

# 70. REDUCING VULNERABILITIES TO EXTERNAL SHOCKS

ACTION AREA	CLIMATE RESILIENT DEVELOPMENT PATHWAYS
SOLUTION CLUSTER	CLIMATE ADAPTATION, MITIGATION & RESILIENCE
THEMATIC AREA	INNOVATION ON CLIMATE ADAPTATION
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## WHAT ARE THE KEY THEMES THAT NEED TO BE CONSIDERED TO ADDRESS FOOD INSECURITY AND ENHANCE FOOD SYSTEMS RESILIENCY?

**Inclusiveness:** Food systems differ based on geography. Therefore, there cannot be a one-size-fits-for all approach because circumstances and production realities differ from continent to continent and region to region. The approach should be based on common ground and inclusiveness, where no one will be left behind. All farmers, including women and young farmers deserve to be empowered and provided with the same resources in terms of i.e. access to land, inputs, finance, education, to maximize their contribution towards more resilient food systems, as well as to prepare the future farmers' leadership.

**Transparency:** Transparency of information is required at all levels from global to grassroots, as well as in feeding the international discussion with the farm level experiences and best practices that are ready for scaling up and replication in other countries. The flow of information must be timely and effective to allow all actors to make proper decisions and take robust actions for the benefit of the world farmers and the whole population. The digitalization has to be improved as an instrument of knowledge and transparency of the chain and at the same time the property of data has to be considered a priority for farmers. Transparent and trustful relationships between farmers and consumers (the first and final stage of the food value chain, where open traceability is available) must be promoted. The farmers' share of value added in the whole approach must be not only valorised but also restored.

**Farmers' driven:** Farmers are at the centre of food systems. Therefore, any policy- making process that has an impact on the farming sector at local, national, and international levels should involve them, through their organized structures. Representatives of farmers' organisations and cooperatives must therefore also be partners in the discussion and decisions on sustainable food systems and the 2030 Agenda for sustainable development. This approach applies to decision-making processes and its implementation, monitoring and evaluation actions

Reference:WFO-Policy-Paper-on-Sustainable-Food-Systems\_approved-by-the-WFO-2020-GA\_EN.pdf (wfo-oma.org)

## WHAT DO YOU THINK CONSTITUTES SOCIAL RESILIENCE, ENVIRONMENTAL RESILIENCE AND ECONOMIC RESILIENCE IN FOOD SYSTEMS? WHAT ARE THE CROSS-CUTTING SOLUTIONS BETWEEN ECONOMIC, SOCIAL AND ENVIRONMENTAL RESILIENCE?

Ensuring social, environmental and economic resilience in food systems means recognizing the multidimensional nature of the farming activity replacing the old vision of agriculture as a simple "provider of raw material". Farmers ensure food security providing quality food; they are at the forefront of combating climate change; they preserve and promote biodiversity; they are committed to nurture farmer-driven research and innovation. This translates into social resilience, environmental resilience and economic resilience in food systems.

Therefore, if we aim to align and lay the foundations for the necessary shift towards Sustainable Food Systems, this role has to be emphasised and mostly valorised, putting farmers at the centre of the transition towards sustainability.

Within the World Farmers' Organisation, awareness of the centrality of agriculture and the responsibility this entails for sustainable food systems is clear and has been formalised with the adoption, in June 2020, of a policy document marking "The Farmers' Route to Sustainable Food Systems" [https://www.wfo-oma.org/wp-content/uploads/2020/07/WFO-Policy-Paper-on-Sustainable-Food-Systems\\_approved-by-the-WFO-2020-GA\\_EN.pdf](https://www.wfo-oma.org/wp-content/uploads/2020/07/WFO-Policy-Paper-on-Sustainable-Food-Systems_approved-by-the-WFO-2020-GA_EN.pdf)

A route based on three guiding principles: inclusiveness, transparency and the centrality of farmers in every strategic process.

WFO proposes to focus future commitments on the following cross-cutting actions, with the central role of farmers in each of these actions:

- Involving the whole value chain
- Fighting climate change
- Structuring disaster risk management
- Attaining global nutrition security
- Enhancing Research and Innovation
- Protecting biodiversity
- Deploying investments and incentives
- Valuing the livestock sector's role
- Achieving food security
- Boosting the role of farmers' organisations and cooperatives
- Promoting inclusiveness: youth and women are key to succeed.

## WHAT SOLUTIONS CAN WE PROPOSE TO ADDRESS FOOD INSECURITY AND PREVENT FUTURE SOURCES OF CONFLICT, MANAGE TENSIONS AND OTHER STRESSES IN FOOD SYSTEMS ?

One example comes from farmers in Guatemala, with the following best practice implemented by ALIAR, Alianza Agroindustrial Artesanal Rural:

In Guatemala, usually there are two main seasons: the rainy season & the dry period. Nevertheless, in the last couple of decades there have been changes due to climate change & this has taken a toll on agriculture. In addition to this, there were notable changes during the pandemic in relation to market demand for agricultural products. Strategies of resilience & adaptation to climate change had to be implemented.

Three are the pillars upon which the best practices implemented are based on: diversification, efficiency and sustainability.

One of the best practices implemented is diversification to minimize the risk, in particular, farmers introduced improved varieties, crop diversification and also market diversification.

Furthermore, farmers established experimental plots, with adaptable crops to climate change. Locally, it has been sought to implement new crops for local farmers with the objective to diversify productive plots and increase family income.

As for the improvement of profitability and efficiency, farmers used sustainable infrastructures and applied crops traceability systems, in order to collect more information to take better decisions and improve the adaptability of crops.

Finally, in order to be more sustainable and eco-friendly, farmers implemented a cleaner production process in the packaging house. Moreover, they sustainably managed the use of fertilizers for soil reduction and conservation: they have observed that sustainable nutrients and biopesticides take care of soil's health and biodiversity while increasing productivity.

As far as health is concerned, ALIAR had to implement security protocols and the necessary security measures and greater control were implemented: chlorination systems were installed, Personal Protective Equipment (PPE) was provided, the temperature of the personnel was taken, the implementation of living barriers was promoted, as well as the implementation of irrigation systems & of macro and micro tunnels.

Moreover, given the impact of the pandemic, ALIAR is exporting its production to Central American trading partners. However, due to the economic recession, exports to international markets (USA and Europe) have been stopped, and local sales strategies were established.

#### WHAT IS THE POTENTIAL ACTION THAT COULD BE TAKEN?

Reduce vulnerabilities to global food supply chain disruptions by strengthening the capacity of the farming sectors worldwide to react and ensure food security even during exceptional crisis

#### WHO ARE THE MAIN ACTORS THAT WOULD PUT THIS ACTION INTO PLACE?

Policymakers (government), Private (businesses, etc.), Civil (NGOs, etc.), Farmers, Farmers' Organization / Cooperatives, Scientists, Indigenous groups

#### WHERE ARE MAIN AREAS IN WHICH THIS SOLUTION WOULD MAKE CHANGES

- Food supply chains - Inputs
- Food supply chains - Production
- Food supply chains - Processing & Packaging
- Food supply chains - Retail & Marketing
- Food environments - availability
- Food environments - affordability

#### WITHIN WHICH CATEGORY DOES THIS INTERVENTION MOST EASILY FALL?

- Regenerative agriculture
- Supply Chain Infrastructure
- Food marketing (regulations, laws, practices)
- Cross-cutting

#### IS THIS IDEA APPLICABLE TO A PARTICULAR GEOGRAPHY OR TYPE OF SETTING (E.G., SEMI-ARID AREAS, HIGHER- OR LOWER-INCOME COUNTRIES)?

The best practice was first implemented in Guatemala with the potential to be replicated and scaled in other Countries.

## WHERE IS THIS IDEA COMING FROM?

The best practice was first shared in the context of the initiative “The Climakers”, the Farmers Driven Climate Change Agenda conceived by the World Farmers’ Organisation and carried out with different partners, with the aim to be assessed by science against climate smartness criteria and be scaled up and replicated in other Countries.

Reference: [https://www.theclimakers.org/wp/wp-content/uploads/2020/12/THE-CLIMAKERS\\_Stories-from-the-Field\\_COVID-19-Special-Edition-1.pdf](https://www.theclimakers.org/wp/wp-content/uploads/2020/12/THE-CLIMAKERS_Stories-from-the-Field_COVID-19-Special-Edition-1.pdf)

## ANY OTHER COMMENTS, INCLUDING EVIDENCE OR ARGUMENTS IN SUPPORT OR AGAINST.

The best practice was assessed against Climate smartness criteria by CCAFS, with the following results: “The practices in this project are framed within Climate-Smart Agriculture (CSA), as they contribute to increasing adaptation and productivity, and reducing greenhouse gas emissions.

Practices, such as productive diversification, the establishment of trials to introduce better adapted varieties or species to micro climatic conditions, the use of irrigation systems, and the construction of structures such as macro tunnels increase climate adaptation capacity of production systems.

On the other hand, the implementation of organic agricultural practices, living fences, and soil conservation, helps to reduce the emission of greenhouse gases and to capture carbon in the agricultural systems, while they are also contributing to climate adaptation and productivity increase. Finally, practices such as the use of organic packaging and diversification of the market are practices more focused on value added increase which improves farmers’ incomes.

It is worth highlighting that the collection of information that is being done by the farmers linked to the project to make better decisions. In that regard, for those who are not doing that, it is recommended to train these producers to monitor the climatic conditions within their plots, using low-cost rain gauges and thermometers, as well as hygrometers that enables them to learn the humidity of their soils. This information will be useful to plan the construction of water reservoirs so that they can have this resource during the dry seasons, and determine the periodicity and the quantity of water that they should use for irrigation.

Additionally, it is recommended to establish a training program for understanding and using agro climatic information that would enable the farmers to make decisions about planting dates, the species and varieties to plant, and the place on their farm that is best for planting, among others”.

Reference: [https://www.theclimakers.org/wp/wp-content/uploads/2020/12/THE-CLIMAKERS\\_Stories-from-the-Field\\_COVID-19-Special-Edition-1.pdf](https://www.theclimakers.org/wp/wp-content/uploads/2020/12/THE-CLIMAKERS_Stories-from-the-Field_COVID-19-Special-Edition-1.pdf)