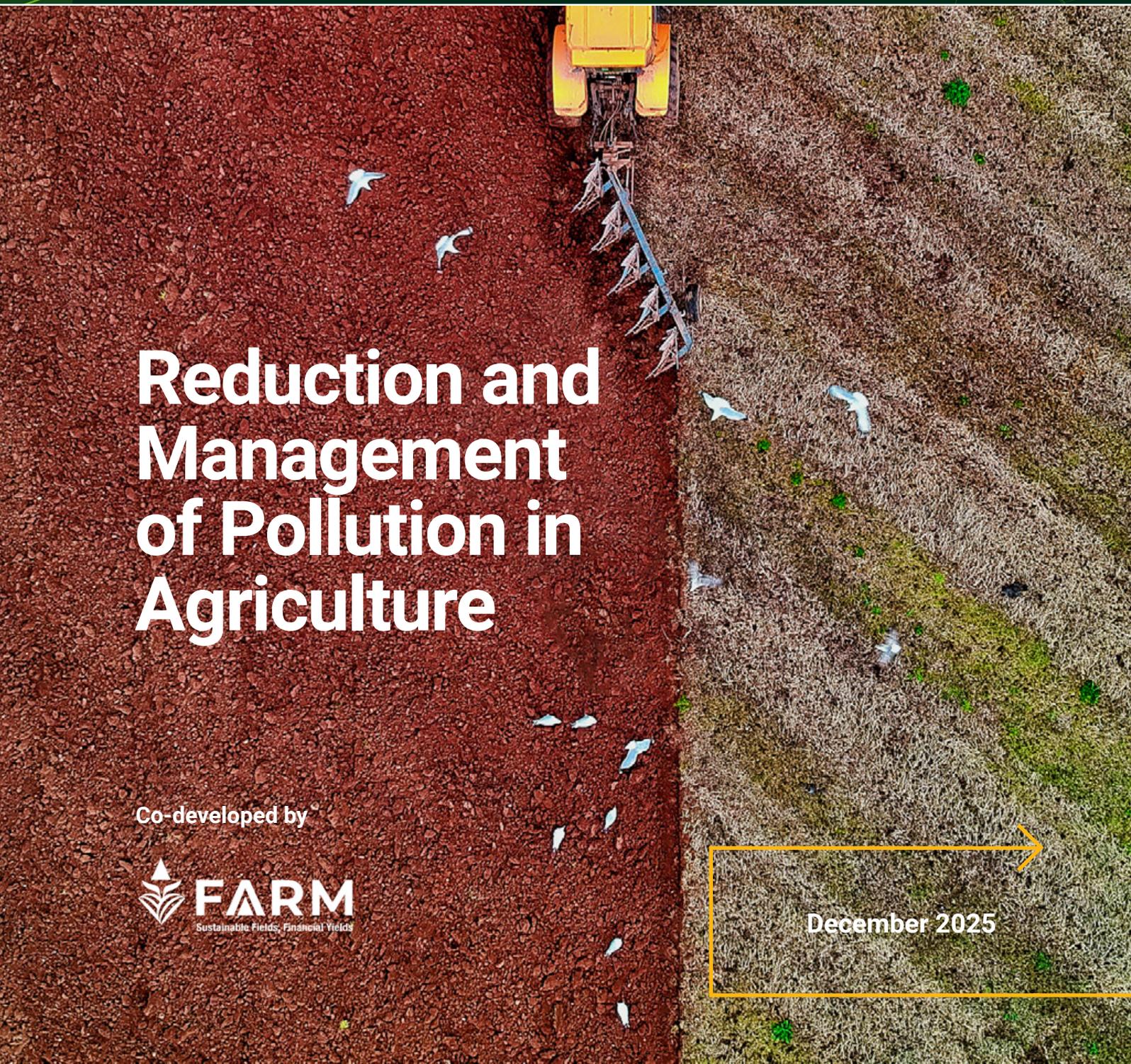


**Principles for  
Responsible Banking:  
Guidance for banks**

**UN**   
environment  
programme

finance  
initiative

Principles for  
Responsible Banking



# Reduction and Management of Pollution in Agriculture

Co-developed by



December 2025

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Suggested citation: United Nations Environment Programme Finance Initiative (2025). *Guidance for Reduction and Management of Pollution in Agriculture*. Geneva.

Production: United Nations Environment Programme Finance Initiative.

**Cover image:** [Red Zeppelin/Unsplash](#)

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The report is co-developed with member banks and partners based on discussion and work undertaken in UNEP FI's Principles for Responsible Banking (PRB) Working Group on Pollution.



Our Working Group was fortunate to benefit from the presentations of domain experts Rebecca Chaduska (GFC Secretariat), Peter Fantke (USEtox), Angela Pinilla and Alexandra McPherson (Clean Production Action), Prasun Kumar Das (APRACA) and Llorenç Milà I Canals (UNEP) who brought valuable insights and expertise to our discussions.

This guidance was co-developed by the Financing Agrochemical Reduction and Management (FARM) Programme, funded by the Global Environment Facility (GEF). We thank the GEF Secretariat and the FARM project teams in Ecuador, India, Kenya, Lao PDR, the Philippines, Uruguay and Viet Nam for their valuable feedback and inputs.



FARM is a five-year, USD 379 million programme that aims to reduce reliance on harmful pesticides and agricultural plastics by redirecting public and private finance, policies, and practices towards safer, sustainable solutions that safeguard human health and ecosystems and ensure global food security. The programme is led by the United Nations Environment Programme (UNEP), with the support of the United Nations Development Programme (UNDP), the United Nations Industrial Development Organization (UNIDO), and the Asian Development Bank (ADB). It is implemented in seven countries—Ecuador, India, Kenya, Lao PDR, the Philippines, Uruguay, and Vietnam—and coordinated through the Global Child Project executed by the Green Growth Knowledge Partnership (GGKP).

## About the Global Environment Facility

The Global Environment Facility (GEF) includes several multilateral funds working together to address the planet's most pressing challenges in an integrated way. Its financing helps developing countries address complex challenges and work towards meeting international environmental goals. Over the past three decades, the GEF has provided more than USD 26 billion in financing, primarily as grants, and mobilized another USD 153 billion for country-driven priority projects.

## About the UN Environment Programme

The United Nations Environment Programme (UNEP) is the leading global voice on the environment. It provides leadership and encourages partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.



# About this guidance report

The purpose of this report is to provide a framework for banks to manage and reduce agricultural pollution. The target audience are private financial institutions with an existing agricultural portfolio. The approach is a progressive one, towards setting targets for pollution reduction, through elimination of hazardous and harmful activities, and through the adoption of practices at field level that can contribute to 'systemic' sustainable intensification at a landscape level within appropriate regulatory frameworks. As banks take action to address pollution risks across their portfolios, we recognize the need for a harmonized approach across all sectors. This report is part of a series of reports and guidance documents that include "Navigating Pollution: A Blueprint for the Banking Sector" (UNEP FI 2024) and forthcoming Sectoral Circular Economy Finance Guidelines: Agriculture Sector.

# Acronyms and abbreviations

<b>BAT</b>	Best available technology
<b>BEP</b>	Best environmental practice
<b>CFP</b>	Chemical Footprint Project
<b>CoHCs</b>	Chemicals of high concern
<b>DFIs</b>	Development finance institutions
<b>DPSIR</b>	Drivers, Pressures, State, Impact, Responses
<b>ESRS</b>	European Sustainability Reporting Standards
<b>FAO</b>	Food and Agriculture Organization
<b>GBF</b>	Kunming-Montreal Global Biodiversity Framework
<b>GCF</b>	Green Climate Fund
<b>GEF</b>	Global Environment Facility
<b>GFC</b>	Global Framework on Chemicals
<b>GHS</b>	Globally Harmonized System of Classification and Labelling of Chemicals
<b>HHPs</b>	Highly hazardous pesticides
<b>ICT</b>	Information and communication technology
<b>IFRS</b>	International Financial Reporting Standards
<b>IPM</b>	Integrated pest management
<b>ISSB</b>	International Sustainability Standards Board
<b>KYC</b>	Know your customer
<b>LCA</b>	Life cycle assessment
<b>MDBs</b>	Multilateral development banks
<b>MEA</b>	Multilateral environmental agreement
<b>MoU</b>	Memorandum of understanding
<b>MRV</b>	Monitoring, reporting and verification
<b>MSMEs</b>	Micro, small and medium enterprises
<b>ODS</b>	Ozone depleting substances
<b>OHSA</b>	Occupational Health and Safety Act
<b>PFAS</b>	Per- and polyfluoroalkyl substances
<b>PIC</b>	Prior informed consent
<b>PM</b>	Particulate matter
<b>POPs</b>	Persistent organic pollutants
<b>PRB</b>	Principles for Responsible Banking
<b>PRI</b>	Principles for Responsible Investing
<b>TCFD</b>	Task Force on Climate-related Financial Disclosure
<b>TNFD</b>	Taskforce on Nature-related Financial Disclosure
<b>VOCs</b>	Volatile organic compounds



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# Executive summary

Business-as-usual, where agricultural systems generate significant ecosystem and societal impacts is no longer viable. By 2050, global food demand is projected to grow between 35% and 56%, with significant increases in meat, aquaculture, and dairy production, largely driven by changing global diet and enabled through agricultural intensification. The unsustainable intensification of agricultural practices is resulting in the unsustainable degradation of agricultural ecosystems to provide food, fibre, fuel, fodder and other ecosystem services. While aiming to boost productivity, current practices contribute significantly to environmental degradation, including water, air and soil pollution from agrochemicals, waste and emerging microplastics.

Financial institutions can play an important role in addressing these issues. Industrialized agriculture incurs substantial direct and indirect economic costs, estimated at USD 10 trillion annually in environmental, social and health damages. To meet future food demand, approximately USD 80 billion in annual investments are needed, primarily from the commercial sector. Banks can play a critical role by directing capital towards the development of alternatives to hazardous pesticides and more sustainable agricultural systems that are less reliant on hazardous chemical inputs, thereby reducing input costs, enhancing productivity and strengthening borrower resilience. Proactive alignment with this transition allows banks to mitigate risks, capitalize on new financial opportunities in sustainable agricultural systems, and meet increasingly stringent environmental and social disclosure requirements aligned with evolving regulations and consumer demand.

This guidance provides a framework for banks to manage and reduce agricultural pollution. It outlines a progressive approach to integrating agricultural pollution considerations into policies, processes and culture, client engagement, portfolio composition and financing, and stakeholder engagement and partnerships. Banks are encouraged to align their practices with internationally recognized frameworks, such as the Global Framework on Chemicals (GFC) and mandatory multilateral environmental agreements (MEAs) such as the Basel, Rotterdam and Stockholm Conventions. These frameworks and identified pollution risks provide a foundation for establishing baseline practices and incremental targets. The approach begins with setting practice targets, supported by core practice indicators and aims, and informed by impact assessments to progress towards measurable impact targets. This guidance does not cover impact target setting. By aligning with global frameworks and implementing pollution reduction measures, banks can take meaningful steps towards sustainable finance, address the environmental and social impacts of their lending and investment decisions, and ultimately contribute to a more resilient and sustainable agricultural sector.

# Introduction

Building on the paper *Navigating Pollution: A Blueprint for the Banking Sector*, released in December 2024, the UNEP FI Principles for Responsible Banking (PRB) workstream on pollution has developed sectoral guidance for the agricultural sector. The sectoral guidance is designed to be accessible and applicable to all UNEP FI PRB signatory banks, regardless of their size or geographic location. This guidance is not only for banks that have identified pollution as one of their highest impact areas, but also for banks that want to take action on pollution (without necessarily setting specific targets for pollution). It provides a pathway for managing and reducing pollution from agriculture, including alignment with relevant global and regional frameworks, setting practice targets, and developing implementation measures across the four PRB action categories.

## Agricultural pollution as an environmental and social issue

Agriculture, covering 37% of the Earth's land (4.8 billion hectares),<sup>1</sup> is a major driver of environmental degradation, contributing to water, air and soil pollution, and accounting for approximately 69% of global freshwater withdrawals.<sup>2</sup> It releases large volumes of agrochemicals, sediments, nutrients, waste biosolids, pharmaceutical residues and salts into ecosystems,<sup>3</sup> and contributes 13–21% of global greenhouse gas emissions,<sup>4</sup> including one third from the broader agrifood value chain.<sup>5</sup> Pesticides, especially highly hazardous pesticides (HHPs), pose severe risks to biodiversity through toxicity and bioaccumulation, while fertilizers contribute to eutrophication and soil degradation. Organic composts and biosolids can also pollute ecosystems by releasing excess nutrients or chemicals such as per- and polyfluoroalkyl substances (PFAS). Agricultural plastics, including micro and nanoplastics (MNPLs) from inputs and waste,<sup>6</sup> add to environmental and health risks, which are intensified by climate-agriculture feedback loops. Socially, agricultural pollution disproportionately harms rural and low-income communities, with groundwater contamination, air pollution from open-field burning, and pesti-

- 1 Mukherji, A. and others, [2024 Breakthrough Agenda Report: Agriculture](#) (Montpellier, France, CGIAR 2004)
- 2 Food and Agriculture Organization and UN-Water, [Progress on change in water-use efficiency – Mid-term status of SDG Indicator 6.4.1 and acceleration needs, with special focus on food security and climate change, 2024](#). (Rome, FAO, 2024).
- 3 United Nations Environment Programme, [Half the world's countries have degraded freshwater systems, UN finds](#), 28 August 2024.
- 4 Intergovernmental Panel on [Climate Change, Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change](#). (Geneva, IPCC, 2023).
- 5 Which includes land use change, retail, transport, consumption, fuel production, waste management, industrial processes and packaging.
- 6 Boctor, J. and others, [Microplastics and nanoplastics: fate, transport, and governance from agricultural soil to food webs and humans](#) (Environmental Sciences Europe 2025 37:1, 37(1), 1–30, 2025).

cide exposure causing a range of health issues—especially among women and children.<sup>7</sup> Smallholder farmers face heightened occupational risks due to heightened exposure, inadequate protective gear and healthcare, with women particularly vulnerable due to physiological factors related to reproduction and caregiving.

## The business case for reduction of agrochemicals use

Business-as-usual, where agricultural systems generate significant ecosystem and societal impacts is no longer viable. Unsustainable intensification of agricultural practices is resulting in the unsustainable degradation of agricultural ecosystems to provide food, fibre, fuel, fodder and other ecosystem services.<sup>8</sup> Land degradation reduces productivity in 23% of global terrestrial area, and pollinator loss alone jeopardizes USD 230–580 billion in crop output.<sup>9</sup> In 2020, about 15% of global exposure to anthropogenic PM2.5 air pollution came from the agricultural sector. A one-per-cent increase in PM2.5 concentration is estimated to lead to a 0.104 per-cent decline in global agricultural total factor productivity, equivalent to USD 5 billion per year.<sup>10</sup> The Food and Agriculture Organization (FAO) estimates that current food and farming systems generate USD 10 trillion in environmental, social, and health-related costs, with environmental damages alone accounting for USD 2.9 trillion.<sup>11</sup> Other estimates put this figure as high as USD 20 trillion.<sup>12</sup> Financial institutions play a critical role in supporting the transition to more sustainable agricultural and industrial practices by directing capital toward projects and businesses that reduce agrochemical and plastic use while improving management practices.

Banks' efforts to address pollution in the agriculture sector can generate widespread environmental and social benefits, while failure to act exposes them to significant risks. In agricultural lending, pollution-related risks include credit defaults due to regulatory breaches, legal liabilities from environmental harm, and reputational damage from supporting high-pollution agribusinesses. Additionally, banks may be held accountable for human rights violations linked to pollution, such as water contamination or pesticide exposure. By aligning agricultural financing with pollution reduction strategies, banks can access green finance incentives, avoid the risk of stranded agricultural assets, and strengthen their competitive standing in a market increasingly focused on sustainability. Supporting agritech innovations, such as precision agriculture (PA), advanced soil health monitoring, integrated pest management (IPM) and biological pest control solutions, provides banks with opportunities to finance high-impact, future-proof sectors.

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7 Food and Agriculture Organization, [Addressing gender issues in pesticide management](#) (Rome, Italy, 2022)

8 Kopittke, P. M. and others, Soil and the intensification of agriculture for global food security. [Environment International](#), 132, 105078 (2019).

9 The Rockefeller Foundation, [Financing for Regenerative Agriculture](#) (2024)

10 [Accelerating Access to Clean Air for a Livable Planet \(English\)](#). Washington, D.C. : World Bank Group.

11 Food and Agriculture Organization, [The State of Food and Agriculture: Revealing the true cost of food to transform agrifood systems](#) (2023)

12 Hendriks, S. and others, The True Cost of Food: A Preliminary Assessment. [Science and Innovations for Food Systems Transformation](#), 581–601 (2023).

## Opportunities in the agricultural sector

There are systemic opportunities associated with transforming crop management systems and embracing agroecological, sustainable intensification, regenerative agriculture and circular economy approaches to create resilient, sustainable, and socially equitable agricultural systems.

- Agroecology focuses on creating diverse and resilient agricultural systems that mimic natural ecosystems through application of ecological principles.
- Sustainable intensification focuses on increasing crop output per unit of input (land, water, fertilizer) on existing farmland, typically through technology and improved management, to meet rising demand without expanding into natural habitats.
- Circular economy approaches are focused on designing out waste and pollution, keeping products and materials in use for as long as possible, and regenerating natural systems by closing nutrient and resource loops within the agricultural system
- Circular economy approaches include inter alia regenerative agriculture, a 'holistic' system of farming principles and practices that actively restores and enhances soil health, biodiversity, and ecosystem services while maintaining farm productivity and profitability, aiming for net positive environmental outcomes.

Private financial institutions can develop specialized lending, risk mitigation, and debt instruments, and provide advisory services to clients. They include the provision of sustainability-linked loans (SLLs) with incentives tied to environmental outcomes, green asset financing, and financing solutions to bridge 'learning' costs. Public and private financial institutions can develop blended finance solutions (e.g., first-loss mechanisms, guarantees) to reduce the initial risk exposure on loans, offer customized risk mitigation products that recognize the enhanced resilience of sustainable farms, and provide advisory services to facilitate farmer access to new ecosystem service payment streams.



# 1. A framework for the reduction of pollution in agriculture

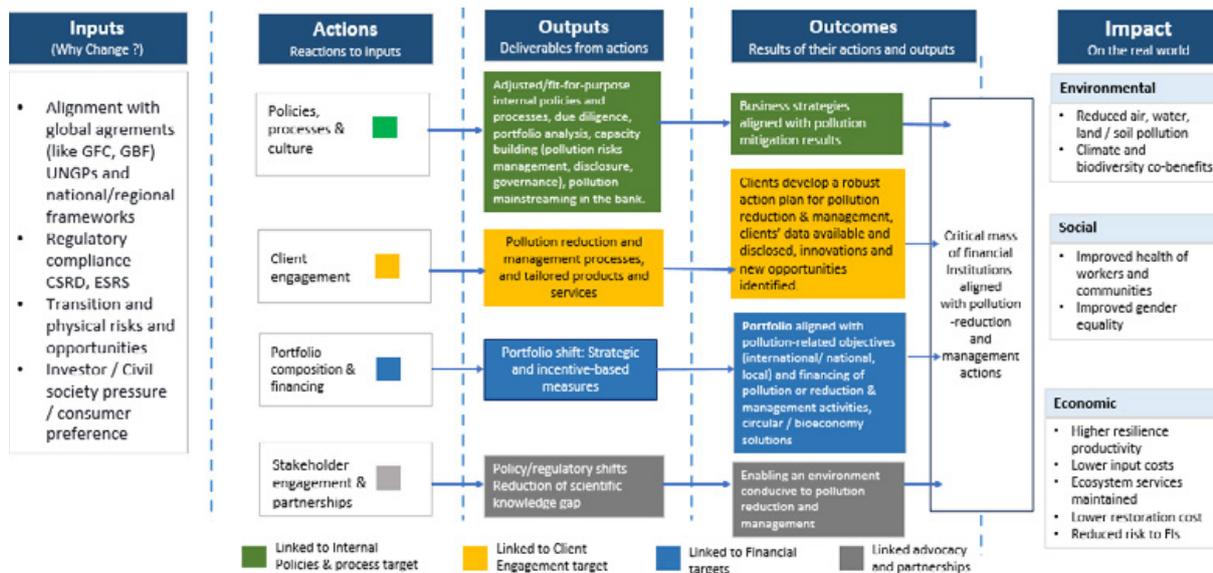
This guidance provides a structured approach for banks to support sustainable farming practices while reducing negative impact on the environment and society, and on human health. It focuses on identifying pollution sources across agricultural portfolios and promotes strategies to help banks work with clients to support their efforts to reduce agricultural pollution across the value chain and the consequential impact on people.

## 1.1 Theory of change for pollution

The theory of change for pollution reduction and management in agriculture begins with a clear rationale for why change is necessary. It identifies the drivers of change, including:

- Global, regional and national policy frameworks and specific pollution control agreements
- Transition risks, such as regulatory changes, technological advances and shifting market preferences toward “healthy foods”
- Physical risks such as crop failures caused by soil and water degradation that can directly impact the financial materiality of banks

Increasing pressure from civil society, investors, and consumers is pushing financial institutions toward enhanced accountability and reduced environmental and social harm from agricultural supply chains by promoting sustainable practices. These dynamics are shaping market expectations and the opportunities for banks to engage in lending and investment activities that contribute to pollution reduction from the agricultural sector, as shown in Figure I.



**Figure I:** Theory of change

This imperative for change feeds into four key PRB actions:

**First, banks can develop policies, processes and cultures** framed by a coherent evidence-based strategy that prioritizes environmental and social safeguards, such as integrating pollution mitigation criteria into lending frameworks. For instance, policies could include enhanced due diligence for clients in high-impact sectors or incentives for adopting regenerative agricultural practices.

**Second, banks can conduct reciprocal client engagement** processes that encourage clients to collect and share necessary data, and focus on fostering sustainable practices among borrowers, such as offering technical support or favourable financing for pollution-reducing technologies or gender equality promoting projects.

**Third, banks can actively shape their portfolio composition and financing** to support pollution reduction by allocating capital to lower-risk, sustainable agriculture projects and divesting from unsustainable practices.

**Fourth, banks can engage in stakeholder engagement and partnerships**, collaborating with governments, industry groups and non-profits to promote systemic change, such as stronger water quality regulations or supporting farmer training programmes.

The outputs of these actions include deliverables such as updated environmental lending policies, improved data availability and partnerships with technical assistance providers, client adoption of sustainable technologies, and measurable shifts in financing toward greener and more effectively human rights-aligned projects. These outputs lead to beneficial outcomes across every area of banks' strategic, operational, lending and engagement activities. Ultimately, these outcomes generate real-world impacts, including the preservation of ecosystems, resilience against climate change, and the development of sustainable food and commodity production systems, thereby aligning agricultural practices with global sustainability goals while protecting banks' long-term financial health.

## 1.2 A progressive approach to reducing pollution

Financing the transition towards reduced agrochemical pollution and improved chemical management in the agricultural sector is a journey, and many banks are likely in early stages at the time of publishing this guidance. To effectively address pollution, banks can follow a progressive approach that begins with practice targets (with associated impact objectives) before moving to impact targets.<sup>13</sup>

Practice targets focus on policies, processes and cultures that enable pollution reduction. This includes incorporating pollution considerations, including their social and human rights implications, into risk management, lending policies and client engagement strategies. Practice targets are considered as acceptable targets for PRB purposes, provided:

- They are set as a first step in a journey that aims at setting impact targets ultimately; practice targets should thus be accompanied by impact objectives and a clear plan to progress towards setting impact targets.
- They at least include targets on portfolio composition and financing and on client engagement, which are the two core practice components on which banks can take action to drive impact.<sup>14</sup>

Impact objectives may evolve into impact targets, which measure the external outcomes of pollution mitigation efforts as internal capabilities and capacities mature.<sup>15</sup>

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13 For further information on practice targets with impact objectives, please refer to the Impact Protocol (UNEP FI 2025), available at: [unepfi.org/impact/impact-protocol/](https://www.unepfi.org/impact/impact-protocol/)

14 Practice targets that only relate to policies, processes and culture, and to stakeholder engagement and partnerships are not sufficient to meet PRB requirements. It should be noted, however, that adjustments in internal policies and processes are indispensable to realizing portfolio and client engagement targets.

15 This progressive approach is acceptable only for impact areas that can be considered nascent, and not for more mature impact areas like climate change or financial health and inclusion. For further information please refer to the Principles for Responsible Banking Target Setting FAQ (UNEP FI 2022), available at [unepfi.org/industries/banking/prb-target-setting-faq/](https://www.unepfi.org/industries/banking/prb-target-setting-faq/)

## 1.3 Core set of indicators

To define practice targets and progress them towards impact targets banks can establish a focused set of core practice indicators that form a preliminary baseline that describes the current position of a banks' pollution reduction and management practices. This involves selecting indicators for which there is available (and sufficient) data to establish a preliminary baseline.

### 1.3.1 Core practice indicators

Core practice indicators can be defined for each implementation activity. Core practice indicators should demonstrate actions and corresponding outputs to identify and manage risk. A possible limited set of core practice indicators is provided in table 1.

**Table 1:** Example core set of practice indicators

	Action indicators	Output indicators
<b>Policies, processes and cultures</b>	Increase in quantitative screening criteria in KYC protocols	A database of client records across environmental and social metrics
	Increase in updating lending policies	New lending policies involving screening and incentives
	Increase of staff trained on tools or frameworks	Average competency score across lending teams (via post-training assessment)
	Action indicators	Output indicators
<b>Client engagement</b>	Increase of clients engaged in pollution reduction processes and data collection	Increase of clients providing required data from Enterprise Risk Management (ERM) processes.
	Increase of clients engaged in opportunity scoping activities	Increase of clients submitting pollution reduction and management plans
	Action indicators	Output indicators
<b>Portfolio composition and financing</b>	Increase in portfolio screening activities (total)	Increase of portfolio screened positively
	Increase in portfolio screening activities (using primary data)	Increase of financing allocated to activities with targeted pollution reduction plans
	Action indicators	Output indicators
<b>Stakeholder engagement and partnerships</b>	Increase in engagement activities with stakeholders	Signed agreements and action plans with stakeholders
	Increase in number of proposals submitted with stakeholders	Increase in number of joint action plans and projects with stakeholders

### 1.3.2 Core impact indicators

Although this guidance does not specifically address development of impact baselines and targets, this guidance encourages banks to develop a preliminary impact baseline as a foundational step for shaping bank strategy, defining policies, processes and cultures, guiding client engagement in Enterprise Risk Management (ERM) processes, adjusting portfolios, and informing stakeholder engagement activities.

The UNEP FI Impact Protocol provides a step-by-step overview of how to analyze and manage bank portfolio impacts in accordance with UNEP FI's holistic impact approach and the requirements of the Principles for Responsible Banking. The same approach can be taken in the agricultural sector, by identifying the main agricultural systems or types of project—for example livestock, dairy, soybean production or horticulture—and understanding their geographical, regulatory and socioeconomic context.

There are many impact indicators that may be used, depending on the type of client, project or activity and on the impact that you want to measure and track. Given the complexity of chemical toxicity, manifesting in diverse endpoints within air, soil, water, and indeed food, with impacts such as carcinogenicity, endocrine disruption and neurotoxicity, a single unifying impact metric is insufficient. Use of multiple indicators will be necessary to capture the impact of a given client, project or activity, describing environmental, social and economic impacts.

The set of impact indicators used should be sufficient to describe progress towards the stated goals. Some impact indicators that may help banks establish impact baselines and targets are presented in Annex 1. The impact indicators are categorized according to the impact of agrochemicals on water, air, soil and society.

## 2. How banks can contribute to taking action on pollution

Banks can commence their journey to reduce pollution from agriculture by:

- Aligning strategies with pollution reduction goals
- Establishing a baseline of pollution-related practice (and portfolio pollution impacts)
- Setting targets for pollution reduction
- Implementing actions to achieve those targets, following the UNEP FI Impact Protocol process for responsible banking

Figure II sets out these steps in more detail.



**Figure II:** Four-step process from the UNEP FI Impact Protocol

### 2.1 Alignment

As regulatory scrutiny intensifies and global standards evolve, financial institutions that fail to align with MEAs, international treaties or agreements between countries aimed at addressing (global) environmental and societal issues, risk exposure to compliance violations, stranded assets and reputational damage. Conversely, proactive alignment enables banks to future-proof their lending strategies, support clients in transitioning to sustainable agricultural practices, and capitalize on emerging green finance mechanisms that incentivize responsible agrochemical management.

The existence of mandatory MEAs regulating the production, trade, use and disposal of agrochemicals and their unintended by-products necessitates comprehensive risk assessments by banks when investing in or lending to agricultural projects involving proscribed chemicals. Failure to do so exposes financial institutions to regulatory, reputational and environmental liabilities. Global frameworks such as the Kunming-Montreal Global Biodiversity Framework (GBF) and the Global Framework on Chemicals (GFC) further influence a dynamic towards reduction and improved management of agrochemicals.

MEAs, specifically the Basel, Rotterdam, Stockholm Conventions have global scope, are legally binding, focus on cooperation, have scientific basis and provide an institutional framework that oversees implementation. Each is part of a network of MEAs aimed at addressing interconnected environmental challenges. Ambitious global frameworks, such as the United Nations Guiding Principles on Business and Human Rights (UNGPs), the Kunming-Montreal Global Biodiversity Framework (GBF), and the Global Framework on Chemicals (GFC), have been developed to address social issues, biodiversity conservation and chemical pollution management respectively. While not legally binding, they set clear targets that are highly relevant to banks investing and lending in the agricultural sector, as they shape the evolution of national and regional policy and regulatory frameworks and future global MEAs.

Codes of conduct and international standards also influence national policies by promoting risk reduction, environmental protection and sustainable agricultural practices. These frameworks outline government responsibilities in legislating, regulating, and enforcing agrochemical management, facilitating information exchange on banned or restricted pesticides, and establishing educational, advisory, extension and healthcare services to support compliance and capacity building.

Banks can identify relevant frameworks or policies by following a systematic process from the mandatory to the voluntary and from global to regional, as shown in figure III.

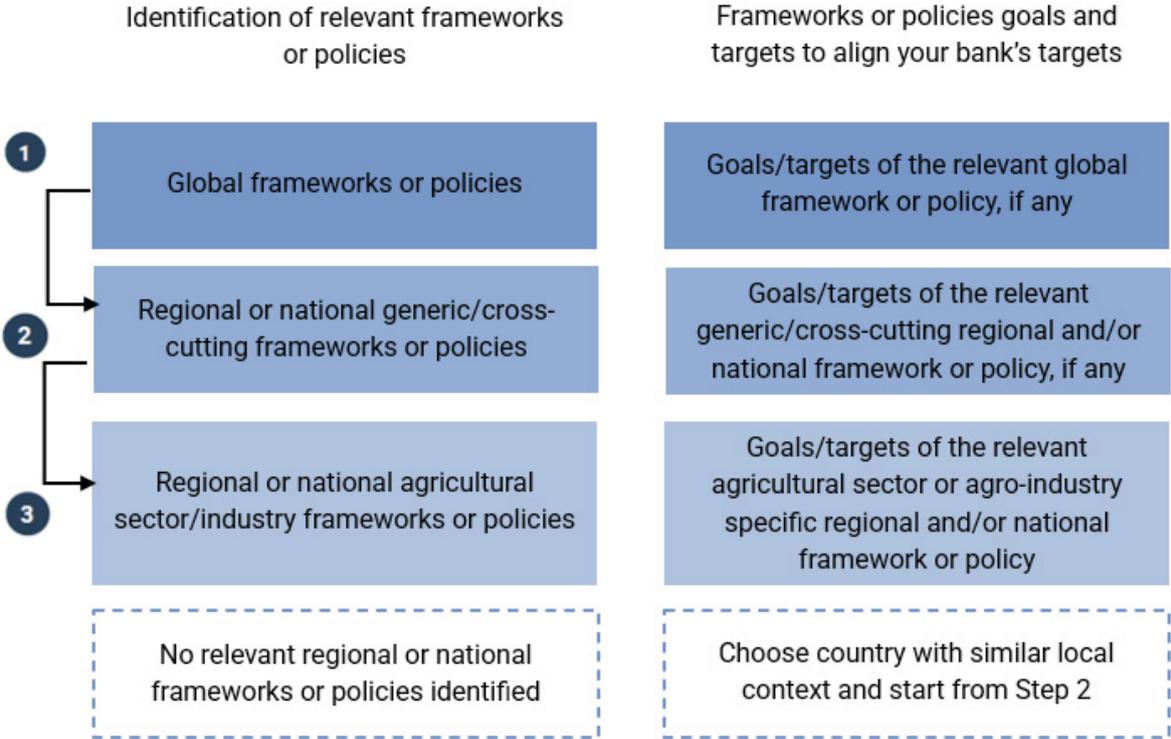


Figure III: Identification of frameworks and policies<sup>16</sup>

A summary of the principal MEAs, codes of conduct and international standards of relevance is provided in Annex 2. These conventions and their supporting frameworks,

16 Adapted from [UNEP FI \(2023\) Guidance on Resource Efficiency and Circular Economy](#)

codes and standards, largely focused on knowledge sharing, technology transfer, capacity-building and financial mechanisms for global cooperation, also monitoring and reporting, create a framework for sustainable investment by ensuring developing and transition economies can meet compliance obligations. Aligning with these conventions helps to de-risk investments by avoiding exposure to banned or restricted chemicals, regulatory non-compliance and reputational damage.

Banks can also consider the potential impact of trade restrictions and reduced market access for agricultural products treated with chemicals listed under these conventions in countries that have banned or restricted these substances. For example, exports from a country relying on controlled substances (under the Rotterdam Convention) may be restricted if that country has not ratified specific amendments. And due to restrictive markets, lending into non-party states operating with obsolete and hazardous technologies, processes and facilities would be at considerable risk. Moreover, the profitability and future viability of the underlying agricultural projects may be affected due to the higher risks of environmental contamination, health hazards, regulatory non-compliance and associated insurance costs. It can also render projects ineligible for capital delivered through sustainable finance risk-sharing instruments, such as green bonds or blended finance, where projects are screened using sustainable finance taxonomies.

## 2.2 Baseline

With a clear understanding of the regulatory, policy and voluntary frameworks governing agricultural pollution at global, regional and national levels, it is important that banks assess the alignment of their portfolios and financing with these standards.

Defining a baseline<sup>17</sup> involves evaluating current performance in both practice (including portfolio composition and financing, client engagement, policies, processes and cultures, and stakeholder engagement and partnerships) and impact, which considers effects on people, socioeconomic communities, and the environment. Establishing this baseline provides a reference point for measuring progress and informs both practice and impact target setting, as well as the development of an action plan to achieve these targets.

Conducting a pollution baseline study of agricultural pollution within a bank's portfolio requires both capabilities (expertise, analytical skills and technical knowledge) and capacities (resources, infrastructure and operational bandwidth) to engage with and gather data from clients, assess agricultural pollution impacts, identify and evaluate alternatives, design and implement required internal systems and execute the study effectively.<sup>18</sup>

These capabilities may reside within the bank's internal teams or be supplemented by external consultancy firms with deep domain expertise. Using a screening approach

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17 It is also an important part of internal capacity building, the results informing and shaping bank strategy, and a requirement for subsequent implementation measures, in particular client engagement, as the implementation process requires information from clients and will require clients to conduct a similar activity of defining a baseline, setting targets and continuous monitoring.

18 And repeatedly, as monitoring performance against the baseline will require repeat periodic analysis. The periodicity will be determined largely by the available data frequency.

enables banks to identify and quantify pollution impacts and material risks and opportunities for pollution reduction within their lending and investment portfolios. This method is also relevant to screen for exposure to high-impact projects in terms of pollution-related social and human rights adverse impacts. Human rights due diligence can look at all of a bank's potential and actual adverse human rights impacts, in this case, in relation to pollution in the agriculture industry. To be truly effective, human rights due diligence needs be carried out in a dynamic and ongoing manner throughout the life cycle of the investment, loan or business relationship, to enable it to respond to emerging risks, portfolio composition, transactions and operating context, and lessons learned. Human rights due diligence benefits particularly from meaningful stakeholder—in particular, rightsholder—engagement.

## 2.2.1 Practice baseline

The practice baseline should include measures (both qualitative and quantitative) that can be tracked repeatedly to assess internal performance in reducing the negative impact of lending and investment decisions, while maintaining (or improving) its viability, by following an iterative process.<sup>19</sup>

### Baseline for policies, processes and cultures

Objective: Determine the extent to which internal policies and processes integrate pollution reduction into decision-making.

Steps to establish the baseline include:

#### 1. Review risk assessment and due diligence processes

- Assess whether pollution criteria are embedded in risk assessments and Know Your Customer (KYC) protocols, specifically those concerning banned substances and HHPs.
- Determine the number of clients assessed for pollution reduction as part of due diligence.

#### 2. Evaluate pollution-related lending policies

- Identify whether lending policies prioritize pollution reduction measures.
- Assess the percentage of loans issued to projects with pollution reduction components.

#### 3. Assess internal capacity and training efforts

- Review staff training programmes on pollution-related risk assessment and sustainable finance.
- Track the number of board members and client-facing employees trained.

#### 4. Identify areas for strengthening internal practices

- Benchmark policies against industry best practice.
- Develop an action plan to enhance internal governance on pollution.

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<sup>19</sup> Informed by the results of the preliminary impact identification baseline, see section 1.3.

#### Example indicators:

- Percentage of clients assessed for pollution risks in KYC protocols.
- Percentage of projects using standardized pollution data collection templates.
- Percentage of loans issued to projects with pollution reduction measures.
- Percentage of employees trained on pollution-related policies
- number of updates made to internal risk assessment protocols

### Baseline for client engagement

Objective: Determine the extent to which the bank engages agricultural clients on pollution reduction and management practices.

Steps to establish baseline:

#### 1. Assess client engagement coverage

- Identify what percentage of clients in the agricultural portfolio are engaged in discussions on pollution reduction through existing Enterprise Risk Management processes.
- Determine the number of key clients from which pollution-relevant data is collected.

#### 2. Evaluate depth of engagement

- Assess how many clients have been provided with technical assistance on pollution reduction and eco-certifications.
- Identify how many projects have been screened for pollution reduction measures but require further engagement.

#### 3. Track engagement methods and frequency

- Measure the number and type of engagement activities (workshops, one-on-one discussions, advisory services).
- Determine whether engagement is systematic or ad hoc.

#### 4. Identify gaps and opportunities

- Compare engagement efforts against best practice to identify areas needing improvement.
- Develop a strategy to increase the number of clients engaged.

#### Example indicators:

- Percentage of key clients engaged on pollution reduction.
- Percentage of projects screened against selected frameworks.
- Percentage of clients receiving technical assistance.
- Increase in clients providing pollution-relevant data
- Number of client engagement activities recorded
- Number of key clients with identified pollution reduction

## Baseline for portfolio composition and financing

Objective: Assess the degree to which financing within the agricultural portfolio is directed toward projects that incorporate pollution reduction and management practices.

Steps to establish baseline:

### 1. Identify key projects and frameworks

- List key projects within the agricultural portfolio and map them against identified pollution reduction frameworks.

### 2. Screen the portfolio for compliance

- Assess projects against selected frameworks and rank them in order of priority.
- Assess pollution-related financial exposure (e.g. per cent of the portfolio compliant with green standards).

### 3. Data collection and benchmarking

- Collate and analyze pollution-related data from key clients (e.g. pesticide and fertilizer use, crop residue management, waste management).
- Measure pollution impact per project and set benchmarks for future improvement.

### 4. Adjust portfolio strategy

- Increase financing to projects with pollution reduction measures.
- Reduce exposure to high-pollution projects or integrate transition strategies.

#### Example indicators:

- Percentage of projects screened against pollution-reduction frameworks.
- Percentage of portfolio financing allocated to compliant vs. non-compliant projects
- decrease in high-pollution projects over time

## Baseline for stakeholder engagement and partnerships

Objective: Determine the extent to which the bank is involved in industry stakeholder engagement and partnerships for pollution reduction.

Steps to establish the baseline:

### 1. Measure policy engagement efforts

- Track the number of meetings held with policymakers and regulators on pollution reduction in the agricultural sector.
- Assess whether the bank has submitted any policy proposals on sustainable agricultural finance.

### 2. Assess industry collaboration and knowledge sharing

- Determine how many partnerships exist with sustainability rating agencies and other banks.
- Measure participation in industry-wide discussions on pollution reduction.

### 3. Evaluate financial partnerships for screened projects

- Engage with development financial institutions and multilateral development banks (MDBs) to identify opportunities for blended finance or other de-risking instruments for screened projects.

- Track the volume of pollution-focused financing secured from international financial institutions.

#### 4. Benchmark and identify areas for greater engagement

- Compare stakeholder engagement efforts with peer banks to identify areas for increased participation.
- Develop a strategy to enhance the bank’s leadership in sustainable finance engagement.

### 2.2.2 Preliminary impact baseline

Developing a preliminary impact baseline is key to screening and subsequently adjusting your portfolio. Given realistic data limitations, and the complexity of agricultural systems, this preliminary baseline may initially rely almost entirely on qualitative information, evidence-based heuristics<sup>20</sup> and categorization (classification) methods that assign ranges of impact to different agricultural systems based on the reported intensity of use of agrochemicals and plastics, as a proxy for possible risks from impacts.

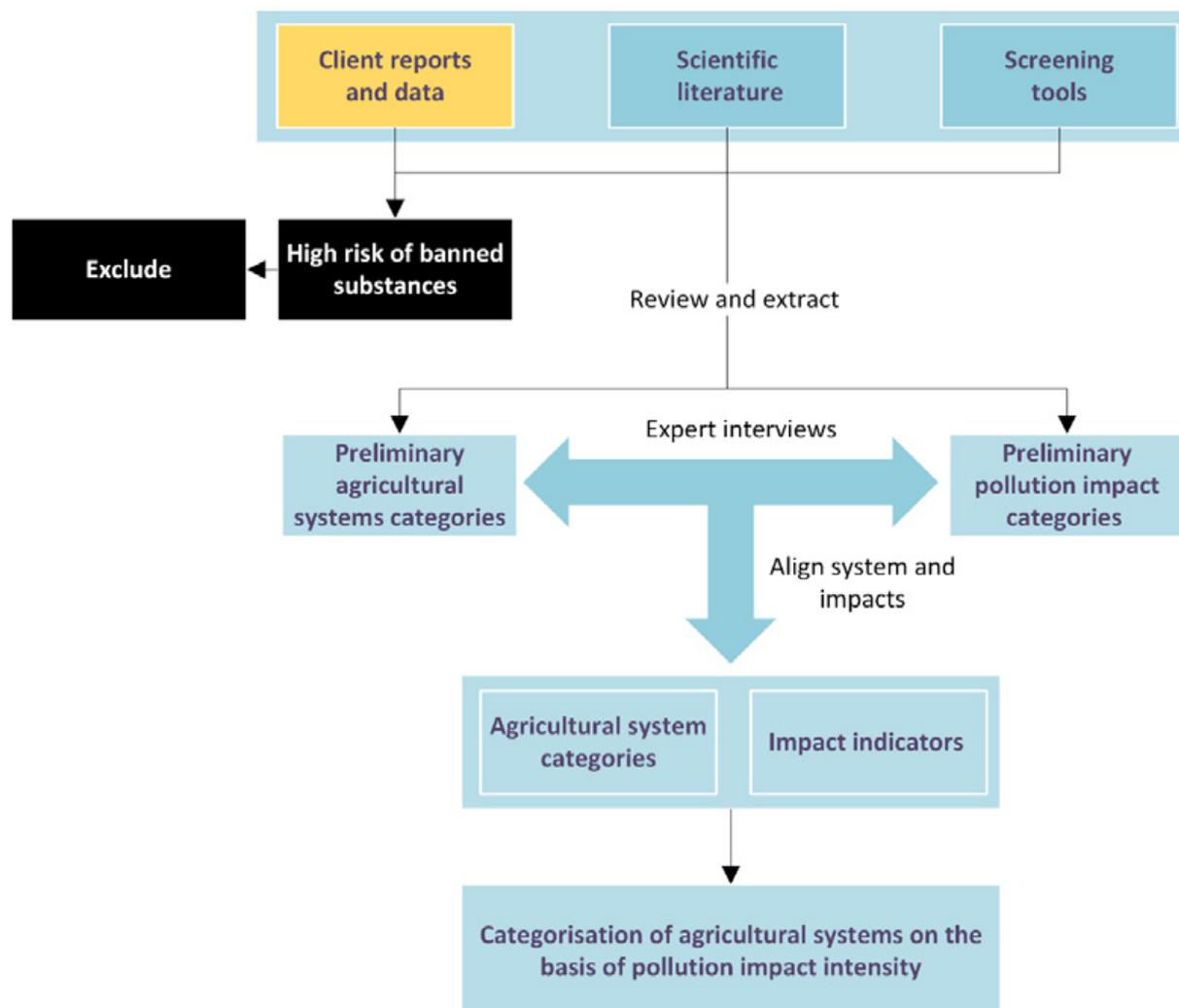
While agricultural land use management practices are extremely diverse, it is both reasonable and pragmatic to assume that across broad groupings each system shares similar agrochemical and plastics input intensities. Each agricultural system is the combination of practices, processes, and technologies used to produce, process and distribute agricultural goods. It consists of a defined package of practices (SOP), specific techniques like seed selection, irrigation, fertilization and pest control, and standard operating procedures (SOP), which are step-by-step protocols to ensure consistency, efficiency and compliance. Together, PoP and SOP shape the system’s productivity, environmental impact and resilience. Table 2 provides an example.

**Table 2:** A simple example of agricultural system pollution-potential-based categorization

Simple categorization types	Farming practice	Possible impact range
Input use, type and intensity	Subsistence farming	Low to high
	Conventional farming	Medium to high
	Organic farming	Low to medium
	Regenerative agriculture	Low
	Intensive livestock	Medium to high
	Extensive livestock	Low to medium

<sup>20</sup> Heuristics are practical, experience-based methods used to make strategic decisions when complete information is unavailable. It is important to ensure these are developed with experts.

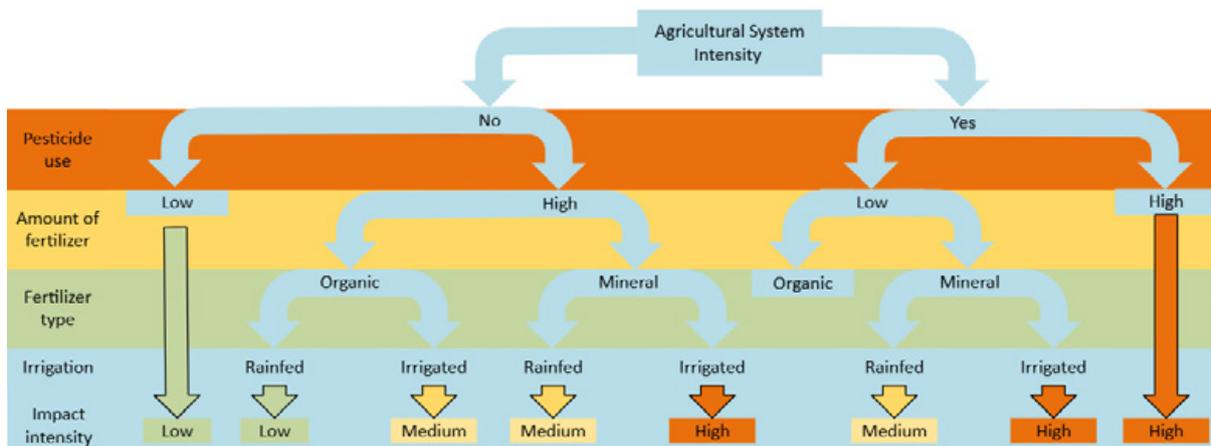
Categorizations can be derived from published sources, qualitative client interactions and expert consultations, as shown in figure IV. They can be developed to reflect the intrinsic pollution intensity of different agricultural systems and can enable banks to establish a practical starting point for identifying high impact across the agricultural portfolio. This approach can be developed to provide interoperability and equivalence with rapidly evolving sustainable finance taxonomy systems.



**Figure IV:** Methodological steps for classification of agricultural land management systems<sup>21</sup>

Categorization screening information can be fed through a decision tree to refine the impact levels of different land use management approaches, as shown in figure V. Categorizations can be further developed to reflect activities and dependencies across the value chain of each agricultural system and refined based on their regional or national regulatory and geographical context. They can be conducted with increasing precision from global, to regional to local. Progress in this high-level screening process can be tracked using the core set of impact indicators.

21 Adapted from López Rodríguez, S., van Bussel, L. G. J., and Alkemade, R., Classification of agricultural land management systems for global modeling of biodiversity and ecosystem services. [Agriculture, Ecosystems & Environment, 360](#), 108795 (2024).



**Figure V:** Simple decision tree for screening levels of cropland impact intensity characterization<sup>22</sup>

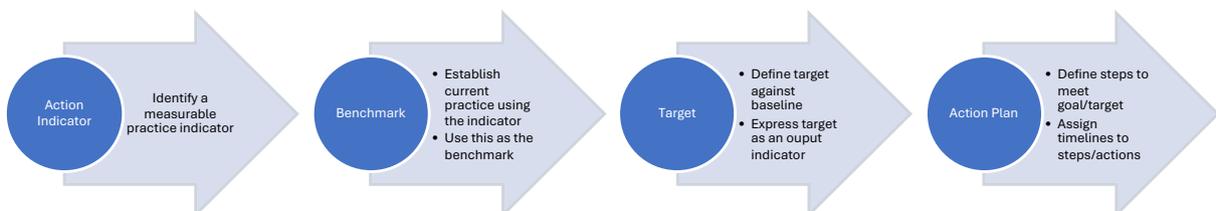
Practice target indicators can be developed to track progress in development and refinement of the (preliminary) impact baseline.

#### Example indicators:

- Percentage of clients screened against exclusion principles (banned substances)
- Number of agricultural system categories for which impact intensity characterization has been completed
- Number of criteria used to define categories and impact intensity

## 2.3 Target setting (practice targets)

Having identified the frameworks to align with, and determined a practice baseline, the next step is to set practice targets for the selected practice indicators. Practice targets can be set using the practice indicators of the core set presented above, adjusted as needed by your bank. And while formal target setting enhances clarity and alignment, banks can begin integrating pollution considerations into their lending and investment decisions even before formal target-setting. Figure VI shows the recommended matrix for setting practice targets for each of the four PRB action categories:



**Figure VI:** Steps towards practice targets

<sup>22</sup> The thresholds for low or high can be refined over time, moving from qualitative assignment towards quantitative data as the process evolves and more data becomes available.

Table 3 provides examples of practice target setting for each PRB action category:

**Table 3:** Examples of practice target setting for each PRB action category

	Step	Description	Example
<b>Policies, processes and culture</b>	Action indicator	Percentage of clients that are assessed for chemical pollution risk in KYC protocols.	25% of clients are currently assessed.
	Baseline/ Benchmark	Current KYC protocols do not systematically include chemical pollution criteria.	Existing KYC protocol does not consider chemical pollution.
	Target setting	Update KYC and risk assessment protocols to include chemical pollution criteria.	Revised KYC by Q4 2026.
	Milestones	Train compliance officers → Pilot new KYC forms → Full rollout.	Q2 2026: 50% trained, Q3 2026: pilot phase.
	Action plan	Develop new assessment templates, train staff and integrate new criteria.	Implement in phases across client categories.
	Timeline and deadlines	12-month implementation.	Full integration of pollution screening in KYC by Q4 2026.
	Step	Description	Example
<b>Client engagement</b>	Action indicator	Percentage of key clients from which chemical pollution data is collected.	20% of clients currently provide data.
	Baseline/ Benchmark	Limited pollution data is collected from clients, restricting portfolio assessment.	No standardized data collection process.
	Target setting	Increase the number of key clients providing pollution data to 60% by Q3 2026.	Output indicator: percentage of clients reporting pollution data.
	Milestones	Gradual increase through engagement campaigns.	30% by Q2 2026 → 45% by Q4 2026 → 60% by Q3 2027.
	Action plan	Conduct outreach programmes, provide reporting templates, offer incentives for participation.	Host workshops, update client reporting requirements.
	Timeline and deadlines	18-month rollout.	Full integration into reporting processes by Q3 2026

	Step	Description	Example
<b>Portfolio composition and financing</b>	Action indicator	Percentage of portfolio allocated to positively screened projects.	25% of the portfolio currently qualifies.
	Baseline/benchmark	No clear framework for identifying and financing low-pollution projects.	Lack of consistent screening criteria.
	Target setting	Output indicator: percentage of projects screened and assessed.	Increase allocation to 50% within three years.
	Milestones	Progressive financing shift.	35% by Q4 2026 → 45% by Q4 2027 → 50% by Q4 2028.
	Action plan	Establish screening criteria, create incentives for low chemical pollution impact projects, adjust lending policies.	Work with sustainability teams and investment officers.
	Timeline and deadlines	Three-year phased implementation.	50% allocation to positively screened projects by Q4 2028.
	Step	Description	Example
<b>Stakeholder engagement and partnerships</b>	Action indicator	Number of meetings/engagements with government agencies.	Three engagements in the past year.
	Baseline/benchmark	Limited engagement between banks and regulators on pollution reduction.	No formalized collaboration.
	Target setting	Output indicator: Signed MoUs, policy proposals submitted.	Establish at least 10 partnerships with regulatory bodies by Q4 2026.
	Milestones	Structured engagement plan.	5 partnerships by Q2 2025 → 8 partnerships by Q4 2025 → 10 by Q4 2026.
	Action plan	Organize roundtables, co-develop policy proposals, secure government-backed funding.	Host two annual forums on sustainable finance.
	Timeline and deadlines	Two-year roadmap.	10 formal partnerships by Q4 2026.

## 2.4 Implementation measures

Having set your bank's practice and impact targets, you can determine the actions and implementation measures to take. For this purpose, you will be able to rely on information and data gathered to determine your bank's internal practice baseline and preliminary impact baseline, which will allow you to identify data gaps and operational activities where focus is required.

### 2.4.1 Policies, processes and cultures

This section focuses on how banks integrate environmental considerations into their operations. Without strong leadership from the board and senior executives, and adequate resources, the implementation of actions designed to reduce pollution will not achieve the desired results and could expose your bank to additional risk. Strategic and operational implementation plans can be shaped by engaging with the board and executives to develop coherent responses to critical questions. Table 4 gives examples of questions that may need clearly articulated responses, if not already defined.

**Table 4:** Strategic and operational considerations for implementation actions

	Screening	Impact indicators/Data	Risks and opportunities
<b>Policies, processes and culture</b>	<ul style="list-style-type: none"> <li>What is the strategy for alignment with MEAs, and global and regional regulations both today and in the foreseeable future?</li> <li>Do we apply a single global policy or adapt regionally?</li> <li>Which frameworks can we adopt or adapt to facilitate for screening and how do these relate to future disclosure frameworks?</li> </ul>	<ul style="list-style-type: none"> <li>Are policies and processes adequate to assess impact materiality (inside out)?</li> <li>What is the current status of data availability?</li> <li>What data do we want and need?</li> <li>What systems and capabilities are in place to secure necessary data? What internal data can be used to develop indicators that describe internal progress towards stated strategic goals?</li> </ul>	<ul style="list-style-type: none"> <li>Are policies and processes adequate to assess financial materiality (outside-in)?</li> <li>What tools, models and frameworks can we employ for effective quantification of risk and opportunities associated with risk and opportunity (R&amp;O) assessment?</li> <li>What internal policies and processes exist to respond to the outputs of this R&amp;O activity?</li> </ul>
<b>Client engagement</b>	<ul style="list-style-type: none"> <li>What is the process by which we engage with clients to screen projects/products?</li> <li>How do we assist clients to improve their screening results (simply, rapidly and effectively)?</li> <li>Can we advise on alternatives?</li> </ul>	<ul style="list-style-type: none"> <li>What data do we expect to be able to secure from clients and how? Issues to resolve include: <ul style="list-style-type: none"> <li>Avoiding proprietary issues</li> <li>Minimizing transaction costs</li> <li>Big corporates to MSMEs for social inclusion</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>How do we engage with clients to understand risks and opportunities from their perspective?</li> <li>How do we adapt/modify internal processes and portfolio strategy to capitalize on this valuable information?</li> </ul>
<b>Portfolio composition and financing</b>	<ul style="list-style-type: none"> <li>Do we understand and can we control for the financial impacts of restricting the portfolio?</li> <li>Can alternatives fully substitute?</li> <li>How do we differentiate products in the portfolio for clients, projects/products that are ranked differently?</li> </ul>	<ul style="list-style-type: none"> <li>Can fit-for-purpose data be secured to effectively assess impacts across the portfolio and do these data provide the information needed to assess risks and opportunities?</li> <li>What portfolio-level measures do we adopt to quantify financial materiality impacts of subsequent changes to portfolio composition and financing?</li> </ul>	<ul style="list-style-type: none"> <li>How to assess whether exclusion, screening and subsequent responses are effectively minimizing risks and capitalizing on opportunities?</li> <li>How does this inform decisions surrounding portfolio composition?</li> </ul>

	Screening	Impact indicators/Data	Risks and opportunities
Stakeholder engagement and partnerships	<ul style="list-style-type: none"> <li>How can we participate in developing screening systems that can be widely adopted to streamline the screening process?</li> <li>Do we share our experience and expertise, recognizing that wider adoption of our internal standards could have a positive impact?</li> </ul>	<ul style="list-style-type: none"> <li>What should our level of engagement be in developing data collection systems and indicators to populate (impact disclosure) frameworks, risk and opportunity quantification models and portfolio tracking?</li> <li>Internal-only or open-source approach?</li> </ul>	<ul style="list-style-type: none"> <li>What are the risks and opportunities of different engagement strategies?</li> <li>Does our engagement strategy assist in the identification of risks and opportunities?</li> <li>Which stakeholders?</li> </ul>

## Integrating environmental disclosure requirements

Disclosure requirements, whether mandatory or voluntary, will directly influence internal policies and processes by determining how environmental impacts, including those related to agricultural pollution in their financed portfolio, are identified, measured, managed and reported. Where mandatory reporting exists, these requirements provide a clear framework for integrating pollution considerations into internal policies and processes. Strong alignment with (mandatory) disclosure standards enhances efficiency and focus across baseline studies, (practice) target setting, portfolio adjustments and subsequent reporting activities. Table 5 sets out an approach to implementing internal policies and processes.

Voluntary reporting standards and disclosure frameworks have significantly informed the development of mandatory approaches as regulators recognize their value in driving consistent and comparable reporting. This makes it prudent for banks to proactively consult or adopt them to prepare for future requirements, as a means of managing transition risk. The IFRS Sustainability Disclosure Standards (ISSB Standards S1 and S2) aim to create a global baseline for sustainability-related financial disclosures. The Task Force on Climate-related Financial Disclosure (TCFD), while initially voluntary, has been widely adopted, or forms the basis of, mandatory regulations in several jurisdictions.

The TCFD and TNFD (and ISSB<sup>23</sup>) have significantly informed, through active collaboration, the development of the EU Corporate Sustainability Reporting Directive (CSRD) European Sustainability Reporting Standards on pollution (ESRS E2) in several ways, such as:

- Their foundational principles and four-pillar structure (governance, strategy, risk management and metrics and targets).
- A focus on materiality and double materiality.
- Adopting the TNFD approach of granular recommendations for specific disclosures within each pillar, including the disclosure of quantitative data on various types of pollution to air, water and soil (Disclosure Requirement E2-4), and including specific pollutants and substances of (very high) concern (Disclosure Requirement E2-5).
- An emphasis on the interconnectedness of information across sustainability topics. This principle resonates with ESRS E2, which requires companies to explain the interdependencies between pollution and other environmental (climate, biodiversity, water) and social factors.

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23 The initial focus of the ISSB Standards S1 and S2 (which require the disclosure of material sustainability-related information and climate-related metrics respectively) has been on general requirements and climate-related disclosures due to the urgency and widespread impact of climate change. It is expected that the ISSB will develop further standards addressing other environmental topics, including pollution, in the future.

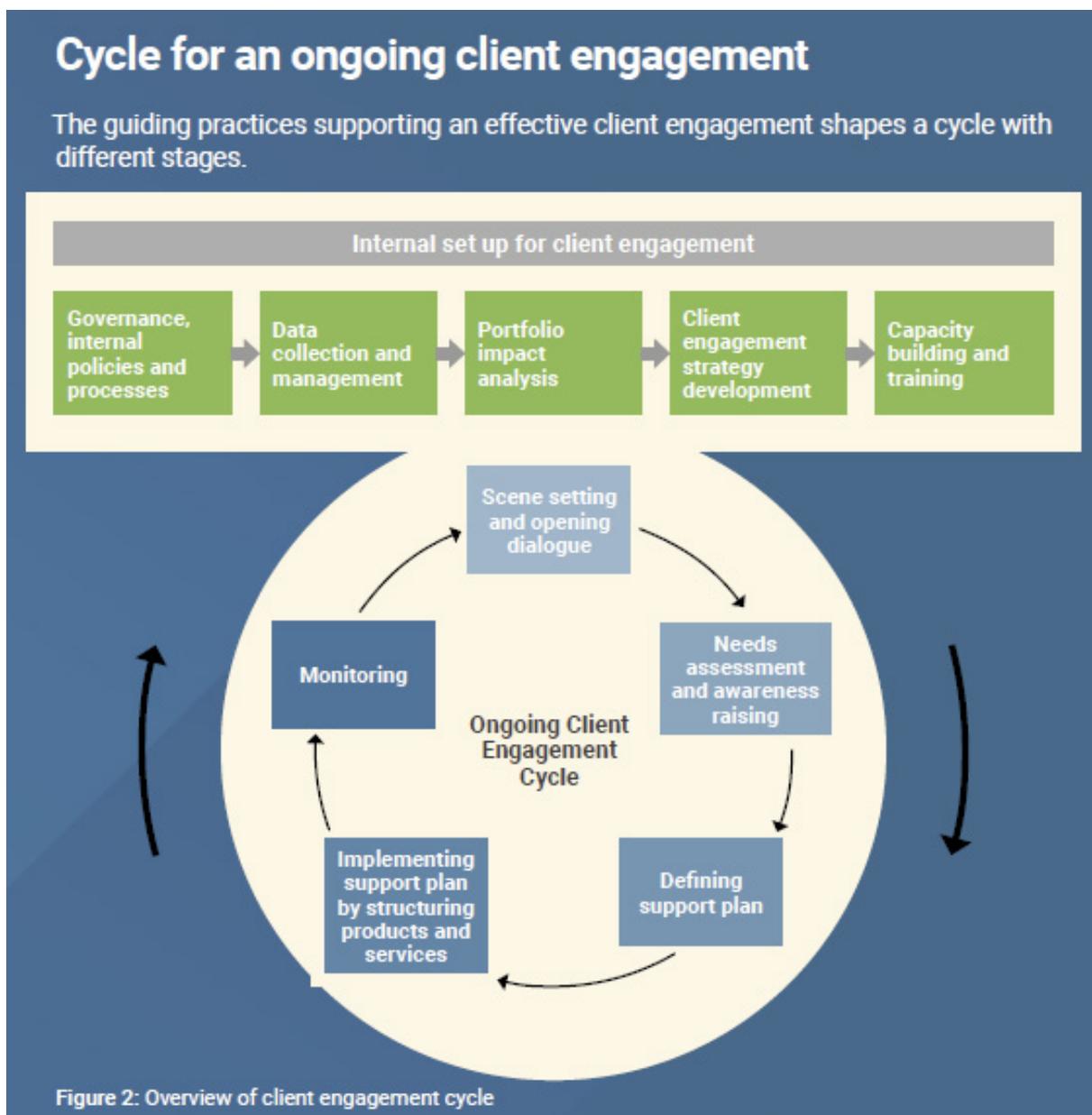
**Table 5:** Implementation –Policies, processes and culture

What	How	
<b>Risk assessment approach</b>		
Develop standardized data templates	<ul style="list-style-type: none"> <li>Establish data collection protocols in line with project screening requirements</li> </ul>	<ul style="list-style-type: none"> <li>Require pollution impact reports (at financing milestones)</li> <li>Leverage third-party certification data (standards)</li> </ul>
Ensure pollution risk assessment integration, including social measures	<ul style="list-style-type: none"> <li>Use screening tools to assess chemical-pollution-related impacts for project evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Develop a decision-making checklist</li> <li>Integrate pollution risk-scoring into existing environmental and social risk frameworks</li> </ul>
<b>Internal lending policies</b>		
Implement policy requiring third-party BAT/BEP certification	<ul style="list-style-type: none"> <li>Identify and list approved certification programmes</li> <li>Develop tiered financing models where loan conditions improve pollution-oriented certification levels</li> </ul>	<ul style="list-style-type: none"> <li>Conduct awareness sessions with clients to help them navigate certification processes and understand the impact on financing applications</li> </ul>
Implement policy requiring a minimum set of pollution reduction plans/practices	<ul style="list-style-type: none"> <li>Establish clear, pragmatic and defensible exclusion, transition and exception processes</li> </ul>	
<b>Internal capacity building</b>		
Develop internal awareness-raising programmes on chemical pollution impacts from agriculture (include social dimension)	<ul style="list-style-type: none"> <li>Organize internal knowledge-sharing sessions with industry experts focused on the business case and social considerations</li> <li>Conduct executive briefings for board members on agrochemical pollution risk in financial decision-making</li> </ul>	
Develop capabilities and capacities on agrochemical pollution practices and client-facing employees	<ul style="list-style-type: none"> <li>Develop agriculture sector-specific training for relationship managers and loan officers on chemical pollution screening criteria</li> <li>Develop case studies showcasing successful client engagement in pollution mitigation</li> </ul>	

## 2.4.2 Client engagement

Engaging with clients is at the heart of the process to reduce the pollution impact of your banks' portfolio. This involves requiring clients to share data on chemicals use as part of enhanced KYC procedures, ensuring transparency in pollution-related risks. Clients could be required to disclose their pollution footprint, including chemical usage, environmental and social context, nutrient run-off and emissions, while also providing risk assessment results aligned with industry frameworks (such as TNFD and ISSB). Beyond disclosure, banks can actively support clients in developing transition plans toward low-pollution production systems, such as adopting non-hazardous chemicals, precision agriculture and regenerative practices. This engagement could include techni-

cal assistance, sustainability-linked financing incentives and periodic progress reviews, ensuring clients align with pollution reduction targets while maintaining financial viability. The client engagement process, like all others in this guidance is an iterative one, with the results from the process feeding into the other implementation actions, as figure VII demonstrates.



**Figure VII:** Process for establishing internal policies and processes for client engagement (Source: UNEP FI Client Engagement Guidance)

When prioritizing action on agricultural pollution, banks could strategically focus their engagement efforts where the risks are greatest and where they can leverage the most significant positive impact. While influencing the practices of numerous individual farmers can be complex and resource intensive, engaging directly with the producers of agricultural chemicals presents a potentially more impactful intervention point. By establishing dialogues, setting expectations and potentially offering financial incentives

or disincentives to these producers regarding the development and marketing of less hazardous alternatives, banks can address pollution at its source, as shown in Table 6. This targeted approach, complementing broader client engagement with farmers on sustainable practices and Enterprise Risk Management (ERM) processes, allows for a more concentrated use of resources and the potential for systemic change across the agricultural value chain.

**Table 6:** Implementation—Client engagement

What	How	
<b>Awareness raising</b>		
Engage with clients to raise awareness on chemical pollution risks of agrochemicals use, available mitigation measures and benefits of implementing these measures	<ul style="list-style-type: none"> <li>Describe the internal screening process</li> <li>Provide clients with a pollution impact categorization, rating or score</li> <li>Host workshops and webinars</li> </ul>	<ul style="list-style-type: none"> <li>Develop industry case studies demonstrating successful pollution reduction initiatives</li> </ul>
Engage with clients to develop measurable impact indicators	<ul style="list-style-type: none"> <li>Offer clients a pollution data collection tool aligned with internal screening metrics</li> <li>Develop client-facing guidelines on monitoring and reporting on project chemical pollution impact</li> </ul>	<ul style="list-style-type: none"> <li>Offer guidance on how pollution reduction efforts align with global frameworks</li> </ul>
<b>Client support</b>		
Develop data collection templates	<ul style="list-style-type: none"> <li>Take a phased approach to data (large clients to smaller)</li> <li>Conduct pilot projects with key clients to refine data templates before full rollout</li> </ul>	<ul style="list-style-type: none"> <li>Provide standardized pollution data collection online portals</li> <li>Leverage ICT, Earth Observation, artificial intelligence (AI) and open source resources</li> </ul>
Support project/product design teams	<ul style="list-style-type: none"> <li>Require clients to submit pollution impact assessments at the design stage</li> <li>Encourage identification of viable alternatives</li> </ul>	<ul style="list-style-type: none"> <li>Report against benchmarks at the design stage</li> <li>Provide links to resources for BAT and BEP</li> </ul>
Encourage pollution-related data records throughout project development	<ul style="list-style-type: none"> <li>Integrate pollution reporting requirements into financing agreements</li> </ul>	<ul style="list-style-type: none"> <li>Identify and offer incentives for projects with progressive MRV</li> </ul>
Encourage training (along entire agricultural value chain)	<ul style="list-style-type: none"> <li>Require that client team, contractors and suppliers receive operational training in pollution management and reduction</li> </ul>	<ul style="list-style-type: none"> <li>Establish a recognition programme for clients, contractors and suppliers that adopt BAT and BEP</li> </ul>

### 2.4.3 Portfolio composition and financing

Screening of clients and projects, guided by exclusion policies, is a required first step in supporting their transition toward less damaging and regenerative systems of agricultural production. A simplified example process would follow these steps:

- Determine whether there are mandatory adjustments to your bank's portfolio to ensure alignment and remove significant liability risks.
- Screen your portfolio to identify the most significant impacts and determine the level of materiality for your bank. These processes may need to be adapted to your bank's portfolio, based on agricultural system, location and value chain exposure to risk.

This is necessary because the subsequent steps of gathering data and quantifying impact and level of financial materiality require significant focus to achieve robust simple processes and metrics that can be reproduced from baseline through assessing target achievement.

#### Exclusion and elimination of highly hazardous pesticides

The various conventions, frameworks and codes that regulate and inform the production, use and waste of agrochemicals combine to determine eight criteria that define whether a pesticide is an HHP, as shown in Figure VIII.<sup>24</sup>

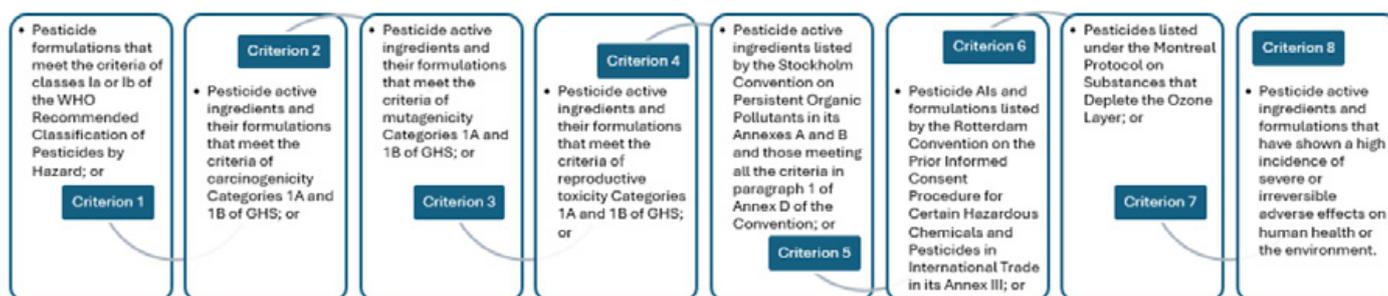


Figure VIII: Step-by-step procedure to assess HHP hazard criteria<sup>25</sup>

These criteria were developed by an international expert group that advises FAO and WHO. The procedure ensures that both pesticide active ingredients and formulations are checked to determine:

- Their WHO hazard classification and GHS categorization with regard to carcinogenicity, mutagenicity and reproductive toxicity (criterion 1)
- Whether they are classified as POPs according to their persistence and bioaccumulation properties (Stockholm Convention) (criterion 5)
- Whether they are listed as requiring prior informed consent (PIC) (Rotterdam Convention) (criterion 6)
- For their ozone depletion properties (Vienna Convention) (criterion 7)
- Whether national-level evidence exists of adverse effects on health or impact to the environment that merits concern (criterion 8)

<sup>24</sup> UN Environment Programme, Guidelines on Alternatives to Highly Hazardous Pesticides, (Geneva, 2023).

<sup>25</sup> Ibid.

According to the UNEP guidelines<sup>24</sup> substances that meet criteria 1, 5, 6 and 7 must be eliminated from the bank's portfolio<sup>26</sup>—these have been assessed by expert panels and international bodies and found to be highly hazardous because of their acute toxicity, chronic health effects or environmental impact. Criteria 2, 3 and 4 are defined at a national level, based on the classification of the chemical under the GHS.<sup>27</sup>

## Approaches to screening

As part of your preliminary impact baseline activities, you may have developed a pollution impact-based categorization of agricultural systems that corresponds to your portfolio. Projects can be categorized using a tiered, traffic light based approach where red indicates non-compliance, amber that efforts are required to transition towards reduced pollution impact and green indicates suitably low or even positive pollution reduction impact. This is an approach increasingly implemented in sustainable finance taxonomies, such as in the Association of Southeast Asian Nations (ASEAN) Sustainable Finance Taxonomy.<sup>28</sup>

Screening is initially based on qualitative criteria across environmental outcomes (EOs) that include climate change mitigation and adaptation, biodiversity protection and circular economy transition efforts. Within these taxonomies, agriculture is recognized as an important sector and qualitative and technical screening criteria are being developed. The EU Taxonomy<sup>29</sup> for agriculture is still evolving, and further delegated acts are expected to provide more specific details and include a wider range of agricultural activities.

Banks can use screening tools that categorize agricultural systems (and value chain activities) based on their impact intensity (e.g. high-pollution industrial farming vs. low-impact regenerative agriculture) to apply tiered risk assessments. They can consider how loan approvals, sector-based exclusions or restrictions (e.g. limiting exposure to intensive livestock operations or high-input monocultures), and sustainable financing incentives (e.g., preferential rates, loan terms and guarantees for organic, agroecological or precision farming) can be applied. Table 7 illustrates some options to modify financing of screened projects.

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26 Unless approved for exemption for specific use cases.

27 United Nations Environment Programme, *Guidelines on Alternatives to Highly Hazardous Pesticides*, (Geneva, 2023)

28 ASEAN Taxonomy Board, [ASEAN Taxonomy for Sustainable Finance – version 3](#). (2024)

29 [EU Taxonomy for Sustainable Activities](#)

**Table 7:** Implementation—Portfolio composition and financing

What	How	
<b>Increase financing where positive impacts are tangible</b>		
Increase financing for positively screened projects	<ul style="list-style-type: none"> <li>▪ Apply classification from the screening tool(s) to assess projects based on their pollution (mitigation) impact</li> <li>▪ Set targets for the percentage of portfolio to be allocated to positively screened projects</li> </ul>	<ul style="list-style-type: none"> <li>▪ Require pollution reduction commitments in loan agreements for positively screened projects</li> </ul>
Increase financing of third-party certified projects with pollution reduction measures in place	<ul style="list-style-type: none"> <li>▪ Prioritize projects that achieve pollution-related thresholds in recognized third-party certification</li> </ul>	<ul style="list-style-type: none"> <li>▪ Develop lending products with preferential rates for projects meeting minimum pollution reduction targets</li> </ul>
Offer financial incentives for projects that have been positively screened	<ul style="list-style-type: none"> <li>▪ Develop a tiered incentive structure where projects achieving higher pollution reduction scores receive better loan conditions (e.g. lower interest rates or longer repayment periods)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Determine an equivalence for the financial risk reduction effects of non-financial risk reduction measures in place (e.g. OHSAs, pesticides management training, integrated pest management)</li> </ul>
<b>Decrease agricultural financing where there is no positive impact</b>		
Decrease financing of projects that have high pollution impact potential	<ul style="list-style-type: none"> <li>▪ Establish exclusion criteria for projects using hazardous chemicals or failing to meet baseline pollution reduction standards</li> <li>▪ Implement impact-based screening to categorize and limit financing for projects with excessive pollution impact risks</li> </ul>	<ul style="list-style-type: none"> <li>▪ Require project teams to demonstrate pollution mitigation plans before loan approval</li> <li>▪ Require projects to submit completed data templates and demonstrating compliance</li> </ul>
Decrease financing of existing projects that are failing to address or eliminate risks of hazardous chemicals	<ul style="list-style-type: none"> <li>▪ Require chemical pollution audits for refinancing applications</li> <li>▪ Offer sustainability-linked loans, where non-financial interventions reduce financial materiality risk</li> </ul>	<ul style="list-style-type: none"> <li>▪ Establish chemical pollution retrofitting financing to support adoption of mitigation measures</li> </ul>

Sustainability-linked loans (SSLs), where loan terms such as interest rates are tied to the borrower's achievement of predefined sustainability performance targets, have predominantly focused on metrics like greenhouse gas emissions, water conservation and animal welfare, but can be adapted to targets associated with pesticide or plastics use reduction.<sup>30</sup>

#### 2.4.4 Stakeholder engagement and partnerships

By actively engaging and partnering with stakeholders, banks can drive systemic change in reducing pollution from their agricultural lending and investment activities. Banks can significantly amplify their influence through strategic stakeholder engagement and partnerships. Collaborating with industry associations allows for the development and promotion of sector-wide standards and best practice regarding the life cycle of agricultural chemicals, from research and development to responsible use and disposal. Engaging with policymakers is crucial for working towards stronger regulations, incentives for the adoption of safer alternatives, and the phasing out of highly hazardous pesticides.

This collective approach, where banks align their engagement efforts with other financial institutions, environmental organizations and research bodies, can create a powerful impetus for systemic change within the agricultural chemical industry. By actively participating in policy dialogues and supporting initiatives that promote transparency and accountability among chemical producers, banks can contribute to a more sustainable and less polluting agricultural sector.

In a rapidly evolving sustainable finance landscape, due diligence, impact screening, sustainability standards frameworks and corporate disclosure activities benefit from a harmonized approach. Regional taxonomies are focused on harmonization<sup>31</sup> of screening methods as a pragmatic response to evolving regulations, to facilitate capital flows to multi-country joint-venture projects that involve multiple parties, from different countries, with distinct finance regulations. As taxonomies further harmonize with national systems, pollution may be listed as a distinct environmental outcome.

While establishing internal impact baselines and future targets it can be useful to ensure alignment between impact indicators defined within existing taxonomies, disclosure frameworks and standards that you may already use or anticipate using. Through engagement, banks can contribute to the development of harmonized, interoperable and equivalent impact screening methodologies addressing pollution from the agricultural sector. These can, in turn, shape how taxonomies, sustainable agricultural standards and corporate disclosure systems are designed and implemented.

Table 8 sets out the key stakeholder engagement activities for banks and provides guidance on how to implement them.

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30 Papadopoulos, G. and others, Economic and environmental benefits of digital agricultural technologies in crop production: A review. [Smart Agricultural Technology](#), 8, 100441. (2024)

31 United Nations Environment Programme Finance Initiative, [Sustainable Finance Taxonomies in ASEAN: Towards Regional Harmonization](#) (Geneva, 2025)

**Table 8:** Implementation—Stakeholder engagement and partnerships

What	How	
<b>Engage with policymakers</b>		
Engage on policies and incentives that support pollution-reduction activities, including social considerations where relevant, and facilitate their financing	<ul style="list-style-type: none"> <li>▪ Participate in public consultations on environmental finance policies</li> <li>▪ Consider potential benefits of tax benefits or other incentives for projects with strong pollution reduction methods</li> </ul>	<ul style="list-style-type: none"> <li>▪ Collaborate with regulators to develop standardized chemical pollution reporting frameworks</li> <li>▪ Work with governments and central banks to develop green finance regulations and sustainable finance taxonomies, to support pollution-related risk disclosure mandates, and align with global standards</li> </ul>
Engage and partner in Public-private initiatives (PPIs) and partnerships (PPPs)	<ul style="list-style-type: none"> <li>▪ Actively support design and development of regulatory frameworks for sustainable finance products (e.g. green bonds, blended finance)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provide expertise on green bond frameworks, eligible project criteria and best practice to policymakers developing green bond standards and blended finance structures</li> <li>▪ Collaborate with policymakers and development finance institutions (DFIs) to structure blended finance deals that can attract private capital to projects</li> </ul>
<b>Partnerships and collaboration with other banks and international financial institutions (IFIs)</b>		
Exchange knowledge and best practice with other financial institutions	<ul style="list-style-type: none"> <li>▪ Join industry alliances focused on pollution reduction in finance</li> </ul>	<ul style="list-style-type: none"> <li>▪ Develop a best practice guide in collaboration with peer institutions</li> </ul>
Develop de-risking financing instruments with MDBs and DFIs	<ul style="list-style-type: none"> <li>▪ Collaborate on the design of risk-sharing mechanisms and guarantee schemes to mitigate investor risks</li> </ul>	<ul style="list-style-type: none"> <li>▪ Engage with green finance initiatives (such as GEF, GCF, IFAD, World Bank) to explore the potential for blended finance options to reduce the cost of capital for projects adopting (non-financial) chemical pollution reduction practices</li> </ul>

What	How	
<b>Working across industry standards and with academics</b>		
Engage and collaborate with standard setters and academics	<ul style="list-style-type: none"> <li>Work with resource creators, standard setters and disclosure frameworks</li> </ul>	<ul style="list-style-type: none"> <li>Engage with academics and experts to scope and develop future market, regulator and technological developments</li> </ul>
<b>Develop new products and services</b>		
Development of financial products for sustainable agriculture	<ul style="list-style-type: none"> <li>Create green bonds, blended finance, and impact investment funds that prioritize low-pollution agricultural practices such as regenerative farming and agroforestry</li> <li>Develop climate-resilient agricultural loan products that incentivize farmers to adopt practices that mitigate pollution and adapt to climate change (e.g. drought-resistant crops, efficient irrigation)</li> </ul>	<ul style="list-style-type: none"> <li>Work with insurers to provide insurance products that recognize and reward reduced pollution-related risks</li> <li>Create payment-for-ecosystem-services (PES) schemes that compensate farmers for practices that reduce pollution and enhance ecosystem health (e.g. carbon sequestration, water quality improvement)</li> </ul>
Supply chain and certification-based financing	<ul style="list-style-type: none"> <li>Require certifications (e.g. GlobalG.A.P., organic, Rainforest Alliance) as lending conditions and promote traceability tools (e.g. blockchain for pollution tracking)</li> </ul>	<ul style="list-style-type: none"> <li>Develop supply chain finance solutions that incentivize suppliers to adopt pollution-reducing practices (e.g. discounted financing for suppliers with strong environmental performance)</li> <li>Create digital platforms that connect farmers with buyers who prioritize sustainably produced goods, facilitating access to markets and premium prices for low-pollution products</li> </ul>
Technology-enabled financial solutions	<ul style="list-style-type: none"> <li>Develop digital tools for farmers to monitor and manage their environmental impact, including pollution levels, resource use and carbon footprint</li> <li>Integrate remote sensing and AI-powered analytics to assess environmental risks and opportunities in agricultural portfolios</li> </ul>	<ul style="list-style-type: none"> <li>Create mobile banking and digital payment solutions that facilitate access to financial services for small-holder farmers and promote sustainable agricultural practices</li> </ul>

## 2.5 An implementation example: Addressing water pollution in agricultural finance

Water pollution from agriculture is a material risk for banks with exposure to the food and farming sectors. Run-off of nutrients, pesticides, sediments and pathogens affects drinking water, aquatic ecosystems and the resilience of local communities. Integrating water pollution into risk assessments and financing decisions helps banks future proof portfolios, meet environmental obligations and unlock financing opportunities.

### Agriculture both causes and suffers from water pollution

The agricultural sector is both a major polluter and a user of polluted water.

**Agriculture as a polluter (cause):** Accounting for 70% of global water use, agriculture is the largest non-point source of water pollution. Unsustainable intensification often increases soil erosion, salinity, sediment, and excessive or improper use of fertilizers and pesticides. These contaminants, along with livestock waste, antibiotics and processing effluents, can pollute water, food, land and air. Large-scale industrial farming is a point source, while small-scale farming is a non-point source.

**Agriculture as a user of marginal quality water (victim):** Driven by increasing demand, farmers are exploring non-conventional water sources such as untreated wastewater due to its nutrient content, especially where conventional water is scarce. However, unsafe use of such water can lead to the accumulation of microbiological and chemical pollutants in food, soil and water, causing severe health impacts and potentially exacerbating antimicrobial resistance.

Adapted from: [FAO Water Pollution from Agriculture: A Global Review](#).

Banks that follow each of the four implementation measures to reduce water pollution from their agricultural portfolio will be able to evidence how they align with:

- **Sustainable Development Goal (SDG) 6.3:** Halving untreated water pollution and improving water quality
- **Kunming-Montreal Global Biodiversity Framework (Target 7):** Reducing nutrient and agrochemical pollution to levels not harmful to biodiversity
- **The Ramsar Convention:** Protecting wetland ecosystems vulnerable to agricultural run-off

## **Action 1. Policies, processes and culture:**

### **Identify and track water pollution risks using defined indicators**

Establish a set of water-specific indicators as part of practice and impact target setting. Indicators can be:

- **Client-level:** Percentage of clients implementing pollution control measures (e.g. nutrient management, buffer strips)
- **Portfolio-level:** Percentage of agricultural lending linked to operations with water quality risk mitigation in place
- **Outcome-oriented:** Reductions in nitrate or phosphate run-off; improvements in turbidity or effluent quality

Banks can collect baseline data using these indicators and track progress as part of their impact management process.

## **Action 2. Client engagement:**

### **Require water quality monitoring and reporting**

Support transparency and accountability by requiring clients to report on water quality impacts as part of ERM processes. This can include:

- Testing of local surface or groundwater for nutrient concentrations or pathogen load
- Reporting on implementation of pollution control infrastructure
- Documentation of compliance with relevant water regulations or standards

This data can form the basis for sustainability-linked loan terms or eligibility for preferential financing.

## **Action 3. Client engagement:**

### **Engagement on pollution-reduction practices**

Use client engagement to drive adoption of non-point source pollution control measures. Focus areas can include:

- Vegetative buffer zones along watercourses
- Precision fertilizer and pesticide application
- Soil cover (e.g. cover crops, no-till) to reduce erosion and run-off

Incorporate pollution management into Know Your Customer (KYC), due diligence and relationship management processes. Where possible, align technical assistance or capacity-building support with these measures.

## **Action 4. Portfolio composition and financing:**

### **Finance nature-based water pollution solutions**

Pollution risk is cumulative across watersheds. Banks can screen portfolios geographically to:

- Identify high-risk basins with multiple agricultural exposures
- Prioritize financing for clients who operate in, or are dependent upon, water-stressed or ecologically sensitive areas
- Coordinate with basin management plans, where available

Tools such as geospatial impact mapping or the Worldwide Fund for Nature (WWF) Water Risk Filter can support portfolio-level screening.



# Annex

Annex 1 is available [here](#)

Annex 2 is available [here](#)

Annex 3 is available [here](#)



UNEP Finance Initiative (UNEP FI) brings together a large network of banks, insurers and investors that catalyses action across the financial system to deliver more sustainable global economies.

For more than 30 years the Initiative has been connecting the UN with financial institutions from around the world to shape the sustainable finance agenda establishing the world's foremost sustainability frameworks that help the finance industry address global environmental, social and governance challenges.

Convened by a Geneva, Switzerland-based secretariat, more than 500 banks and insurers with assets exceeding USD 100 trillion are individually implementing UNEP FI's Principles

[unepfi.org](https://www.unepfi.org)

for Responsible Banking and Principles for Sustainable Insurance. Financial institutions work with UNEP FI on a voluntary basis to apply the sustainability frameworks within their industries using practical guidance and tools to position their businesses for the transition to a sustainable and inclusive economy.

Founded in 1992, UNEP FI was the first initiative to engage the finance sector on sustainability. Today, the Initiative cultivates leadership and advances sustainable market practice while supporting the implementation of global programmes at a regional level across Africa & the Middle East, Asia Pacific, Europe, Latin America & the Caribbean and North America.



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