

AUTONOMY THROUGH AGROECOLOGY.

**What Women Farmers Expect from Sustainable Food Systems.
A Report by SWISSAID to the Attention of H.E. António Guterres,
Secretary General of the United Nations. Includes Policy Recommendations.**



**NOW,
LISTEN!**

The Authors

The centerpiece of this project are the farmers. This is why we have the honor to mention them here as authors, along with our own names.



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Rut Mendoza Quiacain is a young farmer from Guatemala, who also has a nursing degree. She produces organically, with a view to support her family and community with healthy diets. She has been chosen as leading farmer by the Non-Governmental Organization Vivamos Mejor, so that she can teach others how to produce sustainably. She hands her knowledge on to other women, especially in crafts and farming, for them to enhance their income and improve their livelihoods.



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Executive Summary

Women farmers, especially female peasant and family farmers, are pivotal to build back better food systems. 60% of the world's food is produced by smallholders on 30% of the global agricultural surface. 50%-80% of this food, depending on the country and region, is produced by women. However, the upcoming UN Food Systems Summit (UNFSS) does not systematically build its solutions on these female farmer realities.

SWISSAID and partners have therefore launched a qualitative investigation into what female farmers' motives are to transition (or not) into sustainable food systems. We have led in-depth interviews with six female farmers to understand their needs and the opportunities they see in sustainable food systems. We have asked them, what they expected from the UN Food Systems Summit. And we have drawn some important recommendations which we share in this report. The semi-structured interviews were organized around the topics of healthy diets, sustainable agricultural production and incomes, so as to match the main objectives of sustainable food systems mentioned by Joachim von Braun and his team in an early publication for the Summit.

The findings can be summarized as follows:

1.) The women are first and foremost looking to **strengthen their independence and autonomy**. Their thrust for autonomy shows in different aspects of their farming lives and often, what seem separate axes of autonomy, actually are tightly interwoven:

- The women are constantly **negotiating their space of rights and freedom** in the households and communities. Being recognized as right holders by their male family members is key to make it acceptable that they farm and that they earn their own income.
- The women pursue **autonomy in their farming through chosen agroecological practices and a systemic, agroecological approach to food systems**. They replace commercial synthetic inputs with their own organic ones, select and multiply their own seeds, maintain soil fertility with compost, mulching and manure. They experiment and teach their knowledge to their peers.
- The women seek to **remain independent as entrepreneurs**: they would rather work with neighbors they trust and build up the knowledge in their own community, than relying on costly services and technology of external private companies, that they cannot understand nor replicate.

2.) All these women have **actively chosen to become farmers. Their motivation lies in their interest to provide healthy diets for their communities.** They substantially contribute to the autonomous realization of the Right to Food in their respective locations. In fact, even their interest in sustainable agricultural production and the protection of natural resources stems from their **systemic perspective on healthy diets**, as in their view, no healthy food can possibly come from polluted natural resources.

3.) The six women **depend on markets that pay an adequate price for their products.** This requirement is key as agroecology has a cost in terms of its labor intensity. To get the support they need, e.g. by their male relatives for the hard work in the fields, the women also need to be able to show the benefits of these practices. To get better prices, the women establish **direct contacts with their end consumers.** Such short value chains allow them to remain **independent from volatile prices on the international commodity and input markets and from domestic and international value chains which do not sufficiently reward agroecological production.**

4.) Agroecology further allows these women farmers to grow food, **while taking care of the natural resources and ecosystem services** they rely on for the wellbeing of their communities. **Finally, the women need to be able to react flexibly to climate variability or other hazards. Agroecology allows them to mitigate these risks** by working alternately on staple foods, meats, vegetables and fruits so that they have something to eat and/or sell throughout the year.

The findings clearly show the independent, entrepreneurial spirit of the farmers, which matches well with the high diversity of food products, that the agroecological approach allows them to produce.

Based on what Aïssa, Amina, Rut, Chathurika, Anne and Kathrin have said, we have formulated recommendations for the UNFSS and the implementation of sustainable food systems beyond the Summit. **Most pressingly, the UN should build on a process at the foremost inclusive, international and intergovernmental platform on agriculture and food security, the Committee on World Food Security (CFS), to guide, monitor and evaluate the implementation of sustainable food systems based on Human Rights and the emancipatory potential of agroecology.** Such a process should be conducted in collaboration with the UN Special Rapporteur on the Right to Food. It should be built on the unfolding mechanism to follow-up on the implementation of the United Nations Declaration on the Rights of Peasants (UNDRP) as well as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

Member States must provide more space to farmers by stepping up agroecological research and the dissemination of agroecological knowledge, by supporting short value chains or direct marketing with equitable profit margins for farmers, by protecting certain products and value chains which are key for local markets. They must further urgently act by reviewing and **gradually removing wrong incentives**, such as subsidies to synthetic inputs and production modes that exacerbate climate change, and by **abolishing** harmful legislation for farmers' seed systems such as patent laws and seed regulation policies of the kind of UPOV 91.



Introduction

UN World Food Summits (UNFSS) have a tradition of creating a sense of urgency about world food security. However, while doing so, they rarely consult the people who are directly affected by hunger, under-, or malnutrition. The only exception was the Summit 2009, where it was decided that the UN Committee on World Food Security (CFS) would be the foremost inclusive, intergovernmental platform on questions of food security. Yet, the UN Food Systems Summit, taking place in New York, has not given the CFS this space. So, the question becomes once again: Why are the people directly concerned not involved? Why do they not have a voice about how to improve their own food security? What would they say about how to build back better food systems, or rather, improve the ones we have?

We are all asked to focus on how to enable sustainable food systems, as prescribed by the UN 2030 Agenda and the Sustainable Development Goals (SDGs). Food sustainability is understood as a matter of all sectors of society aiming to nourish all people, conserve nature and the planet and contribute to overall wellbeing and prosperity, in every place around this world. This includes the radical claim to include all societies and landscapes. For true food sustainability, however, that implies considering the needs of different actors, which do not necessarily have the same interests at heart: governments aim to achieve economic growth within their territory to enhance food security, financial actors and corporations in food systems look to increasing the profits they can make from food commodity markets, whereas the poor, peasant and family farmers rather seek to maintain as much independence as possible from unfair competition and highly price-volatile, commodified food markets to ensure safe and healthy food for their families and their communities. To them, what is discussed in the context of

any Food Systems Summit, can be existential. They should be the ones speaking, rather than being spoken about, if the Agenda 2030 is to be implemented.

Main Topic

We have interviewed six women working in peasant and family agriculture in the global North and in the global South to answer the question on how they could best be supported. Which leverage points must we act on to support them, according to their own views?

We have deliberately interviewed women because they represent over 50% of the planet's human beings, while their position within food systems is often weak and their livelihoods are vulnerable. This is especially true for women in peasant and family farm structures, which are still marginalized in the current political economy. The fact that at least 60% of all food is produced in smaller holdings, where 60%–80% of the food stems from women's labor, makes female farmers the central actors of world food systems. Whether this Summit can provide leverage to fulfill their needs, is the crunch question.

Not surprisingly, the women have a clear head about what principles and investments we should leverage to support them in achieving sustainability for the people and the planet by 2030. Many of them base their food production and processing, even their lives as citizens, on economic, social, and ecological principles which overlap or correspond with the set of progressive agroecological principles defined by the FAO and more recently by Wezel et al., 2020. The key result of our investigation is why these women farmers produce sustainably and how they could be backed to scale such food systems further.

Methodology

Between May and July 2021, we conducted two rounds of interviews with each of the six women, using a semi-structured interview guide. The interviews and the analysis of the results followed the method of a so-called Insights Process which combines deliberation design and aggregation of results with qualitative content analysis. In the interviews, we started with a set of pre-defined questions, but went into detail in reaction to the individual cases. To speak to the Summit and its concepts, we based the guide mainly on three key topics that were highlighted in a recent article by the scientific team around Joachim von Braun –

the Chair of the Summit's science committee (Von Braun et al., 2021): ending hunger and the provision of healthy diets for all, the sustainable use of biodiversity, natural resources and the protection of ecosystems and finally, eliminating poverty and generating income and wealth. Fulfilling these points is described as key for any food system that claims to be sustainable. We focused our questions around the provisioning of healthy diets, a sustainable agriculture and food production as well as income generation. Additionally, relevant literature was consulted to complement and validate the information of the interviewees. The interviews were then processed through the content-analysis and the results were cross-checked with the women.

For practical reasons, we reached out to contacts in our networks to find female farmers who may be willing to speak to us. Four interviews took place via videoconferencing, two relied heavily on Whatsapp voice messages because of a lack of internet connectivity. Two of the interviewed women are linked to our organization – through participation in SWISSAID projects – whereas four women are not. Any affiliations are declared in the present report.

Structure

We have structured the present policy brief around the women themselves. The first section presents each of the farmers, their agriculture, its challenges, and opportunities. We have distilled key actions or events in their lives which have catalyzed positive effects for them or which, on the contrary, are obstacles that they need to overcome to improve their situation (so called "entry points for change"). The second section then contextualizes these elements to show how an improvement in healthy diets, sustainable production and income can be achieved. In doing so, we also relate what the women would expect of a UNFSS. The third section then concludes with recommendations for all of us, based on the women's testimonies and SWISSAID's experience in development policy.

The Farmers

In this section, we present Aïssa Issaka from Niger, Amina Ally Makame from Tanzania, Chathurika Sewwandi from Sri Lanka, Rut Mendoza Quiacain from Guatemala and Anne Chenevard and Kathrin Lenz Raymann from Switzerland. The group is heterogeneous. We have not distinguished nor clustered our interviewees according to their farm size, or based on their production. However, it is important to note that in their respective contexts, they work on farms that would officially be considered small-sized (5 women) or medium-sized peasant and family farms¹ (1 woman).

Aïssa Issaka, Niger



Ms. Aïssa Issaka, a farmer from the small village of Yeni, in the Dosso region of Niger, produces a variety of cereals (corn, rice, millet), legumes such as cowpeas, vegetables (cabbage, tomatoes, potatoes, moringa) and fruits (e.g. mango) that she sells for a living. She owns a three-hectare plot of land, which she inherited from her father, after a legal reform in Niger allowed women to own land. Her siblings did not want to cultivate the land. Aïssa also works on a 15-hectare collective plot with 370 women who produce vegetables and fruit together. More recently, she has taken up fish farming – an activity for which she is a pioneer in her local community. Aïssa is an elected member of the Community Council and secretary of a farmers' federation, of which she is a member; she is also a SWISSAID partner and an agroecology promoter, teaching others the practices.

Aïssa uses neither insecticides nor herbicides. For fertilization, she uses the dung of her two cows (which give very little milk) that she brings to the fields with a cart, and she regularly buys goats and sheep to fatten and sell them. Due to her agroecological way of farming, soil fertility has improved at last, but in this desert region this has taken over 20 years. Agroecology, she says, pays off because it

¹ Both terms design agricultural surfaces that are exploited largely by families and through unpaid family labor. On family farms see: Graeub B.E., Chappell M. J., Wittman H.: *The State of Family Farms in the World*. World Development 87, 2016, pp. 1–15. With regards to peasantry and the evolution of peasant agriculture, see: Bernstein H, Friedman H, Van der Ploeg JD et al.: *Forum: Fifty Years of Debate on Peasantries, 1966–2016*. The Journal of Peasant Studies, 2018, 45:4.

saves the expenses for chemical fertilizers, insecticides and herbicides. Local plant varieties do much better with agroecology, whereas the use of herbicides also makes local agrobiodiversity disappear.

Challenges remain: Water is becoming quite scarce. There are boreholes, but the water levels are sinking and there is too much sand.

Aïssa also needs the help of male workers to do the laborious tasks in the fields. However, they are not readily willing to help the women. This is a permanent challenge. In her community, the male family heads hold a lot of power. Within the village council, it is usually the men who take the decisions, Aïssa says. This somewhat limits the path of actions available to her. However, things are changing. Even the mayor is now a woman. Aïssa says that if she had more money, she could eventually convince the men to help her.

Aïssa sells her produce on the local market. The vegetables sometimes need to be dried and stored before being sold, which she does in her cooperative. For the fish, Aïssa plans to use the local radio to advertise. She hopes to attract many customers to her farm.

Part of the income generated by marketing vegetables, fruits and fish is needed to buy seeds that she cannot reproduce herself and to buy feed for the fish. She is experimenting with replacing the commercially available feed with grain from her own production. Aïssa also needs money to buy imported rice and maize which she cannot produce on her fields during the lean season. The price for rice and maize is highly dependent on international markets. With the COVID pandemic and political instability, prices have been soaring due to trade restrictions related to Corona lockdown measures. Prices for all other goods in the local community are climbing up as well.

Aïssa observes that many people in her region, especially women and children, frequently suffer from hunger and undernutrition. According to Aïssa, a majority of people leave out meals regularly. Aïssa considers that the vegetables and fruits from her fields are particularly healthy for children as they help them gain weight. This is what she likes to focus on. While she is convinced that her food tastes better and is healthier than conventional

products, Aïssa feels that she is not in a position to make real choices when it comes to her own food.

Aïssa says that only five out of fifty women in the community are into the practice of agroecology so far, even though the Community Council explicitly approves of such agriculture. Promoting further change in the direction of agroecology, Aïssa estimates, will not be possible without a change of culture regarding women's access to land and labor support for them by their husbands and male relatives. Men, she points out, need to come to acknowledge that revenues generated by women constitute an essential part of the family's resources. In addition, the other families lack most basic tools such as a cart to distribute the animal dung on the fields.

Looking at other farmers nearby, Aïssa believes that capacity building in agroecology is much needed. People need information on how to make their own compost or fertilizer and become independent from commercially available solutions.

Farmers should also benefit from better storage facilities and conservation methods for fresh produce to avoid post-harvest losses and get better prices on the local market. They need access to basic tools (like simple carts to transport things and bring out animal dung), and better access to radio communications for marketing purposes. Investments in infrastructure (grids, fountains, roads) and especially in agroecological supplies and inputs for the lean season would also be helpful.

Entry Points for Change

- Get men to support the very physical agricultural work
- Promote collective agricultural labor in the community
- Integrate land ownership in the community and household's mentalities
- Access knowledge about agroecological agriculture, including to provide more choice in foods
- Build up storage facilities in order to be able to dry and store products before sale
- Provide access to basic services such as functioning wells, communication networks, functional roads, basic equipments (e.g. carts, transportation)
- Provide support in terms of seeds and better access to local foods during the lean season

Aïssa's strategies and practices are based on basic values of agroecology, i.e. the increase of self-determination as a woman and as a farmer, participation in community life, high agrobiodiversity and economic diversity, increased soil health. Agroecological practice offers her increased income and independence from commodified food markets.

Amina Ally Makame, Tanzania



Amina Ally Makame, is a peasant farmer in Ndumbwe village in Mtwara region, southern Tanzania. She produces on two-point-four hectares of land, one of them given to her by her parents, the other, about fourty ares, by close relatives. She decided to become a farmer while the other family members migrated to the city and were not interested in farming. Amina grows cereals on the one field and vegetables on the other. Besides that, she is keeping poultry. Her farm is located a bit outside the village. She is a member of a cooperative that collaborates with bigger buyers under the so-called Participatory Guarantee System (PGS) certification for organic produce.²

After starting with conventional agricultural methods, Amina has shifted to agroecology through a SWISSAID project. Her products are also being certified via the PGS system. Her practices include soil fertility measures, such as the use of manure, compost and mulching, and organic recipes to repel pests, e.g. neem leaves and chilly. She selects and multiplies her own seed, and she buys rice and maize seed from other farmers in the village.

Water supply and climate variability pose significant challenges. There is a river nearby which supplies water for irrigation. In the months from September to October, though, the water becomes saline, so she has to adapt her production. She is currently experimenting with eggplant. In the months from April to June, the surroundings occasionally suffer from heavy, uneven rain, causing damage to the fields. Drainage channels that Amina has built somewhat reduced the flooding.

² Participatory Guarantee Systems (PGS) are locally focused quality assurance systems. They certify producers based on active participation of stakeholders (rather than paying for certification by a third party) and are built on a foundation of trust, social networks and knowledge exchange. Please also see: <https://www.ifoam.bio/our-work/how/standards-certification/participatory-guarantee-systems>



If she wanted to buy additional land, money would be the limiting factor, as the land needs water access, which is very expensive.

One advantage of agroecological farming, in Amina’s view, is that it has made farming possible throughout all seasons. Thus, food availability and the diet of families have improved. Also, there has been a shift in mindset. Agriculture is now seen by many as a viable business, having produce to sell all year. In Amina’s case, this change has made it possible for her, her husband and her two kids, to move from government housing to her own house. She has purchased her own water pump and she has integrated poultry in her farming. With the income generated from the production of fruits, vegetables and poultry, she can pay for her kids’ school fees. Amina is very much aware of price developments on the local markets. She likes to plan ahead to take advantage of good prices for the sake of nourishing her children she says. Under conventional farming, she had to spend a substantial portion of her revenues for fertilizer, seeds and “pesticides” and she was producing only three different products to sell. Today, she produces three times as many.

Amina is teaching agroecological farming to other farmers to help them enlarge their product portfolio. Amina especially would like to teach more about poultry, because poultry pays off in a relatively short time. Research into and supply with technologies such as biopesticides and improvement of the shelf life of products, the grafting of fruit trees or the cultivation of even more local seeds would be truly beneficial, according to Amina.

Amina takes decisions together with her husband, but she insists that she is more an exception than the rule, compared to her fellow female farmers. Even though these women work hard to provide food for the family, men earn more cash by engaging in export-oriented conventional cashew farming for instance, and they derive power from that fact to decide on agricultural questions regarding the family production and also how to spend the revenues.

Entry Points for Change

- Provide knowledge relevant for agroecological farming, share new techniques and support farmer-to-farmer learning
- Plan the business side of agriculture at the farm level through the study of price developments, anticipation
- Change of mindsets by farmers themselves to perceive farming as a business, based on economic diversity to last throughout the year and good prices, rather than quantity
- Participate in cooperatives and/or women’s production groups

Chathurika Sewwandi, Sri Lanka

Chathurika, her parents and her two sisters, run a small farm in the village Pannala, Kurunegala District, in North Western Province of Sri Lanka. They produce rice and vegetables. The farm is on her father's land. She is also engaged in home gardening to produce food for their household consumption. All in all, her and her family work on three different plots in 10 minutes driving distance, the bigger ones amounting to about 2 hectares (including the paddy rice lands) and the smallest one 10 ares (1000 square metres). Rice is grown on one part, vegetables and fruits on the other.

Chathurika is a lawyer by profession and she is interested in environmental issues and human rights law. Besides the farm, she is working for the Law and Society Trust. In the past she was employed by the Center for Environmental Justice, where she coordinated projects to educate women leaders. She is a part of the Civil Society Mechanism of the Committee on World Food Security (CFS) in Rome, representing the South-Asian sub-region of the Vikalpani National Women organization.

According to Chathurika's experience, the central government in Sri Lanka plays a vital role in every aspect. The Sri Lankan economy was liberalized in 1977 and local agricultural producers had to compete with the foreign traders and importers. As a result, the export-oriented industries became increasingly present in many rural areas and most of those who had been farming before, moved from agriculture to other labor works. Simultaneously, the Green Revolution led to a shift from traditional farming to commercial farming. Further agricultural reforms and incentives were extended: industrial agriculture and mono-cropping was expanded with the use of pesticides and other agrochemicals. Today, farmers are vulnerable from indebtedness, market dependency and other social and economic issues.

Currently, the Sri Lankan government has taken initiatives to ban the import of chemical fertilizer to motivate farmers to move into agroecology. However, the more conventional farmers resist such an immediate shift. On the other hand, Chathurika witnesses that even academics, who would have good options for well-paid white-collar work, turn to farming as a personal choice.

Chathurika's rice farm was started from scratch by her father when she was a child. Her father, who was an education officer at the time, conducted a lot of experiments, working with traditional rice varieties. His engagement led to a second source of income when he started working as a consultant in agroecological farming.

In terms of marketing and sales, Chathurika has contributed to build up an organic supply chain (under a UNDP-run project), which links the family directly to end consumers, locally and in Colombo. The network includes young people who are motivated to give their support because they have an intrinsic interest in agroecology. To organize the value chain, so-called farmer-coordinators use Google docs and Whatsapp to collect and communicate the food orders for the delivery baskets back to the farmers. Chathurika sources the contents from her own farm and neighbouring farms.

One major benefit Chathurika sees in agroecology is, that the diversity of products serves as an insurance against risks. Especially farmers who specialize in cash-crops, tend to invest their resources in one or two products which they hope to sell at a good price. This makes them vulnerable for extreme weather events and falling prices when oversupply is reached. Her family's approach, to the contrary, is to cultivate a variety of fruits and vegetables in parallel, with harvesting times distributed throughout the season.

Her own health, and that of her family, is a great concern to Chathurika. She says that a lot of Sri Lankan products are contaminated with herbicides and insecticides, that their consumption constitutes a health hazard. What she can't produce herself, she buys from fellow farmers at the local farmers' market in town.

Chathurika's family is well educated and resourceful. They have made their engagement with agroecology a cornerstone of a success story. The

fact that the current government wants to go all organic, makes them pioneers on whom such a transition endeavour can build. They

- teach others how to plan a commercially viable production in a sustainable way
- show others how to make organic fertilizer and also how to sell it as a product
- help fellow farmers get access to a green supply chain, selling products directly to end consumers
- instruct fellow farmers how to take part in the PGS (Participatory Guarantee System) organic certification
- support them with record keeping and legal affairs.

Entry Points for Change

- Experiment over and over again. Reduce personal risks through experimentation in farmer networks.
- Build on the promotion of agroecology by the government and provide enough showcases of successful agroecological practice/success stories
- Build upon social networks for the marketing of agroecological products, including participatory certification systems like the PGS
- Sell the product directly to end consumers to cut out middlemen in the value chain and obtain better prices
- Invest in the agroecological knowledge of the peasant and family farming community, strengthen their risk mitigation capacity and their entrepreneurial competence

Rut Mendoza Quiacain, Guatemala



Rut farms on a small piece of land, near the house, that belongs to her father-in-law in Santa Cruz la Laguna, Guatemala. Her father-in-law operates a larger organic farm, where Rut works for free. They also exchange surplus for their private consumption. Rut produces a variety of vegetables (chili, carrots, onions, beans, cilantro, spinach, lettuce, basil), honey and teas like lemon, peach and mint. In addition to that, she produces Kombucha (non-alcoholic drink made from fermented tea) and sells it to restaurants. While local coffee growers, according to her observations, rely heavily on the use of

chemicals, resulting in soil contamination, she uses an organic technique to fertilize her products. She uses fruit carcasses and tree leaves, including acuate and coffee leaves, to make compost and mixes it with her soils. On her own land, Rut observes that the soil has become extremely black since she began using organic practices.

The climate in her area is humid; there is enough water for her production (while clean drinking water is not always available). Rut tries to multiply her own seeds when she can, but she also buys seeds, for example for carrots (a biannual crop which hardly produces seeds in tropical climates).

Rut believes that in her diet, herbs and vegetables from her own organic production are the most important, as they provide benefits to the body and are not contaminated with “chemicals” like conventional foods from the store. In addition, she buys corn and vegetables that she cannot produce herself, or some potatoes, meat, coffee, salt and sugar.

The income generated by her farming activity is in addition to the money Rut earns as a nurse. Since her income is insufficient (for a woman 3.78 USD per day), the farm-income is essential.

Rut sells her excess produce which she does not need for private consumption, either to hotels near the lake or to the community. For the community she sets the prices in agreement with the community members, depending on how rich or poor they are. Therefore, on the local market, she is unable to demand an adequate price which would cover for the labor intensity of her organic production. The tourists in the hotels, on the other hand, are willing to pay a lot for organic produce, because they know that it is of superior quality. Rut is an avid book-keeper on savings and expenses and she knows that she has to propose customized products: She tries and brings the tourists what they want, like special drinks based on different teas for instance. She also tries and works on the way she presents her products. Ultimately, the tourists are willing to buy produce that doesn’t look perfect as long as it is organic. In her own community, perfect size and appearance of vegetables and fruits are still considered a sign of nutritional quality. In addition, such produce is sometimes easier to process.

Until recently, Rut’s community suffered a lot from domestic violence and women were afraid of thinking or doing anything that their husbands would not approve of. Since the implementation of a

community-based program on the (human) rights of women, relationships between women and men have greatly improved. Becoming a farmer has also brought about a significant change in Rut's life. She can see herself as a person who wants to learn and improve the quality of life for herself and her children. Being able to earn her own money, judge for herself and teach others how to engage in a healthier lifestyle, while respecting nature, has helped her break out of patriarchal community structures.

Entry Points for Change

- Promote women's rights on integrity and economic independence within the households and the community
- Raise the local consumer's awareness of the benefits of organic food
- Expand the consumer base to reach those who pay a fair price (in addition to the local market)
- Invest in bookkeeping and a business plan, e.g. try and save money to reinvest into the products in terms of value addition and marketing

Anne Chenevard, Switzerland



Anne Chenevard owns a medium-sized dairy farm in Corcelles-le-Jorat, in the heart of the Swiss hills, where she raises about 40 cows at 800 meters. She bought the land from her father. The location of the farm is, according to her, rather privileged. There is enough water in the area and climate change is not a pressing concern as long as there is enough diversity in production, she says. For her family's consumption, Anne has a large garden with vegetables and fruit, and she keeps chickens.

Anne's production is not agroecological, but she practices "integrated production" ("Integrierte Produktion – IP"). She has managed to reduce the use of antibiotics by half in recent years.

Anne's main product is milk (600 liters/day), but she also grows cereals to feed her cows, which graze more than half of the year. She grows eight different varieties of cereals, which allows her to be self-sufficient in terms of fodder (the minimum required for Swiss farmers is four). She is committed to conservation farming, which works without tilling to let the soil rest as much as possible. This method still requires the use of herbicides, though. Yet, Anne does not use insecticides or fungicides

in her farming practices. To process the grain, she uses the services of a local mill that belongs to a cooperative of which Anne is a member. Some of the seed must be purchased, but some can be taken from her own crop. In Switzerland, farmers can multiply their own seeds, which is called "the farmer's privilege". The use of farmer's seed is only allowed for production on-farm, it cannot be sold to third parties. In addition, the harvest from these seeds cannot be sold and must be consumed on the farm.

Anne has one employee and one employee on a seasonal basis. Her father also worked on her farm until his passing a short time ago. Anne had to take a break from her nursing job, as taking care of her father and the farm kept her at home full time. Nursing accounts for up to 40% of her income and allows her to pay her employees and make small investments. Another advantage is that it allows her to escape from time to time and keep in touch with other social circles.

A major challenge for the future is the economic sustainability of the farming business. In Switzerland, many farms go out of business every year.³ In terms of future improvements, Anne believes that the main challenge is to establish higher prices for farm products in the end consumer market. A general change of mindset is needed. Local farmers, especially small family farmers, deserve more recognition as providers of diverse food to the population through an agriculture that often weighs less in terms of environmental pollution. Policy could support this by issuing vouchers with which people can buy local food. In terms of marketing and organizing value chains, consumers need to be assured that the extra money will go to producers and not elsewhere. Anne believes that it is easier to set higher prices for products that people associate with a positive image, such as milk, and more difficult for chicken, for example, which is unfortunate.

Anne also relies on government support. One third of the farm's gross income comes from direct payments with which the Swiss

³ In Switzerland and elsewhere, the fact that large farms put small farms out of business seems to be a development the respective government is willing to accept. For Sub-Saharan Africa, see: Bryceson D.: Gender and Generational Patterns of African Deagrarianization: Evolving Labor and Land Allocation in Smallholder Peasant Household Farming, 1980–2015. In: World Development 113. 2019, pp. 60–72. (final draft before publication)

government supports its farmers. Financial support is one side of the coin. Bureaucracy and regulations are the other side. Anne knows many examples of this: “There are no exceptions to the rules. If the rule is that the cows have to leave the barn on thirteen days per month in winter, it also applies when there is two meters of snow and the cows don’t like to go out. There are countless examples that are simply not well rooted in our daily realities.”

Another challenge is the fragmentation of land in the hands of many owners when a farm is sold. For newcomers, this makes it almost impossible to establish themselves as farmers. The law requires a minimum size for farms to be officially recognized.

Some of the buildings on Anne’s farm need renovation. Unfortunately, she cannot afford to do so, as building materials are expensive. It is also not possible for her to save enough money at the moment.

The gender issue is also present, although to a lesser extent than for the other women mentioned above. When her father decided to retire, Anne recalls, it seemed strange to him to hand over the farm to his daughter rather than to his son (who, however, was not interested in farming). “A woman in agriculture often does not have the same status as a man,” says Anne. “But things are changing. For example, in our agricultural schools right now, there are more girls than boys in apprenticeships and they will soon take over.”

Anne relies on advice from outside private or public agricultural development officers about new machinery, farming techniques or even animal feeding. She appreciates the sharing of expensive technical equipment among farmers in the region, whom she pays for their services, and whom she knows personally. Trust between farmers is a factor that plays a crucial role, according to her. It allows them to remain independent. For example, when it comes to choosing the right seeds and defining the strategy of her business, she would not like an external agent to do it for her.

Going organic is not an option for Anne as the organic milk market is already oversaturated in her opinion. The extra effort needed to produce organically is no longer compensated by an appropriate price premium.

Anne would appreciate a government policy that supports the productivity of small family farms and encourages them to produce, rather than plant trees and import food for Swiss consumers. These imported products are often produced in total disregard of any sustainability standards, she believes.

Entry Points for Change

- Pay fair prices for agricultural products directly to producers. National policy must put a price on the environmental and social damage of imported products, which in comparison makes properly produced Swiss products cheaper
- Pursue a policy that favors a more diversified production at smaller scale.
- General change of mindset regarding the appreciation of farmers’ service to society, e.g. provide social protection and security.
- Invest in consumer literacy, so that they can perceive what sustainable production is

Kathrin Lenz Raymann, Switzerland



Kathrin is an organic farmer in Fischenthal, in the countryside near Zurich, Switzerland. Kathrin started her farm with her husband. She was able to purchase a small piece of land, one hectare for crops and livestock and one and a half hectares of woods, because they both had savings from other jobs. Kathrin, who holds a PhD in political science from the University of Zurich, completed a two-year training course and an additional two years of practice in order to be accredited as a licensed farmer, entitled to financial support from the state. Kathrin received support from a consulting agency that specializes in advising farmers.

The farm produces vegetables and fruit as well as wool, milk, sheep meat and poultry products. While Kathrin’s initial goal was to become self-sufficient for her family’s consumption, she began selling surplus produce to neighbors, leasing additional land. Dairy products play a minor role, as small farmers in the hills can hardly compete with those in the plains. For irrigation, the farm benefits from a nearby well.

Maintaining old breeds of poultry (which provide meat and eggs) and sheep (which do not produce much milk but are used for meat, wool and fur at the

end of the animals' lives) is part of her philosophy. This diversity makes it possible to breed, produce and not depend on international companies for genetic resources. The collaboration with Pro Specie Rara⁴ helps her maintain agrobiodiversity, which is an advantage when it comes to marketing the meat and eggs. Kathrin observes that on the one hand, traditionally bred sheep are healthier than modern breeds, but on the other hand, old varieties, for example in plants, are sometimes more vulnerable to pests and more difficult to cultivate.

Whenever possible, Kathrin multiplies her own seeds (lettuce, soybeans), the rest is purchased from local companies.

Kathrin sells directly to about fifteen to twenty local customers in her village on a personal basis (through egg subscriptions and orders via Google docs). According to her, her small plot of land allows her to nourish many more people than is usually claimed in the literature on small scale organic agriculture.

To supplement the family income, Kathrin's husband continues to work in construction. Kathrin also has a second job (she has joined the consulting agency that helped her build her farm).

When it comes to feeding herself and her family, the most important thing for Kathrin is, that she can produce as much as possible herself. For the rest, she buys from people she knows and trusts. Malnutrition, she says, is very prevalent in the Swiss suburbs, with a high prevalence of poor and socially less advantaged families.

Among the challenges Kathrin faces, policies play a major role. Current policies in Switzerland, she says, hinder small farms because they have difficulty being officially registered (which means being allowed to build farm buildings and receive direct payments by the government). Once registered as a business, they have to deal with a lot of bureaucracy and regulations.

For the future, both personally and for other small farmers like her, Kathrin would like to see strict animal welfare rules extended to imports. This would make local production more competitive

on the domestic market. Current direct payments for agricultural production should be replaced by direct support to families to buy good quality food and pay a fair price for food production. Agricultural direct payments by the government should stop favoring large production sites and instead provide incentives to raise fewer animals per unit of land. It is positive that farmers receive public money for services like the maintenance of landscapes or traditional breeds.

Kathrin thinks that publicly funded research and development by reputable organizations could be a great help, especially for small farmers, as they could become more independent. Many of her colleagues, she says, feel under a lot of economic pressure and don't have enough training to make their own production and business plans. Instead, they tend to follow the advice of commercial actors with vested interests.

The prime impulse for change, according to Kathrin, has to come from the farmers, who must stop to see themselves as victims and instead must articulate their demands and claim support from society and politics.

Entry Points for Change

- Change society's mindset regarding its appreciation of the services provided by small farms
- Change the mindset of small farmers themselves so they speak up and change policies
- Amend national policy to better value a diverse, national smallholder production through higher prices
- Reorient direct payments towards diverse, resource-efficient smaller scale farms, rather than deliver payments to increasingly larger, intensive or extensive production sites
- Support local networks in the establishment of local value chains
- Share advice, information and training for and among women farmers
- Publicly fund agroecological research, including farmer-led research

⁴ Pro Specie Rara is a Swiss label which seeks to work with farmers to conserve rare or almost extinct plant varieties and animal breeds. <https://www.prospecierara.ch/projekte/projekte-detail/projekt/die-samenbibliothek-unser-herzstueck.html>

The Findings

Support the Thrust for Autonomy

The main thread through these different biographies is that all six women work towards increasing their autonomy. They seek self-determination as individuals on the one side, and as farmers on the other. At individual level, they strive to become more independent from the customs and laws that restrain them in their local contexts, they seek independence from their husbands and/or from people with skepticisms about their competence and capabilities as women. As farmers, the women also aim to extend their thrust for emancipation to their marginal position in existing food systems. Five out of six women have found a way to do so in building on the emancipatory potential of agroecology. Agroecological practices are very helpful in this regard, as they allow to produce highly nutritious diverse food to nourish their families and to generate income on local markets, based on self-determination and an increase of collective organization, instead of competition. Such a farming system keeps away from lock-ins and dependencies on costly inputs and volatile food commodity markets as these dependencies present a risk to the farm and livelihood. This is consistent with scientific studies demonstrating that agroecology helps developing ecologically healthy, socially cohesive and economically viable and less commodified agroecological territories (Van den Berg et al., 2021) and thereby supports the farmers' autonomy (Van der Ploeg, 2014; Dumont et al., 2013). Finally, all women are innovative and claim independence in the way they interact with their consumers. Ultimately, any policy intervention that intends to strengthen these women farmers, will have to take their thrust towards autonomy into account.

The following chapters shed a light on potential levers to support these food systems.

Autonomy as a Woman and as a Farmer

Rut answers the question about why food security and prosperity have improved in her community as follows: "The quality of life for the families has improved, because women were trained and can work and defend their rights now. Men were also trained and understand that women are right-holders." Before, systemic violence perpetuated by men against women and children in her community in Santa Cruz made the women passive and increased their dependency on their husbands.

Physical and mental integrity is a precondition of development. According to Rut, a recent program about women's rights was able to deliver important improvements. Since then, women have been learning that they are entitled to earn money and dispose of their own income and live a life free from violence. Men were trained to be able to see the positive aspects in their wives' and daughters' increase in autonomy and the fact that they generate a revenue.⁵ In Rut's case, investing in the most basic autonomy, physical and mental integrity, was a prerequisite for her and her community's realization of the Right to Food.⁶

The stories of Aïssa and Chathurika show that there is a close relationship between treating women as right holders and their autonomy as farmers. However, one does not automatically lead to the other: While Aïssa has inherited land from her father, local custom hinders her from acquiring more land, bigger plots or even produce more on the existing plots due to lack of labor support. As Aïssa puts it: "You know, in our place, at our village, there is a problem of land. The plots are not sufficient, even for the women (...). Even if they give [land] to the women for inheritance, it is a small plot that she is given to do her activities". These barriers exist despite national legislation easing access to land for women (like in Tanzania or Niger). While a legal frame guarantees women access to inheritance and land, without which

⁵ For more on how to prevent domestic violence through community-based interventions, see the upcoming paper supported by SWISSAID: Hayter M., Lee A., Dixit A.: Experiences of Domestic Violence Prevention Interventions and Gender Equality Promotion Work: A Qualitative Study of Nirdhar Groups in Rural India (under peer review).

⁶ The right to adequate food is realized when every man, woman and child, alone or in community with others, has physical and economic access at all times to adequate food or means for its procurement. It therefore takes a food security perspective from the point of view of an individual right holder. Food security in fact exists when all people, at all times, have physical, social and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life. The four pillars of food security are availability, access, utilization and stability. The nutritional dimension is integral to the concept of food security. Also see: <https://www.ohchr.org/EN/Issues/Food/Pages/AboutHRFood.aspx>



they would legally not be able to farm, this frame needs to be matched with the creation of a mutual understanding of the unalienable rights and needs of women and men at the community level. If the communities and households don't reach such an understanding, any law will be interpreted in a way to disadvantage women and limit their autonomy as farmers. Achieving such an understanding may well amount to a permanent negotiation in the households and in the communities. Without sensitization and support for such a negotiation in each family however, the realization of a right to adequate food cannot take place.

Barriers to land access are also faced by women in Sri Lanka, where Chathurika's mother could only acquire land property because it fell under private rather than public land legislation. 80% of Sri Lankan agricultural land is public and until recently, it has de facto not been possible for women to access it. While this has changed at the policy level, women still need to know that they are now entitled to access such land, which is why Chathurika and her association inform them of this option and how to go about it.

Women in Switzerland clearly face less obstacles when they choose to become self-employed as farmers. They can enact their basic human rights and have access to land. Nevertheless, as Anne's example shows, they have to prove their competence to their family and/or local community before they will be trusted and supported.

Autonomy Through Agroecology

Five out of the six women are producing in agroecological fashion. They produce a great diversity of fruits, vegetables, cereals, pulses, meat and even a little dairy. While agroecology as such has sometimes been taken up as a personal endeavor, e.g. in the case of Kathrin and Chathurika, it has also been brought to the community by external partners like SWISSAID or other NGOs, or development partners in the case of Rut, Aïssa and Amina. The women practicing it are convinced and proud of the diversity of products the agroecological production system allows them to obtain on a given piece of land. It serves their economic needs and even their climate change risk mitigation strategy as entrepreneurs, as also shown by Snapp et al. (2021).

Engaging in agroecology has allowed them to become systematic about which plants to combine or to integrate with small livestock, what seed and breed to keep and when to plant what in the face of increased climate variability. The emancipatory power of agroecology lies in the fact that they are increasingly in control over their agricultural systems, so that they can consciously manage the ecological processes at work in and around their fields for year-long food availability and stability of supply. To obtain this level of control over their production, constitutes a prerequisite for the women to be able to successfully implement the Right to Food.⁷

⁷ On the links between agroecology and the implementation of the Right to Food, see: De Schutter, O.: Agroecology and the Right to Food. Report presented at the 16th Session of the United Nations Human Rights Council [A/HRC/16/49]. 8 March 2011.

As Amina says: “Previously, women were farming randomly, but now food availability has improved, because they have been trained in different techniques to help ensure food throughout the year. Before, (...) it was mostly men who were farming, they could do farming during a single season of the year. Women were not much involved. After getting education and agroecological know-how, women went on to do farming throughout the year. Agriculture is now seen as a business that allows for a better life; it is a new mindset.”

For all six women, the argument of saving the money they would be spending on synthetic inputs and feed is of great importance. They have used those savings to support their families (e.g. to pay school fees for the kids), invest in essentials, such as housing or in their farms (e.g. by buying more animals to be able to use their dung on the fields, or to use their eggs and milk for a better diet).

Once the women have become farmers, they rely on their men as those who support them. Agriculture and especially agroecological practice involves increased, hard labor in the fields. Aïssa says: “If the men are on board, the women are capable of anything.” For Aïssa, the mobilization of male labor is the most important leverage to truly support her as a farmer. She is therefore positive about the recently initiated masculinity groups in her community. Again, the men discuss the importance of respecting their women in their own right; they realize that they don’t have to feel threatened by them earning an income and ultimately, they accept their women’s farming practice and support them in their field labor.

Agroecology makes it even more pressing for women to stand up for their rights and negotiate their power space to be sure to count on male support. It is labor intense. Kathrin has endless discussions with her husband, who would more often than not, resort to synthetic inputs or go for increased specialization. Aïssa, on her end, is adamant about how she negotiates with her Chef de famille about him supporting her: “I tell him that my income is income for the family.” Agroecology is therefore a double motivation for women to aim at higher levels of self-determination, recognition, economic and productive autonomy, fueling eventually more equal gender relations. This is consistent with scientific evidence provided by Arias et al. (2013).

Respect the Choice that Health is Key

The reason why the women in our study are in agriculture is not because they had to by default, but because they wanted to. As the case of Amina, Aïssa and Anne shows, even the women born on a farm made the active choice to take up farming. Their siblings, females and males alike, preferred to take on other jobs. The women therefore had a motive (or several important motives) to engage in agriculture and these motives are likely to drive their agricultural choices.

Aïssa, Amina, Chathurika, Rut and Kathrin originally became farmers because they took an interest in professionalizing the provisioning of healthy diets. Their interest has made them progress and experiment with different crops and practices until reaching a broader and diverse, healthy portfolio, able to ensure sufficient food. This is in line with the most recent findings regarding food security and agroecological production by Bezner Kerr et al. (2021). Anne, who’s production is less broad and more specialized in dairy production, puts a strong focus on nutrition, too. She cultivates her own big garden with vegetables and fruits, and she raises hens to be able to eat their eggs (she doesn’t sell any of them). From her dairy cows, she retains just as much meat and milk as needed to nourish her family.

The beneficiaries of these healthy diets are not necessarily in the core family. The women put their services and knowledge to use for the wider community. For Aïssa in Niger, where hunger and undernutrition are still very common, the objective is that the children should grow healthily.⁸ To that aim, over 360 women in Aïssa’s village have been collectively working on a 15-hectare plot – next to their respective own smaller plots – where they are planting vegetables and maintaining fruit trees. Together with the cereal that is produced outside of the lean season, and little amounts of milk and sheep or goat meat as well as the medicinal herbs, nutrition and health, especially of the children, are improving. Aïssa calls this improvement the most important change in her life over the past ten years, even though none of these children is her own. The aim to deliver healthy food has made Kathrin, the Swiss with a PhD in political science, change her career and choose farming as

⁸ Her and Rut in Guatemala produce food and they also produce medicinal plants. In addition, Rut also works as a nurse.

her profession. She has become a very successful, almost entirely self-sufficient organic farmer today and delivers her produce to a circle of 15–20 very trusted and loyal neighbors, beyond her direct family.

The women clearly demonstrate that it is the most natural thing for them to think “healthy diets” and to think diets systemically, in terms of health, agriculture, nutrition, water, sanitation and the environment. They live their everyday lives in the intertwined realities between these domains, while policy makers, food research and the industry are still talking about isolated, short-lived solutions touching upon only few of these sectors.⁹ In reality, these sectors are so closely connected, it sometimes is a lot to bear: It anguishes Rut when she sees that she is undertaking these efforts for organic food production in her community, while the local government is not making the effort of providing clean drinking water. As a result, people still get sick.

⁹ The experts of IPES Food and others have critically called these very technical approaches “nutritionism”.

As opposed to the trend of singling out micronutrient deficiencies and treating them with supplements, fortification of foods and biofortification¹⁰, and against the common idea that especially poorer people need social protection programs with built-in nutrition packages, the women aim for a systemic approach to healthy diets for their communities. With regards to supplements and fortification, all the women we spoke to have one answer: “With the food we produce, we don’t need that.” Anne adds: “We call these supplements *Alicaments*” (ironic combination of the words *aliments*, which is French for food, and *medicaments*, which is the French term for pills/drugs).

Human and Environmental Health, Two Sides of the Same Coin

Healthy food and an intact natural resource basis are two sides of the same coin. Chaturika puts the significant link between healthy food and a healthy environment into words when she says: “The most important change in my life over the past ten years

¹⁰ Rocha C. on behalf of IPES Food: Framing the Nutrition Problem: The Political-Economic Obstacles to Healthier Diets. In: UNSCN News 43, 2018.



has been the fact that my family now produces their own food for their consumption and does no longer rely on the market and a production based on too many pesticides.” Coming from Sri Lanka, she knows what she is talking about. Since the Green Revolution, the country has had a very high use of some of the most toxic pesticides, especially in smallholder, poorer contexts, where people haven’t got the means to protect themselves and don’t necessarily know how to safely use them.¹¹ The health risk posed by synthetic phytosanitary products is her key motivation to opt for environmentally friendly, agroecological practices.

The same thinking is behind Rut’s organic production. In her region in Santa Cruz in Guatemala, the soils are polluted by fertilizer and pesticide residues from the intensive production of the *cafeteros*, the coffee farmers. She thinks that she can only produce unpolluted, healthy food from unpolluted natural resources. Aïssa who, together with her parents, has invested 20 years of work to make her arid desert soils more fertile, puts it that way: “We work for environmental construction [not destruction]”.

When we asked the women whether they would like to be supported through packages of synthetic inputs and high-yielding seeds, the answers were as follows. Aïssa said: “We don’t want to change, we want to remain independent, otherwise we have to go somewhere else every time to get [fertilizer]. We don’t need synthetic products. Chemicals are not recommended even by the family heads and the community [...] there are several kinds of trees under our noses that are as good as pesticides.” And regarding high-yielding seed: “We had an experiment with beans brought in by the state that lasted only one year. It was a bad experience, because it destroys even the local varieties.” And Anne adds “it would destroy valuable existing seed (including certified seed) [because of cross-contamination]. Instead, Monsanto and others would impose their seeds which are not adapted to the circumstances, like local preferences, so well.”

¹¹ Knipe D.W.: Pesticide Exposure in Sri Lanka. International Journal of Epidemiology, 45(2). 2018, pp. 327–332. More on this in: Padmajani M.T, Aheeyar M.M.M. and Bandara M.M.M.: Assessment of Pesticide Usage in Up-Country Vegetable Farming in Sri Lanka. HARTI Research Report No: 164. Hector Kobbekaduwa Agrarian Research and Training Institute, Colombo, Sri Lanka, 2014.

The women are extremely proud that they can cultivate such a diversity in domesticated and wild plant species. Enhancing agrobiodiversity becomes an objective of its own. Amina says she has gone from producing three kinds of crops while she was a conventional farmer, to producing three times as many in agroecology.¹²

Sometimes, the solution to produce in harmony with the surrounding ecological processes was found long ago and is well researched: For years, Chathurika’s family has been practicing the System of Rice Intensification (SRI), where they make sure that young rice seedlings are replanted early, with sufficient space in between them, so as to reduce competition for sunlight and nutrients, which results in higher yields. In addition, Chathurika’s family leave grass strips around and between the rice fields to attract insects and enhance biodiversity. The system is well researched, and it works out very well on the family’s farm now, but it has taken her dad years of experimentation with traditional rice varieties to come to these results. Oftentimes farmers are the key researchers for their own farming systems, experimenting with different practices and breeds, constantly optimizing the ecological processes at work in their farming systems. This means taking risk, which is why it makes sense to engage in co-creation of knowledge, rather than experimenting individually, repeating trials and errors one by one. What sounds convincing is not always easy: Aïssa’s voice sounds disillusioned when she says: “We have a very good onion variety, very delicate and sought for on the markets. We are trying to multiply that seed, but it doesn’t work because the others in the community don’t wait long enough for the onions to bloom, before letting their animals graze in those fields.”

More knowledge and support in experimentation to provide healthy diets is a strongly recurrent topic. All the women are longing for more know-how and further development of their competence in general and around plant breeding in particular. Climate change has made this topic even more urgent. Because of the high agrobiodiversity on

¹² Studying agricultural performance after extreme climatic events in the last two decades shows, that resiliency to climate disasters is closely linked to the level of on-farm biodiversity. For more on this link, also see: Altieri M.A., Toledo V.M.: The Agroecological Revolution in Latin America: Rescuing Nature, Ensuring Food Sovereignty and Empowering Peasants. In: Journal of Peasant Studies, Vol. 38, No. 3. 2011, pp. 587–612.

these farms, however, they also maintain that they feel rather prepared for the changing climatic conditions.

Providing healthy diets is a professional choice and a way of life. When women are solely described as carers who had no other choice but to work in agriculture to provide food for their family, their autonomy and their political voice remain unheard. The six women farmers' view on opting for sound environmental practices, is further to be seen as a coherent choice with their focus on healthy diets. For them, farming is not just about the health of individuals, plants and animals, but also about an entire, interconnected system of natural resources and healthy peoples.

In this very search for a production that supports the environment and the community, lies the women's strong rejection of imported food and feed, or even just food and inputs where they cannot know how it was produced. This is noticeable in the statements of all six women. Anne, for instance, does not want to rely on imported soy as she does not want to contribute to deforestation or land grabbing, harming local farmers elsewhere. And as Kathrin puts it: "I can buy [cereal] from people I know. Trust is a big factor; I want to be sure how something has been produced."

Invest in Solidary Economies, Pay for Quality Food

So, what do the six women farmers think of the core of SDG 2, saying that they should be enhancing their productivity?

Rut puts it that way: "To produce more, it takes dedication and experience. I have to produce more organic fertilizer and grow more products, but I also need the know-how to produce nice etiquettes, produce vegetables that stick out, like veggies in vinegar or things like that. I try to make lemon tea for instance and Kombucha de Jamaïca, for example. I try to do what they [the tourists] like. However, there is tough competition around business with the tourists in Santa Cruz. And it is hard to step up the effort to find new consumers who pay a good price."

The productivity of their land is already impressive for all these women, measured by the diversity and number of foods they are able to offer, often on as little as one to two hectares. On the input

side, they make significant savings, because they don't have to buy any synthetic inputs on highly volatile markets. Because many of the women still have trouble accessing more land and because more land doesn't make sense as they do not dispose of more labor force, most of the women rely on getting a better price for what they offer.

On the one hand, they rely on the proven method of women's producer groups and cooperatives. Aïssa and Amina pool resources for their vegetable and fruit production, and that way, they keep the labor costs low and add value to fresh produce by collectively drying it and selling it when the market price is right. In Amina's case and Chathurika's case, they recur to the Participatory Guarantee System (PGS) to be able to label their produce as certified organic products.

Even more promising, however, are direct sales to end consumers. Thanks to the support from UNDP, Chathurika's family has been able to build a value chain from their fields to customers in Colombo. Again, through a solidary approach, they have gained the interest of their fellow farmers to be able to put together an interesting offer of fresh produce that shall reach consumers in the city in time. No contracts are written up, any farmer can withdraw at any time. If they do participate, in return for their produce, they are taught agroecology by Chathurika's family as well as how to acquire the PGS label. They receive the organic fertilizer Chathurika's family is producing for their common production purpose. Finally, they have some planning security on the basis of the crop plan the family draws up for their Colombo business. "It is a win-win situation" as Chathurika says. She trusts that the farmers remain engaged because they do not face the risk of being locked-in into this arrangement with Chathurika's family and because they get a lot of service, including a better product price, out of it.

One could think that enhancing productivity in Switzerland is a completely different matter. But Kathrin and Anne, one an organic and one a conventional farmer, couldn't agree more with the strategies of Aïssa, Amina, Rut and Chathurika. Both Swiss farmers would not be able to work more or pay for increased labor efforts. It therefore doesn't make much sense for them to try and expand the land they farm, if, at the same time, they also want to keep up the land productivity and the high quality of their production. Furthermore, as Kathrin says, "Swiss agriculture is maxed out, any increase in productivity comes at high economic and environmen-

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tal costs.” She provides an example: “If I work with animal breeds that produce even more meat or milk, then I also have to feed them with more specialized feed, including soy, which comes at high cost for me and for the environment.” That leads to the situation that only bigger farms follow such a specialization strategy, ultimately putting smaller, more sustainably working farms out of business. Investing in specialization and technology to enhance the input-output balance can therefore jeopardize the achievement of the Zero Hunger Goal and the realization of the Right to Food for thousands of rural people, rather than support it.

The leverage point is a product price that reflects the quality and real costs and benefits of an increasingly agroecological, sustainably SDG-compliant production. Anne has built up the association Fairlait to that aim, so that consumers can pay a fair price per liter of milk that directly goes into the pockets of the producers. Kathrin works with the Swiss organic label BioSuisse, and she breeds traditional dual-purpose animals under the Pro Specie Rara label, which pays more than if she produced without such labels. Her dual-purpose breeds produce less milk and meat per animal,

but they do provide both as well as manure, while being significantly less high-maintenance and in better health than high performance dairy or meat livestock.

Ultimately though, both Swiss women see labels as niche markets, reliant on a broad and wealthy customer basis, ready to pay for the positive aspects (the so-called positive externalities) of that kind of integrated, agroecological production. This is not ambitious enough, they reckon: What would truly make a difference for farmers who farm sustainably, is to also make unsustainable farming and inefficient use of natural resources cost way more, instead of directly and indirectly favoring them. That way, poorer and wealthier customers alike would be put in a position to support sustainability and our female farmers.

Finally, breaking off the oligopolistic market structures that imply a very unsustainable distribution of the margins among farmers, agro-industrial processors and retail supermarkets could serve the same purpose. For Anne, we are at the heart of the problem here: Even the benefit of the considerable financial support to farmers in Switzerland



doesn't stay with farmers. Processors and retailers put so much pressure on the prices of the farmers' produce that it becomes increasingly impossible for these farmers to cover the production costs incurred without governmental support. Farmers become dependent once again, this time on state support and taxpayers' money, while the profit margins of retailers and processors are increasing.

The women make it clear: The leverage lies in customer literacy about the benefits and costs associated with agroecological food production. Governments, however, must take on responsibility where private consumers cannot go any further: Environmentally and socially detrimental food production needs to be regulated and become way more costly.

Change Policy, Tweak Markets

Create Space for Farmers

The six women are giving us insight into food systems which are run in a rather holistic way, where care for social cohesion and well-being of humans, animals, plants and the environment are at the heart of the entrepreneurial spirit. At the household and community level, this is an ideal starting point to reach the SDGs. How can these systems be strengthened through policies, governance measures and institutional action to become the new normal?

The women have important answers to this question. They point to important gaps that need to be filled to get the SDG clockwork of such agroecological peasant and family food systems running. How can we act on such shortcomings? Who has to act and how?

An active role seems to lie within the communities themselves, supported by their local authorities. Faced with the question what role farmers themselves should take on to enable a transition towards a multitude of well working localized, agroecological spaces or food systems, all six women agree: They are the central change makers. "We farmers are the beginning and the end of it" as Amina coins it.

To the women, that is also how they would distribute the remaining pieces of that "responsibility", i.e. the remaining roles to governments, research actors and NGOs, and the private sector: The first rule remains "Give space to farmers' independence", says Chathurika.

According to her, in the context of Sri Lanka, this implies two things: Firstly, farmers need to be free to get acquainted with an alternative environment and different options to their current conventional practice, so that they can even imagine breaking out of conventional input and buyer dependencies. As an example, she mentions that her government is looking into collaborating with the International Federation of Organic Agriculture Movements (IFOAM – Organics International) to roll out the Participatory Guarantee System (PGS) through local authorities. By doing so, PGS will become more accessible, will strengthen farmer-to-farmer exchange, and provide an affordable organic label that end consumers pay a justified, higher price for. Seeing such an organic value chain work, may convince conventional farmers to transition.¹³

Secondly: Policy makers and other actors need to "be aware of the hardship", of farmers, for instance of those, who are currently protesting against the Sri Lankan organic law. Chathurika's most central concern is, she says, that her fellow conventional farmers be given support, both practical and financial, for the transition, in order not to be ruined or pressured into new dependencies such as debts.

To sum it up: The government should support an incremental approach: agroecological production and consumption needs to be invested in, it must become financially interesting and reachable for conventional farmers. That also entails investing in agroecological research and practice through governmental and non-governmental channels to provide access to agroecological knowledge for these thousands of farmers who are currently in conventional farming. Ultimately, they must be accompanied with research, practice, financial support (because of partly heavy levels of indebtedness, dependence on volatile markets, technical dependence of synthetic inputs). These steps come even before the government should prioritize bans on phytosanitary products and fertilizer, for instance.

These aspects are in line with scientific evidence that clearly shows that the most effective way of up-scaling agroecology is to interlink single farms

¹³ Another example may be the Swiss direct payments to farmers to foster their transitioning into certain agroecological practices. This system, however, has gone too far according to Kathrin and Anne, who ironically say that farmers are paid to maintain gardens and birds where there has once been productive agriculture.



in terms of creating agroecological territories, allowing them to become a target of multidimensional public policies aiming at solving or alleviating direct and indirect practical, economic and structural constraints for enhancing agroecological food systems (Van den Berg et al., 2021).

Enhancing Agroecological Research not for, but *With Women Farmers*

This point voices the request of all women interviewed: the request to invest heavily in agroecology research. Not in prefabricated recipes, but in farmer-led research and practice around agroecology. For instance, the women would like to see more support and follow-up in their selection and multiplication of farmer's seeds, to be able to function to their full potential.¹⁴ Such accompaniment also entails a regular follow-up and facilitation of negotiations within the communities over crop and pasture plans for instance. Supporting a shift from mono-disciplinary, mainly economic productivity-based research to inter- and transdisciplinary research through and by farmer associations or farmer field schools can help to achieve this important goal substantially, as shown by Pohl et al. (2010).

Make Localized Food Systems a Priority

What the government of Sri Lanka is demonstrating and what other governments have done beforehand – like for instance in the state of Andhra Pradesh in India with Zero Budget Natural Farming (ZBNF) – is

¹⁴ For an overview on the concept of farmer-led research on seeds, see: Gómez T.A.: Guía metodológica para la investigación participativa en producción de semillas criollas y nativas (unpublished, 2021).

rather strong leadership, implementing what these countries and regions perceive as their food sovereignty. The women acknowledge that. All of them expect leadership by their governments on agroecological farming. To them, however, that includes a commitment to diverse smallholdings, to the food production of all the groups involved in the agricultural landscape under consideration, such as landless laborers, pastoralists and herderers, fisherfolks, indigenous people.¹⁵ Kathrin makes a strong point that many governments are still oriented towards a formal definition of “farm”, based on the intensity of farming, which leaves out a great many people in agriculture. Such definitions and underlying concepts must be changed to build on local groups of people in agriculture to ultimately implement the Right to Food. If they remain beneath the radar, they go empty-handed with regards to support and their food system innovations are not picked up on.¹⁶

¹⁵ On the links between agroecology and indigenous people's ancient knowledge systems, see: Pimbert M.P., Moeller N.I., Singh J. et al.: Agroecology. In: Oxford Research Encyclopedia of Anthropology. Oxford University Press, 2018. Article published August 31, 2021.

¹⁶ To see a good example of how to take the time to design truly inclusive policies for food systems that can span over landscapes rather than just the farm level, see: Haller, T., Acciaioli, G., Rist, S.: Constitutionality: Conditions for Crafting Local Ownership of Institution-Building Processes. Society & Natural Resources, 2015, pp. 1–20. Haller, T., Belsky, J.M., Rist, S.: The Constitutionality Approach: Conditions, Opportunities, and Challenges for Bottom-Up Institution Building. Human Ecology, 1–2, 2018. And here: Pimbert, M.P.: Diversity and Sustainability in Community-Based Conservation. UNESCOIIPA Regional Workshop on Community-based Conservation, India 1997.

To support localized agroecological food systems that safeguard farmer's autonomy, governments need to interfere in the market to protect domestic agricultural production against the price pressures and price volatility of international markets. Indeed, where farms must become ever more productive to survive the competition of farms from completely different countries and contexts, they are driven into unsustainable practices, either by enhanced pressure on their income, safety and integrity, or by making them compromise on their autonomy and the social, environmental and economic benefits of their farming, both of which goes against the core of the Agenda 2030. This is strongly felt by Kathrin and Anne in Switzerland, who therefore claim more protection of the local market through more ambitious environmental and social quality requirements for imported agricultural products and goods. It is further felt in Niger by Aïssa, who travels far to buy expensive imported food staples during the lean season, and who would like to be able to rely on her own or at least domestic food staples instead.¹⁷

The government's market policies must be extended to regulating multinational agri-food companies to protect the farmer's autonomy through increasingly localized agriculture and food businesses. When we look at the critical example of seeds, the farmers interviewed call for local and diverse varieties rather than dependence on uniform seeds provided by global seed companies. Therefore, the actual rules for intellectual property rights, seed regulation and seed policies, in place in many countries, need to be changed, to facilitate farmer managed seed systems instead of hindering or even criminalising farmers who save, exchange and sell peasants' seeds. These changes are urgently needed to grant farmers rights as defined in the International Treaty for Plant Genomic Resources for Food and Agriculture (ITPGRFA Art. 9) and the UN Declaration on the Rights of Peasants and Other People Working in Rural Areas (UNDROP Art. 19).¹⁸

¹⁷ How and whether governments should actively create public procurement schemes for agroecological products is discussed in: Brandão E.A.F, Santos T.D.R., Rist S.: Family Farmers' Perceptions of the Impact of Public Policies on the Food System: Findings From Brazil's Semi-Arid Region. *Frontiers in Sustainable Food Systems* 4, 2020, pp. 158ff.

¹⁸ 75% of crop diversity has been lost during the 20th century, and the genetic diversity of seeds is much needed to breed varieties that are better adapted to the effects of climate change.

Where governments follow the promise of imported technologies that supposedly will save food systems against their Armageddon of Climate Change and the dying out of all life under the topic of biodiversity loss, the very knowledge for farmers to be able to produce food is becoming the property of a few highly concentrated, multinational market players, who develop highly specialized and performant plant and animal seed, complex phytosanitary and fertilizer formulas, applications for big data-driven smart farming technologies, or fortified and ultra-processed food products. However, the women's number one priority is to enhance their own knowledge which allows them to become thriving, independent food producers. They are not looking to buy technology that they will never be able to replicate autonomously.¹⁹

Obviously, certain agroecological services could be outsourced to private partners. For as long as the services support agroecological farming and the emancipatory drive of communities, especially of women farmers, organic fertilizer and biocontrol produced by other farmers or local companies can be supportive, as Kathrin and Chathurika mention. Open-source, ICT-based solutions have also been helpful. Another area where support is needed are adapted smallscale tools and vehicles for field work and transportation, including to bigger, regional markets to reach a broader customer basis. Finally, private ingenuity is truly needed to provide smallscale machinery at the farm-level and techniques and infrastructure for proper food storage and food conservation in the villages. Support is also required for rainwater harvesting and different types of irrigation infrastructure, which can be operated and expanded autonomously by the farmers. Farmers also require more adapted solutions to help gather and access disaggregated climate data.

¹⁹ On women farmers and the pitfalls of technological innovation for them, see: Beuchelt, T.: Gender, Social Equity and Innovations in Smallholder Farming Systems. Pitfalls and Pathways. *Technological and Institutional Innovations for Marginalized Smallholders in Agricultural Development*, Cham 2016, pp. 181–198.



The Recommendations

What the six farmers ask for, is that we listen to them and base ourselves on their experience as pivotal actors to rebuild better food systems. Building policies, investment and research designs on their needs and views would have gone a long way in implementing the Agenda 2030 over the past six years.

Unfortunately, so far, development interventions in agriculture and food systems are still largely top-down. Indeed, the United Nations Sustainable Food Systems Summit (UNFSS) process was largely organized building on the more powerful stakeholders and those with the necessary connections, food systems language and internet access.

The Summit, through Member States, can decide on guardrails and incentives for all stakeholders to listen to the farmers like Aïssa, Amina, Rut, Chathurika, Kathrin and Anne. To achieve that, we suggest that the following recommendations be followed, including for any action ensuing from the UNFSS, under all 5 Action Tracks.

The United Nations have a normative role to play:

- They must require all stakeholders to play by its rule, the Human Rights, as defined in the relevant Declarations and Voluntary Guidelines, especially the rights of women and girls in food systems.
- They should provide accessible, down-to-earth normative guidance, monitoring and evaluations to Member States and all stakeholders to support the implementation of agroecological territories and food systems. Such guidance and follow up must be based on a regular inclusive process at the Committee on World Food Security (CFS) and its High Level Panel of Experts (HLPE), building on the CFS policy recommendations, such as the Recommendations on Agroecological and Other Innovative Approaches. It is best established in collaboration with the Special Rapporteur on the Right to Food and the unfolding mechanisms to follow-up on the implementation of the

United Nations Declaration on the Rights of Peasants (UNDRIP). It must include relevant links to the process around the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).

Apart from securing people's rights in food system interventions through such a process, the UN must take measures to ensure that stakeholders observe:

- that any program or project with peasant and family farmers builds on their own assessment and their thrust for autonomy, starting with the views of the most vulnerable community members such as women and girls. Any interventions must be planned, designed and implemented as well as evaluated from the bottom up. The people concerned must be able to require oversight and support if the bottom-up criteria are not met, via a well-defined, accessible process
- that research aiming at sustainable food systems for women farmers and peasant and small family farmers in general, should be based on farmer-led research designs and implementation processes, including when the objective is to support healthy diets
- that any intervention must enhance the beneficiaries' knowledge about agroecology as defined in the ten FAO principles (taking all principles together to ensure a systemic approach), supporting community-based knowledge systems
- any intervention must support the implementation of agroecological farming practices and
- that any intervention must urgently advance the transformation of conventional food systems and value chains into localized agroecological territories and food systems based on proximity and solidarity.

Member States must comply with and ensure the above-mentioned individual rights. They should support the outlined UN process (see recommendations to the UN) through regular assessments and reportings to the CFS. These documents should be established with a strong participation of farming communities, especially the most vulnerable people. They must further actively support farmer's autonomy and space through active support to agroecological territories and localized food systems. Concretely, Member States must ensure that they consider and implement the below recommendations:

- Member States review their policies to remove wrong incentives and barriers to the implementation of agroecological territories for farmers and citizens. That includes regulating value chains, where profit margins are too unequally distributed and incentivizing those, where farmers get adequate prices.
- They also urgently need to define an unbureaucratic frame to support the farmers with know-how and investments for the transition to agroecology, in accordance with all ten FAO principles. To be unbureaucratic and enhance farmers' autonomy, they should build on community-based policies (see as example the locally anchored Participatory Guarantee System for organic certification that Chaturika mentions).
- They need to restrict harmful intellectual property rights and seed regulations and policies such as UPOV 91, to strengthen farmers' seed systems. Member States thereby contribute to enhancing and protecting a dynamic, large genetic basis for agrobiodiversity and healthy food systems under climate change – a true democratic service to their citizens and their Right to Food.
- They must ensure that on their territories, technological knowledge and data collections be increasingly open-source and transparent.
- They must involve small farmers, landless laborers, pastoralists and herders, fisher-folks, indigenous people and other vulnerable food system actors in policy making on sustainable food systems at national, sub-national levels and regional levels.
- They urgently must provide financial support to agroecological public research in accordance with the ten principles by FAO, to help farmers transition to agroecology, based on farmer-led research and the co-creation of knowledge.

THE RECOMMENDATIONS

- They should oversee the actions of extensionists, buyers and sales stakeholders engaging with farmers and provide regulation that makes it expensive for them not to comply with the ten principles of agroecology.
- They should support farmers' self-organization and support the creation of marketing and certification schemes for alternative value chains that reward agroecological production through better prices.
- They must look for ways to actively shape their national food systems to protect locally significant value chains from international competition.
- They must provide incentives for private local businesses or community-based, public services to invest in rural infrastructure, especially essential tools to support agroecological practice (transport, energy etc.), infrastructure for schools, health facilities and roads.
- They should source agroecological rather than conventional products in their public procurement schemes.
- to entirely review its business models and adapt to shorter value chains where profit margins are distributed more equally to reflect the pivotal value of farmers in the food system
- to pay an adequate price for agroecologically produced goods
- to invest in the provision of organic soil fertility measures, organic inputs and biocontrol measures, and source seeds from farmers' seed systems
- to invest in farmers' anticipation and planning skills to engage on more equal footing in business with the private sector
- to invest in locally adapted rainwater harvesting and irrigation, replicable by farmers
- to focus know-how and research on agroecology and climate change and provide exclusively open access data

The private sector must comply with the above-mentioned individual rights. It must respect the lead of farmers and their thrust for autonomy, supporting them with agroecological knowledge. To do so, the private sector must ensure:

- that it abandons marketing practices and products that lead to lock-ins and dependencies along the value chains
- to put Human Rights at the center of its business practice

Non-governmental actors and philanthropic organizations must comply with and support the above-mentioned individual rights. They must further actively strengthen farmer's autonomy and space through support to the creation of agroecological territories and localized food systems, ensuring that:

- they support women and girls negotiate their decision space and autonomy in the household and community
- their interventions are based on bottom-up, participatory designs and longer-term, noninvasive projects, led by local communities



- they invest in making agroecological know-how available to farmers and proactively support the difficult transition phase, including through farmer-to-farmer knowledge schemes and the building of value chains which actually deliver adequate prices
- they commit to farmer-led research and experimentation
- they support building more evidence and innovation, based on farmer's experience in agroecology, including a knowledge-policy interface for decision-makers
- they transparently support governments and other stakeholders in achieving the lined-out policy changes

Research institutions must respect the above-mentioned rights and actively support their implementation, e.g. by supporting the implementation of the United Nations Declaration on the Rights of Peasants (UNDROP). They must focus on interdisciplinary, agroecological research and ensure that:

- their research supports farmer-led designs and farmer-led implementation, monitoring and evaluation of research projects
- that they carefully adapt the requirements for scientific evidence. They need to be able to include farmers' experience and be able to publish such results in the scientific community, providing a credible knowledge-policy interface (as mentioned before)

This study confirms the high potentials that agroecology has for strengthening the autonomy of farmers and making food systems more sustainable. This effect is due to the fact that agroecology is understood as a practice, a science and a rights based, social movement. The women's experience impressively shows that if these three elements are starting to play together to truly support their search for emancipation, many single problems can be solved. New pathways of innovation, research and bottom-up policy making must therefore be designed close to these women's realities *and* based on agroecology.

Indeed, the UN Secretary-General, as the host of the Food Systems Summit, and the 193 Member States as legitimate decision-makers in the UN, have an interest in putting agroecology center-stage. Adopting agroecology as the lens through which policy and investments for sustainable food systems need to be shaped, will allow us to actually make progress in achieving SDG 1, 2, 3, 5, 8, 10, 12, 13 and 15 in rural areas. Farmer-led research and experimentation, supported by more formal, interdisciplinary agroecological research, will decisively contribute to agricultural and food systems innovation (SDG 9). SDG 11 on Sustainable Cities and Communities will further go a long way in enhancing the sustainability of cities, towns and a productive and safe hinterland, if its implementation is planned and coordinated in terms of the infrastructure needed to create agroecological territories.

In fact, these six female peasant and family farming systems show how smallscale food systems, including urban agriculture, work in many countries today: Their protagonists actively choose to be in the food business. Their strategies rely on family labor and collective agriculture to produce food with little synthetic inputs and costs, rather than relying on specialized machinery to produce food with high associated cost and high energy- and input intake. They are rooted in solidary economies and try and get in touch with their end consumers, to establish a communication about the value of food. Ultimately, they seek to become independent from value chains that don't pay well enough and which don't provide them with the entrepreneurial freedom necessary to thrive throughout challenging circumstances. In this sense, these food systems are trending. They are the expression of a democratic struggle around food against a more high-tech agriculture and food system in the hands of a few. Governments who find a way to support these systems, truly work for their people.

Bibliography

Altieri M.A. and Toledo V.M.: The Agroecological Revolution in Latin America: Rescuing Nature, Ensuring Food Sovereignty and Empowering Peasants. In: *Journal of Peasant Studies*, Vol. 38, No. 3, 2011, pp. 587–612.

Arias C., Pernet C.; Rist S.: Collective Action, Gender Dynamics and the Constraints for Scaling up Women Initiatives in Rural Mexico. United National Research Institute for Social Development UNRISD Working Paper, 2013.

Bernstein H., Friedman H., Van der Ploeg J.D. et al.: Forum: Fifty Years of Debate on Peasantries, 1966–2016. *The Journal of Peasant Studies*, 45:4, 2018.

Beuchelt, T.: Gender, Social Equity and Innovations in Smallholder Farming Systems. Pitfalls and Pathways. Technological and Institutional Innovations for Marginalized Smallholders in Agricultural Development. Cham, 2016, pp. 181–198.

Bezner Kerr R., Madsen S., Stüber M. et al.: Can Agroecology Improve Food Security and Nutrition? A Review. In: *Global Food Security*, Vol 29. 2021.

Bryceson D.F.: Gender and Generational Patterns of African Deagrarianization: Evolving Labor and Land Allocation in Smallholder Peasant Household Farming, 1980–2015. In: *World Development* 113. Final draft before publication, 2019, pp. 60–72.

De Schutter, O.: Agroecology and the Right to Food, Report presented at the 16th Session of the United Nations Human Rights Council [A/HRC/16/49], 8 March 2011.

Dumont A., Vanloqueren G., Stassart P.M. et al.: Clarifying the Socioeconomic Dimensions of Agroecology: Between Principles and Practices. In: *Agroecology and Sustainable Food Systems*, 40:1, 2016, pp. 24–47.

Food and Agriculture Organization of the United Nations: The 10 Elements of Agroecology. Guiding the Transition to Sustainable Food and Agricultural Systems, Rome 2018.

Food and Agriculture Organization of the United Nations: Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security. Rome 2012.

Gómez, A.T.: Guía metodológica para la investigación participativa en producción de semillas criollas y nativas. Unpublished SWISSAID guide, 2021.

Graeb B.E., Chappell M.J., Wittman H., Ledermann S.: The State of Family Farms in the World. *World Development* 87, 2016, pp. 1–15.

Hayter M., Lee A., Dixit A.: Experiences of Domestic Violence Prevention Interventions and Gender Equality Promotion Work: A qualitative Study of Nirdhar Groups in Rural India. Under peer review.

Independent Evaluation Group: International Assessment of Agricultural Knowledge, Science, and Technology for Development (IAASTD). In: *Global Program Review 4 (2)*, Washington DC 2008.

Pimbert M.P., Moeller N.I., Singh J. et al.: Agroecology. In: *Oxford Research Encyclopedia of Anthropology*. Oxford University Press, 2018. Article published August 31, 2021.

Pimbert, M.P.: Diversity and Sustainability in Community-Based Conservation. UNESCO/IIIPA Regional Workshop on Community-Based Conservation, India 1997.

Pohl C., Rist S., Zimmermann A. et al.: Researchers' Roles in Knowledge Co-Production: Experience from Sustainability Research in Kenya, Switzerland, Bolivia and Nepal. *Science and Public Policy* 37(4), 2010, pp. 267–281.

Ricciardi J., Ramankutty N., Mehrabi Z. et al.: How much of the World's Food do Smallholders Produce? In: *Global Food Security*, Volume 17, 2018, pp. 64–72.

The High Level Panel of Experts of Food Security and Nutrition: Agroecological and Other Innovative Approaches for Sustainable Agriculture and Food Systems that Enhance Food Security and Nutrition. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome 2019.

Van den Berg L., Goris M., Behagel J. et al.: Agroecological Peasant Territories: Resistance and Existence in the Struggle for Emancipation in Brazil. *The Journal of Peasant Studies* 48(3), 2021, pp. 658–679.

Van der Ploeg, J.D.: Peasant-Driven Agricultural Growth and Food Sovereignty. In: *Journal of Peasant Studies*, 41:6, 2014, pp. 999–1030.

Von Braun J., Kaosar A., Fresco L.O. et al.: Food Systems. Definition, Concept and Application for the UN Food Systems Summit. A paper from the Scientific Group of the UN Food Systems Summit, 2021.

Wezel A., Gemmill Herren B., Bezner Kerr R. et al.: Agroecological Principles and Elements and their Implications for Transitioning to Sustainable Food Systems. A Review. In: *Agronomy for Sustainable Development* 40 (6), 2020, pp. 1–13.

Summaries to the interviews:
www.swissaid.ch/en/articles/listen-up

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A Report by SWISSAID to the Attention of H.E. António Guterres, Secretary General of the United Nations. Includes Policy Recommendations.

Bern, September 2021.

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