

10. FARMERS' RESILIENCE TO COPE WITH CLIMATE AND COVID-19 SHOCKS IN CANADA (QUEBEC)

ACTION AREA	FOOD SYSTEMS RESILIENCE
SOLUTION CLUSTER	INTEGRATED APPROACHES TO RESILIENT FOOD SYSTEMS
THEMATIC AREA	AGROECOLOGY FOR RESILIENCE
SUBMITTED BY	WORLD FARMERS' ORGANIZATION

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

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 ?

Climate change is affecting farming in Québec. For example, warmer temperatures allow farmers to start agricultural activities earlier in spring and end later in fall. On the other hand, winters are getting shorter and there is an increase in extreme weather events i.e. heavy precipitations and seasonal droughts.

Also, the farming sector has been affected by the Covid19 pandemic. Many restaurants and hotels closed and this has impacted the dairy industry because 30% of the milk products (fresh milk, yogurt, cheese) is destined to that market. Also, the pandemic impacted the meat production because the volume of slaughters had to be diminished in order for the workers to respect the distancing measures. Slaughter and meat processing are managed by a few companies and one of them had a COVID-19 outbreak and had to close for a few weeks.

Québec has an environmental legislation about farming and some solutions come from the Fédération de la Relève Agricole du Québec (FRAQ) as follows:

- Farmers are encouraged to plant trees between their fields to form wind breaking hedges that help limit wind erosion, reduce pesticide drift, keep the snow on the ground longer during winter times;
- Québec has a lot of dairy farmers. The cows' nutrition is composed mainly of corn silage and alfalfa. The alfalfa fields are normally sown once every 4 years. There is normally enough snow in the winter to isolate the crop, thus it survives and grow back the following year, contributing a lot to sequester nitrogen in the soil;
- Shorter and warmer winters decrease the survival rate of some crops. Some farmers use cover crops in the fall, after they have harvested the main crop, so to increase survival rates of crops affected by changing temperatures due to climate change;

- Farmers must respect rules with regards to manure spreading to limit the amount that could leach into the groundwater (the amount is calculated by agronomists).

WHAT IS THE POTENTIAL ACTION THAT COULD BE TAKEN?

Actions that would reduce farmers' vulnerabilities to shocks and crisis caused for example by climate change effects as well as issues like the Covid19 pandemic which caused global food supply chain disruptions. These actions would strengthen farmers' capacity to react and ensure food production and well-functioning of value chains even during exceptional crisis, thus ensuring their livelihoods and incomes.

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

- Policymakers (government)
- Private (businesses, etc.)
- Farmers
- Farmers Organization / Cooperatives
- Scientists

WHERE ARE MAIN AREAS IN WHICH THIS SOLUTION WOULD MAKE CHANGES

- Food supply chains - Inputs
- Food supply chains - Production
- Food supply chains - Storage & Distribution
- Food supply chains - Retail & Marketing
- Food environments - availability
- Consumer behaviour

WITHIN WHICH CATEGORY DOES THIS INTERVENTION MOST EASILY FALL?

- Regenerative agriculture
- Food research, processing, technology
- Consumer education, training, and awareness
- 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 practices are implemented in Canada 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

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 various practices promoted in the project significantly contribute to the three pillars of CSA (Climate-Smart Agriculture), since they are focused on both climate mitigation and adaptation, and increase productivity of crops. The project includes practices assessed in the global evaluation of Climate-Smart Agriculture carried out by Sova et al., 2018. It is worth noting that practices such as the use of organic fertilizers based on soil analysis and the use of plant covers with nitrogen-fixing species are especially related to mitigation, which is understood as the reduction of greenhouse gas emissions. Likewise, sowing of living barriers with hedges can be considered to be a practice that contributes to mitigation, due to trees potential for carbon sequestration, thus helping to reduce greenhouse gases in the atmosphere. On the other hand, practices focused on the use and conservation of water sources increase the adaptive capacity of productive systems. Practices such as covering the soil and planting hedges to retain humidity are also important for adaptation purposes. It is recommended for the optimal implementation of climate-smart agriculture to strengthen the flow of climate information³ to the producers, as well as empowerment regarding that information. The participatory spaces mentioned in the project, where farmers join training sessions, could be useful to build capacity on climate information used and its link with crop management and development."

Reference:

https://www.theclimakers.org/wp/wp-content/uploads/2020/12/THE-CLIMAKERS_Stories-from-the-Field_COVID-19-Special-Edition-1.pdf