

k. Organic supply chain development projects

Political justification

Whereas the support measures presented above address one specific point in the supply chain (e.g. production, processing, marketing), policy makers may sometimes want to adopt a more vertically integrated approach by supporting projects that focus on developing a particular commodity's supply chain.

Contributing to supply chain development can help achieve a government's sustainable economic development objectives. Supply chain (or "value chain") development is undertaken by many public-private partnerships globally, as governments, development agencies and businesses seek win-win-win arrangements. A report from the SEEP Network (www.seepnetwork.org) observes, "*No matter the country or sector context, support from government actors often dictates the extent to which businesses can thrive and grow or stagnate and collapse.*" For emerging organic sectors in developing countries, this statement rings especially true. Where organic producers are few and organic buyers scarce, government facilitation raises profiles and enables linkages that will help build a functional sector. This is equally applicable for long export-oriented supply chains and short regional ones. In development cooperation, supply chain development is often a fundamental strategy for the integration of small farms in the modern economy.

Supply chain development projects can be:

- Projects that link research-capacity building and input provision, for example, to provide an integrated approach to encouraging conversion of a particular production,
- Projects that link production, processing and marketing, and/or
- Projects that aim to improve the structure, logistics or traceability of supply for a particular sub-sector (e.g. dairy, vegetables, meat).

There are several reasons to focus on the development of a particular supply chain. These include:

- To address structure problems in one particular sub-sector where domestic demand is not adequately met (for example, if organic vegetable producers in a given country are too small-scale and not organized enough to supply mainstream channels like supermarkets)
- To develop an organic supply chain for a regional product for which organic production has a lot of potential but a brand concept is needed to generate demand
- To create an organic supply chain for a particular export commodity, or increasing efficiency in an existing chain, to provide a valuable source of export revenues in the future and/or address environmental problems with current conventional practices in that sector.

Regardless of the objective, the advantage of such an approach is that it connects the various actors of a particular supply chain and fosters dialogue between producers, traders, processors, and potentially researchers as well, to solve the problems of that particular supply chain in an integrated manner.

Suitable contexts

Integrated supply chain development is a form of support measure that can be suitable to all stages of development of the organic sector, from the embryonic stage to the near-to-mainstream stage.

It can also be implemented in any type of regulatory environment.

As a very intensive type of support, support to value chains with one or a few commodities will typically be difficult to obtain in a context where the culture of government intervention in the agricultural sector is generally not to intervene.

This form of support is well suited to any of the rationales for policy support to organic agriculture. Whether it is to develop export value chains or to increase self-sufficiency in organic products, an integrated value chain approach will offer interesting advantages.

Possible modalities of implementation

Supply chain facilitation should be flexibly defined depending on the circumstances. It should also have flexible implementation as new bottlenecks emerge once some are resolved, and intervention focus may have to shift between the various stages of the chain.

Supply chain facilitation can be restricted to the linking of sellers to buyers. Or, it can go way beyond that and include other actions to support the commerce of these chains, including but not limited to establishing standardization and quality systems through the chain, development of infrastructure and transportation, and navigating import and export regulations. Regardless of the intensity of the support action, supply chain development is done in the form of time-limited projects or programs. The idea is that once the supply chain is well developed, it must run on its own.

In developed countries, integrated supply chain projects usually address structural issues in a given segment of the organic sector at the national or regional level. They contain a strong component of dialogues between the various actors of the supply chain to find collective structural solutions that develop the production in parallel to improving logistics, traceability and better respond to the needs of buyers. Sometimes, those projects develop the supply chain up to consumer demand, including activities such as developing a joint brand for a regional organic product. They often integrate a territorial dimension, taking advantage of the particularity of a certain region, and might combine touristic or environmental aspects (nature protection, eco-tourism, local consumption, etc.).

In developing countries, the classical development cooperation types of projects are implemented, starting with providing training to farmers for conversion, organizing for certification and linking producers to markets. The model is also being applied in “economies in transition” countries, such as the Organic Agriculture Support Initiative development cooperation project in Armenia. In both cases, projects often include the aspect of cooperation amongst farmers producing the same commodity (usually setting-up farmer cooperatives, farmer groups or other structures), to resolve production issues, but also for joint marketing. However, an alternative model to the farmer-led cooperative/group is to have supply chains that are organized by the exporter or by the processor and in which farmers are simply contracted. In such cases, the supply chain development project works with the exporter or processor companies to develop the supply chain.

Country examples

A number of organic supply chain development projects have been funded in the **EU** within the LEADER program series, which is financed by EU structural funds and designed to help rural actors develop the long-term potential of their local region. These programs encourage the implementation of integrated, high-quality and original strategies for sustainable development, and have a strong focus on partnership and networks of exchange of experience. Examples of organic projects that have been funded through this scheme include a project on organic milk regional marketing in Saarland (**Germany**), a program to develop organic agriculture in South and West **Ireland**, a project on organic farming and rural eco-development in Sardinia (**Italy**), or a project to develop an organic quality brand of processed meat in the province of Bolzano (**Italy**).

In **Wales**, the BOBL project (Better Organic Business Links) was a 6-year integrated approach project funded by the EU and Welsh government. It was used to support organic primary producers and to grow the market for Welsh organic produce in a sustainable way. The project developed existing, emerging and new markets for organic produce while driving innovation at all levels of the supply chain. It provided information to producers about market demands (who buys organic, why and how). The project ended in 2015. The market intelligence it collected in the organic sector in Wales is available online.

On a smaller scale, the Manchester Veg People project was supported by **England** under its Rural Development Program. The project was a cooperative supplying organic fresh produce across Greater Manchester. The project took the farm to fork approach, starting with building up small farms through facilitated land access, training for future vegetable small growers, and then logistics, transport, branding and market access.

In Bavaria (**Germany**), some projects for development of certain supply chains such as organic chicken, pork, and soy received government funding between 2014 and 2016.

In **Austria**, a project on the organic pig meat supply chain was funded within the Rural Development program 2007-2013. The two-year project installed a vertical supply chain partnership for organic pork with an end-to-end quality and traceability chain (an online audit and monitoring over the entire production and marketing chain). In addition, a marketing concept for organic sausage and ham was developed.

In developing countries, it is quite common for supply chain projects to be funded through external donors and NGOs, or through development cooperation. Many of them have proven very successful at developing a particular organic supply chain in a country, for an export commodity or even for developing a local supply chain. Some projects worked on single commodities, others on a broader sector (sometimes on organic as a whole sector segment). The examples below are a mix of private-led and public-led projects. Even though in private-led projects the initiative or funding may not have come from the local government, those examples can be useful inspiration as similar project approaches can also be organized and/or funded by the national government.

In **Ukraine**, the Organic Development Project is being implemented by FiBL with funding from SECO (Swiss government), inspired by the EU LEADER approach. The project is helping to develop new market opportunities for SMEs in the sectors of organic arable crops (for export) and milk and dairy production (for the domestic market).

In **Kyrgyzstan**, the Helvetas project “Organic cotton production & trade promotion project” was implemented from 2003 to 2015. It resulted in an increase of organic producers from 38 to 1,408, of organic cotton area from 122 ha to 2,967 ha, and of organic cotton production from 24mt to 335mt of cotton lint. During the first stage of the project (2003-2006), a value chain was established for organic cotton as a leading crop, with a focus on training extensionists and farmers in organic farming, and then signing the first organic cotton production contracts. To maintain the stability of the value chain, during the second phase of the project (2007-2011), a local structure was set up in the form of the Public Union of Bio Farmers (a cooperative which now involves 1,200 members) and Public Fund Bio Service (a consultancy that offers training, certification and marketing of organic products).

In **the Philippines**, the provincial government of Nueva Vizcaya and Department of Agriculture jointly constructed and opened a multi-functional Regional Organic Trading Center (ROTC) in Nueva Vizcaya (North Luzon). The costs of the project (around EUR 300,000) were supported by the National Organic Agriculture Program funds and

Japanese NGOs. ROTC is managed as a public facility by the regional office of the Department of Agriculture. It provides organic farming demonstration, processing facilities, market promotion/trading facilities and training events. The center has an agribusiness development center, an organic native chicken production center, an administration building, a fruit processing and packaging building, a wild pig conservation and production center, and a GAP vegetable production area. It also serves as a drop-point for organically produced vegetables, fruits and meat. In this way the products of farmers will be further promoted and can be easily accessed by the customers, as it is located in proximity to a major commuter highway and a general agricultural research and development agency.

In **East Africa**, and particularly in Uganda, the EPOPA project (Export Promotion of Organic Products from Africa) was the main engine behind the development of the organic sector in Uganda, Tanzania and Zambia. EPOPA was a project funded by the Sida (the Swedish International Development Co-operation Agency) between 1997 and 2008. The program supported the inclusion of more than 100,000 farmers (among which 54,000 were in Uganda) in organic export supply chains for a range of different commodities (traditional cash crops but also fruits and vegetables for export). The EPOPA projects worked in the form of three-five year projects with various types of exporters including cooperative unions, local and expatriate entrepreneurs and subsidiaries of international trading houses, and the participation of large groups of smallholders that were organized by exporters, with assistance from EPOPA technical consultants. EPOPA provided training to farmers and companies, research and extension support, technical and financial support including for certification, and market linkages to the selected partners. Additionally, EPOPA supported the establishment of domestic certification bodies, the training of various other actors in the organic movement, and their organization into national associations. EPOPA was also involved in facilitating marketing-related promotional activities, such as participation in organic fairs and in establishing a database of market contacts.

The government of **Ghana** was quite an early supporter of several organic development projects implemented in the 1990s, such as the Abrono Organic Farming Project supported by the Department of Forestry and the Environmental Protection Agency of Ghana, the Sedentary Farming System project and the organic rice-fish projects supported by the Ministry of Food and Agriculture. Government officials from the Environmental Protection Agency and the Ministry of Food and Agriculture also participated in the Organic Farming Promotion Project.

The government of **Turkey** partnered with the German government in the form of a bilateral cooperation project from 2011 to 2013 to develop quality organic supply chains from Turkey to European markets. The project was implemented by FiBL Germany in close cooperation with the Turkish Ecological Agricultural Organization (ETO). The project worked with the various stakeholders of the Turkish organic supply chain including government regulatory personnel to build capacities and to established exporter-importer connections.

In **Nepal**, the Jumla District Agriculture Development Office (DADO) decided in 2007 to make the district an organic district. As the district was specialized in apple production, the DADO sought help from foreign donors and established a project to develop the organic apple value chain. The project activities included training on production, support for certification, facilitating transport of the apples to the markets, identification of buyers and brand marketing.

In **India**, the federal government launched in 2016 a comprehensive scheme called the Mission Organic Value Chain Development (MOVCD) for North Eastern Region, as a Sub-Mission under the National Mission for Sustainable Agriculture (NMSA). The MOVCD scheme is comprehensive in its approach and aims at developing certified organic production in a value chain mode to link growers with consumers. It supports the development of the entire value chain starting from inputs, seeds, certification, to the creation of facilities for collection, aggregation, processing marketing and brand building initiatives. Government of India allocated EUR 16 million for MOVCD in 8 North Eastern states for the fiscal year 2016-17.

Best practice example(s)

Best Practice Example: Organic Apple Value Chain development in Jumla District, Nepal

The Jumla district is one of the poorest areas of Western Nepal. The district has only seasonal road connectivity to the rest of the world, and farmers have been mostly unable to afford chemical fertilizers and pesticides. Its temperate to alpine climate is suitable for apple production, but there have been tremendous difficulties in marketing the apples produced in the district. Before 2007, only 5% of the total production (4,600 tons) was successfully exported out of the district and the majority was dumped as mulch.

In 2007, the District Agriculture Development Office (DADO) of Jumla decided to make the district organic and seek support to develop their organic apple value chain. Import and use of chemical fertilizers and pesticides in the district were banned. The DADO sought the support from SNV Netherlands Development Organization. A value chain analysis of Jumla apples in the region was first conducted with SNV support, to identify the limitations and opportunities. With the leadership of Jumla DADO, SNV facilitated the formation of a multi-stakeholder forum – the Jumla Apple Forum – which included the participation of producer groups, the local Chamber of Commerce and Industry, District Development Committee, and several development NGOs working in the district. The purpose was the development of a basket mechanism to channel all development efforts for apples coming through public, private and development agencies to this sector and the implementation of joint action plans. SNV also supported the capacity building of Jumla DADO on organic apple orchard management.

A pilot project was set-up, whose purpose was to link the high-end organic markets in Nepal to those certified organic apple producers of Jumla who could provide guaranteed quality and consistent supply. The project activities included training on production, support for certification, facilitating transport of the apples to the markets in Kathmandu, identification of buyers and brand marketing. One of the innovative actions was the facilitation of agreements between Jumla apple producer groups and Yeti Airlines - a national domestic carrier with regular flights to Jumla - to prioritize transportation of Jumla apples to Surkhet or Nepalgunj, from where road transportation begins, on a commercially viable fee basis.

Certified organic apples started to be marketed under the brand Jumla Organic (created by the DADO) and sold in supermarkets and organic outlets in the domestic market. One major success was that the apple price increased in Jumla from NRP 10/kg in 2008 to NRP 35 and NRP 25/ kg for organic certified and non-certified respectively. By 2009, 300 farmers belonging to three pilot projects had experienced an increase of 250% in their usual gross margin.

Pitfalls and challenges

The first challenge of supply chain development projects lies in the risk associated with the choice of the one or more commodities to support. A commodity-focused project starts with the assertion that there is true market potential for the organic commodity selected, that production is competitive, and that producers will want to continue with this commodity and not move to an alternative more profitable one. There is, of course, the risk that this assumption does not materialize in the medium/long run, due to market price volatility and other issues. Proper preparatory work and assessment of the market potential, competition, cost structures and supply capacity are essential.

The focus on one or a few commodities, inherent in value chain projects, can sometimes be hard to combine with the emphasis of diversity in organic production. It may be a challenge to find markets for other commodities produced by farmers alongside the main cash crop.

Another challenge of such supply chain integrated projects is that they aim to act on various levels of the organic supply chain, and therefore require broad competence and stakeholder involvement in order to design effective strategies. Projects that support an export supply chain require good knowledge of foreign markets - how they work, their regulations, and their quality expectations. Projects that adopt a more territorial/domestic approach often require a smart strategy of involvement of the various territorial actors (beyond the organic chain itself) in order to gain public support for the action and to build ownership for the future outcome.

Even if there are many relevant stakeholders in a supply chain, there needs to be clear leadership in the chain development, and external consultants or agencies must be careful not to take over the responsibilities of the actors, in their effort to support. The supply chain leader will in most cases be an exporter or a food processor and their competence and capacity may be lacking. In projects with farmer groups in developing countries, the supply chain leader is often supposed to organize certification and also farm extension work. But commercial companies may often lack the knowledge of farming and how efficient extension is carried out. In addition they mostly orient their work solely to the commercial commodity. As an alternative NGOs or government agencies can manage the extension function, but they might lack the commercial focus that is a prerequisite for a successful chain.

Like all project approaches, in which the support of a particular activity is intensive but time-limited, another important challenge is sustainability when the project ends. Capacity building activities usually pay-off in the long run if the market channels can be maintained, but projects that subsidize certification costs for a period of a few years as a

way to support the entrance of newcomers in the organic business face the risk that they may drop off after the support ends. Another challenge is the fact that building value chains can take a long time and project-funding cycles are sometimes too short for these types of complex and long-term projects. Nevertheless, there are many success stories that have been initiated with certification subsidy and other forms of temporary subsidization of organic businesses, like the EPOPA project in East Africa.

The project approach that aims at building organic businesses in a particular region where they do not exist also faces the challenge of finding entrepreneurs who are interested and able to go into organic, and competent enough to continue building the businesses after the end of financial and technical support from the project and its consultants.

The success of value chains is also dependent on trust and a mutual interest by the actors in the chain. It will not succeed if any actor tries to get only advantages without consideration of the other actors' agenda.

Public-private cooperation is another challenge. Many of these projects are only private and do not integrate public institutions enough, while when governments take the lead, involvement of the private sector, especially in the design of the project strategy, is often too weak.

I. Organic management in public areas and publicly-owned land

Political justification

Toxic pesticides and synthetic fertilizers are still being used on land that is under public management, such as roads and paths, parks, schoolyards, playgrounds, sport fields, areas around public buildings, botanical gardens, riverbanks, and railroads. For example, herbicides, such as glyphosate (recently classified as probable human carcinogen by the WHO), are widely applied to combat weeds in such publically managed land. Besides contamination of the environment, and potential contamination of adjacent organic farms, a major concern is the health of residents and particularly children occupying these areas.

The same principles used in organic agriculture can be used for the organic management of public lands. Particularly at the municipality level, the elected politicians have the power to pass local decrees or instruct city garden managers to stop the use of chemical pesticides in areas under public management and to transition to safe, effective (organic) alternatives.

There is clear evidence from around the world that the organic approach is both achievable and effective and that it is reducing the exposure of millions of citizens around the world to the potentially harmful effects of pesticides. The transition to organic management of public land needs to be carefully planned, but communicating