

Sustainability progress report 2022

Palm Oil, Cocoa and Wheat



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About us



About Earthworm Foundation

Earthworm Foundation is a non-profit organisation built on values and driven by the desire to positively impact the relationship between people and nature.

Earthworm

We currently have a presence in more than 16 countries including Indonesia, Malaysia, Ecuador, Peru, Brazil, India, and several locations within Africa, Europe and the Americas. We employ more than 200 people worldwide and work with big and small companies, communities and producers of raw materials, to create compelling cases of transformation. With an innovative and entrepreneurial spirit, we work with people to create inspiring transformation stories.

With most of our staff operating directly on the ground where the issues are, we work with our members and partners to show that global supply chains can be an engine of prosperity without causing destruction of communities or ecosystems.

We focus on creating value, engage without judging and carry hope and a positive vision of the future.

pladis

pladis is one of the world's leading snacking companies. We are the proud steward of over 300 years of family baking and confectionery experience.

Our purpose is to bring happiness with every bite. It's a commitment shared by every pladis colleague, all around the world.

Family and ideas have always been our ingredients. Our founding families believed biscuits and chocolates could bring moments of happiness to the world. Their ideas have stood the test of time. Their spirit continues to inspire our future. It's in the care and the craft we bake into biscuits and chocolates that have been loved for generations. And it's in the fresh ideas, the new twists, flavours and textures we add to old and new favourites.

Our 16000 colleagues, in every corner of the world, bring their own experience of happiness to pladis. Each of us is unique but coming together as one family of bakers and chocolatiers working hard, with pride and with purpose. Because after all these years, we still believe biscuits and chocolates bring people together.

Our Work Around the World



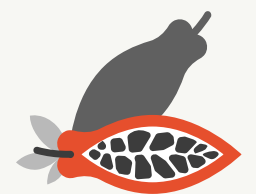
Earthworm Foundation and pladis' partnership involves working in countries around the world from where pladis sources palm oil, cocoa and wheat. Our main objectives for 2022 were to increase traceability, improve smallholder farmer resilience and continue working on the transformation of the Soubré landscape where pladis sources cocoa from. We also commenced a regenerative agriculture programme with UK wheat farmers.



Palm Oil

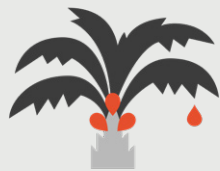


Wheat



Cocoa

Palm Oil



Supply Chain Management

pladis source palm oil from Tier 1 suppliers located in 24 countries globally. Visibility of the supply chain upstream is critical in order to continue to effectively address environmental and human rights issues. Each year the aim is to build on traceability scores. In 2022, with the support of Earthworm Foundation, pladis engaged with their palm oil Tier 1 direct suppliers to update the data held on supply chain connections upstream and data was gathered to plantation level for the first time. This work enables risk assessments of the supply chain and due diligence processes to be carried out. This is particularly important with impending deforestation legislation in the EU and other countries.



Total volume purchased
147,247.95 MT



Palm oil mills
1,624



Traceability to Mill
(TTM) Scores
95.14%



Traceability to Plantation
(TTP) Scores
47.43%



Sourcing countries
24

No Deforestation Verification (NDV) of pladis' top three suppliers

pladis continue to engage with suppliers on tackling deforestation. Identification, prioritisation and action on deforestation alerts in the supply chain is facilitated by access to Starling satellite technology, created by Earthworm Foundation in partnership with Airbus. Suppliers self declare their traceability scores and these are verified through Starling (illustrated in Figure 1).



Grievances

The traceability exercise carried out allowed pladis to prioritise engagement with suppliers on environmental, community and labour grievances. This enables investigation, assessment and prevention of further grievances.

Cocoa: Önem



Önem is a pladis-owned entity which supplies approximately 75% of pladis' cocoa products. In 2022 Önem, through Fildişi (its sister company and supplier of beans), sourced from four co-operatives DAKUA, COODIG, ECAKOOG and SOCODD in the Ivory Coast.

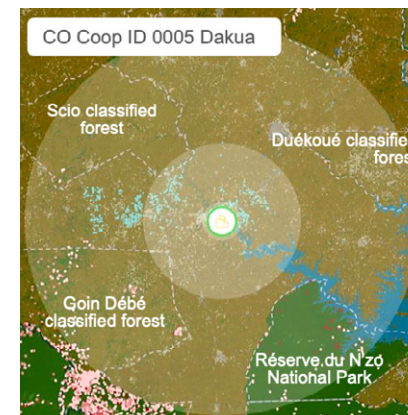


Figure 2: Conservation areas, farms, deforestation alerts and remaining forest in a 50km radius around Dakua co-operative

2022 Update

- Through Earthworm Foundation's partnership, Önem undertook verification and transformation activities with the co-operatives DAKUA and COODIG.
- Earthworm Foundation carried out a No Deforestation Verification pilot with the co-operative DAKUA (see Figure 2).
- Earthworm Foundation conducted an assessment of Önem/ Fildişi's prospective co-operatives, SOCODD and SCOOPAG, to assess strengths and areas for improvement in relation to Önem's responsible sourcing standard. Following the assessment a limited supply was sourced from SOCODD.
- Fildişi, supported by Earthworm Foundation, hired a sustainability manager. They will work on the ground with co-operatives to improve systems around key areas such as traceability, agrochemical management, child labour monitoring and remediation systems.
- Earthworm Foundation supported Önem with the creation of an agrochemical policy

Work with DAKUA Co-operative

In 2022 Earthworm Foundation took a deep dive into the DAKUA co-operative using No Deforestation Verification (NDV) data from 2016 – 2021, (see Table A and text below for key information).

TABLE A 2016 - 2021

Q2 2022

723 Farms Analysed	1,517ha Declared surface of the farms analysed	
0 Deforestation events inside farm boundaries	100% Traceability to farm	100% Deforestation Free Score



Land cover change analysis

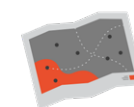
- Crop & Forest (mix of trees, cropland and scrubland) dropped by 6,000ha
- Forest area decreased by 2,300ha
- Mainly replaced by cocoa plantations (5,000ha) and bare soil (3,200ha)
- 20 farms with 7ha of forest cover inside their boundaries
- 2 protected areas
 - 7 farms inside (22ha)
 - 15 farms within a 2km radius
- 347ha deforestation within a 50km radius of the co-operative

Recommended Actions for Önem

- Consider the 20 farms with forest cover inside their boundaries as a priority for future monitoring
- Close monitoring should be conducted on the protected areas
- Awareness raising needed with the concerned producers

Work with COODIG Co-operative

Earthworm Foundation worked with Önem to provide support to the co-operative partner COODIG, Ivory Coast. An action plan was created and implemented to help improve and strengthen management systems to ensure better social and environmental practices within its supplier base.



Traceability

- Improved farm coding system
- Mapped non-certified farms with polygons, using GPS
- Created robust producers database
- Processed GIS data
- Communicated key farm information to producers



Agrochemical management

- Surveyed producers on the type of chemicals used (including organic fertilisers)
- Created chemical database, including analysing any non compliance as per list of authorized/ banned chemicals in Ivory Coast



Child labour monitoring and remediation

- Reviewed existing CLMRS (governance structure, capacity, resources, tools, data collection, procedures, etc.)
- Gave recommendations and coaching on improvements COODIG can make
- Identified child protection related community projects that Önem can support



Agroforestry

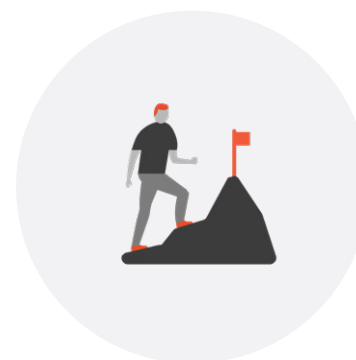
- Identified existing trees on farms
- Georeferenced newly planted trees
- Conducted training of trainers to COODIG staff to raise the producers' awareness on the benefits and how to implement agroforestry systems
- Analysed and monitored data to inform future distribution of trees

Cocoa: Soubré Landscape



Soubré Landscape

Earthworm Foundation's landscape programmes identify and bring key stakeholders that live and work in an area together. The aim is to create lasting environmental and social improvements at farm level and throughout the supply chain.



Key objectives in Soubré include:

- Creating better farm management methods
- Training on livelihood improvements and farm diversification
- Supporting engagement with Village Savings and Loan Associations (VSLAs) to support access to finance, land rights, child protection and social welfare
- Protecting and restoring forests

pladis, along with other funders, began supporting the Soubré programme in 2021 when it focused on farmer resilience. The scope of work evolved into a landscape programme in 2022.

Farm diversification is essential in order to improve the economic viability and biodiversity of farms. It is important that the work in Soubré does not simply focus on cocoa in isolation but also includes other commodities grown in the area such as palm oil.



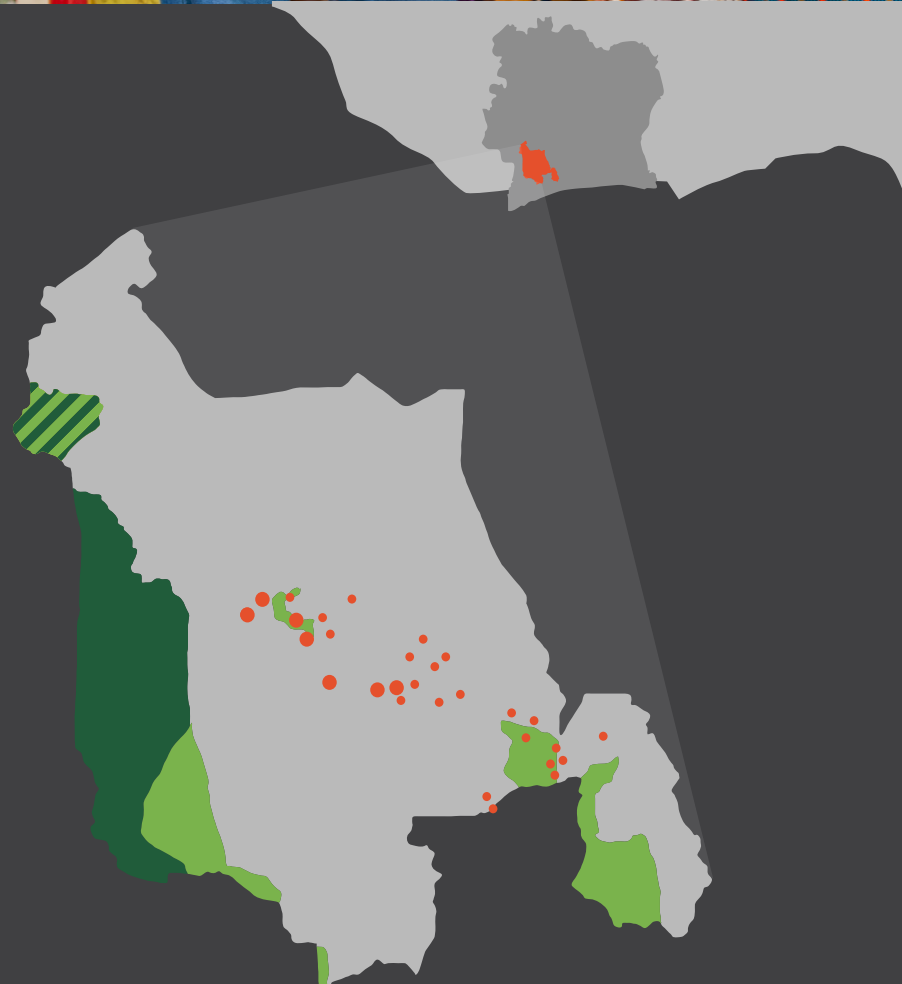
Cocoa: Soubré Landscape



Soubré Landscape Ivory Coast

Land area:
977 565,39 ha

- National park
- Forest reserve
- ▨ Nature reserve
- Intervention localities



Engagement and work with co-operatives

Earthworm Foundation has trained palm and cocoa co-operatives on agricultural entrepreneurship and the safe use of pesticides so that a wide group of farmers can benefit from the information. Memorandums of Understanding have been agreed with some of the co-operatives and this allows for smoother implementation of improvement activities.



Impact of Earthworm Foundation's work in the Soubré landscape

between January and September 2022

- **Regenerative Agriculture**
- Planted and supported agroforestry systems in **8 cocoa plantations** inside and outside forest reserves
- Implemented a **chicken farming model** under cash crops with 1 farmer

Forest Protection and Restoration

- **3,500 indigenous tree** saplings grown in nurseries
- **23ha of degraded forest in Kossou replanted** and maintenance initiated



Farmer & Community Resilience

- **159 women and 80 men engaged in 8 VSLAs**
- **611 farmers trained** on Best Management and Environmental Practices
- **333 farms mapped**
- **247 supported in diversification activities** and **39 women**
- **144 farmers educated** and supported in restoration activities

Wheat: Regenerative Agriculture



In 2022 pladis began focusing on their UK wheat supply chain with support from Earthworm Foundation. Intensive agriculture negatively impacts soil quality and biodiversity, and has a high dependence on agrochemicals which pollute waterways.



KERMAP monitors soil cover days via satellite



Visual Evaluation of Soil Structure (VESS)

Regenerative Agriculture involves farming practices which focus on improving carbon and water retention in the soil and enhancing biodiversity while supporting the livelihoods and communities of farmers. The transition to regenerative agriculture starts with building healthy, living soils.

Scope of the project

The objective for 2022 - 2023 is to work on a pilot project with two of pladis' UK wheat suppliers to help the transition towards regenerative agricultural practices for eight farmers. Meeting with suppliers initiated a collaborative approach for this pilot project.

Measure

Baseline assessments of farms will be carried out based on key indicators selected: Soil, Biodiversity, Water, Livelihoods. These will mean that progress can be measured and monitored. Measurement and data collection includes in-field soil testing such as a Visual Evaluation of Soil Structure, interviewing farmers and measuring soil cover days using satellite images via Earthworm Foundation's partnership with KERMAP.

Going forward

Based on analysis of data collected, an action plan will be designed for the implementation of regenerative farming practices.

Greenhouse Gas Emissions

In 2022, in addition to the pladis and Earthworm Foundation partnership, pladis commissioned a third-party to do the mapping of its scope 1, 2 and 3¹ emissions coming from its value chain in Turkey and the UK.



Total emissions accounted for approximately 950,000 tons of CO2 in pladis' value chain in the UK and ca. 2,300,000 tons in Turkey.

85% of pladis' total (scope 1, 2 and 3)¹ emissions were product-related emissions, of which ingredients accounted for an average of 89%. Approximately 55% of pladis' total emissions came from 2 ingredients: cocoa and palm oil.

pladis already started to engage with its key suppliers of cocoa products and palm oil regarding how they reduce their own emissions, since those suppliers will play a critical role for pladis to achieve its 2030 interim science-based targets.

¹scope 1 emissions are direct emissions released via the operation of owned or controlled assets, scope 2 emissions are associated with energy consumption within owned or controlled assets released indirectly (e.g. power station) and scope 3 emissions are all indirect impact from 'upstream' e.g. suppliers or 'downstream' e.g. use of sold products.

Key successes



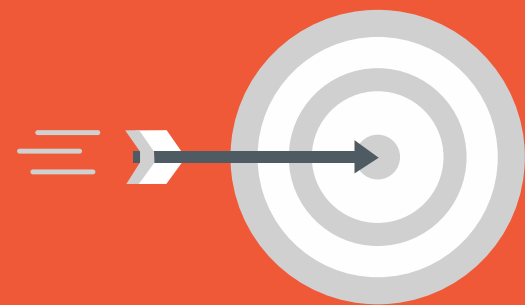
- Continued to build relationships with suppliers
- Built understanding of the required Responsible Sourcing work by bringing key stakeholders (internal, tier 1 suppliers, and partners) to plantations and farms
- Traceability to Plantation score (47.43%) achieved for palm oil suppliers for the first time
- No Deforestation Verification (47%) using the Starling satellite monitoring tool
- Launched Regenerative Agriculture project
- Soubré landscape, with the support of pladis and other funders, continued to make environmental and social improvements at farm level and throughout the supply chain
- In addition to the pladis and Earthworm Foundation partnership, pladis carried out mapping of direct and indirect greenhouse gas emissions coming from pladis' value chain in Turkey and the United Kingdom (accounting for over 80% of pladis total volumes); definition of near-term science-based targets and decarbonisation roadmaps in both countries.

Challenges



- Deforestation events and social grievances still occurring in pladis' supply chain
- Lack of engagement on traceability from some palm oil suppliers
- Greater alignment needed internally and with suppliers on sustainability goals, message and approach
- More collaboration needed by stakeholders on leveraging technology for traceability, tracking NDPE progress and satellite monitoring
- Long term goals, contracts and support still need to be agreed for the transition to regenerative agriculture to ensure all stakeholders are incentivised to take part and remain motivated

Goals for 2023



Scale up and continue existing programmes

Improve supplier and stakeholder engagement level and methods

Build a compliance system for impending EU/UK deforestation legislation

Continue to support Önem with developing relationships with cocoa co-operatives

Continue regenerative agriculture pilot and develop financial incentives for farmers

“Scaling up our efforts to meet 2023 commitments”



 **earthworm**

 **pladis**