

Re-rooting EU food supply

Towards healthy forests and social justice



Friends of the Earth Europe

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Introduction

ever been. This gives us access to a diverse array of products, but also increases the distance from farm to fork. As our global food system becomes ever more industrialised, the consequences of this setup are often hidden from view.

Monoculture production with intensive chemical inputs and mechanisation, concentration of corporate control over agricultural land as well as key sectors such as trading, processing and retail¹, and the reliance on cheap labour across the supply-chain are key characteristics of this industrial system².

One of the most profound impacts linked to this process is the destruction of forests and rights violations of the communities that depend on them. Whilst the drivers of deforestation are many and varied, agriculture is now recognised as the primary driver of global forest loss³, and the agribusiness sector has become one of the most deadly for land and environmental defenders^{4,5}. The cultivation of three commodities particularly stand out: soybean, beef, and palm oil^{6,7}.

Soybean and palm oil are not merely food products; they are commodities destined for the processed food, livestock feed, biofuel and cosmetics industries. The narrative that industrial-scale production of these crops is necessary in order to feed the world is therefore a misleading one⁸.

This situation has not just happened by accident. Supportive European Union (EU) policy frameworks such as the Common Agricultural Policy (CAP), the Renewable Energy Directive and various free trade agreements have incentivised forest clearance abroad to supply commodities for the EU market^{9,10}.

Similarly, lack of serious regulation of corporations and financial institutions (FIs) investing in agricultural markets (agribusiness investors) overseas has added fuel to the problem. A reliance on voluntary certification schemes to provide sustainable guarantees has failed to address the underlying systemic problems at hand.

Because of the pivotal role that forests play in supporting healthy ecosystems and the livelihoods of commu-

Today's globalised food system is more interconnected than it has

nities all over the world, the repercussions of deforestation and forest degradation are wide ranging. Beyond the obvious benefits such as carbon absorption and biodiversity protection, forests play a crucial role in sustaining hydrological cycles, protecting soils, enhancing the wellbeing, livelihoods and food sovereignty of local communities, and providing diverse and healthy diets.

Yet these are not new issues, civil society and the scientific community have been warning of the dangers of continued forest destruction and degradation for decades. The latest evidence provides the most alarming picture yet that multiple and interlinked food, climate and ecological crises are looming over us11,12,13. We urgently need to reorient our extractive supply-chain model towards one that is regenerative for economies, ecosystems and social wellbeing.

Fortunately, viable solutions exist and are multiplying. From community forest management (CFM) to agroecology and short supply-chains, initiatives around the world are demonstrating how forests can be preserved in a way that protects the climate, promotes biodiversity and ecosystem services, and allows communities to strengthen their tenure rights and take control of their livelihoods and local food systems.

This briefing aims to bring attention to the urgency of the issue at hand, as well as demonstrate the potential practical and policy options available for building deforestation-free and socially just EU food supply-chains. It provides an overview of where and why deforestation is happening and who is involved in financing forest risk commodities, before taking a critical look at the current sustainable certification systems currently put forward as the answer. It will then provide real world examples of the sorts of solutions we should be investing in, and outline how EU policy-makers can assist.

Connecting the dots: the EU's deforestation footprint

THE STATE OF PLAY

Previous analyses suggested that the global rate of deforestation had slowed in recent years^{14,15}. Now new data, obtained using cutting-edge satellite technology, shows that the average annual rate of gross forest cover loss actually increased by 43% between 2014 and 2018. Of further concern is the recent spike in primary rainforest loss.

TROPICAL CONCENTRATION

Deforestation does not occur evenly across the globe. Tropical regions are particularly at risk¹⁷, accounting for up to 94% of all deforestation between 2001 and 2015¹⁸. In 2018, 3.6 million hectares (ha) of primary rainforest disappeared, an area roughly the size of Belgium. The three highest annual rates of primary rainforest loss since 2002 have occurred in the past three years¹⁶.

→ In 2018, 12 million ha of tree cover in the tropics was lost, the fourth highest since records began in 2001¹⁹.

DESTRUCTIVE ROLE OF AGRICULTURE

There are multiple direct and indirect drivers of deforestation, with large regional differences, but the evidence is clear in pointing to industrial agricultural expansion as one of the most important²⁰. A third of the world's land surface and around 75% of freshwater resources are now dedicated to crop or livestock production²¹. One study estimates that agriculture was responsible for 80% of total deforestation in the period 2000-2010, with commercial agriculture accounting for 40%²². A more recent analysis suggests expansion of commercial cropland, pastures and tree plantations accounted for 62% of forest loss between 2005 and 2013²³. The EU, as one of the major importers of agricultural products, therefore plays a significant role.

By actively basing the domestic food system around large-scale industrial agriculture, the EU has fuelled demand for agricultural commodities^{25,26,27}. It is estimated that the external land footprint of final EU consumption amounts to 106 million ha²⁸, and that EU consumption between 1990 and 2008 accounted for a deforested area of 9 million ha²⁹. This has contributed to the wider trend of dangerous declines in ecosystem health globally, degrading the productivity of 23% of the global land surface³⁰.

60% of the non-EU land used to supply crops for the EU is in tropical regions²⁴.

SOY: On average 15% of global imports are destined for the EU³¹: 33.2 million tonnes in the market year 2017-18³². Whilst traditionally sourced from Latin America, recent market conditions have seen the USA (74.5%) overtake in supplying raw soybean³³; Brazil is second (19%), where a recent spike in forest clearance has had devastating consequences³⁴. Soy is largely used to feed the EU's industrial livestock industry^{35,36} but also plays a role in the biofuel sector³⁷.

BEEF: The EU accounts for 41% of global beef and veal imports³⁸: 341,053 tonnes in 2018³⁹, the majority of which is sourced from Argentina and Brazil, where cattle ranching is the main driver of deforestation^{40,41}. Brazilian beef exports to the EU are linked with up to 3,600 ha of deforestation per year in the period 2015-2017⁴².

PALM OIL: 25% of global palm oil imports are destined for the EU⁴³, mainly coming from Indonesia and Malaysia. Imports from Indonesia amount to an average of 3.5 million tonnes a year⁴⁴, where around 1.5 million ha of forest in Indonesia is estimated to have been cleared for palm oil developments between 2000 and 2015⁴⁵. Palm oil is used widely in processed food and cosmetic products, as well as for biofuels.

Behind the scenes: financing deforestation and social injustice

Calculations of the EU's embodied deforestation tend to focus on the link with end products consumed in the EU. However, what this fails to take into account is the huge role that EU and international financiers play in perpetuating the commodity-focused agricultural model that is threatening forests worldwide, often violating rights and displacing the people who depend upon them. This model relies on a high-input approach, meaning that producers require large sources of finance in order to operate. Finance is also necessary for other parts of the supply-chain, for example developing plantations, transport and storage infrastructure, and processing units. This section will outline who the major players providing this finance are.

BANKS & DFIS

Private banks play a leading role in financing large commodity producers⁴⁶. Indirectly, they often also provide finance to local banks or investment funds, which in turn provide finance to producers or for infrastructural developments along the supply-chain⁴⁷. Without this finance, commodity-based food systems simply could not function; EU banks have continued to finance the sector despite being aware of the social and environmental harm this system brings about for over two decades^{48,49}.

Development finance institutions (DFIs) are public banks that have a mandate to ensure that their investments contribute to social and environmental progress. Several EU member states have their own DFIs⁵⁰, whilst individual member states also provide finance for international and regional DFIs such as the International Finance Corporation (IFC) and African Development Bank (ADB). Whilst these institutions generally have stronger Environmental and Social Governance (ESG) commitments than private banks, they also tend to favour a commodity-based form of agricultural in the name of development^{51,52}.

PRIVATE FUNDS

The growing financialisation of agriculture means that institutions such as pension funds, hedge funds and other types of investment vehicles are increasingly relevant^{53,54}. They speculate by acquiring land itself, equity stakes in agribusinesses or commodity futures contracts, with the aim of selling these on for profit once they have risen in value^{55,56,57}. Clearing land and readying it for plantation agriculture can be a key component in maximising profits from future sales.

COMMODITY TRADERS & FOOD CORPORATIONS

The more recognised big players are the commodity trading giants. These corporations collect, store, process and distribute agricultural commodities, and invest in the relevant infrastructure and political lobbying to make this system work^{58,59}.

For soybean, ADM, Bunge, Cargill and Louis Dreyfus have traditionally been the main actors, but Chinese stateowned grain trader COFCO has recently joined them. Beef trade is heavily dominated by Brazilian firm JBS, as well as US corporations Tyson Foods and Cargill, whilst the largest palm oil traders include Wilmar and Cargill⁶⁰.

Many of these corporations have also developed their own financial arms⁶¹, providing loans for producers or making speculative investments in land and commodity futures markets⁶².

RE-ROOTING EU FOOD SUPPLY I 7





The uncertainty

with certification

CROP	CERTIFICATION SCHEME	CERTIFIED VOLUME
PALM OIL	Roundtable on Sustainable Palm Oil (RSPO) Indonesian Sustainable Palm Oil –(ISPO) Rainforest Alliance (RA)	19% (2017) ⁶⁴
SOY	Roundtable on Responsible Soy (RTRS) International Sustainability & Carbon Certification - ISCC ProTerra Fairtrade	3% (2013)
BEEF	Global Roundtable on Sustainable Beef (GRSB) Rainforest Alliance (RA)	<10%

TABLE 1. COMMODITY CERTIFICATION SCHEMES

PROSPERITY	PEOPLE	PLANET
Competitive, resilient & sustainable sector	Sustainable livelihoods & poverty reduction	Conserved, protected & enhanced ecosystems that provide for the next generation.
PRINCIPLE 1. Behave ethically and transparently PRINCIPLE 2. Operate legally and respect rights PRINCIPLE 3. Optimise productivity, efficiency, positive impacts and resilience	PRINCIPLE 4. Respect community and human rights and deliver benefits PRINCIPLE 5. Support smallholder inclusiom PRINCIPLE 6. Respect worker's rights and condition	PRINCIPLE 7. Protect, conserve and enhance ecosystems and the environment

SETTING THE STANDARD

RSPO: A system of principles and criteria (P&C), against which compliance is assessed by accredited third-party auditors. Under the 2018 reforms, these are clustered around three impact areas: Prosperity, People and Planet⁶⁸.

The key aspects include the identification and protection of areas of High Conservation Value (HCV) or High Carbon Stock (HCS), adherence to the principles of Free, Prior and Informed Consent (FPIC) of existing customary land users, and the prohibition of new plantings on peat after 15 November 2018⁷⁰.

RTRS: 5 guiding principles form the basis of the standard: Legal Compliance and Good Business Practices, Responsible Labour Conditions, Responsible Community Relations, Environmental Responsibility and Good Agricultural Practices⁷¹.

In response to growing concerns over the link between the food we eat and environmental and social injustices abroad, certification schemes have risen to prominence. Through certified labelling, producers and other actors along the supply-chain are subject to more stringent environmental and social standards, and consumers are able to choose responsible products, so the logic goes.

In reality, things are much more complicated, and all of the major schemes have faced severe criticism for limited impact in practice, whilst allowing certified companies to masquerade under the banner of sustainability⁶³. This section will scrutinise the main existing certification initiatives for the commodities of soy, beef and palm oil. Table 1 gives an overview of a selection of these schemes.

THE ROUND TABLES

International roundtables have been set up for the soy (RTRS), palm oil (RSPO) and beef (GRSB) sectors, although the latter is less developed.

HOW DO THEY WORK?

These are multi-stakeholder initiatives involving agribusinesses from across the supply-chain, banks, retailers and environmental and social justice NGOs. They work by setting standards against which independent third-party auditors can certify producers⁶⁶. Certified commodities can then be marketed as sustainable or responsible using the relevant label. Standards are generic, and subject to national interpretation.

In the palm oil sector, the governments of Indonesia and Malaysia have also set up their own certification bodies, but these are seen as far weaker, in part due to lack of independent auditing⁶⁷.

Key conditions include resolution of conflicting land uses, avoidance of burning of crop residues for land clearance, and prohibition of expansion into designated native and/or cultural conservation areas.

GRSB: There are 5 core principles identified, as displayed below. The GRSB also consists of allied national roundtables or initiatives, which now exist in over 20 countries⁷². However, a certification framework has so far only been developed in Canada⁷³.

FIGURE2. GRSB CORE PRINCIPLES74



QUESTIONS OF CREDIBILITY

Despite their stated aims, the effectiveness and credibility of these roundtables have come in for severe criticism. In the first place, existing standards simply do not go far enough in crucial areas. For example, the RSPO allows clearing of secondary forest not classified as HCV or HCS⁷⁵. The RTRS, meanwhile, allows the destructive chemically-intensive practice of GM soy production to continue unabated⁷⁶, with severe consequences for both ecosystem and human health⁷⁷. Standards are often ambiguously worded, leaving much to the discretion of agribusinesses themselves.

In addition, enforcement is considered to be weak, and the credibility of independent auditors has been called into question^{78,79}. There have been repeated reports of labour abuses⁸⁰ and land grabbing^{81,82,83} within certified plantations, and recent evidence also calls into question the idea that certification results in less deforestation^{84,85}. These are issues that auditors frequently fail to pick up.

These weaknesses are compounded by the fact that the balance of power within the various initiatives is significantly weighted towards larger corporate members, drowning out the voices of peasants and indigenous peoples⁸⁶.

ALTERNATIVE LABELS

Partly in response to the widespread dissatisfaction with these initiatives, other certification schemes have emerged to try and fill the void.

RAINFOREST ALLIANCE: This standard covers a range of commodities, including cattle⁸⁷. For most commodities this is based on four principles: Effective Planning and Management system, Biodiversity Conservation, Natural Resource Conservation, Improved Livelihoods and Human Wellbeing. An additional fifth principle on Sustainable Cattle Production also exists.

PROTERRA: a certification standard for non-GMO food and feed, this system is based on ten principles, each with criteria and indicators attached⁸⁸.

In the soy sector, the Donau Soja initiative has pushed for European produced and certified non-GM soybean as a solution to Latin American deforestation⁸⁹.

However, as with the other schemes, these have also received criticism over their effectiveness^{90,91,92} still largely focus on specific issues in isolation, and ultimately fail to challenge the wider systemic issues rooted in the industrial production and overconsumption of commodity crops⁹³.

THE NEED FOR A DIFFERENT LENS

A common thread apparent in the various initiatives is that they tend to be based on narrow understandings of sustainability. Heavier emphasis has been placed on environmental concerns, whilst social issues have been attributed far less attention.

Economic evaluations have focused on corporate profit or job creation statistics, without consideration for the impacts on local producer livelihoods and the displacement of local food markets. Food and nutritional insecurity can exist within the same context as rising monetary incomes.

In addition, these topics have tended to be considered in isolation, rather than as part of an integrated whole; zero-deforestation commitments are an example of this. Efforts to curb deforestation have been dealt with in a separate realm to land rights conflicts and efforts to foster biodiversity. In reality these issues are intimately interlinked, so targeting them in a separated manner makes little sense. For example, the RSPO requires that exclusive HCV areas are created within plantation concessions, but this can result in the expulsion of traditional land users from the land on which they rely for their livelihoods. This approach represents an ill-informed people-less vision of sustainability.

A SYSTEMIC ISSUE

Ultimately, these initiatives also fail to challenge the ideology underpinning the continuation of industrial commodity crop production. All of the available scientific evidence emphasises that urgent action is needed to avoid the onset of simultaneous food, ecological and climate crises^{98,99}.

Existing certification schemes also do not ultimately affect demand and consumption levels, and can instead serve to greenwash further agro-commodity expansion. Yet it is now widely recognised that addressing demand must be central to any meaningful strategy towards truly sustainable food systems. This is emphasised by recent evidence showing that protecting certain areas simply has the effect of displacing land clearance for agriculture elsewhere¹⁰⁰. The expansion of cattle ranches and soybean plantations into the Cerrado following a much-hailed moratorium on Amazon deforestation is a concrete example of this¹⁰¹. This not only demonstrates the need to reduce consumption, but also to reconsider the types of products being demanded.

Corporations along the industrial commodity crop supply-chain continue to seek legitimacy through a 'feed the world' narrative: if we are to produce enough food for a growing population, industrial expansion is the only way. But this argument has long since been discredited; we already produce enough to feed the current and projected world populations¹⁰², much of this coming from small-scale peasant producers using a fraction of the resources¹⁰³. In any case, EU commodity crop imports are not destined for those populations most vulnerable to food and nutritional insecurity. Instead, they tend to end up as inputs for the processed food, livestock or biofuel sectors.



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ightarrow Studies have shown that when the rights of indigenous peoples are secure, the lands they manage are less vulnerable to deforestation, and biodiversity and ecosystem health are strengthened^{94,95,96,97}.

The real solution

In the light of the issues raised above, it is evident that a radical transition in the way that we produce, distribute and consume our food is necessary. Food systems must be reoriented around multiple complimentary and regenerative economic, social and environmental objectives.

FOOD SOVEREIGNTY & AGROECOLOGY

The interrelated concepts of food sovereignty and agroecology provide a framework with which to do this.

FOOD SOVEREIGNTY is 'the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems¹⁰⁴.

Food sovereignty explicitly places importance on how food is produced and distributed, and perhaps most importantly on who is in control and who benefits, challenging the corporate capture of food and agricultural markets.

> AGROECOLOGY is 'a set of ecological, social and political principles that aims to embed food production within healthy and diverse agroecosystems and social networks in a manner that minimises external inputs, provides secure livelihoods for producers, and delivers nutritious food for consumers¹⁰⁵.

The principles of agroecology focus on investing in local knowledge and natural resources, including traditional livestock breeds and seed varieties, thereby removing or reducing the necessity for external inputs such as commercial seed and agrochemicals^{106,107}. This in turn allows producers greater decision-making autonomy and higher profit margins¹⁰⁸, enabling them to make a decent livelihood whilst providing healthy and nutritious food to local and regional markets, as well as other vital social services such as protecting and restoring biodiversity, building fertile soils, maintaining rural landscapes and protecting against soil erosion and flooding¹⁰⁹.

Food producers will inevitably operate across a whole spectrum of practices, scales and market-orientation. Agroecology within the broader framework of food sovereignty offers a pathway through which to guide the necessary sustainable food system transition¹¹⁰, whilst accounting for and embracing this diversity.

SUSTAINABLE DIETS & CONSUMPTION

Any truly sustainable transition will inevitably involve shifting EU dietary and consumption patterns. This does not necessarily mean eating less or becoming vegetarian. To the contrary it means eating more fresh, local and sustainably produced food.

It would however mean shifting away from diets reliant on commodity crops, such as processed foods containing palm oil, and industrially produced meat and dairy fed with imported soybeans or other commodity feedstocks. This is not an affront to international trade; some products of course cannot be produced within the EU. However, the terms of trade will have to be altered in such a way as to promote food sovereignty and ecological and social wellbeing in producer regions. Ultimately this will be of benefit to ecosystems and human health both at home and abroad.

FOOD & FORESTS

When thinking of food production, wide open landscapes planted with annual crops often come to mind. Yet a diverse range of ecosystems can provide an abundance of food, including forested areas. All over the world, communities have shown that food production, secure livelihoods and forest conservation can go hand in hand. Where communities are still deeply connected to their forests, putting the management of these forests and local food systems in their hands is a potentially lowcost and efficient way through which to achieve multiple socio-economic and environmental goals at once. A useful concept to understand and achieve this, especially in tropical regions, is that of Community Forest Management (CFM).

> **CFM** refers to the management and control over forest territories by indigenous peoples and/ or local communities who still maintain an attachment with their local natural resources. It is at once a political, cultural, spiritual and technical thought and practice, aimed at achieving multiple goals to do with social and environmental justice. It is important to make clear that CFM is not a static process or set of practices. It embraces dialogues and interactions in line with the constant evolution of cultures and technologies, but with the principle of territorial control still at the forefront¹¹¹.

Evidently, food sovereignty, agroecology and CFM can be complimentary concepts. With sufficient government support, they can be used in order to frame the necessary transition in which healthy forests find a place within holistically sustainable food systems. The following section will introduce some case study illustrations of initiatives that are leading the way in promoting this sustainable transition.

LEADING THE WAY WITH COMMUNITY FOREST MANAGEMENT

 \leftarrow Cattle grazing and banana production under forest canopy. Photo: Galileo De Guzman.

HOW

the promotion and revival of sulagad, so that com-

Teduray & Lambangian Ancestral Domain, Bangsamoro Region, The Philippines

WHAT

Sulagad is at once an indigenous system of food production as well as a general vision of a sustainable way of life. It is enacted by the indigenous peoples of Teduray and Lambangian on the island of Mindanao in the Philippines, whose livelihoods and culture centre on their lands and the flora, fauna and wider ecosystems connected to it.

CONTEXT

Confronted with the spread of commercial farming, land grabbing and small-scale illegal logging (locally referred to as carabao-logging), a revival of the indigenous sulagad system is being promoted. The imposition of input-intensive farming models reliant on loans from traders for seeds, fertilisers, herbicides and pesticides, has left farmers vulnerable. Failed harvests and inability to repay the loans have meant that ancestral lands have been turned over to these traders as collateral. This has seen an erosion of indigenous control over traditional territories and local food systems.

OBJECTIVES

The revival of sulagad aims to secure sustainable, environmentally-friendly and culture-based food systems and livelihood plans within indigenous ancestral domains and beyond. This is seen as the best way to counter the spread of harmful commercial farming practices, whilst at the same time promoting and empowering indigenous identity and governance, and protecting and conserving biodiversity and the environment. This initiative also aims to influence other indigenous and non-indigenous peoples to advocate for community-based sustainable, organic farming and a reduction, or if possible avoidance, of the practice of commercial agriculture.



Participants at the first Lamangian assembly. Photo: Galileo De Guzman. \wedge

Sulagad farming technique demonstrations and dis-



LEADING THE WAY WITH COMMUNITY FOREST MANAGEMENT

 \leftarrow Agrocological garden at Yvapuruvu.

WHERE Altos, Cordillera, Paraguay

WHAT

The Yvapuruvu initiative focuses on building sustainable and climate resilient societies. It centres on a 60 ha eco-farm managed by SOBREVIVENCIA (Friends of the Earth Paraguay), which functions as a site of knowledge exchange and capacity building for a diverse range of local, national and international actors.

CONTEXT

The Yvapuruvu site consists mainly of the last important remaining tracts of Paraguay Central Forest, as well as around 2 ha of Cerrado biome and small parcels of pasture. The health of the Los Altos system is of fundamental importance to the central zone of Paraguay; the most densely populated area of the country. Aside from the haven it provides to biodiversity in the context of increasing habitat scarcity, it is also vital for maintaining regional climate balance, providing high quality water to the region, and offering sites of recreation for the local and national population. It also produces an important part of the food consumed in the Asunción Metropolitan area.

However, these highly valued natural goods are being rapidly destroyed by illegal deforestation, soil degradation, the implementation of polluting industries and uncontrolled urbanization. If this process continues, it will entail a drastic deterioration in the quality of life for millions of people, further impoverishment of the local population and a sharp increase in vulnerability to adverse climate change impacts.

OBJECTIVES

Faced with the advance of unsustainable production systems, Yparuruvu seeks to reunite communities with their origins, identities, and traditional knowledge, to foster self-determination, food sovereignty, generation of livelihood systems and assurance of social and environmental justice in their territories.



vision of this land.

Participants in an ecosystem restoration course at the ecofarm. Photo: SOBREVIVENCIA. $\,\,\uparrow\,\,$

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LEADING THE WAY WITH COMMUNITY FOREST MANAGEMENT

Making space for Community Resource Management Areas (CREMAs)

HOW

CREMA is built on existing community decision making structures, with an executive body and a constitution that guides the activities and regulation of the CREMA.

The enactment of local District Assembly by-laws recognises and empowers CREMAs to manage local resources in accordance with their constitution. This CREMA governance structure also integrates and respects traditional decision making structures and local land tenure systems in the area in which it is established. They are managed by a locally elected

where Ghana

WHAT

The CREMA approach involves the devolution of management authority to a community-based organisation. A CRE-MA is a geographically defined area that includes one or more communities that have agreed to manage natural resources in a sustainable manner.

CONTEXT

Natural resource management has repeatedly been hampered by political and elite interference, which may bypass community consent in decision-making processes such as the allocation of land use concessions.

In addition, forest management and related activities and actions in Ghana have been predominantly enacted by males. However, women in local communities play a significant role in natural resource management.

OBJECTIVES

The objective of CREMA is to encourage local communities that are willing to integrate natural resource management into their land use. It also aims at generating financial and non-financial resources for communities and individuals within the CREMA, through giving communities formal access and user-rights to the forest resources. The participation of women in decision-making, management and benefit sharing is also promoted.



Management Area Executive Committee that has various functions to perform, including regulating and controlling access to harvestable wildlife in the designated area. Communities benefit financially through the sale of wild products in local markets.

The CREMA concept has received support from various CSOs over the years, often through time-bound projects. The challenge is to sustain these bodies when donor funds are no longer available, meaning that building management capacity must be integral from the start. Central to all of these initiatives is the idea of putting local communities and producers at the heart of food systems and forest management. These are not treated as detached entities, but rather as part of an integrated system that supports decent and autonomous livelihoods, delivers vital services, and provides abundant and healthy food to local markets.

However, at the same time, these initiatives and others like them face serious challenges in establishing themselves. Land grabbing and the widespread promotion of harmful industrial farming models mean that indigenous peoples and local communities are losing control over their territories, both directly and indirectly. National governments have proven unable to stem this tide, and in many cases are even active proponents of these processes, the EU and its Member States included. Civil society has been left to fill this void, but restrictive government policies and finite capacities are proving barriers to progress. If the EU is serious about reducing its deforestation footprint and developing responsible food supply-chains, it must promote agricultural and business practices that respect and align with local food sovereignty.

ESTABLISHING FAIR TRADE

Whilst there needs to be increased focus on producing for local markets, the promotion of short food supply-chains also for international trade of certain products cannot be ignored. In such cases, it is imperative that this trade occurs in line with principles of environmental and social justice, meaning a shift away from industrial commodity crop models and reducing the number of intermediaries in the food chain. Once again, there are examples of how this can be done emerging across the globe, a selection of which are presented below.

PRODUCT Coffee

Chiapas, Mexico

ZAPATISTA COFFEE COOPERATIVES

WHAT

Community-based sustainable coffee production and processing, with produce exported and distributed through solidarity economy networks in Europe and North America.

CONTEXT

Following the Zapatista uprising of the 1990s in the Chiapas region of Mexico, which denounced the North American Free Trade Agreement (NAFTA) as a threat to small-scale and indigenous producers across Mexico, certain communities started to organise themselves autonomously with the aim of achieving the quality and stability of livelihoods that the state had failed to deliver¹¹². Part of this involved a reorganisation of farming systems, with the simultaneous aims of sustainable self-sufficiency and income generation. Cultivation of shade-grown and organically certified coffee was integrated into production systems as part of this strategy.

HOW

The coffee produced in Zapatista communities is processed by community-run cooperatives with a locally-elected board. It is then shipped abroad directly to distributors or ethical retail outlets that are part of their solidarity economy network, for final sale to consumers¹¹³. The price is determined by the cost of production as well as an additional supplement to ensure a decent quality of living for the producers.

The board of the local cooperatives reinvests profits in local infrastructure and services, which are run autonomously and without government support¹¹⁴. Many cooperatives have however faced difficulties due to continued political conflict and restrictive government policies¹¹⁵. Nonetheless, the key here is that these cooperatives are set up with the specific end goal of serving community needs in producer regions, with the income generated being the means through which to support this. Direct marketing through solidarity networks allows them to receive a fair price for the coffee, rather than relying on volatile market prices and those set by traders.

PRODUCT

Kirehe

District,

Rwanda

Pineapples

PRODUCT Tea Sri Lanka

GREENFIELD BIO ESTATES

WHAT

Analog forestry practices implemented in tea production systems to provide a diversity of produce for consumption and local markets. The tea is sold internationally with Forest Garden Product certification.

CONTEXT

Tea is huge business in Sri Lanka, it was once the world's largest exporter and derives around 65% of its agricultural revenue from it. However, the tea boom came at a cost: large swathes of forest have been cleared, replaced with monoculture plantation systems that drain soils of their fertility, destroy biodiversity and water quality with high agrochemical use, and leave the deforested slopes vulnerable to soil erosion. Yields have fallen, and as India, China and Kenya have risen to prominence as major tea exporters, livelihoods that had become dependent on commodity tea production are left in peril.

HOW

At Greenfield Bio Estate, the implementation of Analog Forestry has offered an opportunity to continue tea production whilst also restoring landscapes and allowing local livelihoods to flourish. This involves designing a system that integrates native and exotic trees and shrubs with the tea bushes, providing additional harvests of fruit, nuts, and fodder^{116,117}.

The design includes private plots for the estate's 110 workers, who also own their own cows for the production and local sale of milk and manure, giving them additional sources of food and income besides their tea-related labour. This does not come at the cost of tea productivity, in fact yields have increased, and the tea is sold with an organic premium both locally and internationally.

The tea is also certified under the Forest Garden Products label¹¹⁸, now recognised by the EU and used for the marketing of products derived from Analog Forestry. This differs from other sustainable certification schemes in that it is based on a system that is explicitly geared towards building forest ecosystems in a manner that provides for local livelihoods, with tea being one of the many outputs.

TUZAMURANE COOPERATIVE

WHAT

Community-led cooperative producing fresh and processed pineapples for local markets as well as for export through an ethical distributor in Europe.

CONTEXT

The aftermath of the Rwandan genocide of 1994 still impacts on the prevalence of poverty and malnutrition in the country. In some areas, such as the Kirehe District in Northern Uganda, many women-headed households are left with little alternative than to try and support their livelihoods with their small parcels of land¹¹⁹.

HOW

The Tuzamurane cooperative was set up with the aim of providing horticultural training for women, as well as improving their access to markets and savings schemes. Pineapples were identified as a suitable crop, well adapted to local conditions and with a potentially high market value.

With the support of organisations such as Oxfam, the cooperative has also attained organic certification and developed processing facilities for drying the fruit. The dried pineapple is exported to other countries within Africa as well as to the EU, where it is distributed in France by the company Agro Sourcing¹²⁰. Higher prices can now be attained, with incomes improving and cooperative profits reinvested in community initiatives and health insurance premiums for members¹²¹.

Once again it is evident that shifting away from industrial commodity production and distribution systems, and placing local producers and communities at the centre, can provide multiple simultaneous benefits. This does not mean that certain commodities cannot be traded internationally, but that focus should be placed on fair trade models that explicitly aim to foster environmental and social wellbeing in producer communities. Ultima-

tely, a balance must be struck between products for export and local food production, allowing communities to define their own food and agriculture systems and be resilient to changes in international market conditions. Promising models already exist, but many find it difficult to compete in a political and policy environment designed to cater for industrial agribusiness.

Supporting transformative action

In order to support a food system transition that protects forest ecosystems and upholds social justice, EU policymakers will need to take action on multiple fronts, as well as both domestically and internationally.

The focus will need to move beyond simply tweaking production practices under existing models, and instead focus on creating a wider enabling policy environment based on food sovereignty principles to support the spread of the sorts of community-based initiatives introduced above. This also means strengthening the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. Those who produce, distribute and consume food should be at the heart of food systems and policies rather than the demands of markets and corporations. This shift would involve:

RECONFIGURING DEMAND

Introduce concrete measures to reduce the production and consumption of industrial commodity crops linked to deforestation and rights violations and their derivatives, such as industrially-produced meat and dairy products, as well as refocus trade and development policies to be benefiting local communities:

- Renegotiate ratified international trade agreements to eliminate trade of products that contribute or incentivise, directly or indirectly, to deforestation, degradation or conversion of natural ecosystems.
- Suspend the ratification and negotiation of Free Trade Agreements, for example Mercosur and CETA.
- Support the creation of decentralized short supply chains, diversified markets based on solidarity and fair prices, and closer links between producers and consumers locally.
- Adopt a land footprint indicator and reduction targets to ensure the overall European consumption of energy and natural resources, especially meat and bioenergy, do not exceed an equivalent in surface of available European land.
- Remove subsidies for industrial livestock production within the EU in the Common Agricultural Policy and indirect support in national exemptions for constructing large-scale livestock operations, and place legally binding restrictions on feed imports linked to deforestation and rights violations.
- Ensure that the biomass used by Member States in meeting their renewable energy targets reflect a level of biomass that can be sustainably supplied from the region. The use of food in biofuels, such as palm oil or soy, now driven by policies on CO2 reduction should be forbidden.
- The use of wood for so-called advanced biofuel or more generally energy uses (production of electri-

city/heat) should be also strictly limited to what can be sustainably supplied from the region.

• Incentivise and promote the sourcing and consumption of sustainably produced food within the EU, for example through public procurement schemes and the school fruit, vegetables and milk scheme of the EU.

ENFORCE HUMAN RIGHTS & ENVIRONMENTAL SUPPLY-CHAIN REGULATION

- Introduce legislative and regulatory measures that oblige companies, especially the biggest ones, to carry out a comprehensive supply-chain risk analysis, take adapted measures, and implement them effectively. These measures must also make corporations monitor their implementation and efficiency (duty of vigilance) to ensure that no imported products that contribute to deforestation, degradation or conversion of natural ecosystems enter into Europe. In case of failure to comply with these obligations, the civil liability of the company may be incurred, and the company may be ordered to pay damages to the victims.
- Strengthen the disclosure requirements of companies and FIs, for example through the EU Directive on the disclosure of Non-Financial Information (NFI), to ensure transparency throughout the entire supply-chain.

REGULATING FINANCE

Introduce regulations that hold European FIs to account for the impacts of their agribusiness investments abroad, whether or not these are linked to products eventually consumed in the EU:

- Impose strict and legally binding duty of vigilance obligations on EU banks, DFIs and other FIs such as private banks and investors, and pension funds.
- Monitor European FIs regarding their environmental and human rights impact abroad, and introduce strong sanction mechanisms to punish any violations.
- Introduce a binding 'brown taxonomy' in the EU for the financial sector that excludes financing deforestation, land grabs and human rights violations.
- Support a strong binding UN Treaty on Business and Human rights and EU corporate accountability legislation.

PROMOTING AGROECOLOGY & COMMUNITY FOREST MANAGEMENT

Explicitly support and incentivise the spread of agroecology and community based forest management, both at home and abroad:

- Make agroecology integral to the new EU Common Agricultural Policy (CAP), and ensure coherence across other EU policy domains (research, food policies, climate policies, development cooperation).
- Include leguminous crops in the crop rotation definition in the enhanced conditionality for direct payments to farmers.
- Support the development of local regional processing and market infrastructure as part of efforts to facilitate a transition to short food supply-chains within the EU.
- Provide direct funding for agricultural research with an explicit focus on implementing and improving agroecological or agroforestry systems in research programmes from governments as well as the EU Commission.
- Promote and scale up innovative transformative financial models for agro-ecology and community based forest management; invest in the enabling conditions for small scale forest and farm producers to attract fair and ethical asset investment.
- Promote the spread of agroecology and community forest management abroad, and encourage foreign governments to remove restrictive policies that impede the spread of agroecology and community forest management initiatives.
- Support the development of sustainable urban food policies in cities across the EU.
- Encourage Member States to ratify the UN Declaration on the Rights of Peasants and Other People Working in Rural Areas, and promote its implementation into EU and national laws.
- Promote the recognition of indigenous territories and community land tenure around the world as a means through which to uphold human rights and conserve valuable ecosystems.
- Encourage Member States to ratify the ILO Convention 169.

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