

Agtech: Innovation options for climate change adaptation in Central America and the Dominican Republic

Interdisciplinary networks, new products and technological solutions, characteristic of Agrotechs, provide new options to strengthen productivity and adaptation to climate change in the regional agricultural sector.



0.81
to 2.07 CO2 emission range (MT / capita)



359
to 9840 Range of CO2 equivalent emissions by the agricultural sector (gigagrams)



20 .5
to 60.9 Population range below the poverty line in %



What is the relevance of the Agrotech?

Initiative

The agricultural sector in Latin America and the Caribbean has the potential to contribute to improving food security and reducing poverty, within a framework of environmental sustainability. To achieve this, the tools and strategies of the past are not enough! In the face of current and

future challenges, it is critical to know, assess and validate the development of Agrotech ventures that promote - through interdisciplinary networks - new products and technological solutions that strengthen productivity and adaptation to climate change.

Which Agrotech have the major potential?

Tech solution

There is an increasingly wide spectrum of technological tools that are being progressively incorporated into the world of agriculture and food. Its relevance derives from its constant increase in data processing capacity, its versatility and robustness, for example:

- Remote sensors: measurements of soil and crops over time.
- Geolocation: generation of visual representations.
- Mobile technology: real-time weather and market information.
- Internet of things: sensors and instruments to link diverse sources of

information.

- Artificial intelligence: predictive analysis and robotization.
- Big data: managing massive volumes of information.
- Blockchain: traceability along value chains.
- Robotics: automation of areas and processes.

It is necessary to consider that these technologies must withstand environmental conditions on farms, their use in connection with animals and be able to miniaturize when they are incorporated into the different rural facilities.

MORE INFO



Impacts and Results

The incorporation and strengthening of Agrotech, particularly in regions such as Central America and the Caribbean, needs specific conditions and strategies:

- Promotion of the local innovation ecosystem by incorporating relevant actors.
- Validation and adoption of Agrotech technologies from other regions.
- Legal simplification and incentives

for the creation of new ventures.

- Exploring the public role in incubation and acceleration programs.
- Bringing innovations to production areas with differentiated strategies.
- Strengthening the organization and association of small-scale producers.
- Leveraging microcredits and Fin Tech to facilitate adoption by key stakeholders.