SUSTAINABILITY PATHWAYS

SMALLHOLDERS AND FAMILY FARMERS

DID YOU KNOW?



Eighty percent of the farmland in sub-Saharan Africa and Asia is managed by smallholders (working on up to 10 hectares). While 75 percent of the world's food is generated from only 12 plants and 5 animal species, making the global food system highly vulnerable to shocks, biodiversity is key to smallholder systems who keep many rustic and climate-resilient varieties and breeds alive.



Out of the 2.5 billion people in poor countries living directly from the food and agriculture sector, 1.5 billion people live in smallholder households. Many of those households are extremely poor: overall, the highest incidence of workers living with their families below the poverty line is associated with employment in agriculture.



Women comprise an average of 43 percent of the agricultural labour force of developing countries up to almost 50 percent in Eastern and Southeastern Asia and sub-Saharan Africa. Should women farmers have the same access to productive resources as men, they could increase yields on their farms by 20-30 percent, lifting 100-150 million people out of hunger. Women are the quiet drivers of change towards more sustainable production systems and a more varied and healthier diet.



Smallholders provide up to 80 percent of the food supply in Asian and sub-Saharan Africa. Their economic viability and contributions to diversified landscape and culture is threatened by competitive pressure from globalization and integration into common economic areas; their fate is either to disappear and become purely self-subsistence producers, or to grow into larger units that can compete with large industrialized farms. Smallholders are small-scale farmers, pastoralists, forest keepers, fishers who manage areas varying from less than one hectare to 10 hectares. Smallholders are characterized by family-focused motives such as favouring the stability of the farm household system, using mainly family labour for production and using part of the produce for family consumption.

AVERAGE SIZE OF AGRICULTURAL HOLDINGS (ha)



SUSTAINABILITY PATHWAYS

WHY DO SMALLHOLDERS MATTER FOR SUSTAINABILITY?

- Unlike widespread perceptions, sustainable smallholders can be really productive. A large study examining smallholder agriculture covering 286 projects, over 37 million hectares in 57 developing countries, found that when sustainable agriculture was adopted, average crop yields increased by 79 percent. Also, sustainable systems were found more diversified, with yields often composed of more than a dozen crops and various animal products, generating higher yields per ha. Higher yields mean increased household food security and higher household income, especially when money was saved through less fertilizer and pesticide use (Pretty *et al*, 2008).
- Furthermore, an analysis of 15 case studies in Africa demonstrated that organic agriculture brings multiple benefits to the community including more nutritious diet and health, reduced occupational hazards through decreased exposure to pesticides and job creation. In Brazil, each 8 hectares cultivated by small farmers using mixed cropping generates one job, while large-scale mechanized monocultures generate 1 job per 67 hectares. When associated to improved working standards and rights (e.g. occupational safety and health), sustainable smallholder agriculture can represent a key driver for decent rural jobs.
- Well-managed smallholder systems invest in building soil biomass and soil vegetative cover, which improves water filtration in case of floods and moisture retention in case of droughts. Through reduced fossil fuels dependency and energy requirements, as compared to large mechanized and inputs dependant farms, smallholders traditional practices also mitigate climate change through reduced emissions and enhanced soil carbon sequestration.

Small-scale fisheries contribute to 46 percent of global marine and inland fish catches. In developing countries, this share grows to 54 percent. When considering catches destined for direct human consumption, the share contributed by small-scale fisheries increases to two-thirds.

Small-scale fisheries employ over 90 percent of the world's 35 million capture fishers and support another estimated 85 million people employed in associated processing, distribution and marketing.

About half of the people employed in small-scale fisheries are women. In addition to the large number of full and part time fishers and fish workers, seasonal or occasional fishing often provide vital supplements to other livelihood activities, in times of difficulties or as a recurrent side-line activity.

Small-scale fisheries generate income, provide food for local markets and make important contributions to nutrition. They also represent a diversity and cultural richness that is of global significance.



HIGHLIGHT,

THE MULTIPLE BENEFITS OF SUSTAINABLE AGRICULTURE IN INDIA

Sukomol and Alpana Mondal live with their two sons on a 0.7 hectare farm in India. Due to health issues, they went into debt and were in crisis. In 2006, the Mondals decided to make a switch to an integrated farming system. With local training support, coordinated by DRCSC, a Christian Aid partner, the Mondals constructed a pond and a new drainage system consisting of a main channel through the rice field with smaller channels around the perimeter linking to the pond. The earth was used to raise the level of several of their plots. A gradual transition was made to organic paddy cultivation using Sustainable Rice Intensification methods. Native species of carp and catfish were introduced in the pond and channels, and crops such as cowpea and bitter gourd grown on trellises over the water. The water from the pond is used to irrigate a winter paddy crop as well as the vegetable plot. The effects of flooding and water-logging (major problems in this region) are lessened by the use of raised beds.

More than 20 different crops are now being grown, including various spices, vegetables, oilseeds and pulses. 'Live fences' of mango, banana and coconut trees were also planted around the farm's edge. The Mondals also introduced vermi-composting, began to save more seeds, and increased the number of livestock they kept. This diversified system make them more resistant to external shock. Five years on, the Mondals' situation has been transformed. They have managed to pay off two thirds of their debt. Their income has increased due to surplus vegetables, spices, fruits, seeds and seedlings. They no longer use chemical inputs, which has lowered production costs. In the first two years, there was a decrease in rice yields but production is now back up to pre-transition levels. The family diet has improved due to steady supply of rice, fruit, fish and vegetables throughout the year.

THE MULTIPLE BENEFITS OF SUSTAINABLE FISHERIES IN VIETNAM

Initially an open-access resource, the clam fishery of Ben Tre province in Vietnam faced increased pressures towards the end of the 20th century. In 1995, the government began to create cooperatives to protect the natural resource and delineate fishing areas for management. However, fishers themselves were unrestricted, and further stock declines led to the establishment of area rights to restrict fishing in 2006.

These further efforts proved successful, and the fishery was Marine Stewardship Council (MSC) certified in 2009. The certification brought significant benefits to the fishery, both social and economic. Eight months after full assessment, the price of the clams increased by 20-30 percent. "Before, I would collect clams and work from morning to late afternoon I would fill two baskets. Yet there was a limited market, and if I was unable to sell the clams I would have to return them to the sea" explains Vo Thi Binh, a local clam fisher from the Rang Dong cooperative. "Since the cooperative has been established, the harvest is planned according to contracts with the processing plants, so every day that I go to work I get paid and I don't have to worry about selling the clams." Wages have increased five-fold since 2007.

Because of these economic benefits, 13 000 households are now supported by the fishery, compared to less than 9 000 in 2007. As a result, more people are now able to pay for their children's school fees, and support them through vocational training, boosting their chances of a better future. This has been one of the lasting benefits of transitioning this fishery to sustainability.

PRODUCERS

- Create and/or develop smallholders' organizations to strengthen agro-ecological practices knowledge and representativeness in decision-making instances with buyers.
- Share knowledge and experience in order to better market products at local and national level and to organize joint procurement of all kinds of inputs and services.

HOW

FOOD INDUSTRY

- Include smallholder family farmers, through inclusive business models, and promote their products.
- Provide financial help to smallholders in sharing and disseminating knowledge on agro-ecological practices.
- Promote sustainability standards of production along the value chain.

CONSUMERS

- Take time to inform yourself about the origins of the food you purchase.
- Buy local to help smallholders stay in business.



POLICY-MAKERS

- Develop national plans to scale-up support to sustainable smallholder farmers, develop their entrepreneurial capacities and create viable livelihoods in the rural areas, with special focus on women and youth, including allocation of adequate resources.
- Ensure smallholder farmers' access and control over natural resources, mainly land, water, forests and seeds and promote culturally adapted short food chains. Women and youth should be targeted given the significant discriminations they face.
- Adopt and implement the Voluntary Guidelines on the Governance of Tenure of Land, Fisheries and Forests.

FURTHER RESEARCH AREAS

- Evaluate the multiple impacts (economic, social and environmental) coming from sustainable smallholder agriculture, with a special focus on women and youth.
- Develop technology and research that blends traditional knowledge and modern science, adapted to sustainable small-scale producers.
- Rehabilitate local seeds for biodiversity and save local races close to extinction, for both self-reliance and climate adaptation purposes.

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The publication "Enduring farms: climate change, smallholders and traditional farming communities" demonstrates how smallholder farmers have developed strategies to increase their resilience to external shocks while maintaining ecosystem goods and services.