



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



## SSTIC Impact Stories

### Industrial Upgrading and Modernization Programme for the Bolivarian Republic of Venezuela

#### SUMMARY

In 2017, the Government of Venezuela requested technical assistance from UNIDO to support the country’s transition to smart agriculture and more productive agroindustry. A Joint Declaration was signed, aligning with SDGs and the 2030 Agenda, following which UNIDO developed a Strategic Programming Framework focusing on sustainable production, employment, and trade facilitation. The framework prioritized five most promising value chains (maize, beans, soybeans, rice, and sugar cane) to reduce food import dependency.

In 2018, UNIDO conducted integrated value chain diagnoses to identify challenges and opportunities for five selected value chains. Subsequently, a tailored project was formulated to support the country’s transition to smart agriculture and more productive agroindustry, leading to increased competitiveness, sustainability and economic growth.



**UNIDO specialist and counterpart technicians take samples for soil studies for the project: “Application of digital technologies and innovative agronomic protocols to increase maize yields” in Portuguesa State.**

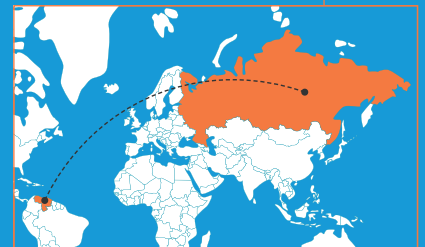
#### WORKING TOWARDS THE SDGs



#### SOUTH SOUTH COUNTRIES:

Venezuela and Russian Federation

#### IDENTIFIED COUNTRIES:



#### SOUTH SOUTH PARTNERS:



Throughout its implementation, the project benefited from the expertise of the following international development stakeholders:

- FAO
- Latin American Development Bank (CAF)
- International Maize and Wheat Improvement Center (CIMMYT) in Mexico
- Latin American Fund for Irrigated Rice (FLAR)

#### DONORS & SUPPORTED BY:



- Russian Federation
- IDF - Special purpose convertible

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# SSTIC Highlights

Under the “Increase yields by managing soy as a rotation crop with rice” initiative of the UNIDO IUMP, linkages were established with the Latin American Fund for Irrigated Rice (FLAR) to count on them as international advisors of the project. UNIDO contracted a FLAR’s International expert in soy and rice rotations, and he is contributing with the Brazilian experience reinforcing knowledge and skills of beneficiary producers in Venezuela.

Partnership with the International Maize and Wheat Improvement Center (CIMMYT) was established, based on which several types of maize seeds were received for testing in different regions of Venezuela with the purpose of rehabilitation of the national maize seed system. Recently, CIMMYT has also offered several training courses to Venezuelan companies and R&D institutions.

UNIDO also helped establish linkages between FAO and the CIMMYT that provided maize seeds for FAO projects. The R&D partnership with CIMMYT and FLAR is contributing to the exchange of best regional and international expertise and transfer of know-how.

As part of the coordinated inter-agency work between UNIDO and FAO, synergies continue to be explored between two initiatives implemented by both agencies in cooperation with the National Agricultural Research Institute (INIA): UNIDO’s IUMP pilot project on “Seed and grain conditioning improvement and storage in Espinital community/Portuguesa State”, and INIA-FAO project “Strengthening technical and scientific potential in the production of legume seeds for family and peasant agriculture”.



## WHAT IS SSTIC?

### South-South and Triangular Industrial Cooperation (SSTIC)

Is a process whereby two or more developing countries pursue their individual and/or shared national capacity development objectives through exchanges of knowledge, skills, resources and technical know-how, and through regional and interregional collective actions. UNIDO’s SSTIC services are following the guiding principles for South-South cooperation set out in the Buenos Aires outcome document:

- 1 respect for national sovereignty
- 2 mutual benefit
- 3 national ownership and independence
- 4 equality
- 5 non-conditionality
- 6 non-interference in domestic affairs



Corn harvesting day of the corn lot participating in the project: “Application of digital technologies and innovative agronomic protocols to increase maize yields” in Portuguesa State.

# SSTIC Project Narrative

Venezuela is characterized by a great geographical and agro-ecological diversity that offers potential for agro-food industries, including growing permanent and semi-permanent crops.

Despite having a good foundation for a strong agro-industrial sectors, the dominance of the oil industry has led Venezuela to become a net importer of agro-food products. Efforts to attain food security have been hindered by inefficiency and low productivity. The agri-food and agro-industrial sector are recovering from a crisis due to limited access to foreign currency, high inflation rates, and a fiscal deficit. In addition, domestic production is insufficient, and the country heavily relies on imports to fulfill its basic food and

consumer needs. Recent estimates suggest that only 30% of the food necessary to sustain the Venezuelan population is produced domestically.

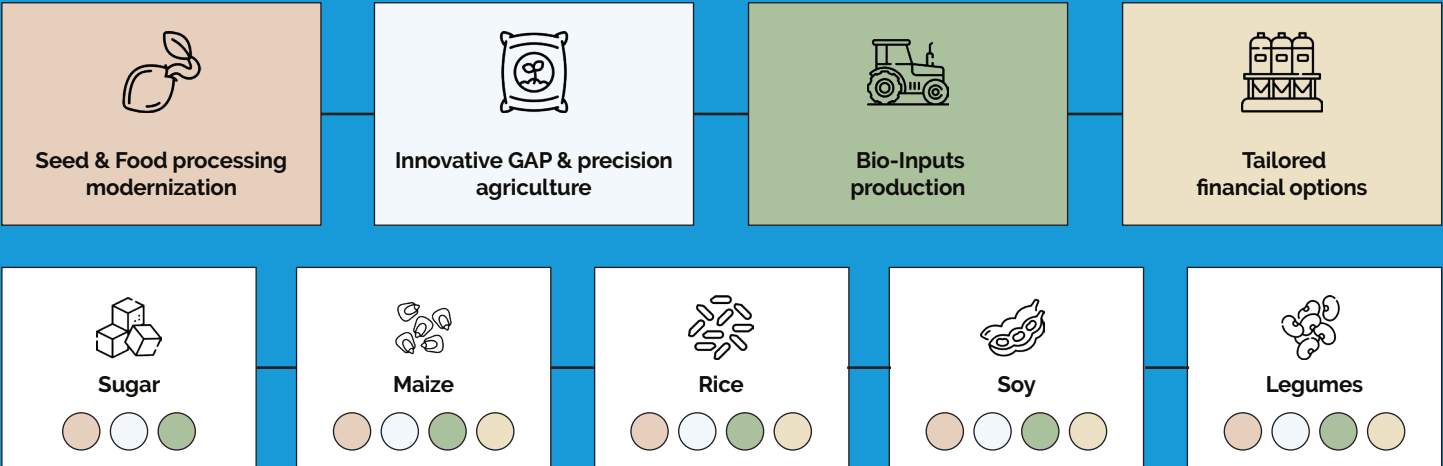
To ensure food security, stimulate employment and create favourable conditions for the industrial revitalization of Venezuela, the project is supporting the industrial upgrading and modernization of 5 value chains (white and yellow maize, “caraota” and common beans, soybeans, rice and sugar cane) and their related agricultural production to ensure a greater internal food supply, contributing to a more diversified and value-added local economy, investment and technology promotion, as well as the development of the country’s export potential.



Producers of the UNIDO project that seeks to increase yields through the rotation of rice and soybean crops participated in the "Technical Tour on the Intensification of the Rice/Soybean Production System", organized by Flar in Rio Grande do Sul, Brazil.

### SUSTAINABLE AGRO-INDUSTRIAL PRACTICES

Precision agriculture, processing and post-harvesting innovation



1

## THE CHALLENGE

What the project aims to achieve.

The main objective of the current project is to contribute to the Government's efforts to ensure food security, strengthen the agro-industrial value chains, stimulate employment and create favourable conditions for the revitalization of the industrial sectors of Venezuela.

2

## THE SOLUTION

The methodology used that led to successful outcomes, outcomes achieved.

Specifically, the project focuses on modernizing five agro-industrial value chains by bolstering local capacities in processing and provision of agricultural inputs. The project prioritizes the adoption of precision agriculture and innovative agricultural good practices, agroindustrial technological upgrading, agroindustrial development in vulnerable communities and financing options for agroindustrial value chains. Ultimately, the project seeks to increase the sustainable supply of quality agro-products and strengthen national expertise.

In February-June 2021, a pilot group of enterprises and cooperatives in the prioritized industrial sectors contributing to the sustainable production of sugar, rice, legumes, maize and soybeans was identified to generate an investment portfolio of concrete improvement solutions.

The first seven improvement solutions are currently being implemented to address some constraints in the agro-industrial value chains.

As first results of the Program, the improvement solution "Increasing corn yields in the State of Portuguesa" has shown that the combination of the use of digital technologies and good agricultural practices contributed to improve corn production in the demonstration plots by 29%, and to improve farmers' profits by 23%.

Another of the improvement solutions being implemented is the "Increase in soybean and rice yields, incorporating digital technologies and innovative agronomic protocols". Introducing soybean (legume) cultivation avoids the practice of monoculture in rice producers, increases nitrogen levels and avoids soil depletion.

In addition, six weather stations have been acquired and installed in productive areas, as one of the actions to promote a culture of climate information management by agricultural producers.

The pilot project "Access to financial instruments adapted to the specific needs of stakeholders", has carried out an extensive collection of relevant information on the financial needs of agro-industrial value chain actors and also on the financial offer, including banking, stock exchange and other alternative sectors.

Thus far, the capacity building program has successfully conducted a total of 9 training series, benefiting a total of 161 individuals, of which 33% are women and 4% are young people.



**UNIDO specialist explains precision technologies used in harvest day of the project: Application of digital technologies and innovative agronomic protocols to increase maize yields**



**Producers of the UNIDO project that seeks to increase yields through the rotation of rice and soybean crops participated in the "Technical Tour on the Intensification of the Rice/Soybean Production System", organized by Flar in Rio Grande do Sul, Brazil**



### 3

## SOUTH-SOUTH IMPACT

How were South-South and Triangular cooperation utilized to achieve results?

The UNIDO project established linkages with the International Maize and Wheat Improvement Center (CIMMYT), with its HQ in Mexico City. As a result, CIMMYT sent several types of maize seeds for testing in different regions of Venezuela, as an important contribution to the project for the rehabilitation of the national maize seed system. As a second cooperation track of this partnership, CIMMYT has offered several training courses to Venezuelan companies and R&D institutions.

Under the “Increase yields by managing soy as a rotation crop with rice” initiative of the UNIDO IUMP linkages were established with the Latin American Fund for Irrigated Rice (FLAR) to count on them as international advisors of the project. International expert in soy and rice rotations has contributed with Brazilian experience reinforcing knowledge and skills of beneficiary producers in Venezuela. In January 2023, five Venezuelan rice producers and researchers, including two working with the UNIDO programme, were invited by FLAR to participate in a Technical Tour to learn about the Brazilian system of rotational rice and soybean production.

The R&D partnership with CIMMYT and FLAR is contributing to the exchange of best regional and international expertise and transfer of know-how.

As part of the coordinated inter-agency work between UNIDO and FAO, synergies continue to be explored between two initiatives implemented by both agencies in cooperation with the National Agricultural Research Institute (INIA): UNIDO’s pilot project on “Seed and grain conditioning improvement and storage in Espinal community/Portuguesa State”, and INIA-FAO project “Strengthening technical and scientific potential in the production of legume seeds for family and peasant agriculture”.

UNIDO helped establish linkages between FAO and the International Maize and Wheat Improvement Center that provided maize seeds for FAO projects.

The pilot projects are introducing innovative practices and technologies tested during the implementation of UNIDO projects in other countries, inter alia:

Together with the UNIDO Latin American and the Caribbean Division, the local project team developed an additional training programme proposal to complement the capacity-building program envisaged under the IUMP project in Venezuela. This training proposal encompasses 5 crop-producing sectors targeted by the IUMP plus coffee and cocoa. The proposal was submitted to the Latin American Development Bank (CAF) and approved in December 2022. The project was also approved internally by UNIDO (ID 200267), and it is expected to be implemented in 2023-2024 to strengthen the human and technical capacities of identified national industry support institutions according to the planned activities.

### 4

## SUSTAINABILITY AND REPLICABILITY

How is it sustainable and replicable?

By employing a strategy known as “dissemination-knowledge transfer-replication,” the project seeks to expand the outputs and outcomes of the pilot projects among various actors in the value chain, which consists of the following two intervention tracks:

- 1) Selected enterprises and cooperatives undergo industrial modernization for market positioning and sustainable supply of quality agro-products.
- 2) National institutions and expertise receive support to enhance their capacities in enterprise diagnosis, modernization, business competitiveness, marketing, networking, value chain upgrading, partnerships, and related agro-industry services.

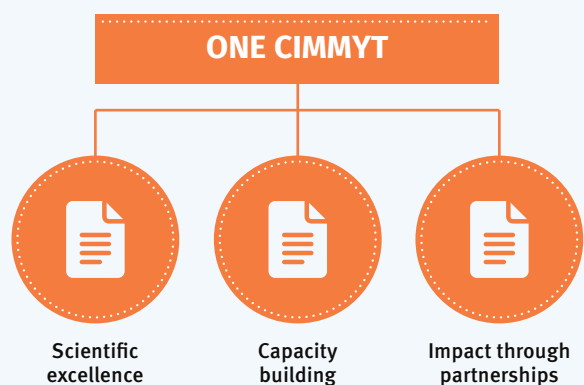
The project aims to enhance the current food production of prioritized crops, ensuring efficient commercialization of the final products through the implementation of improvement solutions.

### CIMMYT AT A GLANCE

CIMMYT’s mission is to improve livelihoods and promote more productive and sustainable maize and wheat farming in low and middle-income countries. The research portfolio of the center focuses on crucial challenges such as food insecurity and malnutrition, climate change, and environmental degradation. By collaborating in multidisciplinary teams and engaging with partner organizations, CIMMYT gains a deeper understanding of these challenges and becomes capable of devising more efficient solutions.

### HOW DO WE CONDUCT OUR WORK?

CIMMYT links scientific excellence, impact through partnerships and capacity building. “One CIMMYT” integrates these domains.



# SSTIC Executive Summary

The Government of Venezuela is making efforts to further develop local production and requested UNIDO to provide technical assistance, tools and methodologies to contribute to a more diversified economy, aggregation of value and export promotion with a focus on five selected agro-industrial value chains. More specifically, this project benefits from the application of the Industrial Upgrading and Modernization Programme adapted to the local development context.

UNIDO helped establish linkages between FAO and the International Maize and Wheat Improvement Center that provided maize seeds for FAO projects. Together with the UNIDO Latin

American and the Caribbean Division, the local project team developed an additional training programme proposal to complement the capacity-building program envisaged under the IUMP project in Venezuela.

This project contributes to the achievement of Sustainable Development Goal (SDGs) 9. A wide range of capacity-building activities targeting public and private sector representatives will help ensure the sustainability of UNIDO's intervention in the long run. After the project's completion, the main counterparts will be able to make full use of the services, methodologies, platforms and products developed in the course of the project.

## CLICK THE LINKS BELOW FOR MORE INFORMATION



 [View project in UNIDO OpenData Platform](#) 

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