PARAGUAY

SEEKING SOLUTIONS TO THE CHALLENGES OF CLIMATE CHANGE AND COVID-19 FOR THE FLORICULTURE AND AQUACULTURE SECTORS IN PARAGUAY

Presenter

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Description

The pandemic has brought with it challenges and Paraguay has been no exception. Two were the main challenges identified:

- Economic challenge: in terms of management and identification of markets, sales systems.
- Working system challenge: the health and care of the workers, as well as the availability of inputs for production, since most of them are imported.

Below a description of the main challenges faced by Panambiveve Committee in different sectors:

Floriculture area:

- Climate change is a great challenge for agriculture, since it is one of the factors that have generated the greatest environmental impact on the planet. As an example, orchides are produced in a protected environment that reduces and optimizes resources for production, which leads to a higher level of investment in technology that in turn translates into higher costs for production.
- In the area of Floriculture there were around 2 months of uncertainty, generating a total nullity in the sales, that even caused the decrease in the crops for fear of not being able to place the production and to avoid unnecessary expenses in inputs and labor.
- However, once the quarantine was partially opened, a strong marketing with state support was generated for the sale of the products through several platforms. The closing of the border and the non-entry of Brazilian plants helped to place national production in large quantities.
- The COVID-19 pandemic has forced people to a different way of living, since many of the events that involved income for the flower industry have been totally relegated, such as fairs, even social events that were the ones with the highest income. Seeking alternatives to income and improving growing conditions to compete in quality are the new opportunities for the flower industry.

Aquaculture area:

- For the aquaculture sector, the hardest stage of the pandemic was the quarantine in March and with no income for two consecutive months.

Below a description of the best practices implemented in each sector:

Floriculture Area:

- Reinvention: generating new marketing channels, use of digital platforms and delivery.
- Infrastructure: with the corresponding sanitary measures adapted both for health care and environmental care.
- Proper crop management: optimizing inputs such as water, phytosanitary products and others that can generate impacts on the environment.

Aquaculture Area:

- Organization of the producers: more than 100 ponds have been excavated and the association has taken advantage of this to

lower its cost of pond construction, purchase of fry, etc.

• Multifaceted agriculture: the hardest stage of the pandemic was the quarantine in March and with no income for two consecutive months, fortunately there was a lot of produce from the farm. That's why farmers were able to fight during this time.

• Product map: there is no shortage of diversified food production on the farm, but farmers need help in selling agricultural products to facilitate the operation of the association so that they can buy other daily needs. They are promoting the producers through internet sales (Product Map) and want to sell all the products they produce like milk, cheese, eggs, vegetables, etc

Results

Main results:

• Organized association.

• Product diversification.

• Market diversification- Product Maps (Online store).

Climate smartness

The practices described in Paraguay contribute to Climate-Smart Agriculture (CSA) through the increase of climate adaptation and farmers' incomes. The experiences described, both in the growing of flowers and aquaculture systems, with respect to market channels diversification and new markets, are practices focused mainly on farmer's incomes.

On the other hand, the optimal use of agricultural inputs and the management of water in the cultivation of flowers are practices for climate adaptation. Likewise, production diversification in aquaculture systems promotes climatic risk distribution so that the producers are more climate resilient.

The introduction of practices related to greenhouse gas emissions reduction in the productive systems described is recommended. Focus can be made on nitrogen fertilizers management and rationalized fish feeding in aquaculture systems. It is worth reviewing the practices evaluated at a worldwide level that could be implemented in Paraguay, as described in the document published by Sova et al., 2018.