

LEVERAGING NBSAPS BEYOND THE CBD

How action on agroecology and pesticides delivers across multiple UN policy frameworks

July 2024

Summary & Recommendations:

Synergies between commitments on agriculture, pesticides, and food systems across key UN policy frameworks on biodiversity, climate change and chemicals mean that action under the CBD can deliver efficient action under all.

Parties to the CBD have an opportunity to ensure action and targets communicated in NBSAPS to reflect the Kunming Montreal Global Biodiversity Framework (KMGBF) also reflect and contribute to targets under the UNFCCC and its Paris Agreement and the Global Framework on Chemicals (GFC).

Agriculture and food systems transformation is integral to Targets 7, 10, 14, 15, 16 and 18 of the KMGBF, but also Targets A7 and D5 of the Global Framework on Chemicals (GFC), and the UNFCCC COP28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action.

For example, policies and plans to implement the phase out of Highly Hazardous Pesticides (HHPs) in line with GFC Target A7 will deliver major pesticide risk reductions mandated by KMGBF Target 7, and should be integrated into NBSAPS and national reporting for the CBD.

Similarly, mainstreaming agroecology in line with GFC Target D5 will contribute to agriculture reforms mandated by KMGBF Target 10, while enabling KMGBF and GFC pesticides reforms.

Integrating the adoption of agroecology at scale and the phase out of Highly Hazardous Pesticides (HHPs) into NBSAPS are arguably the most efficient means of delivering on key agriculture and food systems commitments across the KMGBF, the Paris Agreement, and the GFC.

Parties to the CBD are advised to:

- Prioritize national action on agriculture, pesticides and food systems in NBSAPS, ensuring action under Targets 7, 10, 14, 15, 16, and 18 reflects and contributes to commitments under the UNFCCC and the GFC.
- Integrate action to phase out highly hazardous pesticides (HHPs) in agriculture (as mandated by GFC Target A7) into plans for national pesticide risk reduction for KMGBF Target 7, to enable risk reductions of at least half by 2030 and the achievement of sustainability criteria mandated by Indicator 10.1 for KMGBF Target 10.
- Join the new Global Alliance on Highly Hazardous Pesticides under the GFC
- Prioritize significant increases in agroecological farming practices and integrated pest management (IPM) under KMGBF Target 10, in ways that integrate national implementation of GFC Target D5.
- Ensure measures taken under KMGBF Targets 14, 15, 16, and 18 contribute to action under Targets 7 and 10, and GFC Targets A7 and D5.

What are HHPs?

Highly hazardous pesticides (HHPs) are a group of the most harmful pesticides that meet one or more of eight internationally agreed criteria set out by the FAO and WHO in 2016.^{xiv} HHPs are deemed by the international community as an issue of concern warranting international action.^{xv}

The FAO and WHO find that the use of HHPs undermines the attainment of several Sustainable Development Goals (SDGs) because of their adverse effects on health, food security, biodiversity and pollution.^{xvi} [SDG Indicator 2.4.1](#) classifies use of HHPs in agriculture as 'unsustainable'.

Acronyms

AHTEG	Ad-Hoc Technical Experts Group on Indicators
ATAT	Aggregated Total Applied Toxicity
CBD	Convention on Biological Diversity
COP	Conference of Parties
GFC	Global Framework on Chemicals
HHP	Highly Hazardous Pesticide
IPCC	The Intergovernmental Panel on Climate Change
IPM	Integrated Pest Management
KMGBF	Kunming Montreal Global Biodiversity Framework
MEAs	Multilateral Environmental Agreements
NBSAPs	National Biodiversity Strategies & Action Plans
NDCs	Nationally Determined Contributions (to climate change mitigation under the Paris Agreement of the UNFCCC)
NAPs	National Adaptation Plans (for the Paris Agreement of the UNFCCC)
SDGs	Sustainable Development Goals
UNFCCC	The United Nations Framework Convention on Climate Change

National Biodiversity Strategies & Action Plans (NBSAPs)

The NBSAPs Mandate

Parties to the CBD agreed at COP15 to either:

- 🔥 update national biodiversity strategies and action plans (NBSAPs) to reflect the KMGBF goals and targets or, as a minimum
- 🔥 communicate national targets reflecting the goals and targets of the KMGBF (as a standalone submission in advance of submitting a full NBSAP).ⁱ

The CBD asks parties to follow guidance on NBSAPs, and use a template.ⁱⁱ

Integrating synergies with related frameworks

Parties have a clear mandate to ensure action and targets communicated in NBSAPs reflect and capture action mandated under the UNFCCC and its Paris Agreement, and the GFC. Official CBD Guidance stresses that synergies with other relevant agreements should be leveraged in setting targets and/or updating NBSAPs to put the KMGBF into national action.ⁱⁱⁱ CBD Decision 15/13 on 'Cooperation with other conventions and international organizations' highlights agreements on climate change and chemicals and waste as being particularly relevant.^{iv}

The CBD Secretariat recommends further work to increase cooperation between the CBD and UN agreements on pollution control to optimise KMGBF implementation, including the Global Framework on Chemicals (GFC) – For a Planet Free of Harm from Chemicals and Waste.^v The GFC, agreed at the 5th International Conference on Chemicals Management (ICCM5), similarly urges governments to identify and strengthen linkages with other agreements, including the KMGBF.^{vi}

Pesticides, Agroecology and the Triple Planetary Crisis

The chemical-intensive production of agricultural produce is a key global driver of the triple planetary crises of biodiversity loss, pollution, and climate change. Agroecology is widely seen as a potential solution. Recognizing this, strong mandates for national agriculture and food systems reforms have been incorporated into all three relevant UN framework instruments, including the Kunming-Montreal Global Biodiversity Framework (KMGBF), the recently adopted Global Framework on Chemicals (GFC), and the UNFCCC COP28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action.

Synergies across these framework commitments mean that action under one can deliver efficient action under all. This is particularly clear with respect to pesticides and agroecological alternatives.

Key targets in the KMGBF

National action on agriculture, pesticides, and food systems is mandated across multiple complementary Targets of the KMGBF, including explicitly in Targets 7 and 10, but also in Targets 14, 15, 16, and 18, most of which align with UNFCCC and the GFC commitments (see Table below)

KMGBF Targets relevant to agriculture, pesticides, and food systems reform		
KMGBF Target	Specific requirements	Complementary UN Framework Commitments
Target 7: Reduce Pollution to Levels That Are Not Harmful to Biodiversity	'Reduce pollution risks and the negative impact of pollution from all sources by 2030 , to levels that are not harmful to biodiversity and ecosystem functions and services... , including: ... (b) by reducing the overall risk from pesticides and highly hazardous chemicals by at least half, including through integrated pest management, ...'	GFC Target A7 / UNEA 6 Resolution on HHPs COP28 UAE Declaration on Sustainable Agriculture on Indicators
Target 10: Enhance Biodiversity and Sustainability in Agriculture, Aquaculture, Fisheries, and Forestry	'Ensure that areas under agriculture, aquaculture, fisheries and forestry are managed sustainably ... through a substantial increase of the application of biodiversity friendly practices ... such as agroecological and other innovative approaches.'	GFC Target D5 COP28 UAE Declaration on Sustainable Agriculture UNFCCC Article 4, paragraph 1 (c), (d) & (e) ^{xxv} UNFCCC Paris Agreement, Article 2 (b) ^{xxv}
Target 14: Integrate Biodiversity in Decision-Making at Every Level	'Ensure the full integration of biodiversity and its multiple values into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, as appropriate, national accounting, within and across all levels of government and across all sectors, in particular those with significant impacts on biodiversity ...'	GFC Target E1 COP28 UAE Declaration on Sustainable Agriculture
Target 15: Businesses Assess, Disclose and Reduce Biodiversity-Related Risks and Negative Impacts	'Take legal, administrative or policy measures to ... ensure that large and transnational companies and financial institutions: a. Regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity ... [and] b. Provide information needed to consumers to promote sustainable consumption ... in order to progressively reduce negative impacts on biodiversity...'	GFC Target D2, D4, and D7
Target 16: Enable Sustainable Consumption Choices To Reduce Waste and Overconsumption	'Ensure that people are encouraged and enabled to make sustainable consumption choices, including by establishing supportive policy, legislative or regulatory frameworks, improving education and access to relevant and accurate information and alternatives, and by 2030, reduce the global footprint of consumption in an equitable manner...'	COP28 UAE Declaration on Sustainable Agriculture GFC Target D4
Target 18: Reduce Harmful Incentives by at Least \$500 Billion per Year, and Scale Up Positive Incentives for Biodiversity	'Identify by 2025, and eliminate, phase out or reform incentives, including subsidies, harmful for biodiversity, ... while substantially and progressively reducing them by at least \$500 billion per year by 2030, starting with the most harmful incentives, and scale up positive incentives for the conservation and sustainable use of biodiversity.'	UNFCCC Paris Agreement, Article 2(c)

KMGBF Target 7 on Pesticides

Target 7 requires an at least half reduction of the overall risk from pesticides by 2030. To achieve this parties to the CBD need to incorporate major changes to pesticide use into their NBSAPs or national targets by October 2024, particularly countries extensively using pesticides.

As a minimum, countries must set targets for pesticide risk reduction, as a percentage. To reflect Target 7, these should be at least 50% reductions by 2030.

Two critical factors influence target setting and implementation.

1. Indicator 7.2 of the KMGBF Monitoring Framework on pesticide risk reduction

Pesticide risk reduction must be measured and reported using **Headline Indicator 7.2 of the KMGBF Monitoring Framework**, and the methodology specified for it. The Ad-Hoc Technical Experts Group on Indicators for the KMGBF Monitoring Framework (AHTEG) and the CBD Secretariat have recommended the adoption of the **Aggregated Total Applied Toxicity (ATAT)** indicator^{vii} in line with recommendations from global experts.^{viii}

Under the ATAT methodology, **risk to biodiversity will be measured by the combination of the toxicity to biodiversity of pesticide active ingredients, and the volume of active ingredients used.**^{ix}

Pesticides with higher toxicities are rated as higher risk than those with lower toxicities. (See Fig. 1)

The **ATAT methodology for Indicator 7.2 rewards reductions in the use of pesticides with higher toxicity to biodiversity**, enabling countries to achieve ambitious pesticides risk reductions that may exceed reductions in volumes of pesticides used.

2. GFC Target A7 on Highly Hazardous Pesticides

Nearly all CBD parties that adopted the KMGBF have also committed to implement the Global Framework on Chemicals (GFC), including **GFC Target A7** - to take measures to phase out Highly Hazardous Pesticides (HHPs) in agriculture.

GFC Target A7: 'By 2035, stakeholders have taken effective measures to phase out highly hazardous pesticides in agriculture where the risks have not been managed and where safer and affordable alternatives are available, and to promote transition to and make available those alternatives.'

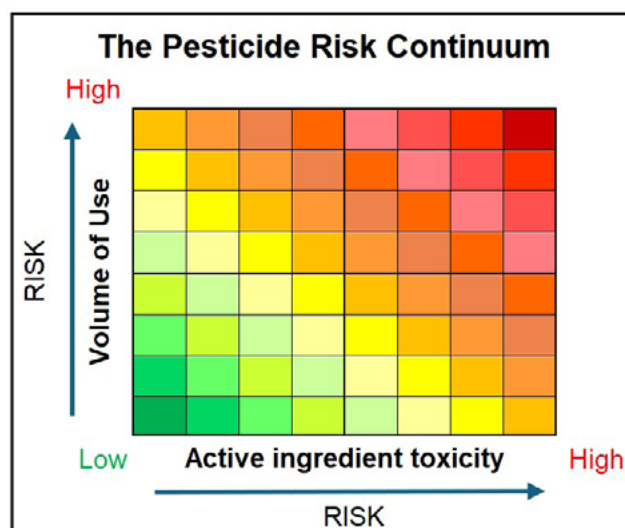
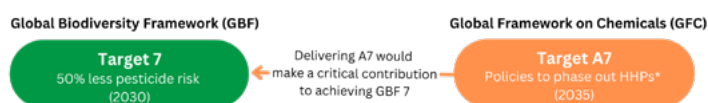


Figure 1. Pesticide risk in relation to volume and toxicity

A simplified representation of how pesticide risk relates to volume used and active ingredient toxicity in the ATAT methodology recommended for reporting against Indicator 7.2. Given that most Highly Hazardous Pesticides have high toxicity, phasing out Highly Hazardous Pesticides (HHPs), in line with GFC Target A7 generates the largest risk reduction for the lowest proportionate volume reduction.

GFC Target A7 is of structural relevance to KMGBF Target 7, because most pesticide active ingredients classified as HHPs also have high toxicity ratings under the ATAT indicator proposed for Headline Indicator 7.2.

In many countries HHP use contributes the majority of national Total Applied Toxicity from pesticides, even if not the majority of the volume used. In some countries, implementation of GFC Target A7 may alone deliver the risk reductions required under KMGBF Target 7.



Policies and plans to implement GFC Target A7 therefore present significant opportunities for Parties to the CBD to set and implement ambitious pesticides risk reductions for KMGBF Target 7, and should be explicitly integrated into NBSAPs and national reporting under the CBD. Action on HHPs will also be required to deliver on KMGBF Target 10 on agriculture.

KMGBF Target 10 and Agroecology

While Target 10 encourages a range of agriculture models, including ‘sustainable intensification’, **increasing adoption of agroecological practices should be the focus of national action mandated under Target 10, and will be critical to facilitating pesticide risk reductions under Target 7.**

Reducing farmer reliance on external inputs such as pesticides is a key principle of agroecology,^x and agroecological farming systems incorporate IPM practices such as intercropping, diverse crop rotations, and incorporating locally adapted varieties that facilitate reduced reliance on pesticides.

Headline Indicator 10.1 of the KMGBF Monitoring Framework – ‘Proportion of agricultural area under productive and sustainable agriculture’ – mandates the adoption of ‘agro-biodiversity-supportive practices’ integral to agroecology and IPM.^{xi}

Again, complementary commitments of the GFC influence and should be leveraged in action on KMGBF Target 10 integrated into NBSAPs.

KMGBF Target 10’s mandate to increase agroecological adoption is reinforced by GFC Target D5.

GFC Target D5: ‘By 2030, Governments implement policies and programmes to increase support to safer and more sustainable agricultural practices, including agroecology, integrated pest management and the use of non-chemical alternatives, as appropriate.’

Mainstreaming other farming models, such as ‘sustainable intensification’ would not constitute action to implement GFC Target D5.

Headline Indicator 10.1 of the KMGBF also mandates the elimination of Highly Hazardous Pesticides (HHPs), deeming the use of HHPs on-farm as ‘unsustainable’ and unacceptable.^{xii} Delivering on GFC Target A7 would ensure compliance with KMGBF Target 10 requirements, and should be integrated into NBSAPs for Target 10.

Through these four KMGBF and GFC targets countries have committed to transition to agroecological farming systems and IPM practices that enable the elimination of HHPs from agriculture and significant reductions of pesticide risk to biodiversity. By integrating these targets into NBSAPs Parties can meet their obligations in both the KMGBF and the GFC.^{xiii} Delivery will bring a host of co-benefits for farmers, communities, and consumers.

Integrating the GFC and Global Alliance on HHPs into Biodiversity and Climate Action

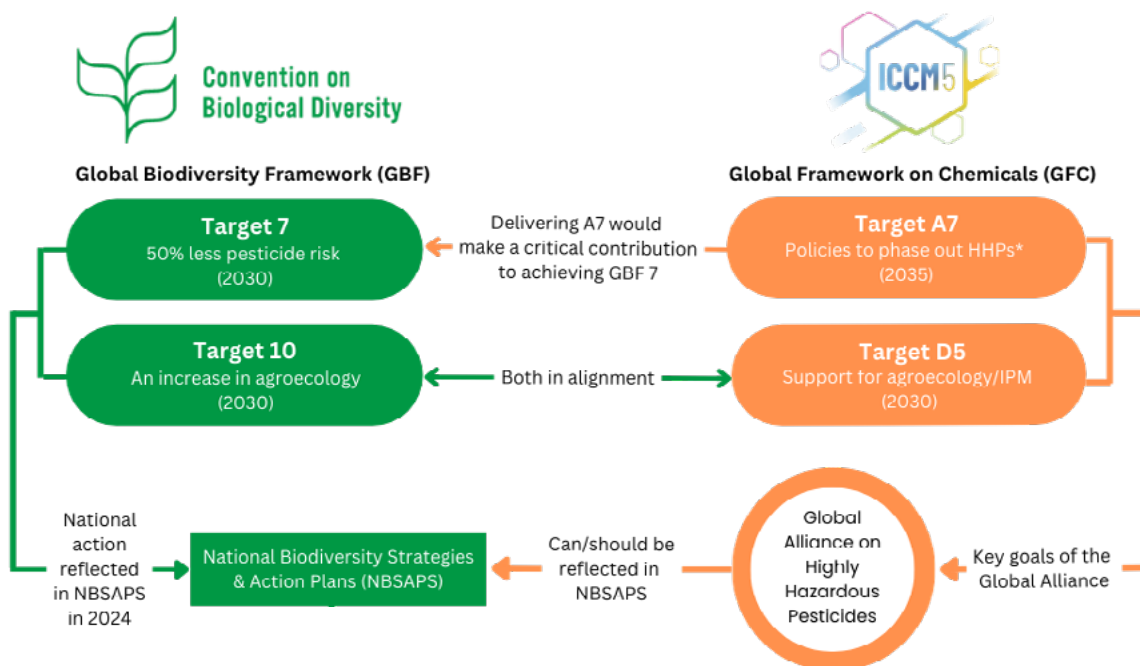


Figure 2. Targets 7 and 10 under the KMGBF are supported by GFC Targets A7 and D5 and the Global Alliance on HHPs.

The Global Alliance on HHPs

A strategic route for countries to drive forward implementation of both KMGBF and GFC Targets on agriculture, pesticides and food is to join the Global Alliance on Highly Hazardous Pesticides, which was mandated at ICCM5 in 2023.^{xxi}

The Alliance will be a voluntary multi-stakeholder 'coalition of the willing' drawn from governments, researchers, international organizations, NGOs, farmers and the private sector.

Its aim is to spearhead international implementation of GFC Targets A7 and D5, making it highly supportive of KMGBF Targets 7 and 10.

It will be coordinated by UN agencies, including the UN FAO as lead agency and is due to report on its progress in 2026.

Parties to the CBD are advised to inform the FAO of their desire to join and participate in its work, and communicate their membership in NBSAPs under the CBD. Brazil has indicated its intention to join.^{xxii}

Other KMGBF Targets

While Targets 7 and 10 focus specifically on pesticides risk reduction and sustainable agriculture other targets are also relevant.

Target 15: Corporate due diligence

The activities of companies involved in any part of the so-called 'pesticide lifecycle' (from production through sale, use and disposal), and in the agri-food sectors, will influence the ability of Parties to deliver on KMGBF Targets 7 and 10.

Policies setting binding restrictions on the sale and use of HHPs and other synthetic pesticides - in line with GBF Target 7 and GFC Target A7 - will be needed for Parties to meet these commitments. Similarly, obliging companies to record and report pesticide use to government will facilitate data collection required for national reporting under the ATAT methodology for Headline Indicator 7.2.

Passing strong corporate due diligence legislation covering the pesticides, agriculture, and retail sectors will be essential for Parties to deliver on the Target 15 mandate, and should be clearly communicated in NBSAPs.

Action under Target 15 will also be critical in enabling outcomes under Target 16 on sustainable consumption.

KMGBF Target 15 aligns with GFC Targets D2, D4, and D7, which similarly mandate government and corporate policies to bring about corporate reforms to value chains relevant to chemicals.^{xvii}

Target 16: Enable Sustainable Consumption

KMGBF Target 16 mandates Parties to '*Ensure that people are encouraged and enabled to make sustainable consumption choices, including by establishing supportive policy, legislative or regulatory frameworks, improving education and access to relevant and accurate information and alternatives, and by 2030, reduce the global footprint of consumption in an equitable manner...*'

Food is the most fundamental consumption choice and in many cases has the largest land, pollution, emissions, and biodiversity footprint of all consumption. Credible delivery of Target 16 will not be possible without addressing pesticides and agroecology as articulated in KMGBF Targets 7 and 10, and GFC Targets A7 and D5.

Target 18: Investments into harmful agricultural practices must be redirected

Target 18 mandates countries to '*Identify by 2025, and eliminate, phase out or reform incentives, including subsidies, harmful for biodiversity, ... while substantially and progressively reducing them by at least \$500 billion per year by 2030, starting with the most harmful incentives, and scale up positive incentives for the conservation and sustainable use of biodiversity.*'

Huge investments currently subsidise polluting agricultural practices that are harming biodiversity, human health and the very environmental resources on which future productivity depends. Redirecting these resources to support farmers to transition to agroecological practices, phase out HHPs and reduce pesticide risk is needed to protect biodiversity and food security.

Polluting agricultural practices have been supported by financial and other incentives schemes for decades. A 2021 FAO and UNDP study found that 87% of the \$540bn of annual agricultural subsidies worldwide are harmful to biodiversity, with subsidies for pesticides significantly contributing.^{xviii}

A 2023 World Bank study reported explicit agricultural subsidies in just 84 countries amounting to US\$635 billion, and estimated a further US\$2.1 trillion in implicit subsidies from pollution, pesticides, and antimicrobial resistance linked to agriculture.^{xix} NBSAPs and/or national targets communicated by Parties to the CBD for Target 18 need to set out clear plans to reverse such harmful incentives schemes.

Countries should:

- 🔥 Remove subsidies and other perverse financial incentives (including tax exemptions, or rebate regimes, etc.) that support pesticide use and unsustainable agricultural practices.
- 🔥 Redirect financial incentives to support national implementation of GFC Targets D5 and A7 by investing in agroecology as a non-chemical alternative to current practice.

Target 14: A Whole of Government Approach

KMGBF Target 14 mandates governments to take a ‘*whole of government*’ approach to ‘*integrate biodiversity in decision-making ... within and across all levels of government and across all sectors, in particular those with significant impacts on biodiversity ...*’.

Pesticides and agroecology are issues that cut across many sectors including agriculture, environment, health, trade, finance and more. In order to maximise efficiencies and opportunities, and ensure policies meet multiple global framework commitments, NBSAP development must involve cross-ministerial planning coordinated at national cabinet level.

The whole of government multisectoral approach is mirrored in GFC Target E1, which stipulates that ‘*By 2035, Governments have mainstreamed the sound management of chemicals and waste through implementation in all relevant sectoral plans, budgets and development plans and development assistance policies and programmes*’.

Capitalising on Complementarities with Climate Commitments

Action on agriculture, pesticides and food systems integrated into NBSAPs for the CBD can and should be integrated into national plans and reports under the Paris Agreement of the UNFCCC helping countries deliver efficiently against commitments across multiple UN policy frameworks.

Agri-food systems generate over a third of global greenhouse gas emissions, including through the use of petrochemical inputs such as pesticides, which undermine soil health and its ability to sequester and store carbon. Transforming agriculture and food systems and their financing is critical to limiting temperature rises to 1.5 degrees and adapting to climate change.^{xx}

Reducing reliance on pesticides and increasing the adoption of agroecology brings important reductions in carbon emissions and enhances climate resilience.

The IPCC reports that agroecological farming could cut emissions by 2.8 - 4.1 GtCO₂e per year while maintaining productive and equitable food systems underpinning adaptation.^{xxv} This is equivalent to between 6.8% and 10% of global energy related CO₂e emissions in 2021.^{xxiii}

The IPCC also states that agroecological farming ‘*enhances^{xxiv} adaptation to climate change, including resilience to extreme events*’, and concludes that ‘*adoption of agroecology principles and practices will be highly beneficial to maintaining healthy, productive food systems under climate change*’.^{xxiv}

This was recognised by UNFCCC in 2023 where 134 countries adopted the COP28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action, which pledged to ‘*integrate agriculture and food systems into National Adaptation Plans, Nationally Determined Contributions, Long-term Strategies, National Biodiversity Strategies and Action Plans, and other related strategies before the convening of COP30*’ in 2025.^{xxv}

The COP28 UAE Declaration frames action on agriculture and food systems under the KMGBF as being equally relevant to NDCs and NAPs under the Paris Agreement of the UNFCCC, amplifying the mandate for most Parties to the CBD to prioritise pesticide reductions and agroecology in NBSAPs accounting for the KMGBF.^{xxvi}

Prioritising agroecology and pesticides reforms in NBSAPs is therefore the first step Parties can take to progress agriculture and food system transformation commitments in all three UN frameworks to address the triple planetary crises.

Integrating the GFC and Global Alliance on HHPs into Biodiversity and Climate Action

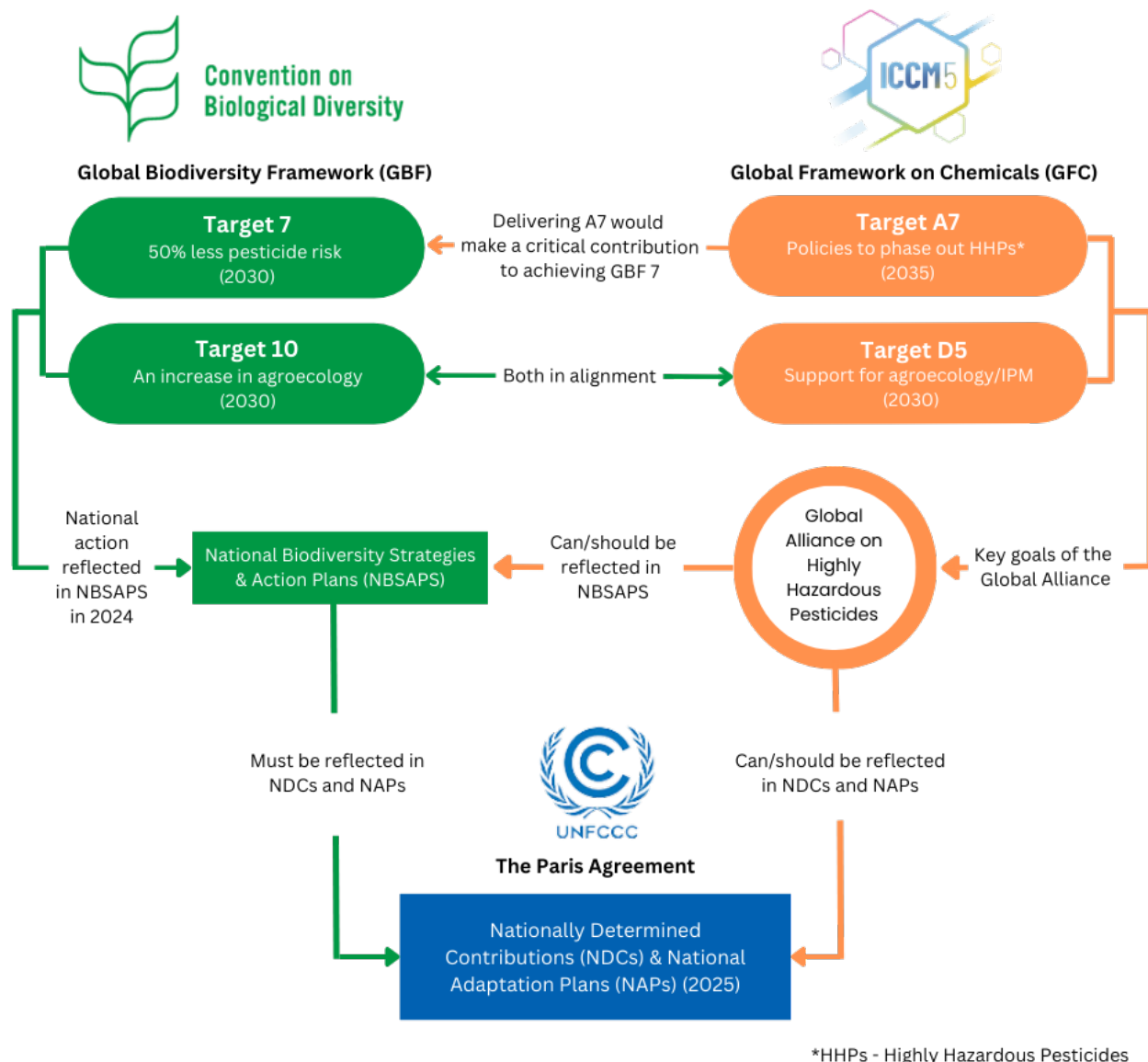


Figure 3. Illustrating synergies between the three global commitments on biodiversity, chemicals and climate change concerning pesticides and agroecology.

Conclusions

National action to increase the application of agroecological farming systems and integrated pest management (IPM), and the co-related phase out of HHPs and 50% reductions in total applied toxicity of pesticides are key opportunities for countries to deliver on numerous commitments made in multiple UN policy frameworks.

The phase out of Highly Hazardous Pesticides (HHPs) in agriculture mandated under Target A7 of the GFC provides a critical opportunity for countries to deliver on both the pesticide risk reduction mandate of KMGBF Target 7, and also the sustainable agriculture reforms mandated by KMGBF Target 10. Concomitantly, failure to integrate GFC Target A7 into NBSAPs will undermine national ambition and performance under these KMGBF targets.

Similarly, significantly increasing government support for the uptake of agroecology, IPM, and non-chemical alternatives, as mandated by GFC Target D5, will be critical to deliver on all of these targets.

All of these measures should be enabled and reinforced by coherent policy reforms to improve business practices, empower informed consumer choices, and reform financial incentives schemes, respectively under Targets 15, 16, and 18 of the KMGBF, through a whole of government approach in line with KMGBF Target 14. Countries must integrate these reforms into revised NBSAPs and/or national targets communications under the CBD as a priority, while also capitalising on the opportunities of including this action in plans and reporting mandated of Parties under both the UNFCCC and the Global Framework on Chemicals.

References

- i. CBD/COP/DEC/15/6, 'Mechanisms for planning, monitoring, reporting and review', 19 December 2022, available at <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-06-en.pdf>
- ii. Annex I to CBD/COP/DEC/15/6, 'Guidance for revising or updating national biodiversity strategies and action plans to align with the Kunming Montreal global biodiversity framework' available at [https://www.cbd.int/doc/nbsap/Annex%201%20\(NBSAP%20guidance\).pdf](https://www.cbd.int/doc/nbsap/Annex%201%20(NBSAP%20guidance).pdf)
- iii. CBD COP15, Decision 15/6, Annex 1: "Synergies among NBSAPs and the planning and implementation mechanisms of the other biodiversity-related conventions, Rio conventions and other relevant multilateral environmental agreements, and the Sustainable Development Goals should be identified and utilized to maximize efficiency and coherence." Source: Guidance for revising or updating national biodiversity strategies and action plans to align with the Kunming-Montreal global biodiversity framework [https://www.cbd.int/doc/nbsap/Annex%201%20\(NBSAP%20guidance\).pdf](https://www.cbd.int/doc/nbsap/Annex%201%20(NBSAP%20guidance).pdf)
- iv. CBD/COP/DEC/15/13, 'reaffirm[s] the importance of enhancing cooperation in the implementation of the Convention on Biological Diversity and its Protocols and other multilateral environmental agreements and initiatives', available at <https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-13-en.pdf>
- v. Secretariat of the CBD, CBD/SBSTTA/26/3 (2024), Scientific and technical needs to support the implementation of the Kunming-Montreal Global Biodiversity Framework, available at <https://www.cbd.int/meetings/SBSTTA-26>
- vi. Target E6 of the Global Framework on Chemicals 'By 2030, stakeholders identify and strengthen, as appropriate, synergies and linkages between chemicals and waste management and other key environmental, health and labour policies'. See: <https://www.chemicalsframework.org/page/strategic-objectives-and-targets>
- vii. CBD/SBSTTA/26/2, Annex I (2024), Proposed Indicators for the Kunming-Montreal Global Biodiversity Framework. https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveg.pdf
- viii. CBD/SBSTTA/26/INF/18 (2024) CBD/FAO experts group report on a scientific methodology for Indicator 7.2. <https://www.cbd.int/meetings/SBSTTA-26>
- ix. CBD/SBSTTA/26/INF/14 (2024), Guidance on using the indicators of the monitoring framework of the Kunming-Montreal Global Biodiversity Framework.
- x. High Level Panel of Experts on Food Security and Nutrition (2019) Agroecological and other innovative approaches for sustainable agriculture and food systems that enhance food security and nutrition. <https://www.fao.org/3/ca5602en/ca5602en.pdf>
- xi. UN FAO (2023), Proportion of agricultural area under productive and sustainable agriculture (SDG Indicator 2.4.1), Methodological Note, Revision 11 <https://www.fao.org/3/ca7154en/ca7154en.pdf>
- xii. UN FAO (2023), Proportion of agricultural area under productive and sustainable agriculture (SDG Indicator 2.4.1), Methodological Note, Revision 11 <https://www.fao.org/3/ca7154en/ca7154en.pdf>
- xiii. Global Framework on Chemicals (2023) Strategic objectives and targets: <https://www.chemicalsframework.org/page/strategic-objectives-and-targets>
- xiv. FAO / WHO (2016) International Code of Conduct on Pesticide Management: Guidelines on Highly Hazardous Pesticides <https://openknowledge.fao.org/server/api/core/bitstreams/7c65af6a-52ca-4e44-8c57-4303d076bea4/content>
- xv. Report of the International Conference on Chemicals Management on the work of its fourth session (2015) https://www.saicm.org/Portals/12/documents/meetings/ICCM4/doc/K1606013_e.pdf
- xvi. Fourth International Conference of Chemicals Management (2015) (ICCM4), the Strategic Approach to International Chemicals Management (SAICM – the precursor to the Global Framework on Chemicals) adopted a resolution that recognizes HHPs as an issue of international concern and called for concerted action to address HHPs. See: https://www.saicm.org/Portals/12/documents/meetings/ICCM4/doc/K1606013_e.pdf
- xvii. Global Framework on Chemicals (2023) Strategic objectives and targets: <https://www.chemicalsframework.org/page/strategic-objectives-and-targets>
- xviii. FAO, UNDP and UNEP. 2021. A multi-billion-dollar opportunity – Repurposing agricultural support to transform food systems. Rome, FAO. Available at <https://doi.org/10.4060/cb6562en>
- xix. Damania et al. (2023). Detox Development: Repurposing Environmentally Harmful Subsidies. Washington, DC: World Bank. doi:10.1596/978-1-4648-1916-2. License: Creative Commons Attribution CC BY 3.0 IGO, available at <https://openknowledge.worldbank.org/server/api/core/bitstreams/61d04aca-1b95-4c06-8199-3c4a423cb7fe/content>

References continued...

- xx. PAN International, Food System Transformation at COP28: Why Agroecology Must be Prioritised, November 2023, available at <https://www.pan-uk.org/site/wp-content/uploads/Food-system-transformation-at-COP28.pdf>
- xxi. ICCM5 Resolution V/11, available at <https://www.chemicalsframework.org/page/resolution-v11-highly-hazardous-pesticides>. See also UNEP/EA/L.14: UNEA 6 (2024) Resolution on Highly Hazardous Pesticides
- xxii. UNEP Webinar (2024) Contribution of the chemicals and waste Conventions to Target 7 of the Kunming Montreal Global Biodiversity Framework. Recording: <https://minamataconvention.org/en/events/contribution-chemicals-and-waste-conventions-target-7-kunming-montreal-global-biodiversity>
- xxiii. Parmesan et al. (2022): Terrestrial and Freshwater Ecosystems and Their Services. doi:10.1017/9781009325844.004 https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_Chapter02.pdf
- xxiv. Percentages calculated against 40.8GT CO₂e global energy related emissions in 2021, estimated by the International Energy Agency (IEA) using a 100-year global warming potential time horizon, as cited in: IEA (2022), Global Energy Review: CO₂ Emissions in 2021, IEA, Paris <https://www.iea.org/reports/global-energy-review-co2-emissions-in-2021-2>, License: CC BY 4.0.
- xxv. UNFCCC Article 4, paragraphs 1 (c) and 1 (d) and Article 2b https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf
- xxvi. The COP28 UAE Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action <https://www.cop28.com/en/food-and-agriculture>

Pesticide Action Network International (PAN International) is a network of over 600 participating nongovernmental organizations, institutions and individuals in over 90 countries working to replace the use of hazardous pesticides with ecologically sound and socially just alternatives.

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