

Community Forest Management and Agroecology LINKS AND IMPLICATIONS

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For forests to survive, it is necessary to allow those who know how to live with them to survive as well



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Friends of the Earth International is the world's largest grassroots environmental network, uniting 75 national member groups and some 5,000 local activist groups on every continent. With over 2 million members and supporters around the world, we campaign on today's most urgent environmental and social issues. We challenge the current model of economic and corporate globalization, and promote solutions that will help to create environmentally sustainable and socially just societies.

Community Forest Management and Agroecology

LINKS AND IMPLICATIONS

For forests to survive, it is necessary to allow those who know how to live with them to survive as well

1 Introduction

Brief account and implications of Community Forest Management

brief account of community forest management¹ (CFM) needs to refer to the different ways in which Indigenous Peoples and/or local communities control and know their territories² and the natural heritage or commons within them. It implies the ways they live together with this heritage, how they use it, enjoy it and contribute to maintaining it in good condition.

CFM is political, cultural, spiritual and technical thought and practice. It is political because it implies the need to be organised in order to think and manage territories and what they contain; cultural because it is based on traditional knowledge, and by each people's needs and own ways of meeting them; spiritual because it involves ancestral links, values and worldviews, which in turn generate assessments that are more complex than that of academics or economy; and technical because it appeals to the need for appropriate technology, which can be provided by communities themselves or through interaction with other cultures.

CFM is also comprehensive, since it manages the way peoples live in the forests, while considering territorial resources or components like water, fauna, soil, vegetation, etc., because it is not based on an anthropocentric view. Therefore, CFM can have different goals, ranging from food and material production/gathering for the wellbeing of families and communities; restoration, even in urban areas; the use of materials to elaborate products for family economy or to be exchanged; to the management of the territory as commons to inhabit. Some elements or features of CFM that need to be mentioned to highlight the comprehensive nature of the proposal include strengthening of community rights, defence and management of commons, building of women's autonomy, increasing community organisation, social/economic justice, prevention of deforestation and degradation, biodiversity conservation and enrichment.

It is important to make clear that CFM is not a static process or set of practices, nor does it go against the capacity to have dialogues or interactions. People's cultures are constantly evolving, which implies interpreting other cultures, understanding them, and especially establishing the types of relationships desired. This can include the adoption of elements, practices or resources that benefit people or communities, without this implying the loss of their identity.

The goal of this paper is to establish the links, interconnections and opportunities between CFM and agroecology, understanding agroecology as a means to achieve food sovereignty. Therefore, it would not be relevant to expand on the detail of each concept here. Nevertheless, Friends of the Earth has published papers that provide more detailed analysis and explanation about CFM, which are reference sources to work on and deepen during the course of this initiative (Friends of the Earth 2007 and 2015).

¹ The term forest/s is used throughout this paper to refer collectively to all types of existing plant growth/forest formations, but the differences among them are duly acknowledged, such as higher biological diversity in intertropical jungles. What is relevant here is that community-based management — the focus of this paper — can be implemented in all types of forests. Nonetheless, the Friends of the Earth International definition of forests is provided further on, highlighting its various dimensions — cultural, social, etc. — aside from the biological.

² The meaning of territory goes well beyond the notion of place or land; it refers to the social construction of a given space. Therefore, its historical configuration is determined by dynamic exchange relations that establish the identity of the peoples that live in it. Some of the prominent features of territories are:

dynamic exchange relations that establish the identity of the peoples that live in it. Some of the prominent features of territories are: • spiritual, ancestral and traditions-laden relationships with the spaces in which peoples have developed their cultures;

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peoples' management and control of the commons that enable the survival of the peoples.





Transporting *Manihot esculenta* (cassava) from the crop to the casa de farinha (flour mill), by river, Jutaí Reserve, Amazon Jungle *Photo: Diego Cardona Calle*

Family transformation of *Manihot esculenta* (cassava) mainly into farinha (flour), Jutaí Reserve, Amazon Jungle *Photo: Diego Cardona Calle*

Brief account and implications of Agroecology

groecology can be described as a political plan and practice that is embodied in the ways to access, produce and distribute food to ensure the right to food. We can highlight its political nature, in that it raises concrete ways to transform power structures (International Forum for Agroecology, 2015) and it establishes relationships of respect and care towards territories, being more than a set of practices or techniques to produce food.

Agroecology is therefore a means to achieve food sovereignty, that 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 systems' (Food Sovereignty Forum, 2007).

Agroecology-based food production and gathering comprises different activities: cultivation, animal farming, pastoralism, forestry and artisanal fishing. These activities are mainly carried out by family groups and often led by women, who perform an extremely important role in production, elaboration and commercialisation (Carrau, 2015). These practices generally take place on a small scale, based on traditional local knowledge, learning and innovation. Here it is necessary to highlight the synergy between CFM and agroecology, since a big proportion of agroecology is carried out inside forests, through fishing and forestry activities such as gathering fruits and seeds; in other words, agroecology is not limited to growing food crops, although millions of peasants, indigenous peoples and other local populations plant their crops inside

the forests or in agroforestry systems. These practices are common in Southeast Asia, Sub-Saharan Africa and the equatorial forests of Central and South America.

Just like CFM, agroecology is not a homogeneous technology package or model that can be applied in every territory; on the contrary, it is dynamic and diverse because it responds and adapts to the geographical, ecological and cultural conditions of each place. Some of the agricultural production forms related to agroecology are: 'sustainable agriculture, ecological agriculture, eco-farming, eco-agriculture, low-external-input agriculture, organic agriculture, permaculture, and biodynamic agriculture' (Holt-Giménez & Shattuck, 2011). But agroecological character is not only determined by technical criteria, but also by political criteria. Therefore, we can find small-scale farmers who are making a transition or who are not producing entirely in an ecological way, but are doing so within the framework of food sovereignty as a way to resist agribusiness (Carrau, 2015).

Agroecology's vision of the territory is one of its pillars, and it captures its very essence. In it peoples and communities have the right to maintain their own spiritual and material relationships to their lands. They are entitled to protect, develop, control and reconstruct their customary social structures and to administer their lands and territories, including fishing grounds, both politically and socially' (International Forum for Agroecology, 2015). It ultimately recognises the self-determination and autonomy of peoples.

(1.1) Integrating two visions of systemic change

Shared principles

groecology and CFM are based on several shared pillars and principles, which is something that enables their interaction and enhances the potential transformations they can generate. Some of these are presented in the following figure:



The first three principles are analysed in detail under headings 3.2, 3.3 and 3.4 in this paper; regarding the remaining principles, the following needs to be said:

Management and defence of communal heritage and commons

Collective rights over and access to commons are recognised and their defence and recovery is promoted. There is a broad view of heritage beyond what is tangible — water, seeds, trees, fruits, etc. — with a prominent role given to social heritage, including ways of organisation, traditional institutions and others. While CFM and agroecology can also be practised on private or family lands, that takes place within a framework of respect for others and the territory.

Spirituality and non-anthropocentric perspectives

There are deeper and more complex considerations than those related to the market price of the commons as resources, based on multiple values and in many cases a spiritual link with the territories. This determines that the use of these is carried out while respecting and preserving nature, and not only responding to human needs or ambitions.

Local knowledge and wisdom

These are the basis of CFM and agroecology proposals, thus the high importance given to their preservation and recovery, even though the parallel generation of new knowledge and the interaction and dialogues among societies is also valued.

Diversity

Both CFM and agroecology are characterised by maintaining and increasing cultural and biological diversity. Numerous studies deal with and deepen the strategies whereby indigenous peoples and local communities contribute to enhance biological diversity, both of forest and agricultural species, while maintaining heterogeneous systems of thought, culture and education.



We can state that both initiatives constitute broad and comprehensive approaches to the territories, their common resources and associated traditional knowledge. They take into account the use, conservation and recovery or restoration of natural heritage, but with different emphases. While agroecology is focused on the elements on which food depends, such as soils, seeds,³ goods required by food gatherers or artisanal fisherfolk, water and fishing or grazing areas, CFM actions are oriented towards the other natural and cultural common goods that are managed, used and protected in the forests, including trees, forest seeds, wood, fibre, wildlife and even the health of the ecosystem. It is worth mentioning, however, that peoples do not establish this kind of divide in their knowledge systems and views, and for this reason there is a close relationship between both proposals. Thus, in the framework of each one of them it is possible to advance on actions that can fit within the other. For instance, agroecology grants importance to the sites where production, fishing or hunting activities take place, and strives to protect or restore them, while CFM includes itinerant agricultural systems based on slash-and-burn traditional techniques to clear forest patches for production, which enable the recovery of the forest thereafter.

³ In agroecology, the notion of seeds includes animal breeds.

Shared threats faced by the two systems

EVALUATE: Ultiple threats affect forests and territories inhabited by the peoples who make agroecology and CFM a reality. Taking into consideration that a high proportion of these threats have been sufficiently researched and are well known,⁴ we will highlight and focus on those that are not easily identifiable as threats, given that they are presented precisely as proposals for conservation or sustainable management of heritage wealth.

Green economy and false solutions

his model takes on a subtle form in some cases, but is violent in other cases, involving 'de-territorialisation' or displacement and loss of values. In the CFM and Agroecology framework, territories and heritage are protected and used sustainably by communities. But such protection is a complex process mediated by values: use values, cultural, spiritual and aesthetic values, among others. This determines that rather than being used with a mindset focused on exploitation, profit and accumulation, they will be used with priority given to the protection of the territory and life. The green economy destroys the foundations of these communal systems — their values.

Perhaps the biggest threat is the change of values induced by pricing. When false solutions — such as projects of payment for environmental services (PES) or reducing emissions from deforestation and forest degradation (REDD) — include proposals for in-kind or cash payments to communities for forest conservation, leading them to abandon daily actions and practices that project designers consider detrimental, the continuity of the culture that has ensured that the forests are maintained in good condition is at risk. Considering that the documented lifespan of the contracts may run up to 80 years (Friends of the Earth, 2014B), there is a very high likelihood that the transmission of knowledge, culture and ways of inhabiting the forests will be halted and erode to the point of being lost. As a result, the values that underpin uses of the forest that protect it could disappear and be replaced by the price of the supposed payments established by the projects. Then, when these come to an end, the

forest will no longer be valued as it was originally, but a price tag will instead be put on it –possibly the price at which the wood, animals or other resources are sold.

Consequently, under the framework of projects that replace sovereignty, independence and local production with purchases and market dependence, it will not be easy for people to stay in the territory, and it will become necessary or attractive to migrate to urban areas where they can enter and take part in the market. In short, the territories might be emptied while, at the same time, traditional values and knowledge disappear.

It is worth noting that a similar approach to the one advanced for nature — land and atmosphere — by the green economy is now being proposed for the oceans and seas, labelled as the blue economy. From this perspective, the oceans and seas are touted as the new economic frontier, with a rightsbased approach — property rights however, not human rights.

REDD and REDD+

The seconomic proposal for forests is worth a special mention. Friends of the Earth has a clear position on REDD (Friends of the Earth, 2014), with arguments that explain in-depth the impacts and threats of this false solution for forests and the people inhabiting them. To show how disastrous REDD is for agroecology, it is enough to refer to the dispositions in some contracts that explicitly ban communities from practising agriculture in their territories (Friends of the Earth, 2014B).

In the interest of restating the need for measures in this regard, we quote what Fred Kafeero, a forestry officer for FAO said in 2011, alerting us to risks that have now become realities for many communities. 'With REDD+ likely to lead to significant funding being channelled to developing countries, there are concerns that the rights of local forest communities may be ignored or that the communities may even be pushed aside in the management of the forests and the sharing of the new streams of revenue' (Collaborative Partnership on Forests, 2011).

4 They include extractive industries like mining, oil and timber; infrastructure and road building; logging for the expansion of agribusiness and cattle ranching; habitat destruction and transformation; introduction of exotic species; and the introduction and use of genetically engineered trees

Commercial logging or sustainable management

cademics and timber companies have worked hand-in-hand to draft strategies that allow them continued exploitation of timber in forests, under criteria and care techniques that legitimise their activity. These criteria even include a social dimension that was not even mentioned until recently. These proposals are known as sustainable forest management, but their commitments and outcomes are far from what this name suggests. It is basically an industrial timber extraction modality in which governments or authorities issue logging licences to companies, granting a certain level of control to communities, which in many cases end up involved merely as workforce.

Even though it could be argued that this represents a positive development in terms of the sustainable management of forests, there are a variety of documented interventions that evidence the impacts — not only environmental, but also cultural, economic and political — of this type of management. An example of the damaging effects of sustainable management has been the one experienced by the immensely rich and biodiverse rainforests in the Pacific region of Colombia, which have been destroyed for decades by a multinational corporation that produces paper pulp. The management system it deployed was clear-cutting, which means logging or deforesting all tree species in that ecosystem — regardless of the presence of precious woods or hard woods — as raw materials to produce pulp. Their intervention criteria have left irreparable ecological destruction and loss until this very day, in addition to misery for the population who have lost their traditional livelihoods and ways of life (Broderick, 2007).

There are multiple and diverse forms of CFM which respond to and are representative of a variety of contexts, peoples and cultures, with differing land tenure and control modalities over the territory by communities. Each one of those forms of CFM is thus adapted to very specific conditions that makes it different from sustainable forest management. Since this latter proposal was built on the basis of and is promoted by a hegemonic and homogeneous model, it is very simple for it to apply and explain one single recipe for all territories, peoples or communities, precisely because it does not distinguish any difference between these realities, or the rights of the people who legitimately inhabit these spaces. Therefore, it becomes a threat that is imposed and erodes the autonomy of communities.

Community Forest Management and Agroecology LINKS AND IMPLICATIONS

False dichotomies presented by corporations and their proponents about forests and food production

he solution to the food crisis does not lie in logging more forests to clear lands for intensive agriculture. This model does not replace the food sources that disappear with the territories that are destroyed; on the contrary, it undermines food sovereignty, because forests are indispensable for agriculture and to supply food for all human beings, not only for the people inhabiting them, as explained in several parts of this paper.

'[M]odern agricultural systems take up vast areas with intensive monoculture plantations that are genetically highly homogeneous, given that the crops are subject to oligomorphic selection. Land occupation by these modern systems contributes to the loss of biodiversity, because they use areas that were once dedicated to small scale agriculture' (Clement, 1999).

It is not true that most of the food consumed on the planet is produced through mechanised or technology-based systems that require logging of forests for their implementation. On the contrary, there are numerous agricultural production, collection, hunting and fishing systems within forests. On the other hand, those nearly 1.6 billion forest-dwelling people or people directly dependent on forests to satisfy their nutritional needs do not have access to commercialised products coming from technology-based systems or monoculture plantations as their first option — they have access to their own food production, which takes place within the forests. The World Bank estimated there were 1600 million forest-dependent people worldwide in 2002; meanwhile, their more recent revised estimates, dating from 2012, stated there were 1200 to 1400 million; that is almost 20% of the

world population. However, these estimates suffer numerous challenges and limitations (FAO, 2014).

In addition, the imposition of corporate model logic has severe impacts on other spheres of community life. The promotion of specialisation of production is one of the most detrimental practices for forest peoples and rural areas. Peasants, farmers or gatherers are persuaded or even often forced to become part of production chains or production alliances that induce them to abandon their vocation, lives and peasant or community culture to become entrepreneurs or producers.

Private or government stimulus of specialisation, added to external factors such as the market and exploitation by foreign agents, can alter environmental and social sustainability, as stated by Hanazaki (2003). An in-depth study of food production and gathering in forests within the parameters of agroecology shows how external interventions of the growth model, focusing on the specialisation of peoples or communities in the production of one single kind of product has caused imponderable damage.

The Sateré-Mawe indigenous people and family gatherers from the floodplains along the Amazon River were prompted by governments and nongovernmental organisations to specialise in the production of guarana and plant fibres, respectively. In both cases, specialisation resulted in a food crisis, because they stopped producing food crops (Noda, 2007). Specialisation in the floodplains region led, in most cases, to a reduction in the available amount of resources and the level of self-sufficiency of farmers and gatherers (Noda et al, 2006), who have tended to return to diversified systems.





Fisherman preparing fishing hooks with *Carapa guianensis* seeds (Andiroba tree) as bait, Jutaí Reserve, Amazon Jungle *Photo: Diego Cardona Calle* Woman preparing fish collected with bait of *Carapa guianensis* (Andiroba tree), Jutaí Reserve, Amazon Jungle Photo: Diego Cardona Calle

2 Challenges

2.1) What is a forest?

riends of the Earth has adopted the following definition of a forest: 'An ecosystem located in several or different areas of the planet (natural or semi-natural, primary or secondary, tropical or non-tropical, dry, semiarid or in humid areas) within a territory. A functional unit that is not limited by any scale or space unit, which is structurally diverse, whose main elements are plants, but where animals and inert elements are also an essential part of the system. In addition, forests should be considered not only as the result of a biological process, but also as a construct, since human groups (local communities / forest peoples) are an integral part of forests and therefore there are social, cultural, economic and spiritual elements associated to them' (Friends of the Earth International, 2008).

A forest is then the home and livelihood — the means to meet the needs — of peoples and local communities inhabiting them. This refers directly to material needs including water, food, housing, wood for structures and furniture, medicine and others; which is no small concern, given the fact that over 1.6 billion people inhabit and directly depend on forests. But beyond supplying the means to meet physical requirements, forests are also territories where the knowledge and culture of these peoples are acquired and created, and where they evolve; they also provide protection, wellbeing and make sovereignty possible.

We stress that forests are not only the result of natural evolutionary processes, but also the product of interactions and interventions by human beings. The domestication of landscapes is irrefutable proof of this, which can even be seen in the largest equatorial forest, the Amazon forest (Universidad Nacional de Colombia, 2006). There, agricultural societies have even created soil -Indian black earth — where they established vast cropping areas (Mann, 2005) that are still currently used for cultivation of plant species that those very same societies have domesticated, such as cassava (Manihot esculenta) or chontaduro (Bactris gasipaes).

Analysis of the connections, synergies and challenges between CFM and agroecology

common denominator among forest peoples, in terms of importance, is the supply and production of food through hunting, fishing, gathering and growing crops. Forests are thus a place for agroecology and as is demonstrated throughout this document, they are indispensable for its evolution. There are hundreds of food products that are derived from forests and the applied knowledge of communities living in them, which are consumed by them and in urban centres around the world: cassava, palm hearts, avocado, chestnut, honey, nuts, chontaduro, açaí, fish and wild meat, among others.

In inter-tropical America alone, Patiño (2002) reports 433 fruit species which can be consumed as fresh fruit or by cooking them, including cultivated, protocultivated, protected and even wild species. The amount of animal protein coming from forest areas is also significant; as an indication, freshwater fish production in the Brazilian Amazon in 2009 amounted to 166,473 tons (Ruffino & Roubach, 2011), which was more than the fresh water fish consumption in Italy in the same year at 160,398 tons (FAO, 2017).

To further elucidate the relationship between CFM and agroecology, it is worth highlighting research on food products sourced from forests, such as cassava (Manihot esculenta, Crantz), which are now essential components in the diets of millions of people on different continents. Together with rice and maize, cassava is considered one of the main sources of calories for over 600 million people who depend on their consumption in Latin America, Asia and Africa (FAO, 2002). Cassava is today the basis of the diet of indigenous peoples and other rural peoples in the Brazilian Amazon forest, but it is also key in rural and urban areas in various other parts of the world (Martins, 2001; Peroni, 2004). This species, native to the Amazon plains (Martins, 2001), is one of the best examples of plant populations domesticated by Amerindian peoples, in a process that dates back 3,000 to 4,000 years (Peroni, 2004); as a result, the species currently has thousands of ethnovarieties. Such contributions by forest peoples to plant genetic diversity, distribution and propagation also occur in connection to forest tree species, including



the populations of Andiroba — *Carapa guianensis* — which is a tree species with over 15 reported uses, most importantly oil for medicine and seeds as bait for fishing (Cardona, 2012).

These contributions by forest peoples are possible since agriculture is in many cases their main activity. This condition was discovered by Bastos (2007) in the basin of the Amazon River and by Silva and Begossi (2004), who concluded that agriculture is the main activity of rural populations along the Rio Negro river in the Amazon forest, with 90% of families practising it. In these cases, food production involves intricate levels of political and community organisation, because it takes place in collective territories, with primacy given to the common good rather than to individual ownership, and within a framework of self-identification as farmers, peasants, gatherers or the like, rather than regarding themselves as producers. Even though surpluses are exchanged or commercialised, this is done mainly to meet other household or community needs, rather than in the interest of profit or accumulation.

Depicting the true scale and huge numbers of people and families carrying out agroecology in



Pressing of *Manihot esculenta* (cassava) to extract toxins and produce sub-products, Jutaí Reserve, Amazon jungle *Photo: Diego Cardona Calle*

Woman toasting *Manihot esculenta* (cassava) for preparation of Farinha (flour) - basic food of the local communities of the Amazon basin, Juataí Reserve, Amazon Jungle *Photo: Diego Cardona Calle*

the framework of CFM is relevant to highlight and restate their importance for the right to food. 'Approximately 2.5 billion people in poor countries live directly from agriculture — farming crops and livestock or relying on forestry or fisheries — and 1.5 billion people live in smallholder households.(They) still produce more than half of the world's food supply' (Holt-Giménez & Shattuck, 2011). Among these billions of people, we find millions who produce not only for their communities, but also contribute to feeding populations around the world.

In Sub-Saharan Africa, a region with a high concentration of the continent's forests, 'agriculture accounts for 30–60 per cent of the GDP and employs over 60 per cent of the workforce' (Carrau, 2015).

Lastly, CFM and agroecology also share needs or challenges, one being the need for and current lack of clarity in terms of land rights and rights over the territory, given that these initiatives translate into tangible practices in concrete spaces or places. Land tenure security and clarity about ownership rights have been identified as the two main conditions related to success of CFM experiences (Pagdeea, 2006).

Tt has already been said that agroecology and CFM are thought and action. In the previous chapters we have stated what we think and theorise about the issue. Now we will focus on the practices and actions supported, joined or directly implemented by Friends of the Earth International to make our proposals a reality that exists and stands in opposition to the hegemonic model imposed through agribusiness, destructive logging or sustainable forest management initiatives.

Palm oil monoculture plantation, Quepos, Costa Rica Photo: MShieldsPhotos

2 Analysis of the implications of the official definition of forests used by FAO to carry out and strengthen CFM and agroecology

n its 15-year strategic framework, FAO establishes its mission as 'contributing to build a food-secure world for present and future generations' (FAO, 1999). To that end, it advocates helping its membership in several specific tasks that, as will be argued, are difficult if not impossible to comply with, given its own definition of forests, for these and other reasons:

'Land spanning more than 0.5 hectares with trees higher than 5 metres and a canopy cover of more than 10 per cent, or trees able to reach these thresholds in situ. It does not include land that is predominantly under agriculture or urban use' (FAO, 2010). Basically, this includes any set of trees, leaving aside considerations of the social, cultural or spiritual dimensions that are inherent to forests.

To fulfil the abovementioned mission, FAO intends to assist its members with the list of actions mentioned below in quotes (FAO, 1999).

Help 'reduce food insecurity and rural poverty'. But logging forests and replacing them with tree monoculture plantations increases hunger and poverty among the peoples living in the affected territories, given that they lose sovereignty over the territory, their livelihoods and access to food production or food gathering. Such deforestation and substitution is made possible and facilitated by FAO's definition of forest, since a set of trees will still be there in place, which is FAO's only condition to name something a forest.

It also intends to help 'ensure an enabling policy and regulatory framework for food and agriculture, fisheries and forestry'. As long as that definition of forests is upheld, the regulatory framework will continue favouring forest, timber and pulp paper companies, at the expense of the CFM and agroecology practices mentioned above which should be given priority to ensure food sovereignty and safety. Forest peoples cannot grow, gather, fish or hunt in a pine or eucalyptus monoculture plantation, both for physical and biological reasons and due to restrictions on access, once a commons and the common good are replaced by private property.

It wants to help 'conserve and enhance the natural resource base'. Logging and deforestation result in the simplification and elimination of natural resources and biodiversity, with severe implications, including impacts on endemic species and water. Therefore, instead of helping to preserve and enhance, the promotion of plantations under FAO's definition of forests is destructive.

In addition, the low cover and density percentages in FAO's definition facilitates and make it easy for healthy forests in good conservation conditions and with high densities and cover to be exploited by timber companies or illegal loggers, without that implying any kind of problem for FAO. That is because under this definition, they would continue being considered and reported as forests, despite the degradation brought by this practice, which is currently very common.

Helping to 'generate knowledge of food and agriculture, fisheries and forestry' is yet one more of the FAO strategies. Communities cannot live inside plantations, and they cannot apply or further develop their traditional knowledge on the territory and its commons in the framework of the sustainable forest management projects implemented by forestry companies for timber extraction. Therefore, in this latter context, the knowledge linked to CFM and agroecology is becoming increasingly eroded. The protection of traditional knowledge is a right under Article 8j in the Convention on Biological Diversity, and it can only be protected inasmuch as the practice is protected, given that its most basic feature is that it is not static — it is maintained and enhanced through daily practice. And this praxis occurs in a given territory, so if rights over that territory are not secured, it will be difficult to maintain these types of communal practices.

The simplification, degradation, logging and destruction of forests promoted by FAO's definition takes place everywhere around the world. In South Africa and Brazil, millions of hectares of ecosystems have been turned into eucalyptus monoculture plantations, while in the Colombian Andean mountains, pulp paper multinationals burn forests which are the source of water for fresh water delivery systems (Broderick, 2007).

It should be kept in mind that the draft document that is guiding the process of the Committee on World Food Security — Sustainable forestry for food security and nutrition — (HLPE, 2017) includes a specific chapter that discusses what planted forests are.

That chapter explains that this category mainly includes monocultures to produce timber, planting a small number of species in extensive areas. It also states that they hardly contribute directly to the provision of food, but that they can do so indirectly because they generate sources of income, employment and economic growth in those places where they are established (HLPE, 2017). This rationale favours deforestation, destruction and loss of biodiversity — it is in fact the source of the problem because it promotes that forests can be logged to make way for plantations. But beyond the ecological dimension of the problem generated, there are social, cultural and economic damages involved, given that the sources of income and economic growth are enclosed and concentrated in the hands of the foresty companies, not benefiting the local populations, which much to the contrary, must witness how their livelihoods and household economies are being eroded.

To insist on considering palm monoculture plantations as a solution, which is the approach of the draft document, and not as one of the causes of the problem raised here, will not allow progress to be made in improving the situation.

Lastly, even though the FAO's official definition excludes palm oil plantations, a number of these projects in the global South have argued that they are forests, for instance in Indonesia. Palm oil monoculture plantations, which are now recognised as not being forests, have similar features to any other monoculture plantations (pine, eucalyptus, etc.), which should also be excluded from the definition.

NAPE, the national member of Friends of the Earth in Uganda, has been working for several years with indigenous peoples and small-scale farmers who were expelled from their lands and lost their livelihoods when vast areas of tropical forests were destroyed to establish oil palm plantations in the Kalangala islands (NAPE, 2017).

In 2016, NAPE and the affected small-scale farmers submitted a complaint to another UN institution, the Social and Environmental Compliance Unit (SECU) in the UNDP, so that it would investigate the activities of Bidco, the company creating the plantations on Kalangala. Multiple irregularities and lack of compliance were found, as well as disputes derived from accusations of land grabbing, deforestation, failed labour regulations and tax payment issues. These threats have not been properly described, or followed up satisfactorily by the UNDP (NAPE, 2017).



Children playing in one of the communities in Jutaí Reserve, Amazon Jungle *Photo: Diego Cardona Calle*

Children eating fruits of *Euterpe oleracea* palm (Açaí) collected by parents, Jutaí Reserve, Amazon Jungle *Photo: Diego Cardona Calle*



(2.3) A critique of the land-sparing mechanism

Why intensive agriculture is a false solution to hunger and forest protection

he production generated under the agribusiness model of intensive agriculture does not provide a solution to hunger on the planet, nor does it protect forests.

The goal of intensive agriculture is making profits, not ensuring the right to food, so it is therefore unlikely that it will be able to contribute to the latter. First, a major part of the production from this type of agriculture is not food meant for direct human consumption. A big share of its crops is planted to provide feed for animals that are earmarked for meat production, which is accessible only to a small fraction of the world's population. This is the case with most of the soy coming from Brazil and Argentina.

Yet another meaningful percentage of agribusiness production is dedicated to other ends than food consumption, and it is therefore impossible that such products would contribute to ending hunger. Sugar cane and oil palm production are well known for their high technological level; however, millions of hectares planted with these species are dedicated to agrofuels (ethanol or agrodiesel) or as inputs for industries such as cosmetics; thus, that produce ends up in car tanks, on dressers and in beauty salons, not on the tables or dishes of the people who are suffering from hunger around the globe.

In the case of food crops for human consumption, there are clear limitations in terms of access to them by millions of people living in rural areas, who are the most affected by hunger. Production and commercialisation chains give priority to sales and distribution through huge supermarket corporations or megastores that are concentrated in urban areas, and thus far away from the population who require food, not only in geographical, but also in economic terms, because prices impose yet another barrier for access to food.

Lastly, there are cultural obstacles. From the point of view of food sovereignty, people should have access to quality food in sufficient amounts, but also in culturally appropriate conditions. This element is crucial, because the imposition of changes in peoples' diets does not guarantee people will consume those diets and meet their nutritional needs.

Currently, nothing is further from reality than assuming that intensive agriculture contributes to forest protection. A look into the forest assessments of most countries, especially those where the most biodiverse forests are concentrated, shows that the agroindustry is a major direct cause of deforestation. The expansion



Young boys preparing over 100 fishing hooks with *Carapa* guianensis (Andiroba) seeds as bait, Jutaí Reserve, Amazon Jungle *Photo: Diego Cardona Calle*

of large-scale cattle ranching and agriculture, including intensive agriculture, cuts down millions of forest hectares each year to clear land for agribusiness production. 'Large scale commercial agriculture is responsible for approximately 40% of deforestation in tropical and subtropical areas... however, there are substantial variations depending on the region: for example, commercial agriculture accounts for almost 70% of deforestation in Latin America' (FAO, 2016).

On this matter, it is necessary to clearly identify those responsible for this situation, and to avoid putting the blame on small-scale food producers. Impoverished farmers in the global South lack access to the kind and amount of resources including capital, machinery and workforce invested to clear-cut forests and generate large-scale land use changes.

Approximately 470 million small farms, 85% of which have less than two hectares, produce over 50% of the global food demand (Holt-Giménez & Shattuck, 2011). Therefore, family farming is not the main party responsible for the increasing rates of deforestation, given that peasant and indigenous families or local communities can hardly increase the size of the areas where they practise agriculture. On the contrary, one of the main problems they currently face is displacement and loss of lands, within a broader context of territorial sovereignty loss.

(2.4) A critique of the protected areas model

Forests under community management are better quality: Another model is possible with more justice

A li forests that are currently included in conservation programmes, payment for environmental services, or degradation prevention schemes, among other programmes, enjoy desirable conservation features that have been reached within the framework of CFM. There are always people or a local community linked to a given territory. Therefore, rather than spending time and resources on inventing external conservation strategies, priority should be given to the permanence of its inhabitants and their land use management practices that have proven to be efficient and adequate, in addition to legitimate and less expensive.

Scientific evidence shows that ecosystems in indigenous peoples' and local communities' territories are healthier and of a better quality than in areas protected under official programmes such as national parks.

Costa Rica is a clear example of how territories under indigenous peoples' management maintain better biodiversity conditions. These have on average a higher and a better-quality forest cover (primary forests, in contrast with secondary or degraded forests) than the rest of the national territory and even more than national wildlife protected areas (Friends of the Earth, 2015).

A comparative analysis, based on satellite images, showed lower deforestation rates in territories under CFM (0.24%), in contrast to protected areas under absolute protection regimes (1.47%). Forty protected areas and 33 CFM territories were compared in Latin American, African and Asian countries. The authors recommend integrating regional conservation strategies with CFM initiatives (Porter-Bolland *et al.*, 2012).

On the other hand, if other conservation strategies such as REDD are considered, evidence shows they involve serious risks, while the results of areas under territorial control by communities continue to be better in terms of protection.

Friends of the Earth Mexico has been working with local communities and indigenous peoples in Chiapas State, the Lacandona forest and Montes Azules, where the government has implemented REDD projects. The analysis provided

by them is really enlightening about the risks, weaknesses and impacts of such projects. REDD+ first ventured into this area in 2010, based on a memorandum of understanding signed between the States of California (US), Acre (Brazil) and Chiapas (Mexico), within the framework of the Governors for Climate and Forests (GCF) Task Force. As a result of this memorandum, the 'Pact for the respect and conservation of the Lacandona Forest' was established in Chiapas, whereby the state government compensated 1678 communal owners or 'legitimate owners' of the forest for its conservation (Otros Mundos AC / Friends of the Earth Mexico, 2017). 'The pact expired in 2013, leaving in its wake multiple community conflicts, public debts and denunciations' (Castro, 2012), all of which led the institutions originally backing it to disregard this initiative as part of REDD+.

Despite this failure, the impacts on the local population and the negative message sent to the international community showing that REDD has no real potential to truly protect forests, an Early Action Area REDD+ programme and four carbon credit trade projects are still running in Chiapas.

Based on these and other analyses that we will not refer to here due to their length, one can conclude that the notion that considers communities as a threat to conservation and on that basis, justifies the implementation of protected areas and REDDlike projects could be wrong — on the contrary, communities themselves are the best guarantors of the protection of their territories. The main direct causes of deforestation and degradation of forests such as the Amazon are to be found in the political/ economic model and its development policies, including land speculation along the inroads, city growth, increasing cattle ranching, exploitation of timber and family farming (recently mechanised agriculture) linked to soybean and cotton cultivation (Fearnside, 2003, Alencar et al., 2004 and Laurance et al., 2004).

On the basis of this evidence, CFM could be a key instrument to take into consideration as part of national strategies to stop deforestation, instead of resorting to market strategies such as REDD, which have proved to undermine rights and sovereignty, in addition to being neither effective nor efficient.



(3.1) Notions of territory and general overview of various types of land tenure

ollective rights and access to commons were mentioned as common principles, on the basis of the clear knowledge that territory is one of these commons and should be managed under the control of peoples and communities.

Millions of people coexist in communal territories, indigenous peoples being the first that come to mind, but they are not the only ones. Fisherfolk communities, gatherers, pastoralists and peasants organise themselves around systems linked to the concept of territory, that is, a vision that goes beyond the idea of land that can be owned as private property. The territory implies deep feelings and values towards the place where culture and knowledge are acquired and created, where life is recreated.

We highlight the peasant initiatives in the northern area of Costa Rica, supported by Coecoceiba, the national Friends of the Earth member group in that country, where hundreds of families united several decades ago to inhabit and protect common territories under the principles referred to here as CFM and agroecology: diversity, community autonomy, effective participation of women,



Agroforestry system *Manihot esculenta* (cassava) with *Carapa guianensis* (Andiroba), Jutaí Reserve, Amazon Jungle *Photo: Diego Cardona Calle*

foundations of traditional knowledge, and production based on respect to nature and the parallel management of areas dedicated to the protection of forests.

Decisions in that context are taken in the framework of the procedures established by the communities themselves and their organisations, which rather than becoming weakened over time, have becomestronger through the incorporation of more families. Rights such as access to public services and education are managed by the communities themselves. The health of the ecosystems involved, which in some cases have been restored by the population itself, does not require private intervention (Coecoceiba, 2012; Coecoiba & Ascomafor, 2014). Most of these communities face the threat of expansion of agribusiness pineapple monoculture plantations, but their ability to maintain themselves away from those developments is a testimony to the possibility to live under different and diverse models.

It is often argued that communities lack the capacity to manage their territories when the areas under their control are considerably extensive, thus justifying state intervention or the introduction of the privatisation model. Indonesia provides a clear example of the opposite being true. WALHI/Friends of the Earth Indonesia supports community-based management processes known as Peoples Forests Systems on several Indonesian islands. Following years of work on strengthening community organisation and production inside the forests and their protection, while carrying out advocacy on State institutions at the same time, in November 2016 the Indonesian government announced the allocation of 12.8 million hectares of forests to be managed by the communities inhabiting them. some of which were land occupations that had reached a successful level of management.

This recognition of the rights of forest peoples in Indonesia ratifies the viability and legitimacy of territorial care and management in the hands of communities. Millions of people inhabit forests in Indonesia and live around them, regarding them as a common heritage that provides them the necessary livelihood, while they are protected amid the hostile environment of permanent pressure from oil palm monoculture expansion. The peoples are organised around deep cultural roots, and food production inside the forest is based on traditional knowledge, with priority given to meeting the needs and preferences of the population.



3.2) Women's autonomy

he goal is to position CFM and agroecology as initiatives for the protection of forests and to ensure food sovereignty and security, but some basic conditions need to be met for this to become a reality, among them the recognition of the role of women and the strengthening of their autonomy.

The values and principles underpinning CFM and agroecology fully integrate the proposal of building women's autonomy. Both initiatives advance a new relationship among human beings, and between them and nature, involving social relationships without oppression, exploitation or inequalities between men and women. This requires transforming certain power and dominance conditions, among them the patriarchal system.

The capitalist and patriarchal system organises and regulates the work of women and men according to the sexual division of labour, profiting from the non-remunerated and turned-invisible caregiving work done by women in their homes and communities. Most women take on roles related to social reproduction, while at the same time they participate or are responsible for agricultural/forest production, management and/or transformation. For instance, cassava cultivation is carried out worldwide by peasants, but especially by women (FAO, 2002). In certain regions of the Amazon forest, cassava production and agriculture in general are tasks that are shared between men and women, with an indispensable vision of complementarity (Cardona, 2012), though women continue being responsible for the care-related work in the home, including the children, the sick and the community in general.

It is a well-established fact that agroecological initiatives are more often led by women than by men. However, forest management or agricultural production projects that are thought to benefit communities frequently end up being controlled by men. At the same time, access to land is not commonly recognised for women as a right, with severe implications in terms of land titles or ownership, which makes women much more vulnerable and dependent in relation to what is produced and how, restricting their access to and enjoyment of the benefits this could bring.

That restriction is aggravated in the framework of the green economy and financialisation of nature projects, further undermining the rights of women. How does this happen? In that context, natural heritage is transformed into capital, which is then traded in the market. But to sell something, this something must have an 'owner'. It seems natural



to think of a male owner when speaking of owners, because land rights tend to be allocated to men, not to women, thus deepening the gap that everything from sustainable development goals to international binding treaties seek to bridge. Such privatisation also erodes the very notion and sense of the commons, which are essential to any agroecological or CFM initiative. To the extent that the exploitation and control of territories and natural heritage through capital increases, so does the exploitation and control of women's work and lives. Both these 'resources' are at the same time indispensable and considered limitless and flexible in the process of profit accumulation.

Friends of the Earth also works for and on the basis of economic justice, and solutions grounded in this need to meet the needs of peoples and improve their wellbeing under conditions of equality (Friends of the Earth, 2017). Equality means recognising and transforming power relationships — including gender, class, race/ethnicity, sexuality, etc. operating within peoples' systems, and it involves recognising differentiated needs amongst peoples, especially the needs of women, given the scale of violations of their rights and autonomy. Men and the State should take responsibility for and share with women the reproductive and care tasks in family and household, given that this sexual division of labour restricts women's autonomy both economically and politically in the public sphere.

'Public policies should ensure services that are inclusive and non-discriminatory, and that respond to the needs of women', and other marginalised sectors (Friends of the Earth, 2017).

We campaign to value and safeguard women's singular knowledge and to increase its visibility, as well as to ensure it is applied so that it remains valid and continues evolving. We highlight the millenary knowledge and management skills women possess about natural, forest and agricultural heritage including water, seeds, uses, processing, harvest times and more. It is therefore crucial to value and strengthen women's leading role and to generate conditions for the participation of women in all stages and decisions related to forest management or agroecology.

Women organise themselves in their communities, building on a proposed agenda for solidarity economies, agroecology and forests management based on 'an ethical perspective of social and environmental justice that requires the distribution of household work, caregiving and management of production, and a life without violence erected on respect and equality. This implies ensuring the right of women to fully participate in the social and political life of their communities, as well as securing their access to land, water, seeds, and production/ commercialisation conditions with autonomy and freedom' (Women WG of ANA, 2015).

(3.3) Local markets and social & solidarity economies

he transformation of economy is one of the focuses and aims of Friends of the Earth. To that end, the Economic Justice Resisting Neoliberalism Program gathers actions and proposals from national groups, suggesting paths towards the desired change, working in collaboration with valuable allies.

Proposals in that regard — under construction within the Federation — include two that are closely linked to CFM and agroecology: 1) Supporting local markets, and 2) Creating economies of purpose: valuing and measuring the wellbeing of people and planet (Friends of the Earth, 2017).

Local and agroecological production of food and other goods eliminates unnecessary transportation that involves high carbon emissions, while providing culturally appropriate and sought-after products that meet the specific dietary and nutritional requirements of the population. This also means a bigger share of income is reinvested in the local economy, instead of being transferred away from local economic circuits, as generally occurs in the presence of transnational corporations.

Regarding the creation and promotion of economies of purpose for the wellbeing of people and territories, the synergies with women's autonomy as explained under heading 3.2 — are remarkable. Under this framework, the work carried out by women is dully recognised, not only in economic terms but also symbolically. And with the same perspective, the wellbeing of territories and the commons is assessed as a function of them not being sacrificed for accumulation and profit interests.

Several Friends of the Earth groups are participating in concrete transformation initiatives that promote local markets. SAM/Friends of the Earth Malaysia promotes production in agroecological and agroforestry systems, where men and women participate on equal terms in the post-harvest and commercialisation processes, while identifying singularities such as the production of forest-based handcrafts by women, which strengthen the social cohesion of their communities (SAM, 2017).

In Costa Rica, communities organised themselves to defend the forest against pulp and paper companies and submitted a counter proposal to the government to maintain the ecosystem — to protect the trees still standing and make use of the fallen wood. After four years, nearly 18,000 m3 of precious wood had been used, generating almost three million dollars for the communities' economy. Over 50% of the use permits were granted to women (Baltodano, 2012).

In Colombia, the FoEI member group CENSAT promotes CFM both in practical and political terms among peasant communities in Santander department, and they in turn participate in the Buen Vivir (living well) market. This is an initiative by the Fundaexpresión foundation, whereby families that are members of the Peasant and Community Reserves Collective grow agroecological food much of it within the forest reserves — including honey, shade-grown coffee, fruits and flowers that are directly sold by the families in the closest provincial capital city.

The radical difference that these types of initiatives represent is that the market — both in its time and space dimensions — pursues not only economic goals but also social, cultural and especially a political goal, inasmuch rural and urban communities meet and interact, discuss and share their ways of living, and in that manner contribute to strengthening the links and dialogue between the countryside and the city.





Agro-ecology project centre in Sarawak, built by communities using natural forest resources, supported by SAM/Friends of the Earth Malaysia Photo: SAM/FoE Malaysia

Indigenous woman from the Sungai Buri Residents' Association in Sarawak planting pineapples on her land using natural farming methods *Photo: SAM/FoE Malaysia*

3.4) Territorial control

ontrol over the territory has already been highlighted as one of the essential principles and conditions for CFM and agroecology initiatives. This control should be maintained and nurtured wherever it exists, and work needs to be done elsewhere to generate conditions whereby peoples or local communities can make independent decisions and control the necessary means to implement them.

This is not a novel political proposal that needs to be tried, but a right that has been increasingly undermined and that needs to be reclaimed and recovered. For decades, numerous researchers have focused on studying communities that govern their forests and territories adequately and effectively, ensuring their continuity without any kind of external interference (Ostrom, 1990).

Generally, 'the participation of communities that use the forests in forest governance institutions is strongly associated to positive results in terms of forest biodiversity conservation and improved quality of life for the communities' (Persha, 2011). With opposite results, centralised governance systems that take control of functions and power weaken traditional institutions and threaten CFM.

It is therefore necessary to strengthen and generate conditions for territorial control by the communities, through concrete and sufficient actions, such as the one recently announced by the Indonesian government recognising and allocating almost 13 million hectares of forest land for CFM by the people who inhabit them. This initiative is discussed under heading 3.1.

Yagua man crosses bridge, Amazon Jungle, Peru Photo: Mark Green

Communit

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Goats are used to reclaim pastures or meadows invaded by bushes, Switzerland *Photo: Pro Natura / FoE Switzerland*

Collecting hay the traditional way on mountain meadows inaccessible by machines, Switzerland Photo: Pro Natura / FoE Switzerland

3.5 Valuing traditional knowledge

FM and agroecology can work in a sustainability framework, mostly determined by the ecological knowledge of inhabitants about the spatial distribution of resources and the ways to use and manage them (Hanazaki, 2003).

Traditional knowledge has shaped forests, landscapes and territories, and it has allowed agriculture to evolve. It is estimated that approximately two-thirds of secondary plant growth areas derive from itinerant or shifting cultivation management practices, an activity on which 250–500 million people depend (Pedroso et al., 2008). The actions of humans in this type of agriculture, which are totally different from those in agribusiness, have an important role in the structural and historical dynamics of landscapes where they take place (Clement, 1999). For this reason, places such as Amazonia are not only the result of independent biological processes, but of the actions and transformations by the peoples inhabiting them.

During the crop domestication processes carried out by traditional communities, the populations of the species that are cultivated and selected over time feature broad intra-specific diversity, which means a greater amount of varieties and thus better chances of adaptation and agricultural success. These varieties are considered a cultural artefact of communities, and are therefore referred to as ethnovarieties (Peroni & Martins, 2000).

Due account must be taken of the fact that culture and knowledge are not static, and that current

populations also create and innovate. In that sense, current restoration proposals enter into dialogue with local communities to recover highly important areas. The Swiss Alps have suffered transformations that have led to the disappearance of almost 95% of the low-nutrient dry pasture lands that were one of the most biodiverse ecosystems in the region. This area is now covered with bushes that have replaced that diversity.

Over the last 10 years or more, Pro Natura/Friends of the Earth Switzerland has been promoting a series of projects to restore these ecosystems, while recovering them as suitable areas for agriculture. Local governments and small-scale farmers participate in the projects, with interests ranging from economic to sentimental or spiritual reasons. The process begins with a selection of places based on environmental and economic criteria. where bushes that have invaded the area are then eliminated with the help of domestic animals used in the region, especially goats. Current follow-up monitoring of the projects shows the recovery of biodiversity in the areas restored, with insect populations returning or increasing their numbers (Vonlanthen & Sansonnens, 2017).

SAM/Friends of the Earth Malaysia runs a capacitybuilding centre where communities teach and learn by applying their traditional knowledge on agriculture, which is supplemented with new agroecological proposals and methods (SAM, 2017). In this way, in addition to keeping and applying traditional knowledge, interaction and generation of new knowledge is promoted.

4 Conclusions and recommendations

Porests should be viewed and considered in all their dimensions, breaking away from reductionist approaches that value them as carbon reservoirs. Forests must be recognised and protected as essential spaces for food sovereignty and security of humankind, not only as supply sources, but as sites for the evolution of biological and cultural processes that hold off genetic erosion and extinction of plant and animal species used as food.

The implementation of policies and projects must secure and ensure the food sovereignty and security of forest peoples, rather than supply foreign markets. The goal is to guarantee not only timely and adequate access to culturally appropriate food, but to secure the integrity of peoples in cultural, organisational, political and economic terms, avoiding the negative impacts analysed in this document, especially those caused by the promotion of specialisation in production.

Various researchers have made detailed analyses of the problems faced by human populations that depend on forests, among them Hanazaki (2003). This researcher recommends that the socio-economic problems of these populations, who directly depend on biodiversity and participate in its protection, should be considered in conservation initiatives. These must be based on the realities, needs and expectations of the local communities responsible for the management of their own territories, not on impositions from markets or foreign agents, as is generally the case. National policies and strategies for forest management should include CFM as an important component to stop deforestation and protect the peoples and cultures inhabiting forests. There is sufficient evidence and scientific recommendations in this regard, on which State policies and decisions should be based regarding protection and conservation strategies. This would not only contribute to more efficiently meet the goals of reduction of deforestation and forest degradation, but would at the same time guarantee and respect the rights of peoples who are members of those States.

groecology should be promoted and receive the necessary stimulus for its consolidation. It should be supported with appropriate public policies — given that it is based on the family, and it is precisely peasant, indigenous and small-scale family farming that supply over 80% of food at the global level (FAO *et al,* 2015) — instead of being sacrificed for the benefit of agribusiness.

Tt is crucially important to support initiatives for the recovery of traditional knowledge and practices, because in many cases peoples have lost a part of them due to various situations. The Nyéléni declaration (2007) highlights the struggle for the 'recognition and respect of women's roles and rights in food production, and representation of women in all decision-making bodies'. This struggle needs to be developed in all spaces and community processes, including the management of commons within the framework of CFM. Dismantling all forms of control and domination including patriarchy, and building autonomy for women must be transformational goals in all external proposals (policies, projects), but also within communities, social movements and grassroots organisations themselves.

To modify FAO's definition of forests is a matter of urgency. As is easily understood and has been widely researched and explained, plantations and especially the destruction of forests that are replaced by tree monoculture plantations are a threat that undermines both CFM and agroecology. Plantations destroy the biological and genetic heritage that exists in forests in terms of food, while they eliminate traditional cultures and knowledge that allow for the evolution of agriculture and the domestication of species. In addition, there are also political impacts in terms of sovereignty and territorial control, resulting from the adoption of this definition.





Photos from the top:

Residents of Ujat Bato Longhouse in Long Pilah, Sarawak at the nursery they have prepared with saplings *Photo: SAM/FoE Malaysia*

Jungle and River in Jutaí Reserve, Amazon Jungle Photo: Diego Cardona Calle

Collecting hay the traditional way on mountain meadows inaccessible by machines, Switzerland *Photo: Pro Natura / FoE Switzerland*

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