

Subsidies on Chemical Fertilisers or Synthetic Pesticides

Pacific Organic Policy Toolkit
<http://www.organicpasifika.com/poetcom>

Subsidies on chemical fertilisers or synthetic pesticides

Reversing subsidies on conventional fertilisers and pesticides

Many countries subsidize agricultural inputs, and particularly fertilisers, in an attempt to increase agricultural production or even in a (misguided) attempt to maintain long-term soil fertility. Obviously, when the structure of the subsidy program is such that only commercial chemical fertilisers are subsidized, and organic fertilisers and on-farm produced fertilisers are not, the policy environment is biased against organic agriculture. Similarly, when the country applies reduced tax rates for commercial fertilisers and pesticides, this works effectively as a quasi subsidization of conventional agriculture, at the expense of organic agriculture.

It is therefore crucial that, in a comprehensive strategy to promote organic agriculture, the issue of subsidies to conventional inputs be considered, and ideally reversed. This has been successfully done in a few countries already, either in a deliberate attempt to promote organic agriculture (e.g. in the case of Bali) or simply as part of a strategy to decrease the use of toxic and environmentally damaging substances in agriculture (e.g. Scandinavian countries).

Generally, there is a positive global trend (especially in developed countries) towards phasing out subsidies (or reduced taxes) for pesticides and fertilisers, and to shift towards the opposite policy instruments, namely taxes on synthetic pesticides and fertilisers and/or preferential fiscal treatment of organic fertilisers and bio-pesticides.

In the EU, a few countries (especially Poland, Portugal, Slovenia, Cyprus and Spain) still apply reduced VAT for pesticides but the EU Commission is advocating that those countries re-examine those policies in order to help achieve the objectives of reducing pesticide use in the EU. Other EU countries are more advanced towards sustainable policies, such as France and Italy, which apply a lower VAT to organically-approved pesticides as compared to conventional pesticides (respectively 10% against 20% and 4% against 22%).

In other developed regions of the world, the trend is also to phase out subsidies on chemical fertilisers. Japan is phasing out subsidies on fertilisers and pesticides by 2019. The Republic of Korea abolished subsidies to chemical fertilisers in 2005 and is now subsidizing the use of organic fertilisers and soil conditioners. Other countries such as Australia, New Zealand or the US do not subsidize fertilisers.

In developing countries, the fertiliser subsidy situation is still mostly unfavourable to organic agriculture, with many/most countries (especially in Africa, Latin America and India) still subsidizing chemical fertilisers (and not subsidizing organic fertilisers), or exempting them from import taxes. However, things are beginning to change, and sometimes rapidly. In 2009, the **Bali, Indonesia** government started a stepwise approach of annual reduction of the subsidies to conventional fertilisers and started,



in parallel, to subsidize organic fertilisers with an annual amount of Rp 1- billion (around € 69,000). The budget allocated to the subsidy for organic fertilisers was gradually increased every year (Rp 4 billion in 2013, Rp 10 billion in 2014) and the government completely stopped subsidizing chemical fertilisers in 2012. Hence Bali has successfully transitioned from a system subsidizing only chemical fertilisers to a system subsidizing only organic fertilisers within the course of 3 years. The State of Sikkim, in **India** underwent a somewhat comparable process, having progressively phased out subsidies on chemical fertilisers from 2003 to 2008 and having a deliberate policy to convert the State's agriculture to organic. **Sri Lanka**, in the context of its Toxin Free Nation Program (see the case example in the Strategic Planning section) also embarked on an ambitious plan to phase out the use of chemical fertilisers in the country in a step-by-step process that starts in 2016 by subsidizing organic fertilisers to the same extent as chemical ones.

Fertiliser and pesticide taxation

A few European countries introduced taxes on synthetic nitrogen fertilisers as early as 1976, 1985 and 1986 for Finland, Sweden and Austria respectively, with rates of taxation varying from 10% to 72% of the fertiliser price. A study from 2001 evaluated the impact of such tax packages and concluded that the greatest impact (reduction of negative externalities caused by use of nitrogen fertilisers) is obtained when the tax system is combined with other policy instruments (advice, incentives and regulations) and when the revenue raised through the taxes is being reinvested solely to promote sustainable alternatives. Other European countries joined the trend of chemical fertiliser taxation in the following decade, but the history of fertiliser taxation in Europe is overall quite complex, with a wide variety of approaches and with several countries, after having implemented such programs for several years, being led by EU policy and court decisions to abolish or modify them. Generally speaking, in the EU, the national fertiliser control policies are now being dealt with in the framework of the EC Nitrate Directive (91/676/EEC), which applies equally to all member states. Nevertheless, there remain disparities, for example in the VAT levels for fertilisers. Italy, Germany, France and Austria apply reduced VAT to organic fertilisers compared to chemical ones.

The three pioneer countries in terms of pesticide reduction programs are Sweden, Denmark and Norway, which adopted national action plans to reduce pesticide use as early as the late 80s. Those plans included taxes on pesticides, levied on sales price or kilograms of active ingredient used. Taxes were paid directly by the agrochemical distributor or by importers (manufacturers are few). The pesticide reduction plans also included education, extension and research programs to promote good practices and alternatives to pesticides, financed through the pesticide tax. In those three countries, the taxation system for pesticide has been continuously refined and improved over the past 30 years, offering a wealth of lessons learned on the topic. An important evolution has been the shift from ad



valorem to banded¹ taxes, allowing for greater attention to the actual threat posed to the environment by various chemical compounds.

Recently (May 2016), Switzerland launched a plan for reduction of synthetic pesticides, which includes taxes on pesticides sales (starting in 2018), and regular increase of VAT on pesticides (starting in 2019).

With regards to pesticides, environmental taxes are also an effective measure to encourage the reduction of their use, as their price elasticity is relatively high. Herbicides seem to have the higher price elasticity, followed by fungicides and insecticides. Indeed, herbicides can easily be replaced by mechanical weed control measures if the farm economics so dictate. Similarly to fertilisers, studies have shown that the most effective pesticide reduction programs are those that combine tax measures with advice to farmers and regulation (e.g. stricter criteria to authorize pesticides, mandatory farm-level record-keeping, etc.).

The set-up of an effective pesticide taxation system is quite a complex exercise, and there is much to learn from the experience of countries like the Scandinavian countries, France, Italy, or even Mexico. Valuable overviews in this regard are the 2005 Briefing of PAN Europe on *Pesticide Taxes- National Examples and Key Ingredients* and the 2016 scientific paper *European Pesticide Tax Schemes in Comparison: An Analysis of Experiences and Developments*. Despite its complexity, it is a policy instrument worth using, and it can also bring substantial tax revenues to the state (e.g. in Denmark in 2013, pesticide tax revenues amounted to 88.5 million of Euro), which can then be reinvested for organic agricultural development (e.g. in the case of Italy, revenues from pesticide tax were earmarked to the Fund for research on organic and quality agriculture; in Denmark and Sweden some revenues were also channelled to organic farming support).

¹ Banded taxes differentiate products according to their hazards on human health and environment, according to some objective indicators.

