



Innovating to achieve inclusive risk financing in Cuba:

WFP's integrated approach to supporting vulnerable people



World Food Programme

SAVING
LIVES
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BACKGROUND

For nearly six decades Cuba has ensured progress in eradicating poverty and hunger through free and universal access to basic services and social protection programmes. Food security and nutrition are high priorities for the Cuban Government, as outlined in its [National Plan for Economic and Social Development through 2030](#). People's right to food is maintained in the new constitution approved in 2019, along with the goal of achieving food security for all. Cuba still faces, however, major food security and nutrition challenges that are also outlined in the national development plans.

WFP's work in Cuba focuses on national food production so as to help the country meet the recommended nutrition requirements of the Cuban population. The main challenges that WFP works to address include; the impacts of extreme hydro-meteorological events and climate

change on food systems; the limited access to diverse, good-quality and safe foods; micronutrient deficiencies as a public health problem (including an increasing trend in overweight and obesity); and the gaps in a food security and nutrition monitoring system. WFP's programmes are informed by a gender and age analysis to ensure differentiated needs, contributions and capacities of women, girls, boys and men are considered in all aspects of activities.

As part of its focus, **WFP Cuba is working on an integrated approach to reduce the vulnerability of farmers to drought and climate change by promoting innovation on three fronts:**

- "preventive" insurance and disaster risk reduction (DRR) measures;
- parametric Area Yield Index Insurance (AYII);
- crop monitoring and Early Warning Systems (EWS).

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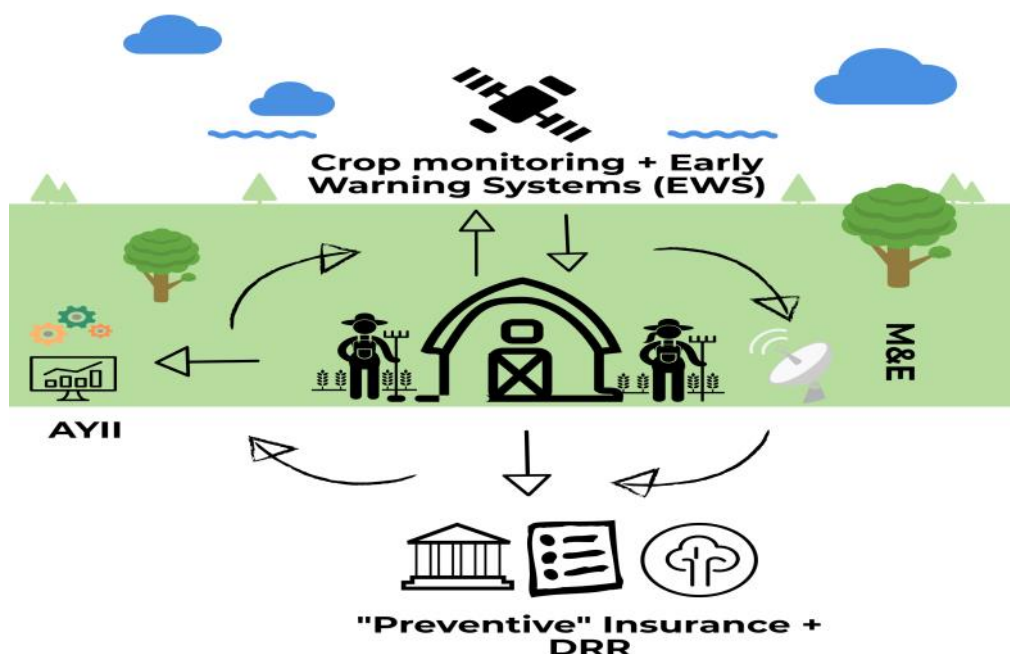


Figure 1. WFP Cuba's integrated approach to reduce the vulnerability of farmers to drought and climate change

WFP Cuba's efforts align with WFP's [Regional Risk Financing Strategy](#) that promotes inclusive risk finance policies, programmes and partnerships that are sustainable and scalable. The Strategy emerged out of a need to address different economic and weather-related shocks that Latin America and the Caribbean are exposed to, with risk finance instruments being an important tool that can contribute to strengthening resilience in the region.

The core components of Cuba's integrated approach are described below. The activities are being piloted in regions with a history of low insurance uptake and lands that have not been traditionally used to produce staple crops such as maize and beans. WFP Cuba is also supporting farmer cooperatives to diversify their crop production and best practices by providing the farmers associations with agricultural equipment, technical assistance and climate and weather information.

1. PREVENTATIVE INSURANCE & DRR



WFP Cuba has developed the concept of 'preventative' insurance, which aims to incentivise the adoption of DRR activities in order to guide the insurance pricing by the level of vulnerability of farmers. This is built on the work done with the risk assessment working group of the Environment Agency (AMA) which produced a matrix of four variables and 28 indicators to measure the level of vulnerability of cooperatives and municipalities. Based on

the farmers' vulnerability index, the local insurer ESEN will adjust the premium to be paid by farmers when purchasing a policy of their traditional Area Yield Insurance in the selected pilot municipalities of Manatí and Niceto Pérez (Guantánamo and Las Tunas provinces).

WFP Cuba is also working with local experts to define the DRR activities that will be part of the resilience strengthening programme. WFP will be supporting the implementation with agricultural equipment and inputs, and training.

The expected result is the reduction of farmers' vulnerability and consequently a reduction of premium, losses and payouts.

About ESEN and its traditional area yield insurance coverage

The Empresa de Seguro Nacional (ESEN), is Cuba's national insurance organization, and it has been offering a multi-risk agricultural insurance since 1972 to protect farmers against climate-related and biological risks.

WFP and ESEN have selected to pilot the new insurance products (preventative insurance and AYII), in regions where farmers have had a low adoption of insurance, their trust in insurance is low, and where traditionally they have not cultivated staple crops such as maize and beans.

If this pilot presents positive results, the offer of the preventive insurance & DRR package will be expanded to three extra regions (Holguín, Santiago de Cuba and Granma) with external funding.

2. AREA YIELD INDEX INSURANCE (AYII)



There is currently no parametric insurance registered in the Cuban market. This has led to a partnership between WFP Cuba, ESEN and Pula Advisors to develop a prototype for an AYII for farmers in the regions of Guantánamo and Las Tunas. AYII is a type of insurance that helps protect the farmer against low yields. This product can offer coverage against a host of risks affecting the entire area, including pests and diseases, and uses crop sampling at the end of season to determine value loss. Pula Advisors has a unique expertise in the design of this type of insurance, and it would allow WFP to support ESEN complementing and enhancing the offer of coverage available to farmers.

In 2021 efforts are underway with a crop cut exercise in selected farms for maize, beans and coffee producers, and which will guide the insurance product design. Due to movements restrictions associated with the COVID-19 pandemic, staff members from agricultural centres were trained remotely to support Pula Advisors and ESEN in placing the boxes and conducting the crop cut exercises. Considering also the distinctive context of Cuba, innovative design elements for the insurance product are being explored among the partners.



Figure 2: Placement of boxes for the crop cut in Manatí

3. CROP MONITORING & EWS



For the past five years, WFP Cuba has been implementing actions financed by ECHO to strengthen the country's early warning system (EWS) for drought through the procurement of equipment to improve the measurement of meteorological and hydrological variables. Connected to this, WFP Cuba also worked on improving effective communication flows to ensure farmers and local stakeholders receive timely information.

Building on these activities and realising the opportunities offered in validating data generated during the insurance pilot to strengthen EWS for the agricultural sector, WFP and the Agricultural Meteorology Centre of the Cuban Institute

Figure 3: An overview of WFP Cuba's plans for piloting and expanding its integrated resilience strengthening approach



of Meteorology have been working on a crop monitoring and yield assessment system.

The system has two components: the first component blends data from the meteorological station network of Cuba with medium resolution satellite data from international sources, for the provision of information on rainfall, vegetation performance and land surface temperature. This enables the tracking and assessment of possible drought and extreme rainfall events across the country. The second component is based on high-resolution high-frequency data from the Sentinel-2 and Sentinel-1 platforms, offering coverage of the districts where pilots activities are being implemented (Manatí and Niceto Perez). The high spatial resolution offers the possibility of tracking the cropping season progress at the individual farm level

WFP has set up satellite data streams and implementation of the integration with station data is advancing. The portfolio of agro-meteorological products will be directly accessible both by the Agricultural Meteorology Centre of the Cuban Institute of Meteorology (Havana) and the Meteorology Centres of the selected provinces. Once usage is mainstreamed, products and applications will be tailored to local requirements with a view to maximise usability and usefulness. This will support farmers and cooperatives with decision making on the when and what to plant, but also early warning and risk management, while the government will be able to better predict when food shortages occur for food allocations. Once the AYII product is designed through the data validation under this crop monitoring work, ESEN will also benefit from the data for potential claims for the “preventive insurance” product, as well as in monitoring the index reliability and any mismatches with payouts that



are triggered (known as basis risk).

4. M&E AND EVIDENCE GENERATION

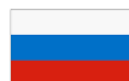
WFP Cuba treats evidence generation as a key contribution to the partnership to design an innovative and inclusive risk finance approach in the country. To enable these pilot activities to scale, robust monitoring and evaluation (M&E) efforts are required, and which are being incorporated into the M&E planning, methodologies and tools that the office is deploying. Specific insurance indicators are being monitored by WFP to ensure that the products offer value to beneficiaries, and a further monitoring plan will be implemented to monitor basis risk once the AYII insurance product is being implemented. An external evaluation is also planned in the future.

PARTNERS

WFP Cuba has made the initial investment in this work thanks largely due to a seed grant it received under the organisation's 2030 Fund. Expansion to new locations in 2022 is being made possible thanks to contributions from Korea (KOICA) and the Russian Federation.

Local partners include ESEN, Agricultural Meteorology Centre of the Cuban Institute of Meteorology, and the Ministry of Agriculture.

Technical partners include Pula Advisors.



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