



Support to Organic Vocational and Academic Training Programs

Pacific Organic Policy Toolkit
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Political Justification

Organic agriculture is knowledge intensive. In the past few decades, in many parts of the world, agricultural education at various levels (in schools, universities, extension) has focused on conventional methods with high use of agro-chemical inputs, high yielding varieties, new plant breeding techniques, optimization of animal weight gain without consideration for animal welfare, etc. Essentially, much of the knowledge being dispensed through those agricultural education channels is not relevant to organic farming, or opposes it. To accompany the growth of the organic sector in a country, it is crucial to develop organic agriculture education, in parallel to conventional agronomy and animal husbandry. Only through such education can the country hope to get a sufficient number of qualified researchers, extension agents, and other professionals to support the organic sector growth. In many cases, organic knowledge will also benefit people who might work in the conventional sector, in particular when it comes to improving the sustainability and resilience of conventional agriculture, as they may pick up some ideas and concepts from organic agriculture. Therefore, it is an efficient use of public funds to include organic agriculture as a voluntary or compulsory component of agricultural vocational training and academic programs. In some universities, a course on organic agriculture is mandatory for all agriculture majors. In some cases, for example in several EU countries, vocational organic agriculture training is available starting at the secondary school level and governments (for example in Austria, Estonia, and Spain) have given financial support to develop or improve teaching materials on organic farming for secondary schools.

Suitable contexts

The development of organic vocational training and academic programs is suitable to all contexts and policy objectives, with the exception of very early stages of organic development where there is not yet enough knowledge in the country to set-up such professional education programs. At such early stages, people who want to specialize in organic agriculture (at the MSc or PhD level) would typically go abroad for studies. After some domestic universities have accumulated experience working on organic agriculture research and projects, and there are experienced organic professionals in the country, specific organic courses can be set-up.

Possible modalities of implementation

The ideal scenario is to combine mainstreaming of organic agriculture through compulsory courses in all agricultural education programs AND offering specialized organic agriculture diplomas and degrees (e.g. the case Tunisia). That way, all agricultural students will achieve a basic level of understanding of organic

agriculture, while some students can specialize further in organic agriculture, when they clearly intend to make a career in this sector. Such action may not necessarily require additional resources: it is more a matter of redirecting agricultural education curricula towards the inclusion of organic agriculture courses and specializations.

The creation of special organic agriculture groups or institutes within existing agricultural departments is a best practice to ensure a stable pool of organic experts, who can work both on organic education and on organic research. Certain governments have gone even a step further and established fully organic agricultural universities (e.g. recently Gujarat state in India).

It is also important to offer organic specializations in lower level and vocational education programs, such as diplomas and even school programs in areas where a lot of school students will end up working in agriculture. Austria, for example, has a strong offer in terms of organic vocational education: many 3-year vocational school programs with organic specialization exist around the country. They are accessible after middle school (without A-level).

Aside from policy-makers mandating/encouraging public universities to integrate organic agriculture in their curricula, governments may support organic vocation training in the form of grants and subsidies to specialized organic vocational training programs that may be run by NGOs. One example is the case of CRABE in Belgium: CRABE is a local development association involved in organic agriculture development since 1980. It started offering vocational training in organic agriculture in 1984. Those vocational training activities continue up to now, within the framework of a programme to combat unemployment (co-financed by Belgium public institutions and by the European Social Funds). The training in organic agriculture is a full-time 1-year education program that is accessible for free (and with unemployment & education benefits from the Belgium government) to young people, unemployed people, agricultural workers and people wanting to start organic farming.

Governments have sought international development cooperation assistance to strengthen the organic agriculture component of their university. A main case is the project *“Development of Institutional Capacity in Organic Agriculture”* submitted by OAPTIN and the Coventry University in the UK, to the England Africa Partnership (EAP) program of the UK Department for Education and Skills. OAPTIN (the Organic Agriculture Project in Tertiary Institutions in Nigeria) is a network launched in 2005 by a consortium of Nigerian universities with a view to improve the contribution of education institutions to organic agriculture in Nigeria. The project enabled the development of an organic curriculum and teaching materials suitable for Nigerian Tertiary Institutions, and providing capacity building for university staff. The project was then replicated more widely to West Africa under the EU EDULINK ACP-EU Co-operation Program Project, *“Institutional Capacity Building for Organic Agriculture in West Africa”*. Under this project, a three-week *“Concepts of Organic Agriculture”* workshop was held to acquaint university lecturers with the basic principles of organic agriculture.

Examples

Globally there are courses and majors in organic agriculture at numerous public universities. There are also several examples of agricultural universities in developing countries that are fully focused on organic agriculture.

India: In 2004, the Indian Council of Agricultural Research, ICAR, started a network project on organic farming at 13 centers all over the country. Almost all the agricultural universities offer some education in organic farming, and some offer a full course. Recently, Himachal Pradesh Agricultural University in north India and University of Agricultural Sciences in south India opened Departments of Organic Agriculture. In 2016 the State of Gujarat announced that it will establish an organic agriculture university, with an implementation budget of Rs 10 crore (US\$ 1.5 million).

Tunisia: The Tunisian government made provisions for other research and training activities on organic agriculture, including compulsory organic agriculture courses at all higher agronomic institutes of learning. Similarly, master degree programs in Sustainable Agriculture and Protection in organic agriculture have been developed and offered in some of the higher institutions of learning in the country. These programs serve the dual purpose of training students on organic agriculture and as a way of researching organic production systems. Equally, a diploma program in organic agriculture was developed to provide professional trainings for stakeholders involved in the country's organic sector. This program is jointly conducted by the Agence de Promotion des Investissements Agricoles (Agricultural Investment Promotion Agency, APIA) and the Agricultural Training and Extension Agency, AVFA.

Case example: Transformation of Maejo University Thailand

Maejo University Declares Itself the First Organic Agriculture University in Thailand

This declaration is part of the new 15 year plan approved by the university's board of directors on 11 November, 2012. The 15 year plan dictates that for the first 5 years, 2012- 2016, the university will be an "Organic University", from 2017- 2021 it will be a "Green University", and from 2022- 2026 Maejo will be an "Ecological University."

From the declaration, Maejo has dedicated 186.5 rai (29.84 hectares) of its land towards organic agriculture production. This includes 133 rai on its farm where vegetables, vegetable seed, herbs, mangoes, longan, and rubber will be managed organically. Other areas under organic management include Maejo's Lanna (Northern Thai) farm/ cultural learning centre of 35 rai , a learning area of 17 rai for model organic crop and livestock farms examples, and 1.5 rai of the Horticulture department's vegetable production area for easy use in teaching.

Perhaps no less significant is the opening of an organic food centre on the campus as of Monday July 24th. This will allow students, staff, and visitors to eat from a number of vendors whose produce is primarily supplied by local organic farmers and

organic production associated with the campus.

Interviewing Assistant Professor Chantana Wicharatana, Horticulture Department, Faculty of Agricultural Production, it is an exciting if challenging opportunity. Pr. Chantana is leading the organic seed production project for the university, which is working both to develop skills of students in this area and to select and produce seeds that are well-adapted and appropriate for use in organic agriculture and produced under organic management methods. While there are a few professors at the university, including herself, with a strong knowledge on organic agriculture and confidence that organic farming is an interesting and viable production method to meet the world's agricultural needs and provide sustainable livelihoods for farmers, a number of other staff are not yet well familiar with organic methods nor completely confident in how far they can be used in the present context. As she explained, the declaration does not mean that Maejo University will cease immediately to use chemical inputs or teach "conventional" agricultural methods that include their use. The critical change is that all students will now have exposure to organic practices and students may select to focus on organic methodologies as well. The university also sees a key role in helping to provide organic inputs and develop graduates who will not only practice organic farming, but can provide quality organic inputs, whether seed, organic fertilizers, bio-pesticides, or knowledge.

Discussing with master student Anek who is working as a key assistant in the organic seed project, he finds there are two paths to organic farming that they will work to help develop. One path is the small-scale integrated largely self-reliant farm. The Lanna farm and cultural centre is a reflection of such a system, which is the tradition of the Northern Thai people and combines rice farming, vegetable production, herbs, fruit trees, some livestock and may include ponds for water capture and fish production. Such systems are focused on nutrient recycling, produce most all food needs for the family, and sell their surpluses. Costs are very low, but the quantities of surplus products are not too high. The second path is organic farming to meet larger consumer and trade needs. In such cases, production areas may be larger and more dedicated to one crop or type of livestock. Farmers in such systems need more support with inputs meeting organic standards, whether seed, feed, fertilizer or bio-pesticides. They can produce quantities of produce that may more easily supply larger markets. Anek acknowledges that while these are the two core paths, many may fall somewhere in between, producing some inputs but needing support for others.

While other universities in Thailand have research and studies in organic agriculture, Maejo has leapfrogged them with their ambitious declaration and plan forward

Michael B. Commons, Earth Net Foundation

Pacific Situation

University of the South Pacific Organic Agriculture Course: A unit on organic agriculture in a course on Sustainable Crop Production & Technologies” is offered by Mr. Falaniko Amosa of the School of Agriculture and Food Technology in Samoa falaniko.amosa@samoa.usp.ac.fj

The unit topics:

- Introduction; scope of this unit
- Definition of term
- Organics in the South Pacific countries
- Principals of organic crop production in the South Pacific
- Organic crop production practices in the Pacific Organic Standard
 - Choice of Crops and Varieties
 - Length of Conversion Period (Plant Production)
 - Diversity in Crop Production
 - Soil Fertility and Fertilization
 - Pest, Disease and Weed Management
 - Avoiding Contamination
- Certification in the South Pacific Countries

Other organic practices are being interwoven into other parts of the curriculum eg. Soil science. USP can also access training materials developed by POETCom and develop short trainings in organic agriculture through IRETA.

