

AN AGRICULTURE THAT ENSURES FOOD SECURITY IN SUBSAHARAN AFRICA

Today, it is clear that out of 1.4 billion farmers who are feeding the world, 1 billion of them are suffering from hunger while an equivalent number of people are over-consuming food. Paradoxically, the increase in the yield of agricultural crops has not stopped hunger or food insecurity. The pressure of climate change on agriculture is an additional obstacle to the achievement of food sovereignty by vulnerable communities living in the countries of sub-Saharan Africa and the Sahel region, particularly affected by drought and desertification. Despite the emergency caused by the climate and food crises, we notice the development of policies that threaten the environmental, climate, and socio-economic capital of developing countries:

- The accelerated development of industrial mono-intensive agriculture mainly dedicated to the export of food and energy commodities. This agricultural model relying on polluting and costly inputs (fertilizers and pesticides) proves to be harmful to the environment while being unable to feed the world and especially the poorest communities.
- The development of intensive agriculture coincides with practices that are the source of soil and biodiversity depletion.
- Correlatively, there is the development of agricultural resources and land grab at the expense of peasant farming and food cropping.
- Finally, the promotion of GMO, as a solution to increase production and crop resilience in the context of climate pressures, contributes to the demise of local heritage (local seeds, endogenous practices) and increases dependence of farmers on seed industries.

There are several factors that encourage the promotion of unsustainable agricultural models and are therefore obstacles to the development of family farming that is however a key factor in food security. Over-consumption in the North, population pressure and the rules of international food market exert pressure on agricultural models and encourage the development of unsustainable production at the expense of food cropping.

Liberalization of markets and the volatility of food prices have led to increased speculation on agricultural commodities. By producing for export, farmers are increasingly dependent on volatile agricultural commodity prices on international markets because of financial speculation to which they are subject. It is called "food bubble". It is even worse; the volatility and price increases of the agricultural raw materials on international markets affect local markets near the places where crops are produced, with inflation in the price of staple foodstuffs (rice, maize, soy) which are too often the cause of food insecurity.

A growing tendency to import staple foodstuffs with lower prices in the international market is observed; this causes disequilibrium of the trade balance and impoverishes small farmers. This practice is often expensive and ineffective in ensuring food security, since the products are too expensive for local markets. In addition, it affects the development of local agriculture and economic activity that accompanies it. Finally, it undermines the national food sovereignty that results from the independence of a country.

In addition, climate variability is a factor aggravating food insecurity. In a direct way, the impacts of climate change (desertification, water stress and shortening of the rainy season, unpredictable and extreme weather events) increase pressure on agricultural yields - thus exacerbate the volatility of food prices and traditional modes of food production. Despite their important contribution to global

food production, small farmers in Africa are also the first victims of climate hazards. They represent millions of farmers, of whom 2/3 regularly suffer from hunger.

In an indirect way some policies may be harmful to small producers and thus jeopardizing their food security. And policies that develop biofuels - used as "green" alternatives to conventional fuels in the transport sector - lead to intensive production of sugar cane, jatropha, soya, and palm oil or maize in developing countries to meet this demand at the expense of production for local and national food.

Towards an agricultural system adapted to the climate hazards and local needs.

Today more than ever, in the context of climate crisis that is ours, and with regards to its impact on agricultural production, it is essential to ensure food security and sovereignty in developing countries and in their most vulnerable communities. The challenges are numerous: it is necessary to anticipate future impacts of climate change and the end of fossil fuels, and protect the environment, the local agricultural genetic heritage and biodiversity. And thus, by allowing the development of a local, sustainable socio-economic activity in order to increase communities' income, especially in rural areas, efforts should be made primarily for small farmers, ensuring the sustainability and viability of the territory. Finally, it is to insure against the vectors that are sources of inappropriate agricultural policies: biofuels and ultraliberal policies promoted by the WTO.

There are solutions and good practices at the community level. These should inspire international policies.

- **Family farming is an agricultural model** resilient to climate change, adapted to local food needs and thereby ensuring food sovereignty and food security. Indeed, family farms play a vital role in terms of food security and rural development. They produce up to 80% of the food consumed in some developing countries and are essential pillars of the land development and social stability. Given the conditions of production often binding, including the climate risks, farming families have always had to adapt.



- **Agro-ecology practices** aim at establishing productive, sustainable and efficient agricultural systems, making better use of local resources by minimizing chemical inputs. Coherent actions implemented for environmental control, water conservation, crop management and integration with livestock contribute to greater resilience of family farms to climate risks: the farms are more diverse, less dependent on external inputs, and the productive environment is restored.

- **Preservation of the African genetic heritage.** It is a common good, vector of seed and food and often medicinal sovereignty, self-sufficiency, and source of income. This preservation involves the fight against excessive and ill-informed development of GMOs in Africa: a) the dissemination of information on the advantages and the drawbacks of GMOs, the costs associated with the choice of GMOs, and b) in some cases, by moratorium. The point is to enhance the most resilient local seeds to climate change by creating seed banks.