Pesticide Action Network Europe

A radical change in food consumption and production in Europe is unavoidable to meet the challenges of scarcities and to make the European agro-food system more resilient in times of increasing instability and surprise
The 3rd SCAR foresight exercise'[1]

Factsheet: The debate on Sustainable Production and Consumption must include pesticides

The EU debate on sustainable production and consumption is often focused on taxation, labelling and environment information, green procurement, and recently more and more about waste. However, the entire debate on chemical input use in EU's agriculture is often set aside. That is a real pity!

Sustainable consumption and production (SCP) was put on the global policy agenda at the 1992 United Nations Conference on Environment and Development in Rio de Janeiro.

Sustainable consumption was adopted as a definition in January 1994 "Oslo Symposium" as: *"the use of services and related products which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of future generations".*

Sustainable production is '*the creation of goods and services using processes and systems that are non-polluting, conserve energy and natural resources, are economically efficient, are safe and healthful for workers, communities, and consumers, and are socially and creatively rewarding for all working people.*

In September 2011, the European Commission published the Communication of the Roadmap to a Resource Efficient Europe[2], highlighting the need to allow the economy **to create more with less**, **delivering greater value with less input.** As part of the debate on sustainable production and consumption is mentioned **'***Avoiding, wherever possible, the use of dangerous chemicals and promoting green chemistry can help protect key resources like soil and water, and make others, like materials, safer, easier and less costly to recycle and reuse*'. This report, among others, highlights the need to propose a new pathway to action on resource efficiency, setting general

[1] 3rd SCAR report: http://ec.europa.eu/research/agriculture/scar/pdf/scar_feg3_final_report_01_02_2011.pdf
[2] http://ec.europa.eu/environment/resource_efficiency/pdf/com2011_571.pdf

objectives and indicators and targets in collaboration with all stakeholders. This report highlights the potential of environmental taxation, and set a specific target to reduce resource inputs in food production by 20% by 2020 (page 18).

A serious implementation of Directive 128/2009/EC on sustainable use of pesticides (SUDP) and of the EU Regulation 1185/2009 on statistics on pesticides would be a serious step to reach the specific target of reducing resource input in food production by 20% in 2020.

The problems caused by pesticides are well-known, just to mention a few:

- The SOER 2010 report on the state of the environment[3] says *'Pollutants in some of Europe's freshwaters have led to detrimental effects on aquatic ecosystems and the loss of freshwater flora and fauna. ...chemicals with endocrine-disrupting properties have been shown to trigger feminising effects in male fish, raising implications for their fertility. Pesticides and metals can be toxic to aquatic life, while concern is growing about the effects of chemical mixtures found in Europe's more polluted waters…'*
- A Eurobarometer investigating what EU citizens consider as food related risks: EU citizens continue to consider pesticides residues in fruit, vegetables and cereals as their main concern[4]

A few have already tried to estimate the economic cost of pesticide use:

- Studies in the US estimated $12 billion per year in environmental, biodiversity losses and societal damages[5]
- Studies in the UK and Germany have conservatively estimated annual external costs of pesticides use to be US$257million and $166million, respectively, paid by sufferers of pesticide-induced poor health, by the environment and by citizens[6].
- A recent French study[7] estimates the overall costs of water pollution from nitrogen and pesticides to be 1.5 billion Euros in France.

Several independent, peer reviewed scientific papers have highlighted the problem and proposed solutions:

'Of the 13 components of intensification we measured, use of insecticides and fungicides had consistent negative effects on biodiversity' … 'If biodiversity is to be restored in Europe and opportunities are to be created for crop production utilizing biodiversity-based ecosystem services such as biological pest control, there must be a Europe-wide shift towards farming with minimum use of pesticides over large areas."[8]

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[3] http://www.eea.europa.eu/soer

[4] Special Eurobarometer 354, November 2010

[5] David Pimentel ; Environmental and Economic Costs of the Application of Pesticides Primarily in the United States, 2009

[6] Pretty & Waibel, Paying the price: the full cost of pesticides, *in* J.Pretty, editor. *The pesticide detox*., 39-54 Earthscan, London, UK., 2005

[7] Cout de principals pollution agricole de l'eau, http://www.developpement-durable.gouv.fr/IMG/pdf/ED52-2.pdf, (Accessed 10-07-2013)

[8] Geiger, F. et al. Persistent negative effects of pesticides on biodiversity and biological control potential on European farmland. Basis and Applied Ecology (2010), doi: 10.1016/j.baae.2009.12.001

A collection of statistical data and expert knowledge to describe low-input alternative techniques in France has shown that it is possible to reduce pesticide use by 30% without reducing farmers' income,…The development of alternative integrated production techniques, meaning changes to longer rotations periods require changes outside and inside the farm, are shown to be difficult to apply because of the way the whole system is organised. The technical challenge requires not only the existence of an alternative technology but also changes in the whole system of which it is part, and which involves the users, the distribution networks, the infrastructures, and cultural and symbolic values.'[9]

A serious implementation of the EU Directive 128/2009 on Sustainable Use of Pesticides (SUDP) could help to reach the target to reduce resource inputs in food production by 20% by 2020 set in the EU communication:

The SUDP stresses that '*Member States shall adopt National Action Plans to set up their quantitative objectives, targets, measures and timetables to reduce risks and impacts of pesticide use on human health and the environment and to encourage the development and introduction of integrated pest management and of alternative approaches or techniques in order to reduce dependency on the use of pesticides.*' Even though Member States are still setting targets and timetables as foreseen in the SUPD a few, like Denmark and France have done so, while a few others have set part targets[10].

A serious implementation of the EU Directive 128/2009 on Sustainable Use of Pesticides (SUDP) could also help to start the shift towards environmental taxation:

The SUDP also, in recital 4, highlights that *'Economic instruments can play a crucial role in the achievement of objectives relating to the sustainable use of pesticides. The use of such instruments at the appropriate level should therefore be encouraged while stressing that individual Member States can decide on their use without prejudice to the applicability of the State aid rules.'* A few Member States, like Denmark, has introduced a pesticide tax[11].

But first it is crucial to stop Member States - like Slovenia, Poland and Portugal – from applying VAT levels below the average rate. Low levels of VAT for chemical inputs is an indirect subsidy and should be stopped, as it blocks the move towards sustainable food production and consumption.

VAT levels applied in the MS for pesticides and fertilisers[1]

	BE	BG	CZ	DK	DE	EE	EL	ES	FR	HR	IE	IT	CY	LV
Pesticides	12/21	20	21	25	19	20	13	10	10/20	25	23	22	5	21
Fertilisers	12/21	20	21	25	19	20	13	10	10/20	25	0/23	4	5	21

	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK
Pesticides	21	15	27	18	21	20	8	6	24	9,5	20	24	25	20
Fertilisers	21	3	27	18	21	10/20	8	6	24	9,5	20	24	25	20

Source:http://ec.europa.eu/taxation_customs/resources/documents/taxation/vat/how_vat_works/rates/vat_rates_en.pdf

[9] Jacquet, F., et al., An economic analysis of the possibility of reducing pesticides in French field crops, Ecol. Econ. (2011), doi:10.1016/j.ecolecon.2011.04.003

[10] See: far:http://www.pan-europe.info/Resources/Reports/PANE - 2013 - Reducing pesticide use across the EU.pdf

[11] The Danish pesticide tax introduced in July 2013, is taxing insectides base don their environment and public health toxicity, with revenue being paid back to the farming community in lowering taxes on land se: http://www.mst.dk/English/Pesticides/pesticidetaxseminar.htm

A serious implementation of the EU Regulation 1185/2008 concerning Statistics on Pesticides must be an element to consider when developing EU indicators on resource efficiency:

The EU regulation on statistics on pesticides foresees that Member States shall deliver the following statistics:

- Annual delivery of statistics on sale of pesticides, which for the first time related to 2011 statistics to be delivered in December 2012
- Five years delivery of statistics on use of pesticides, with for the first time will relate to 2014, statistics to be delivered in December 2015

Independent public data is crucial to measure EU's progress made towards resource efficiency also regarding amount of sale and use of chemical inputs in EU food production.

Despite establishment of EU regulation 1185/2009 concerning statistics of pesticides:

- The latest complete Eurostat's database on pesticides is from 2001, containing all MS, and
- The latest available information from the database is 2008, in which only four MS released pesticide data, while
- The only Eurostat publication on use of pesticides in the EU, dates back to 2007, with data for 1992-2003 delivered among others by European Crop Protection Association (ECPA).
- The high level of concentration of multinational chemical companies may lead to further lack of information due to confidentiality issues.

To monitor national and EU trends in pesticides sale and use, a serious implementation of the 1185/2009 is needed. The increasing dependency on data information from private companies and their interest groups is unacceptable.

Other issues to consider when developing EU indicators on resource efficiency:

A lacking engagement from the EU to propose harmonised indicators on resource efficiency seems currently to lead to more and more proposals being left in the hands on industry.

This has so far resulted in 1) that the further work on harmonised methodology for the calculation of the 'product environmental footprint'[12] has to be financed by the industry and as a result will be elaborated by private partners, and that 2) current Life Cycle Impact Assessment (LCIA) aiming at understanding and evaluating the magnitude and significance of potential environmental impacts for a product system throughout the life cycle of the product (ISO 14044:2006) [13] does not take into account public health consequences of intake of contaminated food, but stop measuring impact when the 'product' leaves the producer.

Conclusion

It is unavoidable that a change towards sustainable production and production is needed. In theory the objectives on resource efficiency in food could be reached alone by a serious implementation of the SUDP, but in practice the implementation is disappointing on the production side, and as a result citizens and consumers pay the price.

[12] http://ec.europa.eu/environment/eussd/smgp/product_footprint.htm
[13] http://www.food-scp.eu/files/consultation4/ENVIFOOD_Protocol_November_2012.pdf