

## POSITION PAPER



© Arjun MJ - Unsplash

# Reducing the use of pesticides and veterinary products

a key objective in the implementation of agroecological alternatives.

### In this position paper, the terms below are defined as follow:

**Pesticides:** According to the FAO, a pesticide is «any substance, or mixture of substances, intended for repelling, destroying or controlling any pest [...] and unwanted species of plants or animals causing harm during or otherwise interfering with the production, storage [...] or marketing [...].<sup>1</sup>» These are chemical substances, synthetic or natural, used in agriculture to control different types of pests. Pesticides are classified by their target: insecticides [insects], herbicides [weeds], fungicides [fungi], molluscicides [slugs and snails], etc. To be used by farmers, the active ingredients are formulated, and this is what we refer to as pesticides, plant-protection products or phytopharmaceutical products.

**Highly Hazardous Pesticides**, or HHPs, present particularly high levels of acute or chronic hazards to health or the environment according to the classification systems of the WHO<sup>2</sup> or the Global

Harmonised System (GHS) for classifying chemical products, or are listed in the binding documents of international conventions. There is no official list of Highly Hazardous Pesticides, but a series of different criteria have been set out for HHPs such as: pesticides from categories 1A and 1B in the WHO classification; Carcinogenic, Mutagenic or Reprotoxic (CMR) pesticides according to the GHS classification; or pesticides listed in the Stockholm Convention, Rotterdam Convention, or Montreal Protocol<sup>3</sup>.

**Veterinary Products:** These include all medicines for veterinary use, such as antimicrobials, antiparasitics and vector-control products, vaccines, as well as disinfectants and sanitising products (for livestock housing, etc.).

[1] International Code of Conduct on the Distribution and Use of Pesticides (FAO, 1990)

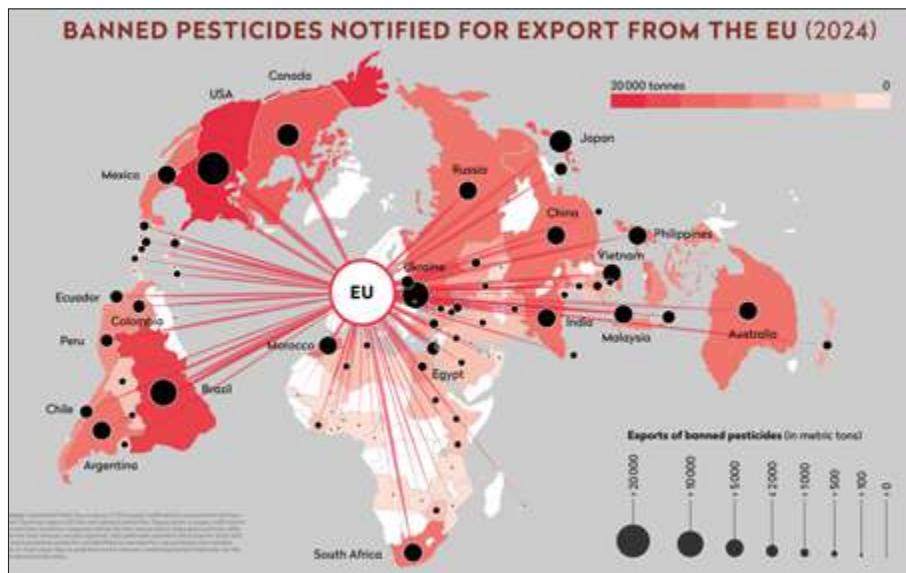
[2] World Health Organisation

[3] Stockholm Convention: [https://chm.pops.int/Portals/0/sc10/files/a/stockholm\\_convention\\_text\\_e.pdf](https://chm.pops.int/Portals/0/sc10/files/a/stockholm_convention_text_e.pdf) ;  
Rotterdam Convention: <https://www.pic.int/TheConvention/Overview/TextoftheConvention/tabid/1048/language/en-US/Default.aspx> ; Montreal Protocol: <https://ozone.unep.org/sites/default/files/2019-08/mp-handbook-2017-english.pdf>

# 1. Changes in the use of pesticides and veterinary medicines worldwide and in certain countries where AVSF carries out its projects

The use of synthetic pesticides is a pillar of the input-intensive farming model that has been strongly supported by governments for decades in the name of food sovereignty and higher exports. Global pesticide use has been rising steadily over the past 30 years and almost doubled between 1990 and 2020, from 2.3 to 4.2 million tonnes. Herbicides account for most of the increase in pesticide use in the Global South. This steady growth in the global market is driven mainly

by the strong increase in sales in the Global South (Latin America, Africa and Asia), where pesticide use was still limited until now, and where the sale of pesticides is less regulated (see map below), and by higher pesticide exports from Asia, particularly China and India. "In 2018, China became the world's leading exporter with over 5 billion dollars of exports, leaving Germany in second place with 4.6 billion dollars"<sup>4</sup>. Currently, four multinationals control 67% of the market for pesticides. One of their business strategies involves formulating products from active ingredients that are no longer patent protected but that may be more toxic. This is a more profitable strategy given the stricter approval procedures for new active ingredients, particularly in the European Union, which takes more time and requires higher research costs. As countries in the Global South do not have strict control and approval procedures, these toxic products face no obstacles there and are sold in the markets. According to the NGO Pesticides Action Network, sales of pesticides classified as "Highly Hazardous Pesticides" are higher in Asia, Africa and Latin America than in industrialised nations<sup>5</sup>. HHPs account for 11% of pesticide sales in France, versus 49% in Brazil and 59% in India<sup>6</sup>.



[4] Pesticides: a model that's costing us dearly, 2021. <https://basic.coop/en/our-work/our-publications/>

[5] Source: <https://www.publiceye.ch/en/topics/pesticides/highly-hazardous-pesticides/the-black-list-of-pesticides>

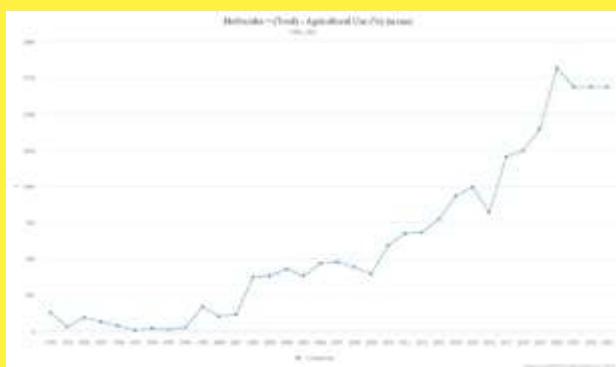
[6] Pesticides Atlas Heinrich-Böll-Stiftung & others, 2022.[9]

## Pesticide use on the rise in Africa

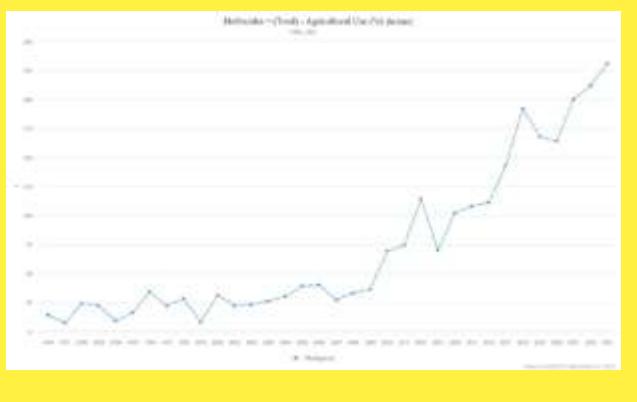
Although Africa still has the lowest pesticide use<sup>7</sup>, imports to Sub-Saharan Africa increased eightfold between 2000 and 2015, from 100 million US dollars annually to nearly 800 million US dollars (source: FAOSTAT, 2018).

Pesticide use remained low until the 2000s and was limited to just a few industrial sectors (cotton, coffee, bananas, etc.). From 2008 onwards, pesticide use rose sharply, as shown in the examples of Cameroon and Madagascar (see below). The increase was driven mainly by rising herbicide use [glyphosate-based total herbicides and selective herbicides for cotton, cereal and legume crops]:

### Herbicide use in Cameroon



### Herbicide use in Madagascar



As for veterinary products, the global market for veterinary medicines has been growing steadily by roughly 6% annually since 2002, and that growth has been seen in Africa too. According to estimates by IFAH<sup>8</sup>, the value of the official market for veterinary medicines in Africa is around 400 million dollars a year. **Sales of non-compliant or unlicensed medicines are also estimated at 400 million dollars a year in addition to legal sales<sup>9</sup>.**

## 2. Weak regulation of markets and alarming conditions of use in the Global South

The strong growth in pesticide use in Latin America, Africa and Asia has been made possible by a lack of regulation and market regulation in terms of pesticides approval, importation, distribution and sale to users. The growing use of pesticides has become so worrying, particularly in Africa, that a number of experts gathered together for international conferences in Arusha (Tanzania) in 2019 and in Bouaké (Ivory Coast) in 2022<sup>10</sup>. The diagnoses offered by the national network of chambers of agriculture in Niger (*Réseau des Chambres d'Agriculture du Niger*, or "RECA")<sup>11</sup> and by AVSF in West Africa, Madagascar and Ecuador all made the same assessment:

- the FAO's codes of conduct for pesticides are not being followed, with pesticides sometimes containing highly toxic substances that are prohibited under international conventions;
- governments are failing to control markets and borders, leading to the sale of counterfeit products (see Arusha Call for Action and boxout below).

Similar observations have been made in South America, where a study conducted in the Andes (Ecuador, Peru, Bolivia)<sup>12</sup> found that, on average, 45% of products recommended in those countries are banned in the European Union, and 88% of recommendations made by pesticide distributors are incorrect compared with the information specified on the products.

### The need for an international treaty and coordination of states at regional level<sup>14</sup>

The overall global governance of pesticides remains weak and inadequate. It relies mainly on the International Code of Conduct on Pesticide Management, which is powerless to take action or implement programmes. The Code is constantly violated by the pesticide industry, with no repercussions. The only binding-instruments, like The Stockholm, Rotterdam and Montreal Conventions, are very specific and do not cover all products. In 2017, UN human rights experts recommended, "the international community must **work on a comprehensive, binding treaty to regulate hazardous pesticides throughout their life cycle**, taking into account human rights principles". The Pesticide Action Network (PAN International) supported this call and submitted a detailed proposal in January 2018. The African Group, with the support of many delegates from the Arab region and Latin America, at the 2012 and 2015 meetings of the International Conference on Chemical Management (ICCM) had already made proposals for a global mechanism to phase out HHPs. However no decisions could be taken because of strong opposition from countries with a significant presence of pesticide manufacturers, primarily the United States and the EU.

[7] Average consumption less than 0.4 kg per hectare of cropland, versus roughly 2.6 kg per hectare on average worldwide (Pesticide Atlas 2022).

[8] International Federation for Animal Health

[9] <https://www.fao.org/newsroom/detail/Alliance-to-combat-black-market-in-counterfeit-veterinary-drugs/>

[10] [Implementation of public policies and pesticides in the Global South](#)

[11] <https://reca-niger.org/spip.php?rubrique47>

[12] The Arusha Call for Action on Pesticides, "Pesticide Politics in Africa" Conference, Tropical Pesticides Research Institute (TPRI), Arusha, Tanzania, 28 – 31 May 2019, available at [https://iris.ehess.fr/docannexe/file/4393/arusha\\_call\\_for\\_action\\_on\\_pesticides\\_with\\_signatures\\_compressed.pdf](https://iris.ehess.fr/docannexe/file/4393/arusha_call_for_action_on_pesticides_with_signatures_compressed.pdf)

[13] Struelens Q.F., et al. [Pesticide misuse among small Andean farmers stems from pervasive misinformation by retailers](#). PLOS Sustainability and Transformation, In press, 1 [6].

[14] Extract <https://www.publiceye.ch/en/topics/pesticides/highly-hazardous-pesticides/the-conclusions-of-un-agencies>

In West Africa, in an effort to harmonise legislation between the 15 ECOWAS<sup>15</sup> member states, CILSS<sup>16</sup> and the Sahel Institute [INSAH] created the West African Pesticide Registration Committee [WAPRC], in collaboration with ECOWAS and WAEMU<sup>17,18</sup>.

The lack of regulation in these countries leads to poor-quality products being offered on the market and to a lack of support and training in technical and health-related aspects regarding their use, which increases the risks associated with the use of those products. Improper use explains **the high level of exposure to pesticides for sellers, users that apply the products, and consumers**. The most worrying situations that have been observed include:

- **Lack of knowledge regarding the safety measures that must be followed when handling these products.** At markets, it is common to see sellers handling pesticides without gloves.



Pesticide application in Vietnam without PPE and a mix of active herbicides (paraquat and glyphosate) in the sprayer

[15] Economic Community of West African States

[16] Interstate Committee for Drought Control in the Sahel

[17] West African Economic and Monetary Union

[18] INSAH web portal – Inaugural session of the West African Pesticide Registration Committee [WAPRC], Niamey, Niger, 21-25 March 2022.

[19] See <https://osha.europa.eu/en/themes/dangerous-substances/clp-classification-labelling-and-packaging-of-substances-and-mixtures>

[20] In the EU, for instance, hazard statements must be defined on the labels of pesticide containers and bags (e.g. H361f or d = Suspected of damaging fertility or the unborn child).

[21] The ban applies to open-air crops, but allows for derogations for greenhouse crops. Moreover, certain neonicotinoids are still used in veterinary medicine, particularly as antiparasitic drugs for control of external parasites in pets mainly and as biocidal products against cockroaches, flies, ants, termites, etc. (gels, adhesive tape, spray, whitewash).

[22] Bureau-Point E., 2021. Pesticides and crisis narratives in the Cambodian peasant world. <https://doi.org/10.4000/anthropologiesante.9054>

- **Pesticides are sometimes stored too close to food products**, and temperature conditions and lack of ventilation in shops could be very dangerous for sellers, especially if they are selling retail and stocking bags of pesticides classified as highly hazardous (HHPs or CMR).

- **Pesticides are often applied without any personal protective equipment (PPE).** Official PPE (integral suit, mask, etc.) is often unsuitable for tropical conditions and too expensive for farmers, and people are not encouraged to wear basic protection (boots, mask, gloves and goggles) even though it is sometimes children who are tasked with applying pesticides.

- **The products, doses and conditions for application are often inappropriate. The time gaps between application and harvest** are rarely respected, which is a serious problem for crops intended for rapid consumption (e.g. market-garden crops and black-eyed pea). This may also lead to the appearance of resistance, which reduces effectiveness.

- The hazard symbols on the labels of pesticides sold on the market are too small and often illegible. **They generally do not contain the “hazard statements” of the CLP international classification<sup>19</sup>**, which must appear on labels in industrialised countries. These two shortcomings make it difficult for workers and farmers to identify the risks associated with the products they buy.

- With a few exceptions, **the lack of management for pesticide** packaging means that packaging is often left in the field accessible to anyone, or reused for other purposes, including food-related uses (such as carrying water and milk!).

- **Environmental risks** are downplayed or not taken into account. Neonicotinoids, which were banned in France for open-air plant production<sup>21</sup> because of their role in the decline of pollinating insects, are widely used in the Global South, particularly in Africa. In the veterinary field, for instance, the use of ivermectin as an antiparasitic drug is often excessive, even though this persistent molecule affects the entomofauna (including coprophagous insects, which break down organic matter) and thus reduces soil fertility.

- **Agricultural advisory schemes too rarely provide training for their agents on pest biology, how to identify pests, and the health and environmental risks associated with pesticides.** With the exception of a few agricultural value chains that have an integrated vision of their activities (e.g. Sodefitec for cotton in Senegal) and RECA Niger advisors, who receive specialised training, extension agents do not have enough training and are not able to effectively advise farmers or train people who sell agricultural and veterinary inputs.

Pesticide use is therefore escaping regulation by authorities in the Global South. Governments are trying to follow the strict rules proposed by pesticide makers with standards designed generally for a Western context that are unsuitable for conditions in the Global South, but they do not have enough resources to enforce them<sup>22</sup>. Yet the **single-dose pouches** developed by agrochemical companies for countries in the Global South, **which are accessible to farmers** with low incomes, has led to a steady increase in pesticide use by farmers in those countries.

As for **veterinary products**, according to a study<sup>23</sup> published by WOAH<sup>24</sup> in 2008, 69% of medicines sampled at markets in Cameroon and 67% in Senegal, respectively, presented non-compliances in their formulation, which could have an impact on their effectiveness and their safety. The use of medicated feed (livestock feed containing low doses of antibiotics used as growth-promoting agents) is not controlled in some countries. This use has been banned, however, in the European Union since 2016.

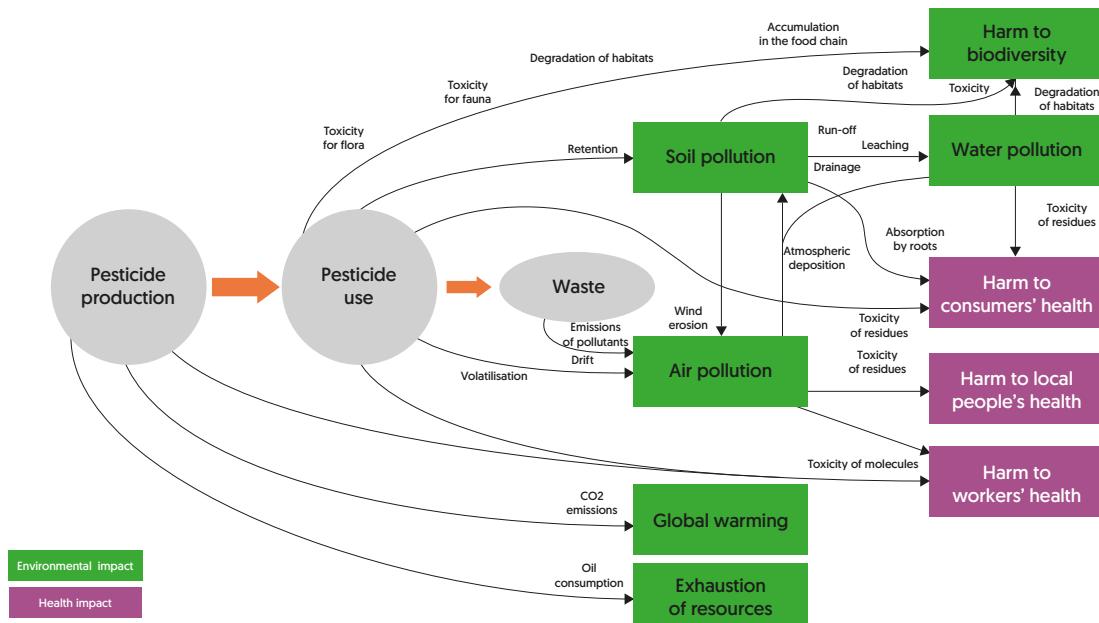
Moreover, just like for pesticides, **technical support for livestock farmers** in terms of acquiring and using these products, and selecting the right products to treat the targeted pathology, is very inadequate. In West Africa, land pressure and the reduction of common grazing areas are leading to a decline in pastoralism and the development of farms combining crop- and livestock-production activities, particularly livestock fattening and milk production. This trend has given rise to an increase in the use of veterinary products, which are often poorly controlled, making it difficult to ensure appropriate and minimal use of antiparasitics and antibiotics.

### 3. Pesticides and veterinary medicines: key public-health issues in the Global South

The leading public-health issue associated with pesticide use concerns mortality. Developing countries account for only 20% of global pesticide use but 80% of deaths and poisonings<sup>25</sup>. In addition to direct mortality, there are growing concerns over the rise in non-infectious diseases with medium- and long-term effects such as cancers, birth defects, neurological conditions, fertility problems, etc.

The effects of pesticides are felt at many other levels too, from their production to their destruction, as summarised below in a study conducted by BASIC:

**The impacts of pesticides (source : le BASIC, CCFD Terre solidaire and Pollinis)**



[23] Teko-Agbo A. et al. Quality of veterinary medicinal products in circulation in Cameroon and Senegal. Dakar Médical, 2009 (n° 3).[https://www.researchgate.net/profile/Elhadji-Mamadou-Niang/publication/371140278\\_QUALITY\\_OF\\_VETERINARY\\_MEDICINAL\\_PRODUCTS\\_IN\\_CIRCULATION\\_IN\\_CAMEROUN\\_AND\\_SENEGAL/links/6475e2af6fb1d1682b1bf8c44/QUALITY-OF-VETERINARY-MEDICINAL-PRODUCTS-IN-CIRCULATION-IN-CAMEROUN-AND-SENEGAL.pdf](https://www.researchgate.net/profile/Elhadji-Mamadou-Niang/publication/371140278_QUALITY_OF_VETERINARY_MEDICINAL_PRODUCTS_IN_CIRCULATION_IN_CAMEROUN_AND_SENEGAL/links/6475e2af6fb1d1682b1bf8c44/QUALITY-OF-VETERINARY-MEDICINAL-PRODUCTS-IN-CIRCULATION-IN-CAMEROUN-AND-SENEGAL.pdf)

[24] World Organisation for Animal Health

[25] [https://apps.who.int/iris/bitstream/handle/10665/51746/WHSQ\\_1990\\_43\\_n3\\_p139-144\\_eng.pdf](https://apps.who.int/iris/bitstream/handle/10665/51746/WHSQ_1990_43_n3_p139-144_eng.pdf), viewed in January 2024.

The **spreading and concentration of pesticides in the environment**, and their infiltration, may lead to massive and long-lasting pollution of soils and water (certain molecules can persist in the environment for several decades) and **cause chronic poisonings** affecting entire communities. Ecosystems are also affected with impacts on non-targeted organisms (fish, pollinating insects and birds), posing a threat to biodiversity and the quality of the environment.

This alarming assessment of the health and environmental risks linked to these chemical products, which people are exposed to in the countries where AVSF carries out its projects, is largely shared by the scientific community. In 2015, the 4<sup>th</sup> International Conference on Chemicals Management (ICCM4) highlighted the importance of replacing **Highly Hazardous Pesticides with agroecological alternatives**. The Stockholm and Rotterdam conventions support **agroecology as a first approach** for replacing the active ingredients that they blacklisted.

For **veterinary medicines**, the risks include:

- **The appearance of resistance (particularly to antibiotics) in pathogens.** This affects livestock farmers financially (treatment failures and increase in morbidity and mortality), but also poses a serious threat to human health with the appearance of resistant – or even multi-resistant – germs that we will no longer have any means of treating. According to the WHO: Resistance to antibiotics is one of the top threats to global public health, food security and development.
- **The spreading of veterinary-product residues throughout the environment**, which may have negative environmental impacts. This occurs, for example, when antiparasitic drugs are misused or abused, which affects microfauna and macrofauna in the soil and therefore has an impact on soil fertility over time.

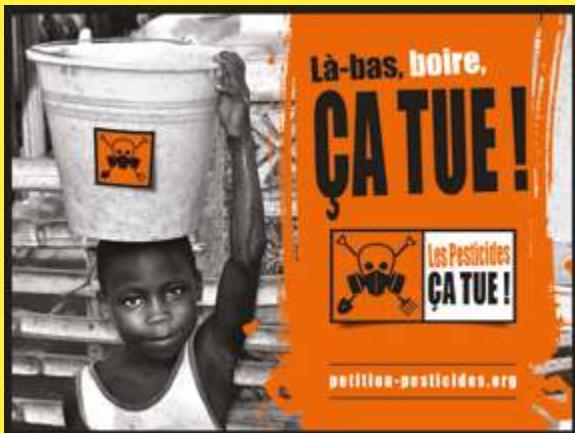
The quality of medicines is also a crucial issue in certain countries in Sub-Saharan Africa and South East Asia. This parameter is difficult to combat in the field as these circuits represent the majority and because they result from public policies and weak regulatory control measures.

## 4. For elimination of the use of substances that are highly toxic to health and the environment

Taking into account the various adverse effects that may be caused by the use and misuse of the most toxic pesticides and veterinary products, AVSF **strongly supports a “One Health” approach**.

AVSF's vision and work aim to meet the following objectives:

- 1. Urgent elimination of the use of Highly Hazardous Pesticides (HHP or CMR)** and certain endocrine disruptors, and gradual elimination of the use of all hazardous pesticides whenever there are reliable alternative techniques available to farmers. For herbicides, the aim is to **eliminate** their use, with a priority on **soil-applied herbicides** because of their very worrying impact on water and soil biodiversity



- 2. Minimal and controlled use of veterinary products** (particularly antimicrobials) that strikes a balance between animal health, human health and protection of the environment, and **efforts to combat the black market** for medicines (products that are counterfeit, defective, non-compliant) by providing information and seeking out controlled supply chains. More specifically, the purpose is to **ensure that people are complying with the ban on the use of critical antibiotics** and medicated feeds, which pose a threat to human health (antibiotic resistance). Lastly, the objective is also to ensure less and better use of certain medicines, particularly **antiparasitic drugs such as ivermectin**, whose environmental impacts are becoming more and more worrying.

- 3. All of this is to be associated with research, experimentation and implementation of technically, economically and socially viable alternatives to pesticides and certain veterinary products** through support for agroecological transitions. To enable the elimination of herbicides, a very large investment must be made in action research to find alternatives to mechanisation and support the dissemination of and access to equipment.

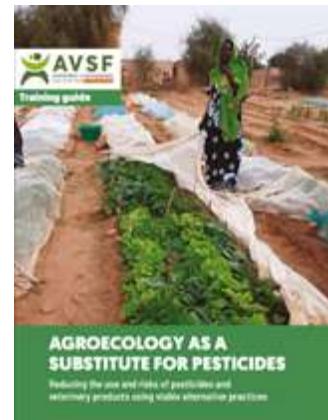
This approach requires transdisciplinary work involving a partnership with other structures or professionals whose skills complement AVSF's skills. Strong participation of crop and livestock farmers is obligatory in this approach: not only they are the first to be affected by these risks, but they also have the knowledge and practices that can be used to help reduce the use of these products.

For these farmers, shifting to agroecological techniques may take time and may also create risks or even lead to economic losses. That is why one of the first steps in the agroecological transition involves raising awareness and teaching people about the risks and how to make better use of pesticides and veterinary products, by using only products that are registered and that are the least hazardous to health. This allows producers to broaden their knowledge of the conditions of use, modes of action and targets of these treatments (biology, pest cycles, etc.), while helping them gradually adopt alternative techniques. Farmer Field-school projects are very useful in this regard, as they allow groups of crop and livestock farmers to try out alternatives before adopting them<sup>26</sup>.

### Actions carried out by AVSF at different scales

Over the past decade, AVSF has been working in these areas with various partners, particularly in Latin America and Africa. In 2014, our NGO teamed up with other associations to promote alternatives to pesticides. In March 2015, AVSF launched a campaign focusing primarily on eliminating the use of the most hazardous pesticides in the Global South. This initiative sparked discussions within our organisation and highlighted the need to develop **expertise within AVSF** to more rigorously and systematically address the issue of pesticides and veterinary products in our work.

A working group was formed within AVSF (comprising elected representatives, employees and volunteers) in 2019. Thanks to collaboration between farmers and researchers from CIRAD (French Agricultural Research Centre for International Development) and IRD (French National Research Institute for Sustainable Development), the group was able to produce a training guide<sup>27</sup>.



On the basis of this guide, **eight training and exchange workshops** were organised with various partners between 2019 and 2023 in Mali, Ivory Coast, Senegal, Madagascar, Guinea and Ecuador, providing **training for approximately 350 people in total**, mainly skilled workers and instructors in crop production as well as veterinarians and animal-health workers, in charge of advising smallholders and helping them transition to agroecology through projects or smallholder organisations.

[26]Bakker T., Bajolet A., Beauval V., Mathieu B., 2021 « Réduire l'usage des pesticides au Togo et au Mali par l'adoption de démarches participatives et l'intégration des savoirs locaux », Revue AE&S 11-2.

[27]The guide is open source and available for free via the following link : <https://www.avsf.org/en/publications/training-guide-agroecology-as-a-substitute-for-pesticides/>

From an operational standpoint, the work that AVSF does and will continue to do in this area is carried out at different complementary scales:

1. Supporting the creation of **agroecological and organic supply chains for smallholder products** in many different countries, particularly for export markets, which is the case for organic and fair-trade cacao in Ivory Coast<sup>28</sup>, organic fruits (pineapple, lychee, etc.) and spices in Madagascar, shea in Burkina Faso, and organic cashew nuts in the Kolda region in the Upper Casamance area of Senegal<sup>29</sup>. **Ensuring good remuneration is a key factor for limiting the use of pesticides**, in order to compensate for the risks and lower yields.
2. **Helping producer organisations find and disseminate alternatives** designed with crop and livestock farmers, such as the cotton and food-production systems in the Kita Cercle in Mali.
3. **The inventory of traditional knowledge on livestock care and the various field tests to gauge the effectiveness and safety of local plant-based remedies** have been the subject of studies and veterinary thesis supervised by AVSF in its projects' areas (treatment of mastitis in cattle-farming operations in Colombia, Ecuador, etc.).
4. **Implementing multidisciplinary approaches** that bring together researchers and development experts with skills in the fields of health (collaborations with Solthis and Médecins du Monde) and social sciences, in order to adapt diagnostic-assessment and training methods to health problems linked to pesticides and veterinary products and to how they are perceived by local communities;
5. **Increasing the number of training opportunities for community-based animal health workers (CAHW)** and promoting official recognition of those workers in many countries. CAHWs are local workers serving their community, so training and recognising them will help facilitate the dissemination of best practices for livestock farming and the use of medicines. AVSF is always looking to connect CAHWs with official veterinary services and private veterinarians, which also helps improving control over the provision of quality medicines.
6. Supporting producer organisations, consumer organisations and grassroots movements in the countries where AVSF carries out its projects to organise **grassroots demonstrations encouraging official authorities to ensure stricter enforcement of regulations and controls over pesticide markets and veterinary products**, in order to improve the framework for the authorisation, marketing and use of these products in different countries.
7. **Participating in advocacy** to promote regulations banning the production, storage and sale of phytopharmaceutical products that contain substances prohibited by the European Union and that are intended for third countries (see boxout below).



In Mauritania, women farmers use old mosquito nets to protect vegetable crops from insects and avoid the use of insecticides.

(28) <https://www.ethiquable.coop/fiche-producteur/sceb-commerce-equitable-cote-divoire-cacao>

(29) <https://www.avsf.org/ethicajou-la-noix-de-cajou-comme-levier-dautonomie/>

(30) AVSF's contribution to the RePNPP2 Project "Recensement et échanges de pratiques autour des Préparations naturelles Peu Préoccupantes (PNPP)" (2021-2023) in partnership with Confédération Paysanne.

# Recommendations for reducing pesticide use and improving the management of pesticides and certain veterinary products

## → For European public authorities

- Introduce a ban in the EU on the production and export of pesticides that are deemed too hazardous to human health and the environment, and that are banned from use in EU member states<sup>31</sup>.

## → For public authorities in the Global South

*Harmonise and strengthen regulatory systems, and make sure international conventions, agreements and protocols relating to synthetic pesticides are actually implemented*

- Follow the recommendations of the Rotterdam Convention, and stop importing and using in your country pesticides listed in Annex III of the Convention.
- Immediately ban the use of Highly Hazardous Pesticides [in accordance with the eight criteria decided by the "FAO/WHO joint meeting on pesticide management"<sup>32</sup>] which have been proven to contribute to noncommunicable diseases and fertility problems.
- Implement and enforce the Bamako Convention<sup>33</sup> on the ban of the import into Africa and the control of transboundary movement and management of hazardous wastes within Africa.
- Take steps to better control cross-border movements of pesticides, which can be dominant in several African regions [e.g. northern Togo, southern Niger and Casamance] and which lead to the presence of many pesticides not authorised by the Sahelian Pesticide Committee in formal markets and especially in informal markets.<sup>34</sup>
- Strengthen the pesticide registration process by focusing in particular on the evaluation of various types of risks.
- Strengthen the regulatory frameworks and means of controlling the market for veterinary medicines [marketing authorisation, import authorisation, sales-point controls, strengthening of laboratories].
- Develop a national action plan on antibiotic resistance.

*Encourage the recognition of alternatives to pesticides and their independent use by farmers*

- Recognise, in the regulations themselves, the status of alternatives to pesticides and to certain veterinary medicines, and promote efforts to find alternatives to pesticides for combating pests and alternatives to certain important veterinary medicines [certain antibiotics and antiparasitic drugs].
- Subsidise certain practices as alternatives to pesticides whose validity has been scientifically proven and, at the same time, gradually eliminate subsidies and tax regimes that encourage the use of pesticides.
- Highlight the knowledge and practices of smallholder farmers in implementing alternatives to pesticides, and avoid their appropriation by private companies for commercial purposes.
- Encourage and support recognition of the superior quality of products produced through methods that use little or no pesticides and that prohibit the use of carcinogenic, mutagenic or reprotoxic pesticides, as well as those that are highly hazardous for the environment [such as neonicotinoids].
- Develop training courses on the risks of pesticides and veterinary products and on agroecological alternatives for smallholder training programmes and for professional agricultural schools.

*Promote actions to protect human health, animal health and the environment*

- Raise awareness among all actors involved in human and animal health, and among consumers and the general population, about the risks linked to antibiotic resistance.
- Control crop-management techniques involving the use of certain hazardous pesticides and veterinary medicines by authorizing their access and use only on prescription from a plant protection officer or animal health officer.
- Train agricultural advisors [in crop and animal production], input sellers and animal-health workers so that they understand the optimal conditions for using pesticides and veterinary medicines as well as how to implement agroecological alternatives.
- Train human-health professionals about how to treat cases of pesticide poisonings.

[31] Pesticides that are banned from use in the EU but may still be produced in the EU and exported to countries with less stringent regulations. When foods that received pesticide applications are then imported, pesticide residues appear on the plates of EU consumers.

[32] <https://www.fao.org/3/l5566fr/l5566fr.pdf>

[33] <https://www.peaceau.org/uploads/convention-de-bamako-fr.pdf>

[34] <https://insah.cilss.int/2023/11/02/3eme-session-du-comite-ouest-africain-dhomologation-des-pesticides-vers-une-harmonisation-regionale/>

- Put in place operational systems for monitoring acute and chronic poisonings and for tracking environmental contamination and pesticide residues in water and food by strengthening processes for the collection of reliable statistical data, improving staff training and allocating means and resources, including the creation of certified laboratories.
- Ensure that all information on pesticide toxicity for human health and ecosystems, as well as data on pesticide residues in food products and in the environment, are accessible to the public, particularly on pesticide labels.
- Ensure effective interministerial cooperation to prevent pesticide poisonings.
- Facilitate the operationalisation of the One Health concept by encouraging interdisciplinary collaborations and participation of multiple actors at local level to promote the emergence of integrated approaches for local health, and at national level to encourage public policies that include concrete applications of the concept.
- Promote the creation of waste-management systems for pesticide and veterinary-medicine packaging.

## Related projects

### Kita Agroecology Project:

#### RISK PREVENTION AND ALTERNATIVES TO PESTICIDES AND TO CERTAIN VETERINARY PRODUCTS IN COTTON PRODUCTION IN MALI.

Teaching 2,180 producers in 56 villages from 12 communes in the Kita Cercle about the conditions of use, modes of action and targets of these treatments, and helping them gradually adopt alternative techniques.

### Miary Project:

#### DEVELOPING ALTERNATIVES TO PESTICIDES IN MADAGASCAR

596 smallholders in Madagascar have begun transitioning to agroecology and are becoming more autonomous by planting legume hedges, fertilising with compost and planting pest-repelling plants.

### SANUVA Project:

#### FOOD AND NUTRITIONAL SECURITY OF AGRICULTURAL HOUSEHOLDS IN THE VAKINANKARATRA REGION (MADAGASCAR)

Helping over 4,000 households improve their economic and nutritional conditions through support for agroecological production and integration into sustainable local supply chains. For the agroecological-production component: inventories and analyses of alternative practices to the use of pesticides and veterinary medicines; creation of support services [advisory services, production and distribution of biopesticides, dissemination of validated alternatives to allopathic treatments and advice on preventing animal diseases, etc.].

### EQUITE Programme:

#### SUPPORTING THE DEVELOPMENT OF FAIR SUPPLY CHAINS IN WEST AFRICA

Through support for projects designed and implemented by 19 producer organisations to sustainably strengthen supply chains and organisations both economically and environmentally. One of these action-research and training projects provides training and support for 80 producers from two cocoa cooperatives and 25 skilled workers for agroecological and organic cocoa production with a focus on biofabriques in Ivory Coast [use of organic inputs made from micro-organisms produced locally at biofabriques: biopesticides produced through fermentation or plant decoction, liquid biofertilisers, etc.].

### Thiellal Project:

#### ESTABLISHING THE ONE HEALTH CONCEPT IN SENEGAL'S UPPER CASAMANCE REGION

The Thiellal project aims to create an environment where communities are encouraged to take action on the determinants of human health, animal health and the environment with a view to transitioning to agroecology and promoting better health.

### Promoting traditional veterinary remedies in Colombia:

#### GATHERING TRADITIONAL KNOWLEDGE ON THE PREVENTION AND TREATMENT OF MASTITIS IN DAIRY COWS

To combat the loss of knowledge and the unrestrained use of synthetic medicines in livestock farming, AVSF focuses on traditional veterinary practices. Marine and Adrien, two young volunteer veterinarians, went to southern Colombia to meet with livestock farmers and compile an inventory of the plant-based remedies they use, particularly to treat mastitis in cows.

Find all our projects at [avsf.org](http://avsf.org)

## AVSF bibliography

AVSF, 2020. *Training Guide: Agroecology as a Substitute for Pesticides*. Reducing the use and risks of pesticides and veterinary products using viable alternative practices. AVSF-AFD. 186p. Creative Commons licence: CC BY-NC-SA

Bakker T., Bajolet A., Beauval V., Mathieu B., 2021. Reducing pesticide use in Togo and Mali through the adoption of participatory approaches and the integration of local knowledge. *Agronomie, Environnement et Sociétés*, 11 (2): 6 p.

Beauval V., Bajolet A., Mathieu B., Patricot S., Lebreton D., 2023. *Encouraging agroecology to reduce the use of pesticides in West and Central Africa*. *Environ Risque Sante* 2023; 22: 219–229.

Find all our projects at [avsf.org](http://avsf.org)



**Siège**  
14 avenue Berthelot (bâtiment F bis)  
69007 Lyon - France  
Tél. +33(0)4 78 69 79 59

**Antenne**  
45 bis avenue de la Belle Gabrielle  
94736 Nogent-sur-Marne Cedex - France

[www.avsf.org](http://www.avsf.org)

**This document was written collectively under the coordination of:**

Amélie Bajolet, Valentin Beauval, Bertrand Mathieu, Brunilda Rafael.  
With contributions from Manuelle Miller, Sabine Patricot, Carline Mainenti,  
Marc Chapon, Paulin Hyac, Seydou Badji. February 2023

**Translation :** Laetitia Fauconnier

Reproduction in whole or in part is permitted with mention of the source document: Creative Commons licence: CC BY-NC-SA [see <https://creativecommons.org/licenses/by-nc-sa/2.0/fr/deed.en>]

**To cite this document:**

AVSF, 2024. Position paper, “Reducing the use of pesticides and veterinary products: a key objective in the implementation of agroecological alternatives”.

As a French association that promotes international solidarity, Agronomes et Vétérinaires Sans Frontières (AVSF) has been working with smallholder communities and organisations in developing countries for over 45 years to address food-related issues. We provide them with the professional skills they need in agriculture, livestock farming, and animal health: technical and financial assistance, training, access to markets, etc. AVSF carries out over 70 projects in 22 countries in Central and South America, Asia, and Africa, working with smallholder communities where crop and livestock farming are essential to ensuring food security as well as social and economic development. AVSF is an officially recognised non-profit association in France.