PESTICIDES

A MODEL THAT'S COSTING US DEARLY

Pesticides are often in the news. We can read or hear about them in new research publications, political agendas, and numerous campaigns and press releases. Meanwhile, the future of European agriculture and sustainable food systems is being negotiated in the form of the EU Farm-to-Fork strategy (which calls for a 50% reduction of pesticide use by 2030) and reform of both the CAP and the EU rules on pesticide (the Sustainable Use Directive revision).

These discussions are sure to once again bring up the controversy surrounding synthetic pesticides, which is fuelled in particular by opposition between:

- the economic influence of the sector and its capacity to "feed the world", which is championed by the manufacturers and users of pesticides,
- and its negative impacts on the environment and health, in Europe and elsewhere in the world.

It's with the goal of examining these issues objectively that Basic, CCFD-Terre Solidaire and Pollinis are publishing the study

PESTICIDES: A MODEL THAT'S COSTING US DEARLY.

The study provides new data to help discuss the issue, based both on an assessment of the costs and benefits of the pesticide sector in Europe and on an analysis of recent trends in the sector and among its main players (BASF, Bayer, Corteva, Syngenta). Above all, the study questions the social and economic rationality of the production and use of pesticides and, more generally, that of the agricultural model that depends on them.

A sector whose costs are twice as high as its profits

Pesticides are an integral part of an agro-industrial model that has been developed since the middle of the 20th century and is based on four pillars: synthetic fertilizers, "improved" seeds, agricultural machinery and pesticides.

Over the last 20 years, the global pesticide market has doubled, reaching turnover of €53 billion in 2020. The European Union is simultaneously one of the main consumers and one of the main exporters internationally.

Systemic impacts on biodiversity and human health

This intensive use of pesticides has multiple impacts. Many studies point to the role of pesticides in the declines in insects (especially bees and other pollinators), birds and biodiversity more generally. Such decline ultimately threatens the provision of ecosystem services that are critical to agriculture: pollination, pest control, and soil, water and climate regulation.

The effects on human health are also being increasingly documented and recognized, not only in Europe but also in the countries of the Global South, where the consequences are even more worrying because of insufficient regulations to protect people from the most toxic substances.

A sector on life support

To examine the economic repercussions of these various impacts objectively, we conducted a cost-benefit analysis of the pesticide sector that investigates both of the following:

→ The real costs generated by pesticide use and paid for by European society (i.e., public expenditure linked to the negative impacts of pesticides and public support received by the sector),

→ The book profits generated by major firms through pesticide use.

On a European scale, **the costs directly attributable to pesticides– around €2.3 billion in 2017, which must be borne by our societies – are twice as high as the net profits directly made by the industry (nearly €0.9 billion that same year)**.

Without official aid for the pesticide sector, and without our collective payment of the costs linked to its negative consequences, the sector would not be profitable today.

The war of influence by pesticide manufacturers to maintain the status quo

How is this economic absurdity made socially acceptable? To defend its interests, the sector carries out large-scale lobbying targeting public authorities. **Expenditures related to lobbying approach €10 million per year**, just for the European market. This amount is greater than the budget of the European Food Safety Authority (EFSA) dedicated to regulate pesticides.

An agro-industrial system that no longer delivers on its main promises

Beyond the hidden costs of the pesticide sector, our study reminds us that the agro-industrial model, of which it is an integral part, is far from having resolved the social, health and economic problems that justified its development in the 20th century.

A system that produces more? Limits to the race for yields

While global agricultural production has more than doubled since the 1950s, agricultural yields are now reaching a ceiling. More worryingly, yields are beginning to decline in many areas where specialized crops are grown. This is because modern production systems – dependent on pesticides – have led to growing phenomena such as pest resistance, soil and biodiversity degradation, and also the destruction of natural resources needed for agricultural production (soil, fauna and flora required for crop development, etc.). At the same time, these same systems are helping to make the effects of climate change worse.

A system that "feeds the world"? The growing scourge of food insecurity and malnutrition

Agricultural production could feed a population 1.5 times greater than the world's current population. Yet, food insecurity is still a problem for 40% of people, of whom most are farmers! The issue is thus not just one of available quantities, but also of food waste, access to food for all... and food quality. Indeed, the shift towards diets that are less varied and contain more meat and processed foods has led to an explosion in problems of overweight, cardiovascular disease and obesity – a global pandemic caused by the dysfunctional nature of our current agricultural and food systems.

Farmers, the big losers of the current food model

The agri-food industries and large-scale distribution sector seem to be the big winners of this model – not farmers or consumers. For these latter, **the price of food has increased fivefold since the 1960s** (at current currency values). Meanwhile, commodity prices of the major agricultural products have fallen by half, with the share of value obtained farmers constantly declining. Over the same period, millions of agricultural jobs have been destroyed by the processes of farm intensification and expansion, which are encouraged by public policies under pressure from global competition.

A system that goes counter to food sovereignty

More fundamentally, beyond assessing the hidden costs of the pesticide sector, our analysis questions the ability of an agricultural and food system that depends on pesticides to achieve any food sovereignty objective.

Industry consolidation via mergers and acquisitions

Currently, four companies – Bayer, BASF, Syngenta/ChemChina and Corteva – hold nearly three quarters of the pesticide market and nearly 60% of the agricultural seed market. Syngenta/ChemChina is a Chinese state-owned company. In contrast Bayer, BASF and Corteva are all partly owned by the same five American investment funds: Blackrock, Vanguard, State Street, Capital Group and Fidelity. These funds also own between 10% and 30% of the capital of the world's leading food companies, such as Unilever, Nestlé, Mondelez, Kellogg, Coca-Cola and PepsiCo.

"Less is more": Reinvention of the sector into precision farming and new technologiess

The leaders of the pesticide sector, both Western and Asian, are now trying to reinvent themselves through "digital agriculture", by combining their traditional offers with new data collection tools (sensors, drones, satellites, etc.) and the use of robotization. At the same time, they are increasingly investing in new genetic engineering technologies.

In addition to the environmental impacts associated with these new technologies (which are based on an ever-increasing consumption of non-renewable resources), and to their high costs (which limit their accessibility), this model is making farmers even more dependent on agribusiness. But in our uncertain times, which is seeing increasingly frequent climate events, the key to farmers' resilience lies in empowering them more and in strengthening their capacities for adaptation.

Behind the Green Revolution, double jeopardy for the countries of the Global South

The industry's promises of a new golden age for agriculture conceal a less attractive reality: international development of the sector is still largely based on commercialization, in emerging countries, of pesticides that are banned in Europe due to their toxicity and to the ensuing health and environmental consequences.

At the same time, people in emerging countries are also suffering from the poorly regulated development of pesticide production sites on their territory, particularly following the ongoing relocation of production outside the European Union and the surge of the generic pesticide market since 2000, which has turned China and India into the top global manufacturers and exporters.

Responsibility of governments

In a few decades, and thanks to the constant support of public authorities, the agricultural world has invested massively in the use of pesticides. While the profits of this sector are becoming increasingly concentrated in the hands of a few multinationals, society faces a considerable bill to pay each year to cover the costs linked to pesticide use. But even those amounts will not be able to repair the irreversible damage caused to humans and the environment.

Our institutions continue to support the traditional players of the sector despite these visible failures. They even believe in the sector's promises of a third agricultural revolution. As a result, social and environmental impacts as well as dependence on non-renewable resources and agribusiness are intensifying for farmers rather than diminishingIn contrast, the varied agroecological models have proven to be more sustainable. While transition to these also requires investments, these latter will be smaller and above all more sustainable. For example, according to INRAE, the European Union's "Farm to Fork" strategy's goal of tripling organic farms by 2030 would cost €1.85 billion per year – less than the annual costs to society that are linked to pesticides.

Finally, in 2022, Member States will have to assume their responsibility and choose between a costly, polluting model concentrated in the hands of a few players whose decision-making centres are outside Europe, and a sustainable agro-ecological model championed by citizens1 and farmers2. It is the future food sovereignty for the EU – and, more broadly, for the planet – that is at stake.

Our recommendations

1 ALIGN THE OBJECTIVES OF THE FARM-TO-FORK (F2F) STRATEGY WITH THE SUSTAINABLE USE OF PESTICIDES DIRECTIVE (SUD) AND THE CAP REFORM.

The F2F strategy calls for a 50% reduction in the use of pesticides by 2030. This objective should be included in the new Pesticides Directive (SUD) and become binding for Member States. Similarly, the EU should approve Member States' National Strategic Plans only if they are compatible with this objective. Lastly, a first step towards this goal would be not to renew authorization of glyphosate in 2022.

2 PUT AN IMMEDIATE END TO THE EXPORT OF BANNED PESTICIDES

The Commission has spoken in favour of stopping exports of EU-banned pesticides but has not yet passed legislation on this issue. This ban must extend to exceptions that may be included in free-trade agreements. The EU must also prevent any rush to relocate or set up production units in the Global South, by proposing an international regulatory tool which harmonizes pesticide regulations along the strictest level.

3 STRENGTHEN THE DUE DILIGENCE DIRECTIVE

This measure can be carried out by ensuring that assessments of the negative impacts of industries include the socio-economic costs to societies, in addition to health, social and environmental aspects. This Directive must become a binding tool that will limit the impacts of the pesticide industry and mega-mergers in the sector, and it must lead to better distribution of value along the chain.

4 ADOPT A TAX SYSTEM CONSISTENT WITH THE IMPORTANCE OF PHASING OUT PESTICIDES

The polluter-pays principle is part of the EU treaties and must be applied to the pesticide sector. The EU must also ensure that production and purchase of pesticides are no longer supported, either through VAT exemptions or subsidies.

5 REDIRECT OFFICIAL FUNDS TOWARDS MASSIVE SUPPORT FOR AGROECOLOGY

The budget allocations for agricultural support must be earmarked for the agro-ecological transition. They must support all farmers towards a change of system. The EU should do its utmost to encourage alternatives to pesticides, including through support for public research on the socio-economic costs associated with pesticides and on the sustainability of agroecological models. It must also clearly direct its support to programmes that promote agroecology, particularly in the countries of the Global South.

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