been built in all CA countries, therefore allowing the generation of a consistent and high-performance climate outlook with local relevance but regional coverage (ref.8-11). The second component was to leverage a cooperation agreement with CAC (ref.12-13) for the creation of capacities in the CAC, CRRH, and all CA agricultural ministries in the translation of climate forecasts into agricultural recommendations. This has been achieved by making crop modeling tools (ref.14) available at the CA-COF (ref.15-16), while at the same time establishing a regional agricultural discussion group (RADG) within the CA-COF. CCAFS scientists supported meetings, trained ministry specialists, and facilitated discussions at the RADG (ref.17-21). The RADG now meets every CA-COF, producing agronomic recommendations that are then scaled down to local levels.

The second was a transformation in cross-scale climate information management. An outcome harvesting study shows that knowledge democratization, understanding and connection of agroclimatic information, and political advocacy are three transformations that have occurred as a result of CCAFS work (ref.22). This required CCAFS scientists to form strategic alliances with the national governments of Honduras and Guatemala to facilitate national-level coordination on CRM with 150+ other institutions (farmer organizations, the private sector), to deliver timely and accurate agroclimatic information to users (ref.23-24). In Guatemala (Honduras), CCAFS CRM approaches have been adopted in 18(11) out of 22(17) departments (ref.25-27). These CRM approaches bridge across scales, with LTACs connecting directly and tailoring the outputs of the CA-COF to the local context, while at the same time generating local recommendations and capacities in support of decision making for local organizations, extension agents, and farmers, and feeding back local needs to the regional scale (ref.28-30).

References cited:

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<https://iri.columbia.edu/news/partners-in-growth>
3. Fiondella, F. (2019, September 27). Advanced Training for Latin American Forecasters. IRI News.
<https://iri.columbia.edu/news/advanced-training-for-latin-american-forecasters>
4. WMO. (2020, July 23). LXII Perspectiva del Clima de América Central, Sur de México, Cuba y República Dominicana. [In English: "LXII Climate Outlook for Central America, Southern Mexico, Cuba and the Dominican Republic"]. OMM Noticias.
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Quantification:

Type of quantification: a) Actual counts or estimates from a particular study (please provide reference)

Number: 2.00

Unit: institutions

Comments: 2 regional institutions (CAC, CRRH) adopt CRM approaches and integrate across-scales

Type of quantification: a) Actual counts or estimates from a particular study (please provide reference)

Number: 2.00

Unit: national governments

Comments: 2 national governments (Honduras, Guatemala) adopt CRM approaches and integrate across-scales

Type of quantification: a) Actual counts or estimates from a particular study (please provide reference)

Number: 2.00

Unit: Institutions

Comments: 2 regional institutions (CAC, CRRH) adopt CRM approaches and integrate across-scales

Type of quantification: a) Actual counts or estimates from a particular study (please provide reference)

Number: 2.00

Unit: National governments

Comments: 2 national governments (Honduras, Guatemala) adopt CRM approaches and integrate across-scales

Gender, Youth, Capacity Development and Climate Change:

Gender relevance: N/A - Not applicable

Youth relevance: N/A - Not applicable

CapDev relevance: 2 - Principal

Main achievements with specific **CapDev** relevance: 1)NextGen forecast system mainstreaming and adoption in all Central American countries. A capacity-building process for the meteorological services is carried out continuously in each edition of the Central America Climate Outlook Forum (CA-COF). 2)Establishing and strengthening a regional agricultural discussion group (RADG) linked with the CA-COF.

3)Knowledge sharing with agricultural ministries in the region on the integration of seasonal forecast to crop modeling thus producing a more robust agronomical advisory.

4)Co-designing with agricultural ministries of mechanisms for the generation and exchange of agro-climatic information to stakeholders and farmers' communities.

Climate Change relevance: 2 - Principal

Describe main achievements with specific **Climate Change** relevance: 1)ACToday-CCAFS collaboration support climate change adaptation through climate services, and climate-informed policy and practice.

2)Enhancing Met Services' capacity to generate better and more tailored information, used by stakeholders for increasing resilience in the face of climate variability and climate change.

3)Enhancing extension agents and farmers' capacity to understand and access agro-climatic information.

Other cross-cutting dimensions: No

Other cross-cutting dimensions description: N/A

Outcome Impact Case Report link: [Study #2986](#)

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