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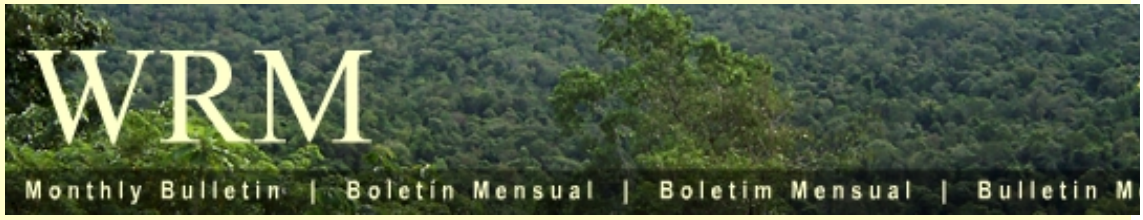

WORLD RAINFOREST MOVEMENT

THE FOCUS OF THIS ISSUE: ENVIRONMENTAL SERVICES

Introduction

In view of the upcoming Rio+20 conference,(*) taking place this June, WRM would like to offer some background information on issues that will undoubtedly be at the top of the agenda of this international event. Among those issues are so-called *environmental services* and related phenomena, such as *payments for and trade in environmental services*.

The reason we have decided to address these issues is because many people consider them to be extremely complex, as is also the case with similar subjects such as REDD, REDD+ and the "carbon market". But are these subjects really that complex? Or are they perhaps presented in an overly complex manner so that the majority of the public does not attempt to understand and discuss them, leaving this task to the so-called "experts"?

We firmly believe that *environmental services* and related phenomena should be discussed by everyone, especially since the official agencies involved in the preparations for Rio+20, primarily the United Nations (UN), place key emphasis on them. These agencies maintain that the continued provision of *environmental services*, supplied in large part by rainforests, and the future *trade in environmental services*, are crucial for humanity, and that the only way to protect these *environmental services* is to *put a price on them*. But what lies behind this viewpoint, and what are its implications, particularly for communities who live in and depend on forests?

This article is aimed at answering these questions, because *trade in environmental services* will have major consequences, since it implies the deepening of the processes of the commodification and financialization of nature. It will mean an unprecedented advance of neoliberalism over "natural capital", through the privatization of nature and the application of the principle of ownership rights to so-called *environmental services* in rainforests and other ecosystems.

It is important to note, as well, that the defenders of the idea of *environmental services* claim that tree plantations, referred to as "planted forests" by their promoters, also play a strategic role in the provision of *environmental services*, such as carbon storage, energy, maintenance of the water cycle and preservation of biodiversity.

Happy reading!

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* - The United Nations Conference on Sustainable Development, which will be taking place exactly 20 years after the Earth Summit held in Rio de Janeiro in 1992.

"Environmental services" and the promotion of the commodification (1) and financialization (2) of nature: Forests, tree plantations and the "green economy"

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1. What are "environmental services", "payment for environmental services" and "trade in environmental services"?

The term *environmental services*, also known as *ecosystem services*, includes the noun "service", a term that is widely used in the capitalist market economy, in which companies and professionals provide and charge for a wide range of services. Therefore, *environmental services* suggests that there is, on the one hand, something or someone that offers or provides a service, and on the other, someone who receives or uses it. This logic also seems to apply to the case of *environmental services* and their "trade".

However, there is something that distinguishes *environmental services* from other services. They are not "provided" by a person or company, they are simply "supplied" by nature, and at no charge. The defenders of *environmental services* point to the example of forests which, due to their dense vegetation, are able to "store" and "produce" the *environmental service* of water, which, in turn, guarantees the supply of water for an indigenous community living in the forest or a small village nearby. This seems to imply the transformation of nature into some sort of "water factory"! And as we will see later, there are many corporate interests linked to this process.

U.S. biologist Gretchen Daily, a proponent of the idea of *environmental services*, defines them as "the conditions and processes through which natural ecosystems, and the species that make them up, sustain and fulfil human life." She argues that *environmental services* guarantee the biodiversity of ecosystems and result in "goods" such as timber, food and medicinal plants which, in turn, are transformed into products essential for human life (3).

Other authors (4), from Europe and the United States, refer to "environmental functions", not thinking solely in terms of "services provided" to human beings but rather essential "functions" for the maintenance of life on the planet, such as:

- Regulation functions: These refer to the capacity of ecosystems to regulate essential ecological processes and life support systems These functions supply many beneficial services directly or indirectly to human beings, such as clean water and air, fertile soil and

services directly or indirectly to human beings, such as clean water and air, fertile soil and biological pest control.
- Habitat functions: These are related to the function of natural ecosystems in providing shelter and the conditions for reproduction to wild plants and animals, thus contributing to the maintenance of biological and genetic diversity.
- Productive functions: Natural processes of growth, absorption of carbon dioxide (CO2) and nutrients from the soil, and production of biomass, resulting in many different foods, raw materials for many different uses, and sources of energy for communities.
- Information functions and others that include opportunities for reflection, spiritual enrichment and recreation.

Payments for environmental services means that someone pays a certain amount of money, a price, for a certain *environmental service* that is provided. Obviously, nature – for example, a forest that "stores" and "produces" water – does not have a bank account where it can receive money in exchange for "providing" this "service". And this is why defenders of the idea of *environmental services* maintain that there needs to be someone or some institution that can receive the payment, always on the condition that they are the "owner" of the forest in question, and also someone prepared to buy the service in question, thus creating the basis for *trade in environmental services*.

Although there are many other ecosystems aside from forests, such as savannahs, natural grasslands and oceans, forests are without a doubt the main ecosystem targeted in projects involving *payment for and trade in environmental services*, as demonstrated by proponents of the idea. This is due to the forests' tremendous wealth of biodiversity and, as a result, the large number of "services provided", such as the conservation of water and the absorption and storage of carbon, among others.

Within these forests, there are hundreds and thousands of people, forest peoples, who completely depend on them for their physical and cultural survival. A woman from the community of Katobo, located in the forest in the Walikali territory of the Democratic Republic of Congo (DRC), describes what the forest means to her in this way:

We are happy with our forest. In the forest we gather wood, we plant crops, we eat, it provides everything, vegetables, all kinds of animals, and that allows us to live well. That is why we are very happy with our forest, because it allows us to get everything we need. And we the women especially need the forest because that is where we find everything we need to feed our families. When we hear that the forest could be in danger, it worries us, because we could never live outside the forest. And if someone told us to leave the forest, we would be very angry, because we can't imagine a life that is not in the forest or next to it. When we grow crops we have food, we have agriculture and also hunting, and women catch crabs and fish in the streams. We have different types of vegetables, and also edible plants from the forest, and fruit, all kinds of things that we eat, which give us strength and energy, proteins and everything else we need.(5)

However, the idea of *environmental services* differs greatly from the vision expressed here. *Trade in environmental services*, as a business transaction between a seller and a buyer, is a market mechanism in which nature is transformed into quantifiable units, into tradable "goods" or "assets", sometimes referred to as "certificates" or "securities". What's more, it presupposes the idea of profiting from this "trade", and of being able to destroy environmental services in one place as long as there is corresponding "protection", "recovery" or "improvement" in another to "compensate". Therefore, *trade in environmental services* is radically different from the way in which forest peoples have always valued forests.

This is why it is worth analyzing how the idea of *environmental services* emerged.

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1 - By "commodification of nature" we mean the process of carrying out commercial and business transactions with the goods of nature, whether through the extraction of concrete elements like timber or bottling mineral water, or through the marketing of more abstract components of nature, such as biodiversity, soil fertility, carbon, scenic beauty, the habitat provided by forests for different species, etc.

2 - By “financialization of nature” we mean the process by which speculative capital takes control of the goods and components of nature, marketing them through certificates, credits, securities, bonds, etc., seeking to obtain the greatest profit possible through financial speculation.

3 - Daily, G, 1997. Introduction: What Are Ecosystem Services? in Daily, G. (ed.), *Nature'sServices:SocietalDependenceonNaturalEcosystems*, Island Press, Washington D.C. *Information gathered from the Glossary prepared for the EJOLT course on EcologicalEconomicsandPoliticalEcology,coordinated by the Autonomous University ofBarcelona.*
4 - de Groot, R., 1994. Environmental functions and the economic value of natural ecosystems. In: A.M. Jansson, (ed.), *InvestinginNaturalCapital:TheEcologicalEconomicsApproachtoSustainability*, Island Press, pp. 151–168.; de Groot, R., M. Wilson, R. Boumans, 2002. A typology for the classification, description and valuation of ecosystem functions, goods and services, *EcologicalEconomics*, 41, 393-408. *Information gathered from the Glossary prepared for the EJOLT course on EcologicalEconomicsandPoliticalEcology,coordinated by the Autonomous University ofBarcelona.*

5 - WRM, “Forests: Much more than a lot of trees”. Video, www.wrm.org.uy, 2011

2. How did the idea of “environmental services” emerge?

To understand the emergence and development of the idea of *environmental services*, it is important to consider at least two crises that hit the industrialized countries of the North, particularly the U.S. and Europe, especially hard in the 1970s: the environmental crisis and the crisis of the capitalist economy.

It was during the 1970s that situations of extreme pollution and environmental degradation began to arise in many countries of the North, the most industrialized nations, but also to a considerable degree in countries of the Southern hemisphere. Scientists and environmentalists began to issue warnings about the exploitation and use of natural resources like timber, minerals, oil, clean water, etc., which were considered limitless up until then, as well the pollution and degradation suffered by the environment as a result. In other words, they warned of the limits of the predatory exploitation of nature and its “wealth”.

This was directly linked to unprecedented levels of production and consumption of industrialized goods, above all in the capitalist countries of the North, whose economies, based on fossil fuels like oil, experienced spectacular growth in the 1950s and 1960s, leading mass consumption to rise exponentially in those countries. It should be stressed that this has been and continues to be the case for only a small minority of the human population, at the expense of the majority of the population living in the South. And while the countries of the North were faced with an environmental crisis, this also occurred, or even to a greater extent, in countries of the South, where the exploitation and extraction of natural resources was (and continues to be) concentrated. The communities who lived around these areas and were dependent on these resources for their survival were the hardest hit by the environmental crisis.

The first to react in response to this crisis were biologists in the North, concerned with finding a way to preserve the environment and reverse the process of degradation. Working within the prevailing logic of the liberal economy, they began to attribute to nature the role of a provider of “ecosystem services”, based on the idea that it was necessary to place greater value on nature in order to save it. Later, at the end of the 1970s, this idea was adopted by a group of capitalist economists who introduced the concept of “ecosystem services” or “environmental services” into the economy, estimating the value of these services at between 16 and 54 trillion U.S. dollars a year (6).

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The idea of assigning value to nature by placing a price on it, in other words, the *pricing* of nature, was very well received by conservationist organizations eager to obtain more resources to expand preservation areas: “It’s time to recognize that nature is the largest company on Earth working for the benefit of 100 percent of humankind – and it’s doing it for free,”(7) declared Jean-Cristophe Vié, deputy head of the IUCN Species Programme. The IUCN, the leading global network for nature conservation, brings together different stakeholders, such as governments and NGOs, and is financed by governments, bilateral and multilateral agencies, member organizations and corporations (8).

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(6) Sullivan, Sian, “Green Capitalism, and the Cultural Poverty of Constructing Nature as Service Provider”. In ´Upsetting the Offset´, Böhm, Steffen and Siddhartha Dabhi (eds), London, MayFlyBooks, pp. 255-272
(7) Ibid.

(8) www.iucn.org/about/

The Tragedy of the Commons

The literature on *environmental services* frequently refers to “The Tragedy of the Commons”, an article by Garret Hardin published in 1968, which is used to justify the need to fence off and privatize nature in order to keep it from being depleted. In Hardin’s view, people’s use of nature is disastrous because, despite the individual benefit derived from this use, it will eventually result in the destruction of the “commons” or shared resources. A limited world can only support a limited number of people, or else the natural world will end up being destroyed. These views have been used as one of the main pretexts for blaming local traditional communities for the destruction of forests and for justifying their expulsion from them, while genuinely destructive activities carried out by big companies and landholders in the name of “progress” and “development” are allowed and even supported.

However, as Fairlie et al. point out (9), Hardin referred to a determined area of nature, such as a forest, subject to open access by all, with no rules for its use defined among the people using it. However, this is not typical in the majority of the countries of the South and even in places in the North. Throughout history, up until today, in many rainforest and other ecosystem areas around the world, the communities who lived in and continued to live in these places traditionally have free access to the forests and the rivers, with all of their wealth, which they use for their survival, but in accordance with a shared understanding and rules, which can be quite simple or sometimes rather complex, involving many aspects. In this sense, these areas are neither private nor public.

What we see happening in the world is a process, which began long before Hardin’s article, of the growing enclosure of these communities, of groups of people who traditionally made free use of the forests, the rivers, the seas, and are gradually being incorporated into the market, the dominant economic system that seeks to gain control over “natural resources” – timber, minerals, oil, etc. – in search of profits, wreaking destruction along the way. The idea of *environmental services* appears to be one more step in this direction.

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(9) Fairlie, Simone et al, “Reclaiming the Commons”, The Cornherhouse, http://www.thecornerhouse.org.uk/resource/reclaiming-commons, 1995

In the 1970s, the expansion of the process of the privatization of nature was considered an excellent solution, both by conservationist NGOs, concerned for the survival of forests and other ecosystems and in search of resources for this purpose, and also by the main capitalist governments of the North, headed up by the United States, who were seeking new ways of generating profits during a time of economic crisis. They sought solutions that could help overcome the crisis and benefit their big corporations. This was also the time of the beginning of the growth of speculative capital, which has gained increasingly greater ground in the globalized economy since then.

Speculative capital

In 1944, as the Second World War was coming to an end, a monetary agreement signed by the world's most powerful capitalist countries in the U.S. town of Bretton Woods established that, from that point forward, the U.S. dollar would be the international reserve currency. This meant that the dollar would serve as the standard currency for all commercial and financial transactions among nations. However, in order for this to be possible, the U.S. central bank would have to maintain gold reserves equivalent to the volume of dollars issued. In this way, the currencies of the other countries would have fixed parity with the dollar, which would be directly convertible to a fixed amount of gold, thus guaranteeing the financial backing of all international transactions from then on.

However, in the early 1970s, due to the fall in profit rates for big U.S. companies, the U.S. government decided to terminate the convertibility of the dollar to gold. This meant the end of the international monetary system based on the gold standard. Until then, the money in circulation was primarily productive capital, or rather, capital resulting from concrete productive activities, such as industrial production and agriculture. But from that point on, an ever greater share of "money" began to circulate in the form of so-called speculative capital, capital that is aimed at generating profits but without contributing to production, for example, through stock markets, foreign debt "securities" and interest on these "securities", etc. Strangely, even though no concrete productive activity is involved, the profits obtained in this way are considered real within the international financial system, and big capitalist operators like banks and corporations succeeded in raising their profit rates once again, albeit through speculative activities (10). Today, the total value of speculative capital, made up of stocks, bonds, and other types of tradable instruments or securities, is several times greater than the value of productive capital. This is the logic of earning money "without doing anything". The growth of speculative capital is closely linked to the rise of neoliberalism, with its policies of privatization and a free market economy, although the state continues to play a very active role for the benefit of big companies. Policies of explicit support for private enterprise contributed significantly to the growth of the billion-dollar debts accumulated by the countries of the South, as well as increased exploitation, extraction and privatization of "natural resources". And it is the populations of these countries that have paid a heavy price for all this.

In recent years, financial speculation has taken ever greater control over the economy, including by way of environmental services, seeking to create new "natural commodities" that can then be "traded". This could be described as a growing process of "financialization" of nature, which was strongly motivated by the latest economic-financial crisis in 2007-2008. As a result of this crisis, instead of a move by governments to regulate financial markets, there has been increased interest in "diversifying investments", for example, by investing in environmental services but also in other areas, such as the land market. This is why financial market experts are devoting much more time to finding ways to

Why financial market experts are devoting much more time to finding ways to incorporate *environmental services* into financial markets, in search of new profits (11).

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(10)Carcanholo, Reinaldo A. and Paulo Nakatani, ´Capitalismo Especulativo e Alternativas para América Latina´, http://www.rosa-blindada.info/b2-img/Klismoealternativas.pdf

(11) Tricarico, Antônio, "The ´financial enclosure´ of the commons´, http://www.un-ngls.org/gsp/docs/Financialisation_natural_resources_draft_2.pdf, 2011.

3. How can a price be placed on "environmental services", and who benefits?

How can the price of *environmental services* be established? How can it be determined, for example, what the "storage" and "production" of water is worth, or the pollination "work" done by insects? This has been a major obstacle for those who have sought to promote *environmental services* and their "trade".

Two initiatives were of key importance in finding ways to price these "services":(12)

1. The Millennium Ecosystem Assessment (http://www.maweb.org), supported by the UN and published in 2005, involved the work of over 1,300 researchers. The study concluded that over half of the world's environmental services are in decline or are being used unsustainably. The assessment (13) resulted in an exponential increase in studies on how to price environmental services and put this subject on the agenda of biodiversity preservation.
2. The Economics of Ecosystems and Biodiversity (TEEB) (http://www.teebweb.org) was another crucial initiative in the framework of the "green economy" initiative launched by the United Nations Environment Programme (UNEP) in 2008. TEEB was aimed at creating a means, a methodology, for determining the economic value of biodiversity. It attempts to resolve what is considered as merely a "market failure", that is, the destructive treatment by free-market capitalism of the "common goods" of nature in search of profits up until then. In economic terms this is called the "externalization" of environmental costs. The way in which nature is treated within the capitalist system could lead to its total destruction, in line with Garrett Hardin's reasoning, as discussed earlier. However, this new proposal, developed within the same market logic, is not merely aimed at the preservation of nature, but rather at turning it into a business and even a means of justifying destruction in other places. TEEB and its logic were well received in the Convention on Biological Diversity (CBD) Strategic Plan for the period 2011-2020, which includes targets for the protection of different ecosystems (14).

The TEEB study leader was not a biologist or an environmentalist, but rather a banker, Pavan Sukhdev, an executive from the Deutsche Bank of Germany, who also addressed the question of the economic valuation of biodiversity for the World Economic Forum in Davos (15). He has referred to biodiversity as "a new million-dollar market" (16).

The main logic underpinning the monetization of *environmental services* is that payments for these services can compensate for so-called "opportunity costs". This economic term refers to the *cost of something in terms of an opportunity foregone*(17). For example, defenders of *environmental services* suggest that the cost of the preservation of a forest area as a national park could be established on the basis of the price of the timber that cannot be sold if the choice is made to preserve the forest. What is striking is that, in this example, the "next best alternative" foregone is an "alternative" that forms part of the prevailing system of production

and consumption, as well as one of the direct causes of the destruction of rainforests.

But while the cost of timber can be rather easily calculated within the logic of the market, it is obvious that the costs of the "production" of water by forests, the "shelter" offered by the forest to certain species, or the "creation" of the beauty of a river or landscape are much more difficult or even impossible to calculate. Even the defenders of *environmental services* recognize this.

Up until now, the so-called *environmental service* in which the greatest advances have been made by proponents of the idea, and which is best known, is the "service" of carbon storage, which has already led to the creation of the phenomenon known as the "carbon market".

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12 - Information gathered from the Glossary prepared for the EJOLT course on Ecological Economics and Political Ecology, coordinated by the Autonomous University of Barcelona.

13 - The report on this assessment addresses nature in terms of the language of "environmental services", dividing them into "provisioning services" (food, water, timber, fibres, etc.), "regulating services" (climate regulation, water regulation, etc.), "supporting services" (soil formation, nutrient cycling, etc.), and "cultural services" (non-material benefits such as recreation and spiritual enrichment). The aim is to financially quantify increasingly scarce services in order to motivate their preservation, while creating new marketable "assets", and thereby, economic growth.

14 - Terra de Direitos, "Pagamento por 'Serviços Ambientais' e Flexibilização do Código Florestal para um capitalismo 'Verde'", www.terradedireitos.org.br, August 2011

15 - An annual meeting of powerful capitalist business and political leaders that led, more than ten yeas ago, to the organization of the World Social Forum as an anti-capitalist counterpoint.

16 - Riberio, Silvia, "As novas fronteiras da mercantilização da natureza". In: *LeMondeDiplomatiqueBrasil*, 5: 53, December 2011

17 - pt.wikipedia.org/wiki/Custo_de_oportunidadeEm cacheSimilares

The "marketing" of carbon

The signing of the Kyoto Protocol in 1997 officially ushered in the market for the *environmental service* of carbon storage. Under the Protocol, the industrialized countries that are required to meet emissions reduction commitments were given the option of continuing to pollute while "offsetting" their carbon emissions by contributing to emissions-reduction projects in so-called "developing" countries of the South, under the Clean Development Mechanism (CDM). On the basis of the Kyoto Protocol, in 2005 the European Union established the Emissions Trading Scheme (EU ETS).

One of the main problems with this alleged "offset" mechanism is that while the carbon dioxide molecules emitted through the burning of fossil fuels by industries in the North may perhaps be identical to the carbon dioxide molecules stored in, for example, a tree plantation in Africa, they are climatologically different. The carbon dioxide emitted by the burning of fossil fuels in the North increases the total amount of carbon being exchanged between the atmosphere, the biosphere (trees, plants, soils) and the oceans. The end result is more carbon and thus the exacerbation of the environmental and climate crises. The carbon market has therefore emerged as a major distraction from the real problem, thus further delaying a real solution: leaving oil and other fossil fuels underground, since their

extraction and burning is by far the main cause of the problem (18). Moreover, in the European Union, for example, although a target was set for the first phase of the EU ETS (2005-2007) of a one to two percent reduction in emissions, emissions by the industrial sector actually increased by 1.9 percent during that same period (19).

In parallel to official initiatives in the framework of the Kyoto Protocol, a so-called "voluntary" carbon market has also developed, involving initiatives between two parties, for example, companies that plant trees in the South, and companies in the North interested in purchasing credits generated through the carbon supposedly stored by these trees.

With regard to forests specifically, the 2007 international climate conference in Bali saw the official launch of the REDD (Reducing Emissions from Deforestation and Forest Degradation) mechanism, which was subsequently followed by REDD + and REDD++. This is another mechanism linked to the *environmental service* of carbon storage by forests, created as a supposed solution to the current climate crisis. But REDD, like the CDM, is based on the "offsetting" of emissions and the sale and purchase of carbon credits. As a result, REDD projects not only fail to provide a solution to the climate crisis, but also provoke serious impacts on local communities, including restrictions on their use of the forests and even their expulsion from their territories (20).

Another problem with REDD and CDM projects is that the monitoring and "accounting" of the "assets" involved – the amount of carbon stored – require increasingly larger sums of money, benefiting a handful of consulting firms who supposedly measure something that is impossible to measure precisely (21).

The "carbon market" has developed more than markets in other *environmental services* due to the relative importance placed on the climate crisis internationally. This is reflected in the large number of conferences held to address the climate, primarily the meetings of the Conference of the Parties to the UN Framework Convention on Climate Change, or COPs. The latest of these meetings took place in Durban, South Africa late last year. However, as experience has shown, the "carbon market" is highly problematic and will not contribute to resolving the climate crisis, but rather, quite the opposite.

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18 - WRM, "From REDD to HEDD", www.wrm.org.uy
19 - Kill, Jutta et al, "Carbon Trading: how it functions and why it is controversial", FERN, http://www.fern.org/sites/fern.org/files/tradingcarbon_internet_FINAL.pdf, 2010

20 - www.wrm.org.uy . See the section on REDD

21 - http://noredd.makenoise.org/wp-content/uploads/2011/09/NOREDD-letter_21sept.pdf

In practice, we find different forms of *payments for environmental services* or *PES* arrangements. Supriya Singh presents the case of two communities in India as an example of PES "from the bottom-up". In this case, the villages of Kuhan and Ooch, in the Indian Himalayas, reached an agreement on the *environmental service* of water. To ensure the supply of water for their farming activities, the residents of Kuhan had built a small dam on a creek running through the village, but the reservoir soon began to fill up with silt, greatly decreasing its capacity. It was determined that most of the silt was coming from the village of Ooch, located upstream, and was caused by the soil erosion resulting from intensive cattle grazing. Under the agreement reached between the two communities, the village of Ooch banned cattle grazing on its common land for eight years, and in return, the village of Kuhan paid them for this sacrifice, and also paid for the planting of tree saplings to combat erosion. In both villages, the entire community participated in the process, and the agreement was

discussed by everyone (22). Unlike the studies mentioned earlier, which are aimed at the quantification and valuation of *environmental services*, in this case there was no need to calculate the "units" of the "service" provided. Instead, there was a mutual agreement aimed at the recovery of water resources through the solution of an environmental problem impacting one of the two villages. It is quite likely that this type of mutual arrangement at the local level is nothing new in the history of human settlements and their use of nature.

What is new is the emergence in recent years of *environmental services* projects involving trade in *environmental services on a global scale*. These do not directly involve local communities, but rather other actors, such as companies, consulting firms, private banks, investment funds, large conservationist NGOs, and even governments, which view this as a new "business" opportunity and profit-maker. In these cases, the guarantee of the "provision of *environmental services*" is outsourced to a bank, a conservationist NGO or a private firm, which preserves a determined area and thus determined *environmental services*, which can then be sold to other investors or companies, or used to justify destruction elsewhere. The underlying logic is that the money helps to preserve forests but is also an investment. The way in which the profits will be divided is established in an agreement (23).

One example is the Malua Wildlife Habitat Conservation Bank (MWHCB) in Malaysia, which was granted a 50-year licence for conservation rights to a forest reserve. The Bank resolved to split the area up into 100 m2 blocks and began to sell "Biodiversity Conservation Certificates". The saleable "asset" under this scheme is thus "100 m2 of rainforest restoration and protection". According to the bank, the sale of certificates is intended to "make rainforest rehabilitation and conservation a commercially competitive land use." It is projected that the initial 10 million U.S. dollars invested in the rehabilitation of the reserve over the first six years will be recovered through the sale of the certificates, and will also endow a trust fund, the Malua Trust, to finance long-term conservation management over the remaining 44 years of the contract. Any profits from the sale of the biodiversity certificates are to be shared between the Bank and the investor. In this case, the preservation of this forest area does not constitute an offset against rainforest destruction elsewhere, as is the case with "carbon market" projects (24).

22 - Singh, Supriya. "Payments for Ecosystem Services (PES) in India from the bottom-up". Published in *DowntoEarth*, CSE's fortnightly online magazine.

23 - It is important to note that companies that offer *environmental services* also account for something referred to by economists as "transaction costs", which are the costs required to "measure" whether the services being "marketed" are in fact being conserved and can thus be "delivered". In the case of the *environmental service* of carbon storage, these are referred to as monitoring, evaluation, reporting and verification costs, and they tend to be high, since they involve specialized technicians and technologies.

24 - Sullivan, Sian, "Green Capitalism, and the Cultural Poverty of Constructing Nature as Service Provider". In *UpsettingtheOffset*, Böhm, Steffen and Siddhartha Dabhi (eds.), London, MayFlyBooks, pp. 255-272

"Payments for environmental services" – An offset mechanism? A speculative activity?

At first glance, *PES* initiatives might appear to be different from carbon trade mechanisms like CDM and REDD+, in the sense that they do not necessarily serve to "offset" environmental degradation or pollution elsewhere. Perhaps this is why *PES* is widely considered a "nice" approach, because it "recognizes" the "efforts" of nature and does not seem to involve trade, or destruction and pollution in other places.

However, it is becoming increasingly evident that this approach will in fact involve trade mechanisms, and that the resources needed for *PES* projects will be largely mobilized through (multinational) companies that practice destructive activities and either want to or are obliged to do something to offset that destruction. If these

and either want to or are obliged to do something to offset that destruction. If these companies acquire areas of land on which they plan to conserve nature and sell *environmental services* such as biodiversity, they could use these "marketable" services to compensate for their own destructive activities, like mining or oil drilling, and/or sell them in the form of "credits". In fact, the previously mentioned TEEB itself considers the possibility – or in business jargon, the "opportunity" – for using *environmental services* as an offset mechanism for environmental destruction.

In order to manage this new "business", a whole new profession has been created: "commercial conservation asset managers" (25). The legal foundations for *PES* as an "offset" mechanism are being created in numerous countries. In Brazil, for example, the Congress is currently debating reforms to the Forest Code, the law that regulates forest management, which could include an amnesty for landowners who have illegally deforested areas on their own properties under the stipulations of the current Code. In return for this amnesty, they would be required to compensate for this deforestation through the protection of intact forests. In the meantime, the first transactions on the new Bolsa Verde or Green Exchange in Rio de Janeiro will be negotiated during Rio+20. The initiative is being headed up by Pedro Moura Costa, a consultant with many years of experience in the carbon markets sector. While the new exchange will initially be devoted to the trade of "carbon credits", the idea is to eventually include other "assets" such as "reforestation". Moura Costa has commented: "The Forest Code is obliging landowners to meet the requirements for legal reserves (areas of forest that must be preserved on private landholdings). Will it be cheaper to create the reserves or to buy credits on the exchange?" (26)

As the logic of "offsetting" destruction through trade comes to play an increasingly greater role around *environmental services*, this could easily lead to perverse schemes in which financial profit always prevails. For example, a mining company could, on the one hand, hold "shares" in nature conservation through *PES* or REDD+ projects, which impact on forest peoples by restricting their access to areas designated for "providing services" under PES and REDD+ requirements. On the other hand, the same company could continue with its destructive mining activities in the same region where these forests are located, thus generating even further impacts on the forest peoples, and yet be able to advertise that it is "compensating" for its environmental impacts through forest conservation. Finally, the company could also sell any "carbon credits" or "environmental services certificates" that are "left over" after doing the "accounting" of its preservation versus destruction. These credits or certificates could be sold to another company in, or example, the United States or Europe, which in turn needs to "offset" an increase in its polluting activities – activities that negatively affect nearby communities, who are often from sectors of the population that face the most precarious living conditions, such as indigenous peoples or black communities in the United States and Canada.

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25 - Ibid

26 - http://radarrio20.org.br/index.php?r=site/view&id=229995

To capitalize on this growing wave of *trade in environmental services*, numerous specialized firms have emerged in recent years, with names like Ecosystem Marketplace, Species Banking and Canopy Capital. In 2008, the Canopy Capital investment firm and a related environmental alliance known as the Global Canopy Programme (GCP) signed an agreement with the Iwokrama International Centre for Rainforest Conservation and Development in Guyana. Under this agreement, Canopy Capital will pay for the protection of a rainforest area for five years in exchange for "ownership" of forest ecosystem services and a claim in any future profits. The "saleable assets" include carbon values or certificates and possibly rainfall, water storage, soil conservation, biodiversity, climate buffer and watershed values. This project is meant to serve as a "best practice" model for Canopy Capital, which could eventually lead to the creation of a profit-driven "global market in ecosystem services". What is not clear is

how benefits will be shared between Canopy Capital, Iwokrama and local communities, as the agreement remains confidential (27).

A number of major global conservation NGOs have also become key actors in the promotion of these new business markets. Organizations like Conservation International (CI), The Nature Conservancy (TNC) and the World Wide Fund for Nature (WWF) defend *PES* as a necessary means of generating and distributing the finance needed for conservation activities. CI, for example, has launched a web-based technology called ARIES (Artificial Intelligence for Ecosystem Services) offered to users worldwide to "assist rapid ecosystem service assessment and valuation at multiple scales, from regional to global." (28)

In order for *trade in environmental services* to function properly, legal regulations will be needed to define the rules of the game. In some countries of the North, such as the United States and the United Kingdom, there are already regulations for certain areas (29). In different countries of the South, laws and programmes are being developed, often with the assistance of "development cooperation" agencies and banks, like USAID, KfW and GTZ in the case of Ecuador (30), as well as international NGOs. In the state of Acre, Brazil, internationally recognized for its advances in the introduction of *trade in environmental services*, Law 2.308 was passed on November 22, 2010 by the state legislative assembly, with no public input whatsoever. Drafted with the assistance of the U.S.-based NGOs Woods Hole Research Center and Forest Trends (31), the law established the System of Incentives for Environmental Services and various incentive programmes for these "services". The first article of the law states that it is aimed at "promoting the maintenance and expansion of the supply" of *environmental services*, such as carbon storage, conservation of natural scenic beauty, biodiversity, water, etc. Article 6, sole paragraph, foresees instruments to "establish a stable institutional arrangement" in order to ensure a "climate of trust for investors." Legislation to regulate *trade in environmental services* is also being studied at the national level in Brazil.

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27 - Griffiths, Tom. "Seeing ´REDD´? : Forests, climate change mitigation adn the rights of indigenous peoples and local communities", updated version, May 2009. Forest Peoples Programme

28 - Sullivan, Sian, "Green Capitalism, and the Cultural Poverty of Constructing Nature as Service Provider". In ´Upsetting the Offset´, Böhm, Steffen and Siddhartha Dabhi (eds), London, MayFlyBooks, pp. 255-272

29 - Tricarico, Antônio, "The ´financial enclosure´ of the commons´, http://www.un-ngls.org/gsp/docs/Financialisation_natural_resources_draft_2.pdf, 2011.

30 - http://www.accionecologica.org/servicios-ambientes/documentos-de-posicion-de-a-e/1411--redd-significa-perdida-de-derechos-colectivos

31 - Governo do Acre, "Sistema de Incentivo a Serviços Ambientais", http://www.ac.gov.br/wps/wcm/connect/fc02fb0047d011498a7bdb9c939a56dd/publica%C3%A7%C3%A3o_lei_2308_ling_PT.pdf?MOD=AJPERES

4 - Monoculture tree plantations and trade in environmental services

Companies that promote monoculture tree plantations for the production of pulp, charcoal, timber and other purposes have attempted to ride the wave of the growth of *PES* by claiming that their plantations also provide *environmental services*.

Anyone walking through a eucalyptus plantation would have to wonder what kind of "service"

Anyone walking through a eucalyptus plantation would have to wonder what kind of "service is being provided by an area that is full of nothing but a single type of tree, with no other plants, no animals, and is managed with conventional agricultural practices like the widespread use of toxic pesticides and chemical fertilizers.

Nevertheless, these companies have successfully managed to sell the idea that their plantations absorb carbon. One example is the Plantar company, based in Minas Gerais, Brazil, which in 2010 succeeded in having its carbon project, based on monoculture eucalyptus plantations, officially recognized as a CDM project under the Kyoto Protocol, despite countless criticisms (32). Other Brazilian eucalyptus plantation companies have "sold carbon" through the Chicago Climate Exchange (CCX), a voluntary carbon market. FACE Foundation of the Netherlands has established tree plantations in Ecuador in order to "sell carbon", causing serious problems for local communities and the local environment (33). European companies are also actively pursuing the "carbon trade" in Africa, such as Green Resources of Norway, which is promoting plantations for this purpose in countries like Tanzania, resulting in major social, environmental and economic impacts (34).

In the meantime, these companies and their allies are now seeking to present evidence that their plantations also offer other *environmental services*. In doing so they have a major advantage in their favour: FAO continues to use a definition of the word "forest" that allows monoculture tree plantations to be classified as forests. In order to capitalize on this advantage, studies are being carried out to demonstrate that monoculture tree plantations, if they are "well designed", can also provide other "ecosystem goods and services" such as clean water, habitat for animals and firewood as a source of energy. They are also working on developing ways to price these "services" provided by plantations (35).

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32 - http:// www.wrm.org.uy/countries/Brazil/LetterPlantarCDM.pdf
33 - See publication "carbon sink plantations in the Ecuadorian Andes", www.wrm.org.uy

34 - Karumbidza, Blessing and Wally Menne, "CDM carbon sink plantations in Africa: a case study in Tanzania", Timberwatch, 2010

35 - Bauhus, Jürgen, et al. Ecosystem Goods and Services from Plantation Forests. CIFOR, 2010

5. The "environmental services" debate and Rio+20

There has been a lot more talk recently about *environmental services*, especially in connection with preparations for the Rio+20 conference, taking place this June. To understand this, we should briefly address the central theme of this conference: the concept of the "green economy".

The term "green economy" comes up a lot in news about Rio+20. It sounds like a good thing, but it is important to understand that this is a proposal that has emerged in the context of a deeply capitalist economy. The main capitalist economies are facing a major financial-economic crisis, which has become particularly acute in the last few years, and in seeking ways to overcome the crisis they are searching for alternatives that will allow their companies to accumulate capital and increase their profits once again, on the basis of productive but also speculative activities – in other words, to make money "without doing anything".

The UN, through UNEP, its environmental programme, is playing a key role through its Green Economy Initiative, including the TEEB study, discussed above, and the 2011 report "Towards a Green Economy". The initiative also gave rise to the so-called Green New Deal, adopted by the United States and other countries, which is presented as a "win-win" approach that tackles both the economic-financial and environmental crises, by redirecting investments to so-called "natural capital", as well as new, supposedly clean technologies (such as those based on biomass) and the "carbon market".

In this context, *environmental services* and their trade have taken on key importance as a veritable pillar of the "green economy". The result, according to Silvia Ribeiro of the ETC

Group, which is monitoring and researching this process, is "greater commodification and privatization of nature and ecosystems, through the integration of their functions (defined as 'services') into financial markets." (36)

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36 - Ribeiro, Silva: ´As novas fronteiras da mercantilização da natureza´, em Le Monde Diplomatique Brasil, Ano 5, nr. 53, dezembro de 2011

6 - Why should we say no to "trade in environmental services"?

Defenders of the idea of *trade in environmental services* claim that it is an excellent alternative for forest peoples, because it would leave the forest "standing" and ensure its conservation. But there are a series of reasons for saying no to *environmental services* and *trade in environmental services*:

- *Trade in environmental services* does not attempt to change the current model of production and consumption which is the root cause of the environmental crisis, including the gradual destruction of the world's forests. This model benefits a small minority of the world's population, at the cost of countless social and environmental injustices. To change this model, it is urgent to begin the transition to other models of production and consumption that are more socially and environmentally just, to defend what the international network Oilwatch has long stressed, to "leave the oil in the soil".

- The commodification and financialization of nature through *trade in environmental services* requires **territorial control**, privatization, so that the "owner" and even the buyer of the "service" can monitor what is being "traded", to ensure that the *environmental service* is delivered in full accordance with the terms of the contract. In practice, this works against the struggles for the recognition and guarantee of land rights of communities who live in the forests and/or other ecosystems. This is because an *environmental services* contract always stipulates that there is an "owner" of the area involved, which means that many **communities with unregulated rights to their territory will suffer even greater pressure to leave their lands or will be evicted**. And even if they manage to stay and to benefit in some way, the "buyer" of the *environmental service(s)* will have the right to enter the area for the stipulated inspections and monitoring to verify that the "service" in question is being duly preserved and maintained, violating these communities' rights over their territories and even their right to maintain their way of life.

- Despite the claims of conservationist NGOs that forest peoples will benefit from *trade in environmental services*, in practice they benefit very little. On the contrary, **the general tendency is greater poverty and the expulsion of communities from their lands**. The experience of one of the countries best known worldwide for its *PES* programme, Costa Rica, shows that this programme has not reduced poverty in the rural areas involved, despite having consumed 25% of the budget of the Ministry of Environment, according to Friends of the Earth Costa Rica. In addition, the reduction in deforestation seen in Costa Rica owes more to the decrease in the profitability of cattle raising than to the *PES* programme (37).

- Traditional knowledge cannot be treated as an *environmental service* and traded on the market. There is already an international instrument that addresses this issue, the Nagoya Protocol to the Convention on Biological Diversity (CBD) (38).

- Up until now, the most commonly "traded" of the *environmental services* provided by forests is carbon storage. **Experience with trade in this *environmental service* through the "carbon**

market" demonstrates that it is a false solution to the climate crisis, and moreover, it has resulted in the violation of the rights of indigenous and non-indigenous peoples both in the South and in areas near polluting industries in the North (39).

- The expansion and global adoption of *PES* and *trade in environmental services* will **deepen the commodification and financialization of nature**.

- Although cloaked in a conservationist discourse, *PES* will tend to **increase the exploitation of natural resources and consequent environmental degradation** which would be "offset" through the generation of marketable environmental services in preserved areas. Perversely, the scarcer an environmental service is, the higher its price and the more profits it generates.

- **The financialization of nature that makes it possible to "sell" and profit from "assets" and "certificates" derived from *environmental services* is illegal and immoral because it is based on the invented idea that nature would be "providing *environmental services*". What is not invented is the importance of forests for countless peoples**, for example, because of the diversity of animals and plants that forests shelter, the water they supply, their regulation of the climate, their fertile soil where food crops can be planted, etc. **It is impossible to put a price on all of this importance**.

- The measurement, monitoring and pricing of *environmental services* and the resulting commercial transactions require specific knowledge and **the tendency is for private banks, companies and corporations to control and profit from *trade in environmental services* while local communities are completely uninformed about these contracts and business deals**. This is a major incentive for economic groups who, due to the economic-financial crisis, are on the lookout for new ways of earning profits, and preferably "without doing anything".

- **The logic and functioning of *trade in environmental services* has been developed by scientists rooted in Western culture**, who continue to **fragment and separate human beings from nature**, focusing on the benefits of these "services" for human life. The vision and experience of forest peoples, however, are based on coexistence and integration with nature, which guarantees the welfare of both. This gives rise to other conceptions of nature, of "living well", of the rights of Mother Nature. When the value of *environmental services* is determined by placing a price on them, **this disregards other ways, other languages, especially those used by forests peoples, for valuing and conserving nature**.

- *Trade in environmental services* will serve as yet another incentive for the expansion of monoculture tree plantations, which are considered to be "planted forests" by FAO and other international agencies and national governments.

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37 - Friends of the Earth International Internacional. "REDD: The realities in black and white". 2010
38 - Terra de Direitos, "Pagamento por 'Serviços Ambientais' e Flexibilização do Código Florestal para um capitalismo 'Verde'", www.terradedireitos.org.br, August 2011

39 - See www.wrm.org.uy for more information on REDD, the Carbon Trade and Carbon Plantations

7 - Ways forward?

Speculative capital and the stakeholders involved, such as banks, consultants, big companies and investment funds, along with allies like NGOs and often our own governments, are

and investment funds, along with allies like NGOs and often our own governments, are attempting to use *trade in environmental services* to take control of peoples' lands in order to "sell" these services and make profits. This makes the struggle for the rights of peoples who depend on forests more complex and difficult.

How can this struggle be continued? Here are some possible steps to be taken:

- Many communities that live in forests, including peasant, traditional and indigenous communities, share the concern over how to preserve these areas, especially when they become more scarce and the need for land increases. Often they call on the state for support in guaranteeing the conservation of forests, which is a completely just demand.

The information gathered in this article indicates that instead of entering into schemes like *PES* and *trade in environmental services*, communities should gather as much information as possible about what the idea of *environmental services* and their "trade" represents, and discuss them with the whole community. This article is specifically intended to contribute to this kind of discussion.

And if governments spend public resources to help big companies and banks, the same money could also be used as part of public policies to help communities who want to preserve and recover their forested areas, with no need for transforming these efforts into perverse mechanisms like *trade in environmental services* which simply deepen the processes of the commodification and financialization of nature.

- A characteristic shared by *trade in environmental services* and the "carbon market" is the lack of transparency around these types of mechanisms. It is extremely important to demand, in your respective countries, information from the authorities and members of parliament about legislation already approved and being discussed in connection with these kinds of activities. In countries where legislation on *trade in environmental services* is being hastily developed, such as Brazil, there are clear contradictions with national constitutions – for example, when draft legislation proposes the privatization of something that is fundamental and open to free access by the entire population. In the state of Acre, Brazil, for instance, civil society organizations are calling on the Federal Public Ministry to declare the *unconstitutionality of State Law* 2.308/2010, which establishes the System of Incentives for Environmental Services.

- In almost all countries of the South, peasant agriculture suffers from a lack of support and public policies to maintain and strengthen it. This type of farming, which is also practiced in forest areas without posing a threat to their survival, has proven the possibility of coexistence and interaction between agriculture and forests. More support in the form of public policies for peasant agriculture would strengthen the food security and sovereignty of these populations and the regions where they live. Moreover, peasant agriculture already contributes, as demonstrated by La Via Campesina, to "cooling" the planet. But very often, instead of providing support to peasant farming communities, national governments finance and facilitate the introduction of *trade in environmental services*. This involves spending public money and sometimes taking on new debts with international financial institutions like the World Bank, which offer "incentives" for this new type of "trade". And once again, the burden is borne by the people.

- The growing commodification and financialization of nature highlights the importance of building broader alliances among those who oppose the international financial system, others who fight against the privatization of nature, and still others who fight daily to protect their territories and ecosystems.

- A broad and powerful alliance against the "green economy" is being built through the call for mobilization towards Rio+20 and beyond (40). The goal is to develop a collective agenda among non-governmental organizations and networks and social movements, including actions in solidarity with communities impacted by companies that take over and destroy their territories, as in the case of CSA in Rio de Janeiro, owned by the multinationals Vale and Thyssenkrup, or that pollute the seas and impact on fishing communities, such as the oil company Petrobrás. The call for mobilization also foresees the holding a People's Assembly

on the eve of Rio+20, where the voices of peoples affected by privatization and projects that cause environmental degradation can be heard.

- It is essential to continue and step up the struggle so that communities who preserve and depend on forests have rights and control over these areas. This means fighting for recognition of the rights of these peoples to their territories, something that is still non-existent or insufficiently enforced in many countries of Latin America, Africa and Asia. In countries where significant advances have been made, such as Brazil, there has been a tendency towards backsliding in terms of respect for the rights of indigenous and other traditional peoples, as the efforts to create a "global market in *environmental services*" gain ever greater momentum.

- We must continue to oppose and denounce capitalist financial speculation activities. Although the economic-financial crisis has primarily affected the world's biggest economies, almost all countries, and particularly their governments, continue to defend and form part of this system. However, throughout the world, there is growing protest and mobilization demanding profound changes, especially with regard to the ever increasing financialization of the economy, and also of nature, through the rising wave of privatization of everything that still remains public. This is why we must continue to fight against the expansion of the logic of speculative capital, to stop it from completely taking over areas crucial for the future of humankind, including rainforests.

We must all join together in denouncing the perversities and contradictions of this logic and its concrete impacts on our territories. We must support and strengthen the resistance of peoples around the world, to ensure first and foremost that their rights over their territories are guaranteed, and also to reverse the process of the privatization of nature, in the future as well, to guarantee free access to nature for the communities who have always made use of and preserved it.

As the Congolese woman quoted in this article declared, "We are very happy with our forest, because it allows us to get everything we need." And that is priceless.

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40 - http://wrm.org.uy/bulletin/173/Rio+20_and_beyond.html

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http://www.wrm.org.uy