

## **b. Support for organic input development and use**

### Political justification

The support to organic inputs can come under the broader policy goal of reduction of chemical use in agriculture. A big part of the environmental damage caused by conventional agriculture originates from the use of chemical inputs (pesticides and over-application of chemical fertilizers). Hence supporting the development and use of alternative inputs such as organic inputs is one of the most direct policy interventions to address sustainability in agriculture. Supporting the development and use of organic inputs may not be restricted to organic producers, but can benefit the entire farming community. This is what is happening in Integrated Pest Management approaches, where at least some use of chemical inputs is being replaced by organic alternatives.

Support for research and development is particularly needed in this sector, because it is costly to develop and bring new organic pest control products onto the market. Also, at the beginning such products are unknown and expensive due to their small market share. Agro-chemical companies have benefited from decades of public research and support, and have therefore a massive head start compared to small companies that are starting to develop alternatives. Public support is thus required, also to cover the expensive input registration process, and help spread those inputs to farmers (as well as gardeners and public green space managers). Registration costs and requirements are further discussed under in Chapter VI, section 5.

The efficient recycling of waste products from food industries, public kitchens and households can on the one hand reduce pollution from waste and on the other hand supply (organic) farms with valuable nutrients.

Similarly, the development of crop varieties suitable to organic farming (or similar approaches) has been largely ignored by public research in the past decades and is therefore lagging behind conventional plant breeding. The development and propagation of organically-suitable (or even “organically bred”) varieties takes a lot of time and is essentially a common good activity (especially as organic varieties should not be patented) that deserves public support.

### Suitable contexts

Support for organic input development, production or import is a relevant action for any policy objective that aims to develop organic production. It is therefore a suitable measure at any stage of development, in any regulatory context, and in any logic of the policy support to organic. The only context in which it may not be suitable or feasible is in the case of a government culture of no intervention on the agricultural market. As agricultural input provision is also a business segment, anti-intervention governments will likely not want to get involved into such action that would twist the market competition in favor of certain types of inputs.

### *Possible modalities of implementation*

Support for organic input development and use can take several forms.

Some countries have given grants to support companies in doing R&D on organic inputs (e.g. in France), or dedicated special research funds to develop organic inputs identified as most needed (e.g. France, Germany).

Some governments take on the role of organic input developers and providers directly, whereby they produce the inputs and distribute them to farmers free of charge or at very subsidized costs (e.g. the Philippines, the State of Sikkim, Bhutan).

Some countries have exempted organic inputs from certain tax and import duties (e.g. Tunisia).

Some governments subsidize the purchase or the self-production of organic inputs by farmers (e.g. Mexico, India, South Korea). This can be either in the form of ongoing subsidies for purchase or of investment grants. For more information on the subsidies for organic fertilizers and organic pesticides, see Chapter VI, section 1.

The lowering of regulatory barriers on-farm inputs such as fertilizers, crop protection products, and seeds, are discussed under Chapter VI, section 5.

### *Country examples*

In **Mexico**, the federal government subsidizes 50% of the total cost of permitted organic inputs (with an upper limit of EUR 9,700 in 2015 year). The states of Chiapas, Oaxaca, Michoacán, Jalisco and the federal district of Mexico City have also subsidized the production of organic inputs, particularly compost.

In **Brazil**, the government supported the production and distribution of seeds of traditional crop varieties. By 2014, 600 seed banks were created due to the government allocation of EUR 5.8 million to support the conservation, multiplication, distribution and commercialization of seeds and seedlings. Additionally, another EUR 2.7 million were spent between 2013 and 2014 under the food public procurement program to purchase seeds of local and traditional varieties through public procurement, which were later distributed to family farmers and their associations.

In the **Philippines**, the Organic Agriculture Act of 2010 foresees that the government, at regional and local levels, establishes production facilities for bio-inputs and provides no-cost or subsidized inputs to producers. Between 2011 and 2016 the government established, maintained and upgraded 746 organic input product facilities. It also distributed more than 199,000 kg of organic seeds, 233,000 planting materials, 1,100 MT of organic fertilizers and other inputs, 4.4 million pcs of Bio Control Agents. Worms have been given to thousands of households to start home-based vermicomposting facilities. The government also distributed thousands of organic animals, including organic fish fingerlings and brood stock.

In **India**, the Government is promoting organic fertilizers by providing financial assistance through several schemes. Under the National Project on Organic Farming (NPOF) financial assistance is provided through a Capital Investment Subsidy Scheme (CISS) for setting-up agro-waste compost and bio-fertilizers/bio-pesticides production units. Subsidies amount to 25% of the total cost of project up to EUR 55,000 per unit for fruit/vegetable waste compost units and EUR 2,000 per unit for vermiculture hatcheries. The NPOF conducts other activities on organic inputs such as organic input resource management, technology development through support to research and market development, maintenance of a National and Regional culture collection bank of biofertilizer, biocontrol, waste decomposer organisms for supply to production units, development & procurement and efficacy evaluation of biofertilizer strains and mother cultures. Under the National Horticulture Mission (NHM), financial assistance is provided for setting up vermicompost units at 50% of the cost subject to a maximum of EUR 415 per beneficiary. Under the National Project on Management of Soil Health and Fertility there is provision for promotion of organic fertilizer up to around 7 Euros per hectare. The fund for agricultural development named Rashtriya Krishi Vikas Yojana (RKVY) also provides support for the development and quality control of organic farming inputs, especially biofertilizers, through a variety of measures including subsidy, R&D grants, and market development assistance. In the Indian State of Sikkim, the State government established vermicompost facilities and provides free or subsidized inputs under the Sikkim Mission. These include biofertilizers, including effective micro-organisms, mineral fertilizers and organic seeds and planting stock. The Sikkim government also provides pest monitoring and release of bio-control agents (see more information on the Sikkim input support in the Best Practice textbox below). Similarly, the State of Kerala has subsidized vermicompost tanks, organic manure, biofertilizers, biopesticides, and organic seeds and planting materials.

In **Indonesia**, the province of Bali has since 2009, implemented a gradual strategy to replace chemical fertilizers with organic fertilizers (see Chapter VI, section 1). Besides phasing out subsidies on chemical fertilizers (phased out in 2012) and continuously increasing subsidies on organic fertilizers, the integrated farming (Simantri) program (also known as “Organic Bali”), offered cash and technical assistance to farmers’ groups willing to adopt organic farming methods and to use alternative energy sources. In 2012, the governor of this province received an award for this program from the Indonesian Minister of Agriculture. Other provinces in Indonesia have also started providing substantial support to organic fertilizers in the past few years. For example, in 2013, the district of Toba Samosir, in the North Sumatra province, invested EUR 108,000 in direct support for organic fertilizer purchases and another EUR 20,000 for a livestock fertilizer program. In 2011, the same district also invested EUR 61,000 for building composting facilities. In the same year, the district of Semarang, in the Central Java province, has invested EUR 24,000 in organic fertilizer processing units.

In **Thailand**, the government launched, in 2005, the National Agenda’s Organic Agriculture, a 5-year program aiming to support 4.25 million farmers to use organic inputs instead of agro-chemicals covering an area of 13.6 million ha, reducing total import of agro-chemicals by 50% as well as boosting organic export by 100% annually.

A total of 23 public agencies were involved and the government allocated around EUR 31 million in 2006 for this program.

The **Sri Lanka** “Toxin Free Nation Program” published in 2016 foresees the distribution of organic fertilizers to farmers. In the plan, the Sri Lankan president commits to increase state interventions and investments to expand the use of traditional seeds and to prevent the subjugation of the monopoly in seeds to corporations. Sri Lanka started subsidizing organic fertilizers in 2016.

In **Bhutan**, the Ministry of Agriculture endorsed a plan in 2015 for the production and supply of bio-inputs, including facilitating distribution through the government system to ensure organic producers in the whole country will have access to the bio-inputs they need. This is however still at early stage of implementation.

In **Nepal**, the Ministry of Agriculture started in 2015 an organic fertilizer subsidy program. Farmer groups and cooperatives that have constructed cow shed and vermicompost facilities can receive subsidy of up to EUR 200 per farmer from the District Agriculture Development Offices. Farmers who purchase organic fertilizers (whether dust, pellets or vermicompost) can receive a subsidy of around 82 €/ton of fertilizer to a maximum of 1,5 ton.

In **South Korea**, the government provides special subsidies related to organic practices for the purchase of organic fertilizers, for soil conditioning assistance (to reduce acid soils) and for green manure seed purchase assistance (applied to fallow farmlands). The organic fertilizer support project supports farmers and farm corporations who use organic fertilizers (fixed press cake fertilizer, fixed organic fertilizer, organic composite fertilizer, livestock manure compost and general compost). Subsidies are given on a fixed amount basis.

Since 2011, the council of Agriculture of Taiwan, in **China**, provides subsidies to farmers for the purchase of organic fertilizers and for setting-up composting facilities.

In the past decade, **France** launched a number of plans aimed to reduce the use of unsustainable inputs and develop alternatives. One of those plans, launched in 2008 is the action plan Ecophyto 2018, aiming to reduce the use of pesticides by 50%. The plan is funded by the Ministry of Agriculture with a budget of EUR 71 million per year. In the 2015 edition of the plan, investment support for the development of alternative inputs (biocontrol) is foreseen, in order to promote the emergence of innovative French companies in this field. Another plan launched in 2011 is the plan *Seeds and sustainable agriculture*, which provided some positive development useful for organic farmers’ access to seeds (see an organic analysis<sup>66</sup> of this plan [here](#)). Another relevant government plan is the *Plant Protein for France 2014-2020* plan to develop local plant protein feed inputs. This was a general plan (not specifically organic) but it had an

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<sup>66</sup> 2015 analysis of the plan’s contribution to organic farming and further recommendations in the seed regulatory framework, by ITAB, the French Technical Institute of Organic Agriculture. In French only.

organic component overlapping with the organic action plan *Ambition Bio 2017*, which gave a priority to protein crops. In this action plan, the government set-up a goal to have 100% organic feed in organic livestock operations in France and to have crop varieties that are adapted to organic agriculture. Finally, the plan *Ecoantibio 2017* foresees the reduction of antibiotic use in livestock production. One of the 5 axes of this plan is the development of alternatives to antibiotics, including natural treatments usable in organic production.

In **Germany** the strategy process “*Zukunftsstrategie Ökologischer Landbau*” (organic agriculture strategy launched by the German Minister of Agriculture in May 2015) pays particular attention to the non-organic inputs used in organic agriculture by initiating working groups in relation to increasing the domestic supply of organic feed and seed. Finding solutions to fill gaps in availability of organic inputs is one of the priorities identified through this process particularly in terms of protein feed, organic seed and organic young animals.

The government of **Sweden** co-funded (together with the EU), under the Swedish Rural Development Program, a collaborative project called *Protein Tips* aimed at increasing the production of more local organic fodder as a response to climate change and as an alternative to soya imports.

**Tunisia** exempted organic farming equipment and supplies from value-added tax and custom duties, as well as useful insects for biocontrol for organic agriculture (this was established through presidential decree in 2007). The Tunisian government also funds the *Vegetables Inter-professional Group* that collaborates with the national center for organic agriculture CTAB to develop improved vegetable seeds and coordinate breeding programs aimed at enhancing organic vegetable production. It also partners with CTAB to support compost production activities and testing of organic inputs.

In **Kenya**, the local government of the Busia County is supporting the establishment of an organic fertilizer factory. Private investors will build the factory but the county donated the land and allocated some funds to support the project.

### *Best practice example(s)*

#### ***Best Practice Example: Sikkim’s support for organic input development: a holistic approach***

Assisting farmers to access organic inputs was a key objective of Sikkim’s Organic Mission, which was launched in 2010 with the aim of converting all agriculture land of the Indian State to organic by 2015 (see box in Chapter III). The mission continues in a new phase until 2018. To implement its Mission, including measures on access to inputs, Sikkim drew financial support from several national sustainable agriculture programs including the National Mission for Sustainable Agriculture (NMSA) and the Mission for Integrated Development of Horticulture. The NMSA has provided special assistance to Sikkim and eight other States through a sub-program, *Organic Value Chain Development Missions for the North-Eastern Region*. This scheme aims to develop the full value chain starting with farm inputs and seeds. It offers funding to states on a per hectare basis for implementing assistance for on-farm and off-farm input production, quality seed and planting material supplies, training on input selection and use, and assistance for input production and distribution.

Sikkim's Organic Mission includes the following measures with respect to organic inputs:

- Providing structures for pit composting and vermi-composting to organic farmers;
- Providing worm cocoons and worms to farmers;
- Producing and distributing locally adapted strains of biofertilizers e.g. azolla (an aquatic fern), oil cake, effective microorganisms for compost;
- Training farmers on organic fertility management and pest control e.g. vermi-composting, using bio-controls. (Specific training targets are set in the Mission plan);
- Providing seeds for green manure to farms;
- Providing mineral amendments at subsidized rates, or free in the case of dolomite for acid soils;
- Producing and releasing bio-control agents;
- Strengthening the state's IPM lab including the deployment of mobile plant protection vans to pest hotspots.

### ***Organic Seeds***

The Mission also developed plans and allocated resources to facilitate farmers' access to organic seeds and planting materials. This is an overlooked aspect of the action plans of most other developing countries. "Seed is the most important input of any agricultural production and it should be free from chemicals," states the 2014 progress report on the Sikkim Organic Mission. Activities towards supplying farmers with quality organic seeds include:

- Strengthening the seeds laboratory testing and processing facilities;
- Various local organic seed development projects including contracting seed producers, and government purchase and distribution (quantitative targets for various crops are set in the plan);
- Establishing automated greenhouses for quality organic seedling production.

### ***Pitfalls and challenges***

The challenge of policies aimed at supporting organic input availability and use is that they might be embedded in a broader policy framework that encourages the opposite, for example subsidies on the use of chemical fertilizers. See Chapter VI, section 1 on how such general agricultural policies can negatively impact on organic agriculture, and how they can be adjusted to mitigate this impact.

There is also the risk of putting too much implementation in the hands of the government, and not enough into the hands of the private organic sector. This can be particularly problematic when public servants are asked to deliver training or to plan organic input production and delivery, without having the right knowledge and understanding of organic agriculture. For example, the experience of Thailand shows that training on organic inputs delivered by government agencies that have no knowledge or belief in organic farming leads to inappropriate content and methodologies, emphasis on the wrong approaches, and ultimately failure to achieve the policy objective. To reduce chemical fertilizer use, Thailand's government agencies provided organic inputs and training to farmers on how to replace chemical inputs by organic inputs. About 1.75 million farmers (representing about 34 % of the farming families in Thailand) were trained. However, the statistics show that the national import of fertilizers continued to increase after this action. The private organic sector, that includes many qualified organic professionals in Thailand, was not involved in this

action.

Support to organic inputs may underscore the misconception by farmers, extension service and policy makers that organic agriculture is mainly about replacing chemicals with organic inputs, while organic management should rather strive for a system where inputs are less needed. In addition, not all organic inputs are useful or worth their price. There are many examples of rather ineffective organic fertilizers or growth promoters that are sold for a high price. There has to be some validation of inputs before they are subsidized.

### **c. Support to certification**

#### *Political justification*

The role of certification is to provide a guarantee in the marketplace, enabling consumers to identify which producers conform to certain standards. In this sense, certification corrects one of the imperfections of the market, namely the asymmetry of information available to each side in a transaction (the seller and the buyer). Therefore, in a free market economy, certification acts as a public good to help optimize the functioning of the market. As organic certification is voluntary, the cost is mostly incurred by organic producers, while conventional producers have no such cost. Governments can correct this imbalance and help promote a well-functioning market by supporting organic certification, taking on some of the costs that otherwise fall on organic farmers.

Apart from the cost of certification services, there are considerable costs involved in the set up of the certification institutions, training inspectors/auditors, cost for accreditation etc. If the government performs this service it can be expected that they cover the development costs for the system and not let users pay for that as well. But also with private certification bodies, it can be justified for the government to cover some of these costs in support of an emerging sector.

Another reason for government to cover certification costs, in part or full, is to help ensure equal access of all operators to the service, across the territory and across all farming systems. Most often, private certification bodies charge operators for travel costs to their location, as well as time spent on their audit, etc. This can result in unequal access to certification. For example, operators based in remote areas of a country and those with diversified production systems may have to pay more for certification, which can be considered unfair competition and detrimental to rural development objectives. An organic certification support system can help correct such disparities.

Studies have shown that organic certifiers, and public support to organic certifiers, play a major role in enabling organic development at a local level. For example, a study