

## TERMS OF REFERENCE

# Measures & Recommendations to reduce the Risk of Mancozeb Use in conventional Fairtrade Banana Production

August 2025

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### 1. BACKGROUND

Fairtrade is an alternative approach to conventional trade and is based on a partnership between producers and consumers. When farmers can sell on Fairtrade terms, it provides them with a better deal and improved terms of trade. To achieve its goals and bring about change Fairtrade has several types of interventions:

- Set of standards and tools which make up the 'rules' for fair trading practices and Fairtrade engagement (inside the scope of this research).
- Fairtrade engagement on the ground – e.g. producer programs, projects and capacity building (inside the scope of this research)
- Set of strategies and policies which enable engagement with Fairtrade (outside the scope of this research)

Fairtrade's current Theory of Change<sup>1</sup> assumes that Fairtrade's interventions - standard requirements, programs, projects and producer support from the Fairtrade networks – and data and intelligence from KPIs analysis collected through monitoring of the ecologic dimension will contribute to more agroecological practices, thereby enhancing the sustainability of agricultural production under Fairtrade terms.

At the same time, ongoing debates at the regulatory level – mostly at the European Union (EU), though not exclusively -, in particular the new EU vision for the agricultural sector<sup>2</sup> aim at reducing or prohibiting the use of Highly Hazardous Pesticides (HHPs) on food products. Such regulations could impact non-organic Fairtrade-certified banana production, which currently relies heavily on the fungicide *Mancozeb*—a substance banned for use within the EU. While its production, export, and use in third countries are still permitted, this may change during the current EU legislative period. Fairtrade aims to prepare producers for this potential shift and, more broadly, to support their transition toward more agroecologically sustainable farming practices.

This study is intended to provide an overview of already applied measures in Fairtrade, namely agroecological approaches applied in conventional as well as in organic Fairtrade banana production, specifically aimed at reducing dependency on HHPs. The inclusion of organic production is intentional, although *Mancozeb* is not used there. However, agroecology is a wider concept than organic production only, from which also conventional banana producer could and should benefit. Given that

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<sup>1</sup> [Theory of Change](#)

<sup>2</sup> The EU's new agricultural strategy EU called "Farm vision 2040" from 13 February 2025 replaces the "Farm to Fork Strategy". The new strategy promises "tougher trade rules on pesticides": *"The Commission will pursue, in line with international rules, a stronger alignment of production standards applied to imported products, notably on pesticides [...]. The Commission promises to ensure that the most hazardous pesticides banned in the EU "are not allowed back" via imports. It also vows to prevent banned substances from being produced in the bloc for export elsewhere".*



organic Fairtrade banana producers also receive an organic differential whereas conventional producers do not, the focus will be on measures from organic banana production which are also applicable and feasible in conventional production.

## 2. CONTEXT

Large-scale conventional banana production requires regular pesticide treatment, mostly against fungus diseases. Most relevant are the fungus Black Leaf Sigatoka Disease ("BLSD"<sup>3</sup>) and the aggressive fungus disease Fusarium Tropical Race 4 ("TR 4"<sup>4</sup>). The threat from fungus diseases in banana production is steadily increasing, rooting mainly in the extremely tight genetic diversity of large-scale commercial banana production (almost only the *Cavendish* variety in both conventional and organic production); which in conventional cultivation is completely dependent on a regular pesticide application regime<sup>5</sup>. However, regular fungicide application inevitably weakens the ecological stability of agricultural production systems, as it also negatively affects beneficial soil fungi. On top of this, climate change is increasingly weakening the resilience of natural ecosystems and agricultural production systems alike and is thereby also increasing the probability of large-scale infections with Black Sigatoka or TR 4 or other fungus diseases, in particular in conventional banana plantations of the *Cavendish* banana variety.

On a worldwide scale, one of the most commonly used fungicides is *Mancozeb*, developed in the 1960s and today produced by UPL Europe Ltd and Indofil Industries BV in the Netherlands. Although the toxicity of the fungicide has been known for decades, it remained one of the most widely used pesticides in the European Union until 2019, when it was banned due to "*six critical areas of concern*"<sup>6</sup>. Most notorious are its toxic effects to reproduction and/or endocrine disrupting capacity: "*The Risk Assessment Committee (RAC) of the European Chemicals Agency (ECHA) has classified Mancozeb as 'toxic for reproduction, category 1B' (R1B) due to the severity of brain malformations observed in the offspring caused by its metabolite ETU. The classification of Mancozeb as a reprotoxic pesticide means, in accordance with European regulations, that all contact with humans is prohibited, which almost amounts to a ban on the product.*"<sup>7,8,9</sup> Therefore, in October 23, 2020, *Mancozeb* became the first pesticide banned in the EU because of its endocrine disrupting properties – but not its production in the EU nor its export to and use in third countries. Furthermore, due to it being produced in the Netherlands, *Mancozeb* is also on the proposed list of the ongoing "EU Pesticide Export Ban"-campaign led by PAN International<sup>10</sup>.

However, *Mancozeb* is currently also the most commonly used fungicide in banana producing- countries to tackle fungal diseases that are widespread in tropical climates. This has led to

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<sup>3</sup> [Black Sigatoka - an overview | ScienceDirect Topics](#)

<sup>4</sup> [Fusarium TR4 | World Banana Forum | Food and Agriculture Organization of the United Nations \(fao.org\)](#)

<sup>5</sup> Up to 50 annual air-spray cycles are needed to control BLSD, thus costing 15–27% of the total annual production costs. Y. Israeli, E. Lahav, in [Encyclopedia of Applied Plant Sciences \(Second Edition\)](#), 2017

<sup>6</sup> In its 2019 opinion, the European Food Safety Authority (EFSA) identified six "critical areas of concern", including the fact that it is an endocrine disruptor, that it is classified as toxic to reproduction and that it poses high risks to birds, mammals, non-target arthropods and soil macro-organisms. [Legislative-and-regulatory-news-Mancozeb.pdf](#)

<sup>7</sup> [Legislative-and-regulatory-news-Mancozeb.pdf](#)

<sup>8</sup> [Substance Information - ECHA](#),

<sup>9</sup> [Factsheet Mancozeb - March 2020.pdf](#)

<sup>10</sup> [EU pesticides export ban: what could be the consequences? | PAN Europe \(pan-europe.info\)](#); [DEADLY EXPORTS | Corporate Europe Observatory](#); [Stopping banned pesticides in the EU to be exported to 3rd countries would have little economic impact, NGOs report says – Euractiv.](#)

an increasing use of *Mancozeb* in conventional banana plantations, resulting in 91 % of bananas consumed in the EU being imported from countries that are dependent on *Mancozeb* for banana production. An overnight ban of *Mancozeb* would therefore be disastrous for producers and explains why banana producers fear that maximum residue values (MRLs) for *Mancozeb* could be lowered<sup>11</sup>. At the same time, the increased use of *Mancozeb* has also led to many cases of workers rights violations (health, occupational safety etc.).<sup>12</sup> Already since 2012, NGOs such as OXFAM have documented respective cases in large-scale conventional banana plantations/production.

Against this background and context, in the coming years Fairtrade is keen on supporting conventional Fairtrade banana producers to prepare for a possible *Mancozeb* production ban required by the EU through implementing agroecological measures that aim at reducing dependency on HHPs in banana production, specifically *Mancozeb*. Such a move is fully in line with Fairtrade's Policy "Sustainable Agriculture under Fairtrade Terms", based on agroecological principles<sup>13</sup>.

### 3. GEOGRAPHIC AND COMMODITY-SPECIFIC SCOPE OF THE STUDY

At the end of 2022 there were about 276 banana producer organizations in about 10 countries holding a Fairtrade certification across Latin America and the Caribbean, Africa, Asia and the Pacific. About 37% of Fairtrade bananas are non-organic bananas, in most cases coming from Hired Labour organisations (plantations).

The study is expected to deliver

- a documentation of already implemented or ongoing sustainable agricultural measures specifically aimed at reducing dependency on HHPs in Fairtrade banana production, and
- recommendations on how to increase and scale up agroecological measures specifically aimed at reducing dependency on HHPs in both organic and conventional Fairtrade Banana production

that have generated results in terms of contributing to reduce the dependence on HHP application, in particular.

The geographic focus of this research will be focussed on countries with a high number of Fairtrade banana producer organisations: Colombia, Ecuador, Nicaragua, Dominican Republic and Peru (Latin America and Caribbean) as well as Ghana and Cameroon (Africa). A more specific selection will be done on completion of the desk-based research phase and in consultation with Fairtrade members and stakeholders. This will involve considerations with regards to producers that sell into particular supply chains with high relevance for certain markets, e.g. France, Germany or the United Kingdom.

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<sup>11</sup> [Parliamentary question | Maximum residue levels and the impact on the banana trade and banana consumption | E-003373/2021 | European Parliament](#)

<sup>12</sup> [Microsoft Word - EN\\_Oxfam Studie Sweet Fruit\\_Text\\_Banana\\_Land.pdf, Pesticide use in banana plantations in Costa Rica – A review of environmental and human exposure, effects and potential risks - ScienceDirect, Mancozeb-induced cytotoxicity in human erythrocytes: enhanced generation of reactive species, hemoglobin oxidation, diminished antioxidant power, membrane damage and morphological changes - ScienceDirect](#)

<sup>13</sup> [Agroecology, the only way forward](#)

The available budget of 60.000 € also permits for some field data collection at cooperatives or plantations in selected countries to collect information on the ground and to interview small-scale farmers (SPOs) and workers/managers (HLOs) (gender-segregated), which will have to be identified based on available data and information from the Fairtrade Producer Networks and selected banana producer organisations.

#### 4. HYPOTHESIS, OBJECTIVE AND GOALS

The **hypothesis of this research project** is as follows: *“Through its standards, projects and networks’ programmatic interventions, Fairtrade increases the knowledge and adoption of agroecological measures that reduce the dependency on HHPs in conventional banana production at smallholder and plantation level”.*

The **objective of this research project** is to assess and document how Fairtrade contributes to the gradual phasing-out of dangerous HHPs such as e.g. *Mancozeb* in conventional banana production at smallholder and plantation level.

The **goals of this research project** are:

- I. To assess the impact of standard criteria prohibiting the use of HHPs in conventional Fairtrade banana production (-> Fairtrade Hazardous Material List HML, Red and Orange Lists).
- II. To assess the effectiveness of the former Productivity Improvement Program (PIP) and the current Sustainable Banana Program (SBP) of the CLAC in terms of reducing the use of HHPs in conventional banana production.
- III. To document agroecological practices reducing HHPs use in conventional Fairtrade banana production (e.g. ‘biofabrics’, diversification, agroforestry, alternatives/more fungus-resilient varieties instead of *Cavendish*).
- IV. To assess whether there is a possible causation between the payment of minimum price/organic differential (if applicable)/premium payments, and the implementation of agroecological measures in Fairtrade banana production.
- V. To assess the influence of national and international regulatory sustainability legislation (e.g. from the EU) on Fairtrade producers’ practices related to the reduction of HHPs use in conventional banana production.
- VI. To make recommendations on how Fairtrade can facilitate the development of effective ways to replace HHP use in conventional banana production.
- VII. To make recommendations on how Fairtrade can efficiently scale up implementation of measures to replace HHP use in conventional banana production.

#### 5. OVERARCHING RESEARCH GUIDING QUESTION AND PROPOSED INDICATORS

##### 5.1 Overarching research question

Can the implementation of agroecological methodologies in conventional banana production significantly and viably reduce the risks associated to the use of *Mancozeb*?

## 5.2 Proposed indicators the study should consider

### 5.2.1 Economic Viability of Agroecological Practices

1. How economically viable are agroecological practices for conventional and organic producers? What investments are required, and how quickly do they pay off?
1. How and under what conditions do Fairtrade premium payments, minimum price, or organic differentials support the implementation of agroecological practices?
2. What types of support (e.g. training, inputs, technical assistance) do producers identify as most critical for implementation?

### 5.2.2 Drivers and Barriers to HHP Use and Agroecological Transition

1. What are the main factors driving the use of Highly Hazardous Pesticides (HHPs) in conventional banana production?
2. What are the key motivations and barriers for producers (smallholders and plantations) to adopt agroecological practices?

### 5.2.3 Market and Policy Influences

1. What role do market actors (e.g. importers, retailers) play in supporting or hindering the adoption of agroecological practices in Fairtrade banana production?
2. How do national and international sustainability regulations (e.g. EU pesticide policies) influence producer practices?

### 5.2.4 Fairtrade's Contribution to Reducing HHP Dependency

1. Do Fairtrade standards (e.g. the Hazardous Materials List – HML) contribute to reducing HHP use? If so, how?
2. What role do Fairtrade producer networks and programs (e.g. PIP, SBP) play in promoting agroecological practices?
3. What is the role of cooperatives in building capacity for agroecological approaches?

### 5.2.5 Practices and Knowledge Transfer

1. Which agroecological practices are currently promoted by Fairtrade banana cooperatives (organic and conventional)?
2. Which practices from organic banana production are transferable to conventional systems, and vice versa?

3. What mechanisms exist (or are missing) for sharing successful agroecological practices between Fairtrade banana producer organizations?

#### 5.2.6 Monitoring and Impact Measurement

1. What monitoring and evaluation systems are in place to assess the effectiveness of agroecological interventions within the Fairtrade system?

#### 5.2.7 Behavioral change and long-term adoption

1. What are the biggest obstacles to scaling up agroecological practices and reducing HHP dependency?
2. What are the key motivations and barriers for producers to adopt agroecological practices? How do cultural, economic, or institutional factors influence their decisions?
3. What factors contribute to the long-term adoption and institutionalization of agroecological practices within producer organizations?
4. Are there participatory mechanisms (e.g. farmer field schools, peer learning) that support continuous learning and adaptation?
5. How do gender roles and social dynamics influence the adoption and implementation of agroecological practices in Fairtrade banana production?

#### 5.2.8 Capacity and support needs for implementation

1. What types of support (e.g. training, access to inputs, technical assistance) do producers identify as most critical for implementing agroecological practices?

## 6. METHODOLOGY

Using a mixed methods approach of a desk study, online-interviews and some field data collection, the study will document and analyse how Fairtrade supports conventional and organic Fairtrade banana producers to strengthen their banana production systems and – in the case of conventional production - enabling them to reduce or stop the use of HHPs, namely *Mancozeb*. The findings will be used to inform Fairtrade and its key stakeholders how effectively scale up valuable learnings and implementation of agroecological measures in conventional banana production to further reduce the dependence on HHPs.

The study will primarily use desk-based research to analyse existing data available within Fairtrade as well as do a literature review. A number of key informant interviews with Fairtrade staff knowledgeable about banana production, trade and markets will be undertaken to better understand the context, in particular with staff from the Fairtrade Producer Networks, Fairtrade International, Fairtrade Africa, the CLAC and the Support Center Climate & Environment. A selected subset of producer organizations of relevance to specific



important Fairtrade banana markets (e.g. UK, Germany, France) will be sampled for fieldwork on the ground organisations for more data collection and in-depth analysis.

The study will integrate quantitative and qualitative methods to ensure that data collected & analysed can be communicated in an easy-to-understand way. It is expected that the research team in collaboration with producer networks will conduct in-depth interviews and focus-group discussions. Priority will be given to research teams experienced in using innovative online-methodologies to collect and analyse either qualitative or quantitative data.

## 7. PROJECT BUDGET

The total budget allocated for this project is **60.000,00 €**. Please note that all costs invoiced must be below this amount, including a **mandatory 19% VAT payable in Germany** (as this is where Fairtrade Germany is headquartered).

Please note that while cost is not the primary factor by which proposals will be evaluated, value-for-money will be one evaluative factor amongst many, in line with our commitment to spend our funds in an ethical manner.

The commissioning parties of this study are Fairtrade International, Fairtrade Germany and the Fairtrade Foundation UK and Fairtrade International; with support from CLAC and Fairtrade Africa.

## 8. EXPECTED OUTPUTS AND DELIVERABLES

The expected project outputs to be submitted to Fairtrade Germany are:

8.1 Research Ethics: [Fairtrade's Research ethics](#) and protocols must be followed.

8.2 Inception report in English & Spanish

8.2.1 A digital inception report of maximum 20 pages including suggested methodology, data collection and analysis tools and a timetable for implementation

8.2.2 An inception presentation, highlighting key early findings and a tentative outline of the final report, as well as any key updates to the timeline and scope (allowing for the study to evolve flexibly in response to the consultants' assessment of the task).

8.3 Project Management

8.3.1 Meeting with the Fairtrade committee steering the study at least once every two weeks with more frequent meetings during peak delivery periods. Meetings to include project updates and to be minuted.



8.3.2 A project management Gantt chart with detailed submission and feedback milestones scheduled on a week-by-week basis, to allow for transparent oversight by Fairtrade Germany. In particular, this should highlight proposed interview schedules and points of submission for feedback to Fairtrade Germany, so that this can be factored into the calendars of those whose feedback is required.

8.3.3 The proposed schedule and project plan should include time for Fairtrade to provide written feedback, and for feedback to be implemented. Generally, for a final draft submitted, a minimum of two rounds of feedback would take place

#### 8.4 Field Work/Brief Back-to-Office Report

8.4.1 Latest two weeks after fieldwork a brief back-to-office report should be produced so that some preliminary information can go back to the producer organizations from whom the data has been collected. The report should entail major findings, highlight unclarties and ask Producer organisations for comments on the same (within two weeks), which if relevant should be considered for the final report.

#### 8.5 Final report in English & Spanish

8.5.1 A concise digital final narrative research report including explanatory detail alongside data and graphic representations including graphs and tables, with creative and innovative approaches to communicating data, of no more than 50 pages (excluding annex/es).

8.5.2 The report should follow a structure agreed between the research team and Fairtrade Germany such that it meets the objectives of the research and answers the overall research question and considers the proposed indicators that have been articulated in this ToR.

8.5.3 A range of photographs and/or video footage from the research (with signed consent forms!) suitable to illustrate and communicate the findings (e.g. appropriate resolution for online publication). Signed consent forms are mandatory.

#### 8.6 Data, Workshops and Presentations

8.6.1 All raw and cleaned data collected through the research process handed over to Fairtrade.

8.6.2 One recorded general presentation (online) which can be used for internal learning purposes accompanying the study

8.6.3 One learning workshops for research participants and key stakeholders



## 9. APPLICATION PROCESS

If you are interested in being considered for this tender, please send a short proposal (5-10 pages max) to the email-address below, elaborating on (1) the technical proposal including the approach you would take to the research, including a proposal with a research design and gantt chart proposing timelines and deliverables (2) the financial proposal correspondent to project gantt chart confirming resourcing (including human resources and budget). Finally, an Appendix is required, detailing how your research team meets the selection criteria (including links to past relevant work). Please include your team's CVs (not counted towards the page limit). The proposal and all attached documents should be in English.

- a. The technical offer should clarify the consultants' understanding of the assignment and the topic at hand, a proposal for a suitable analysis framework, a workplan including time plan and division of roles (in case of a research team) as well as a communication plan with Fairtrade International and ethics considerations.
- b. The financial offer should include a calculation of days and personnel needed including any potential expenses (e.g. for travel, software, data access subscriptions etc. Note that this assignment does not foresee to include field travel).
- c. The CVs of the individual consultant/s working on the assignment (providing proof of the qualifications) should be provided in the Annex together with other relevant documentation (e.g. work examples if applicable).

Call published: **01<sup>th</sup> August 2025**

Tender Deadline: 17:00 CEST **01<sup>st</sup> September 2025**

We aim to have this research started by September **2025**. All deliverables for the project should be finalized by end of **Q3 2026**.

The contact person at Fairtrade for this project is Martin Schüller; Senior Advisor Climate & Environment at Fairtrade Germany: [ce-support@fairtrade-deutschland.de](mailto:ce-support@fairtrade-deutschland.de)

## 10. RESEARCH TEAM SELECTION CRITERIA

The project will be awarded to a research institution which can propose a research team meeting the following criteria:

Essential:

- Fluency in Spanish, English and French both written and spoken. Hence, the research institution should have networks of local researchers covering Colombia, Ecuador, Dominican Republic and Peru (Latin America) as well as in Ghana and Cameroon (West and Central Africa).

- Existing research experience, research networks and partnerships in the indicated regions. Prior experience in researching in Latin America banana producing countries as well as in West & Central Africa countries are highly advantageous.
- Existing research experience including knowledge of qualitative data collection and analysis methods as well as conceptual skills needed for research design.
- Proven experience of conducting analysis relevant to compliance and data.
- Proven research experience on sustainable banana production conducting of impact assessments or other types of research related to sustainable production of (conventional) banana. Experience with implementing agroecological measures is a plus.
- Focus on evaluation techniques and participatory research methods, experience required of using innovative data collection methodology, in particular as regards using online tools.
- Understanding of Fairtrade principles and approaches, including standards and producer support.
- An experienced collaborator, willing to engage productively with the Fairtrade team and open to an iterative process of feedback.
- Demonstrable policy on research ethics.
- Demonstrable policy on adherence to GDPR