COVID, forests and forest peoples

The implications of the pandemic for forest campaigns

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COVID, forests and forest peoples: 
The implications of the pandemic for forest campaigns

Author: Mark Gregory
Editor: Richard Wainwright
Cartoons: Chris Mackenzie (@cmtoons)
Design: Constantin Nimigean

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Introduction

It is often said that huge crises create opportunities for radical change that do not exist in normal times. But the opposite may also be true. At times of great stress when the stakes are high, it can be that everyone involved focuses narrowly on the immediate problem. Everything else goes out the window. Both of these contradictory tendencies are present in the current COVID-19 crisis.

There are a number of ways in which the pandemic at the macro level may have opened people's minds to the possibilities of doing things differently as regards the issues on most forest NGOs' minds. For example, as NGO and climate reports have noted, the lockdowns in the global north have led to huge cuts in carbon emissions and less air pollution as people stayed at home and businesses closed down. For a brief period in spring 2020, emission levels fell in the direction they need to fall every year for a decade or more to keep global temperature rises to 2 degrees. At the same time, there was talk of a desire to 'build back better' in the recovery process from the pandemic.

Moreover, the enormous amounts of money promised by governments to stimulate recovery opened the possibility that some of those funds would find their way to useful projects with benefits for climate, forests and forest peoples. Just as important, the size of the 'money tree' that governments rapidly conjured into being to prop up their economies has created the opportunity to question the argument that it is too expensive to seriously address issues like climate change: fixing the great planetary challenges becomes a matter of commitment and willpower, not a lack of resources.

Against these potentially positive developments, there are also many factors pointing in the opposite direction. After the start of the pandemic, it quickly became clear that environmental issues were not a top priority for governments, whatever their rhetoric. Much of the cash from huge national bail-out programmes in France and Germany, for example, went to hard-pressed, large, national companies, including airlines, with no environmental strings attached. Key commitments to extra spending on green issues included in the EU's originally proposed €750bn pandemic recovery plan were knocked out as part of a compromise deal with Member States. According to one estimate made in the early stages of the pandemic, only four per cent of the support and stimulus measures adopted by G20 countries to cope with the economic consequences of pandemic contribute to tackling climate change.1

This is short sighted even in narrowly financial terms, as uncontrolled climate change would have very serious economic impacts -orders of magnitude greater than coronavirus- and the point of no return is imminent.

This paper looks at the links between forests and various aspects of pandemic recovery. It is organised around five main themes. These are:

- **Forests** – both a source of zoonotic diseases and of resilience to them
- **Forests** – a source of jobs and business opportunities in the COVID response
- **Forests** – a defence against spiralling poverty
- **Forests** – their role in battling the climate crisis
- **Forests** – their role in battling biodiversity collapse

The paper ends with a section written by Fern staff, looking to the future and considering how forest NGOs should respond.

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1 Hepburn et al., May 2020: [https://www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-02.pdf](https://www.smithschool.ox.ac.uk/publications/wpapers/workingpaper20-02.pdf)
Forests
Both a source of zoonotic diseases and a defence against them

Summary: COVID-19 has caused global chaos but in the scale of things it is a relatively benign virus. The next pandemic may be worse and it is likely originate in a (degraded) forest. Protecting and restoring forests must therefore be seen as an important defence against zoonotic diseases.

The chaos and misery caused by COVID has focussed attention on the need to prepare for future pandemics with a zoonotic origin which may be even worse. (The terms zoonotic and zoonose refer to diseases that spread between animals and humans). COVID-19 probably came from bats, possibly via pangolins, with the process of transmission to humans facilitated by insalubrious conditions in Chinese markets that sell live animals. Numerous reports have drawn attention to the link between zoonotic diseases and the degradation of natural systems, particularly forests, two of which are described below.

A paper published in the journal Science² says that, on average, two new viruses of animal origin have entered the human population every year over the last century. This study points out that ‘tropical forest edges’ are a major launchpad for new viruses. Edges arise as humans build roads or clear forests for timber production and agriculture. Humans and their livestock are more likely to contact wildlife when more than 25 per cent of the original forest cover is lost,³ and such contacts determine the risk of disease transmission. Habitat fragmentation further complicates the picture, the study claims, because it increases the length of the forest perimeter in which contact between humans and potentially infected animals is made.

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² Dobson et al., Ecology and economics for pandemic prevention, Science, July 2020. [https://science.sciencemag.org/content/369/6502/379](https://science.sciencemag.org/content/369/6502/379)
³ The authors take this figure from: C. Faust et al., Ecol. Lett. 21, 471, 2018
“If we don’t urgently act to protect our nature, we may already be at the beginning of an era of pandemics”

– Ursula von der Leyen,
President of the European Commission
(referring to the role deforestation played in the Ebola outbreak as well as COVID)

The study also comments on the role of global demand for wildlife (often as exotic pets) and local demand for bushmeat in the spread of zoonotic viruses. It says people enter forests to collect wildlife for sale in markets in urban and rural areas. In cities, where people have diverse options for protein, the study says, bushmeat is a luxury bought to show status, and occasionally for cultural reasons. For many forest peoples it is an essential cost-free source of protein.

The study models the overall costs of taking action to address the causes of zoonotic transmission relative to the costs arising from failure to address the issue. Not surprisingly, compared with the assumed multi-trillion-dollar global bill for handling the COVID epidemic, which is factored into the model, spending a few billion dollars on sorting out the global wildlife trade is found to be quite a bargain. The study also tries to assess what it would cost to introduce measures that cut deforestation on a scale big enough to significantly reduce zoonotic disease transmission on degraded forest perimeters on a global scale. It comes up with a high and a low estimate.

Most expensive would be paying ‘direct forest protection payments’ at a level high enough to ‘outcompete’ the financial gains from chopping down forests. This approach is calculated to have the potential to reduce deforestation by 40 per cent ‘in areas at highest risk of virus spill-over’ at an annual cost of $9.6bn. Much cheaper, the researchers claim, would be the adoption in many countries of the type of policies that were used in Brazil to encourage a big drop in Amazon deforestation over the period 2005-12. These policies included removing subsidies that favoured deforestation, restricting private land clearing, and supporting territorial rights of Indigenous Peoples. Widespread adoption of such policies in areas judged to have the highest risk of zoonotic virus transmission would, the study claims, have roughly the same impact as direct forest protection payments at a much lower cost of $1.5bn a year.
Further evidence of the link between deforestation and the spread of new diseases among humans is presented in a second paper entitled ‘Habitat fragmentation, livelihood behaviours, and contact between people and non-human primates in Africa’. Researchers from Stanford University in the US analysed the degradation of tropical forests in Uganda, and the increased risk of physical interactions with viruses carried by wild primates. They collected land-use survey data from farmers living near forest fragments. They then integrated this information with high-resolution satellite images for the same time duration to determine the connection between landscape patterns and individual behaviours. They tried to model how these two factors made certain people encounter wild animals.

The researchers found that the strongest interface between humans and wild primates took place along the boundary of the forest near people’s homes. The researchers explain that when people venture inside the forest, e.g. in search for pole-like trees, they end up spending more time in primate habitats. The increasing encroachment of forests for agriculture and the subsequent human activities could result in spill-over of diseases from primates to humans. Worryingly, the research findings point to a future in which it will become increasingly common for viruses like COVID to pass from animals to human beings as more forests are cleared.

The arguments around protecting and restoring forests as a defence against zoonotic diseases are clearly a key element of the case for putting forests and forest peoples at the heart of post-COVID resilience. Moreover, these arguments now have considerable traction in the public domain, due to media coverage. A quick Google search carried out in November 2020 threw up references to lengthy articles featuring the likely link between forest degradation and future pandemics in publications including: Le Monde, The New York Times, The Washington Post, The South China Morning Post, The Financial Times, The Daily Mail, The Guardian and The Jakarta Post, as well as numerous websites. It was also one of the main themes of a BBC documentary ‘Extinction: The Facts’, narrated by the celebrity naturalist David Attenborough, which reached an audience of more than four million when first shown on British television in September.

There are, however, some potentially tricky issues to navigate around in campaigning on this topic, not least the risk that thoughtful consideration of the link between zoonoses and forest loss may slide into an unhelpful, unfair and factually incorrect blame game in which forest communities are criticised for subsistence activities that put them into contact with wild animals and/or that wild animals on the forest perimeter are seen as pests that must be eradicated.

Furthermore, there is no guarantee that this will remain a topic that generates concern. The links between forest degradation and zoonotic diseases may have a relatively short shelf life, and interest in planning for the next pandemic may rapidly decline now that vaccines have been found.

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4 Laura Bloomfield et al., Landscape Ecology, April 2020: https://link.springer.com/content/pdf/10.1007/s10980-020-00995-w.pdf
Box 1: The EU COVID economic recovery plan

While national governments have generally downplayed environmental issues in their recovery spending so far, the story at EU level is more nuanced. In May 2020, the European Commission announced plans for a €750 billion COVID economic recovery programme, coupled with a revised Multiannual Financial Framework (MMF) seven-year budget for regular EU spending. The recovery plan was supposedly built around the European Green Deal, the EU’s strategy for becoming climate neutral by 2050, with commitments to significant extra spending in areas like green energy, funding social and technical aspects of switching away from fossil fuels in coal-dependent regions, along with creating more sustainable agriculture and food systems. However, key elements of extra spending earmarked for helping the EU’s green transition were subsequently knocked out of the package as the price of winning political support for the deal from Member States that were worried about the cost (mainly The Netherlands, Austria, Sweden and Denmark, known as the ‘frugal four’). The compromise package was agreed by Member States after five days of tense negotiations at a European Council summit in July 2020. It had then to be approved by the European Parliament.

The pullback on environmental (and other) spending under the July deal was to some extent compensated for/covered up by a commitment that 30 per cent of all EU spending will from now on be climate-linked (up from a previous target of 25 per cent). However, there are few mechanisms in place to give meaning to this target. The largest single element in the €750 billion recovery package (€312.5 billion) goes to Member States in the form of grants (subject to some EU supervision). For some Member State governments, commitments to giving serious attention to the green transition may be mostly lip service. Their actual focus will probably be pumping the EU funding as quickly as they can into short term actions to reboot the economy.

The budget and recovery plan were finally adopted into legal force in December 2020, later than anticipated. The delay was partly due to a confrontation between EU leaders and the governments of Poland and Hungary. They objected to provisions enabling the EU to cut off funding to countries that failed to respect ‘rule of law’ criteria in budget decisions.7 The dispute was resolved by an uneasy compromise after much wrangling.

The delay in reaching agreement has pushed back the timetable for distributing the grants and loans by several months. EU Member States will need to submit plans to the EU on how they plan to use recovery plan funding by the end of April 2021. Disbursement is then expected to start in the second half of the year.8 In most respects, the terms of the grants and loans are substantially the same as those agreed by Member States last July.9 Fern’s analysis of the July deal was set out in a blog published at the time.10 The largest recipients of funds are likely to be Italy and Spain, followed by France and Poland.11

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8 https://www.ft.com/content/07ee0a9e-4db2-4ca0-8b05-521ab2e11898
9 https://ec.europa.eu/info/strategy/recovery-plan-europe_en
11 https://www.ft.com/content/9fbf520-4a37-4316-b738-196e796e9ae
A source of jobs and business opportunities in the COVID response

This is ‘nature-based solutions’ territory. Nature4Climate and others (e.g. Stern/Stiglitz) argue that forest restoration and other environmental projects can generate huge numbers of jobs, many of them unskilled, and thus can be a cost effective COVID economic recovery tool. They envisage a Roosevelt US New Deal type scenario of forest projects being used to mop up unemployment and stimulate the wider economy, more cheaply than alternative investments in environmentally damaging areas like coal and nuclear. This argument has some value, but forest NGOs should be wary of getting sucked in too deep. Forests are not a shovel ready infrastructure project that can be limbered up at a moment’s notice. The risk is you generate expectations – the narrative works well enough to earn a few headlines – only to be followed by disappointment and loss of credibility as reality dawns.

Forests have long played a very significant role in the formal economies of forested regions and in the global economy. For example, in terms of conventional economics, it is estimated that forest industries contribute around US$450bn a year to national economies, more than 250bn of which goes to developing country economies; 13 million people are employed in the formal forestry sector while 45 to 50 million are employed informally; the timber, pulp and paper sectors account for US$247 billion in global trade exports; and the forest sector contributes 0.9 per cent to world GDP and constitutes 2.3 per cent of international merchandise trade.

From an environmental perspective, most of these numbers are ambiguous. They support the case for looking after and restoring forests in the sense that without forests these economic benefits would disappear. But, on the other side of the coin, they also underscore the scale of the pressures and vested interests behind exploitation and forest destruction through activities such as large-scale industrial logging and the global trade in timber. They do not count social and ecological costs caused by logging or, indeed, the loss of use value and income from non-timber forest products caused by forest destruction, nor the decrease of the forest carbon sink.

The business case for forests

Over recent years, a different way of evaluating the economic contribution of forests has emerged. Instead of just looking at the commercial value of forest industries, the current trend is towards finding ways of putting a financial value on the previously unquantified environmental benefits that forests bring – for example, their value as natural stores of carbon or their role in water and air purification. This approach is at the heart of efforts by conservation NGOs and bodies like The World Bank and The World Economic Forum to build a ‘business case’ for maintaining and restoring forests and generally looking after nature. These arguments are now being used to try and persuade governments and bodies like the EU to invest coronavirus recovery funds into environmental projects.

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12 UN Forum on Forests, Economic Contribution of Forests (2013)
13 UN Forum on Forests, Forests, inclusive and sustainable economic growth and employment (2019)
14 FAO, Food and agriculture data
Once a financial number has been put on something, it can -in theory anyway- be evaluated in much the same way as a commercial asset, and the possibility opens up of demonstrating that a natural asset or process is worth investing in because doing so is more cost effective or produces a higher return. In conventional economics, a return means a financial profit. But in this context, the returns are often environmental and/or social benefits for which a financial value has been calculated. Here are a couple of examples, relevant to forests, where this kind of thinking has been applied:

- The Boston Consulting Group -a management consultancy- in a report entitled ‘The staggering value of forests – and how to save them’ concludes that the world’s forests are worth between US$ 50 trillion and 150 trillion – nearly double the value of global stock markets. The ability of forests to regulate the climate through carbon storage (measured in relation to prices in emissions trading) was found to account for up to 90 per cent of this value. Environmental benefits accounted for only between two and seven per cent of forest value, calculated in relation to commercial prices for services like air purification.

- More usefully, perhaps, the Food and Land Use Coalition claims that ten ‘critical transitions’ including ‘protecting and restoring nature’ can help bring climate change under control, safeguard biological diversity, ensure healthier diets for all, improve food security and create more inclusive rural economies. And they can do all this while reaping a societal return that is more than 15 times the related investment cost (estimated at less than 0.5 per cent of global GDP) and creating new business opportunities worth up to US$4.5 trillion a year by 2030. The report admits that achieving all this will not be easy!17

Organisations such as Climate4Nature, which is backed by 16 conservation NGOs and other environmental bodies,18 are pitching hard for COVID bail-out money to go to forest and other environmental projects of this kind, branded as ‘nature-based solutions’. But, so far, they seem to be struggling to attract interest from funders. This quote comes from a Nature4Climate report entitled Nature Positive Recovery for People, Economy & Climate: 19

‘...the economic case for nature-based solutions remains poorly defined and understood. This presents the proponents of nature-based solutions with an acute challenge as enormous amounts of finance are currently being mobilised to address the economic fall-out of the COVID-19 crisis. While there is already much discussion about how economic stimulus measures can and should avoid provoking harmful long-term impacts, and rather hasten the transition to more resilient and sustainable societies, by and large this discussion overlooks nature-based solutions.’

As pandemic recovery and climate change unfolds, the clamour for these sorts of projects to receive funding will only increase. One idea that has already gained some traction is using forest restoration as a method of creating jobs and tackling environmental concerns at the same time.

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19 https://nature4climate.org/nature-positive-recovery/
Forest restoration as a recovery tool

A research paper co-authored by the economist Joseph Stiglitz and former UK government climate advisor Nicholas Stern (and several others), identifies 'natural capital investment for ecosystem resilience and regeneration' as one of five recommended policies 'well placed to contribute to achieving economic and climate goals.' The others are green energy in various forms, building efficiency retrofits and education and training to tackle immediate unemployment from COVID-19 and structural unemployment from decarbonising the economy.

Other top names in policy making are clearly thinking along similar lines. In a report published in September, the International Monetary Fund (IMF)'s managing director Kristalina Georgieva backed plans for pandemic recovery projects in developing countries that combine job creation with green objectives, such as reforestation.

In emerging markets and other developing economies where the informal sector is large and labor market institutions are small or non-existent, policies can be geared toward expanding employment in the formal sector through targeted hiring subsidies. Public works programs present an additional opportunity to maintain income for low-income workers, including through labor-intensive green jobs in soil and water conservation, reforestation and flood protection, and the retrofitting of buildings to make them more energy efficient.

Nature4Climate -many of its members are conservation NGOs- is another keen supporter of using forest restoration as a COVID-19 recovery measure, claiming that:

Large-scale ecosystem restoration efforts, usually supported by government programs, have enormous potential to create jobs, perhaps as many as 40 jobs for every $1 million invested. In fact, evidence from the 2009-2010 stimulus showed that every million dollars invested in ecosystem restoration created 10 times as many jobs as investments in the coal or nuclear sector.

In some ways, this argument is quite appealing: serious money going into well designed forest restoration projects is a great idea. But there are several important caveats.

Even if such schemes could be made to work as a Keynesian economic recovery tool, without extreme care they may not be good for forests. The past track record of huge scale forest projects is often dire. Taking one example, grand plans to reforest upland Britain in the 1970s left a legacy of tax fiddles and ugly, biodiversity-lacking conifer plantations.

The risks of mega forest projects going badly wrong would be even greater if they were quickly thrown together and designed mainly around economic considerations like job creation and dishing out contracts, which could easily happen in the context of a pandemic emergency recovery plan.

It also seems that the case for such projects applies only to conditions in the global North. Extending the approach that expanded national parks while mopping unemployment in the great depression of the 1930s under US President Roosevelt’s New Deal might make sense in Europe, say. But nobody seems to have looked in detail at the practicalities of extending the model to the global South. The case for mass restoration of forests in developing countries as part of COVID recovery would need to be thought through from scratch, based on evidence from those countries.

Actually, nobody seems to have thought through the details of how it would work in Europe or North America in modern day conditions either. For the moment, mega-forest restoration in the context

23 http://mires-and-peat.net/media/map23/map_23_01.pdf
of pandemic recovery is just a nice idea which has been floated but does not have much substance. NGOs should, therefore, be wary of being associated with something that may garner some headlines but is hard to follow through on and which could easily go wrong.

None of the above, however, discredits the case for sensible, modest forest restoration schemes that serve a useful purpose – and maybe also create some jobs and business benefits on the side – but do not come burdened with unrealistic expectations.

**Forest tourism and pharmaceuticals**

Nature tourism is a big industry. Could promoting it help keep forests intact while also creating jobs and business opportunities? It can be argued that the pandemic has made people more wary of travelling far afield which means they may be inclined to visit and enjoy forests close to home. The pandemic may also have changed attitudes, encouraging people to be more nature friendly, which could translate into increased tourist spending, of benefit to forest communities and keeping forests intact. This argument probably mainly applies to Europe and North America, not the global South. People visit forests for activities like hiking, camping and birdwatching.

According to Nature4Climate, ‘wildlife tourism’ is a US$ 343.6bn a year global industry – a figure equivalent to the GDP of South Africa or Hong Kong; 21.8 million or 6.8 per cent of all tourism jobs around the world are linked to wildlife; tourism in ‘protected areas’ is even bigger, generating US$ 600bn in revenues annually, compared with the $10bn cost of maintaining protected sites. Interestingly, coral reefs generate US$ 36bn for the global tourist trade.24

These figures are all pre-pandemic. Tourism in general has been one of the worst hit sectors, but there seems to be no specific data on the impact of COVID on forest visits. The usual business case for investing in tourism as an economic stimulus measure is that it creates jobs in hotels, restaurants and so forth. Predictably, Nature4Climate say there are environmental benefits to be had at the same time:

*By investing in protecting and enhancing nature, we can help tourism-based economies recover, while creating millions of new ecological restoration jobs.*

This approach, it can be argued, has more potential to create jobs and boost the economy than environmentally damaging alternatives such as increased logging. Particularly in advanced economies, the job creating potential of expanding destructive forest industries is currently limited because the processes have become so mechanised. Employment in the EU forestry sector, for example, has shrunk dramatically due to mechanisation. Outsourcing to cheaper countries has also been a factor.

Another economic consideration – one that has added weight as a result of COVID-19 – is the importance of tropical forests, as a source of useful compounds for the US$ 1.2 trillion dollar a year global market for pharmaceuticals25 and also for traditional forms of medicine. A quarter of the drugs used in Western medicines are said to originate from plants found in rainforests.26 Examples include cortisone from wild yams, used in cancer and anti-inflammatory treatments, and the malaria drug quinine, which is extracted from the bark of the cinchona tree.27 Only about one per cent of plant species have been studied, so there may be many more cures waiting to be discovered. As well as the economic dimension, the role of forests as a source of medicinal compounds underscores the importance of maintaining forests as a defence against threats to health (an issue referred to earlier in the section on zoonotic disease).

24 https://nature4climate.org/nature-positive-recovery/
26 https://rainforests.mongabay.com/1007.htm
27 https://rainforests.mongabay.com/10drugs.htm
A defence against spiralling poverty

Summary: Rural poverty (in the global South) appears to be increasing sharply. COVID is making things worse. Forests provide a critical safety net. A few million people globally depend 100 per cent on forests for all/most aspects of life including livelihoods (often people living closest to traditional lifestyles) and are largely separate from other populations. Some of them have headed deeper into the forest to avoid COVID. Hundreds of millions more are partly dependent on forests and do not clearly live separately from other rural populations. The poverty arguments mainly apply to this category.

Rising poverty is an important issue in the context of pandemic recovery globally. This is a complex topic, however, and clear evidence about the link between COVID and an increase of poverty of specifically forest communities is hard to come by.

We know that over 1.5 billion people around the world look to forests as a major natural resource which provides them with their full or extra income, subsistence etc – e.g. crops, firewood, non-commercial fishing, hunting and so forth. They are not wholly dependent on forests but look, often to a large extent, to forest resources and forest land to get them through the day. The impact of COVID on this group may be greater than other crises they might face in their hand-to-mouth lives because it blocks off survival strategies they might otherwise turn to in especially tough times – notably migration. Migration stops in a pandemic. There’s fragmentary evidence of real hunger and a descent in poverty in some communities in Latin America, partly COVID linked, partly it is happening anyway, but the evidence is not so clear for Africa.

There is another much smaller category of forest dwellers whose lives and livelihoods are wholly bound up with forests, probably in the range of a few millions or tens of millions of people. Some of them have retreated deep into forests to escape COVID.

There is a strong argument for investing in forest programmes to preserve an essential crutch for forest people that stops them falling into absolute poverty and hunger, an argument made stronger by COVID. However, the case for saying forests provide a route out of poverty is much less strong. It is more a maintenance argument – that forest systems must be kept going to stop poverty and hunger getting worse. Part of the appeal to donors of this line of reasoning may be that putting investment into forests as an avoidance of dire poverty strategy is relatively cheap. Significant results can be obtained with a few million euros.

Research carried out for The Centre for International Forestry Research (CIFOR) in its Poverty and Environment Network programme28 focussed on the question of do people depend on forests? In simplified terms, the broad conclusion was yes, they do. Whereas the World Bank’s Programme on Forests (PROFOR), another largescale research exercise, looked at the issue of forest poverty through a different lens, asking the question do forests provide a way out of poverty?29 The answer was no, they don’t. A key reason is that activities and resources that provide a basic subsistence tend not to have the potential to provide much more than that.

28 https://www.cifor.org/knowledge/publication/6553
29 http://www.profor.info
A research paper entitled ‘What is the evidence for the contribution of forests to poverty alleviation?’\textsuperscript{30} says the evidence shows that forests provide ‘natural insurance’ to those partly dependent on them ‘in the form of alternative sources of income and subsistence to help them cope with shocks’, such as floods, fires, economic misfortune and so forth. COVID-19 has clearly provided a shock that falls into this category, but it is hard to give a generalised answer as to how serious the consequences have been or are likely to become.

A Food and Agricultural Organisation (FAO) report published in August 2020 gives this assessment of the likely impacts on food security among poor communities in Africa:\textsuperscript{31}

\textit{There are direct and indirect effects of the pandemic on farm families and farm labour. Quantitatively, the direct impact in terms of the number of people infected and becoming sick in relation to the size of the population of the area remains small. With agricultural production being highly labour-intensive in most African countries, shortages of workers due to the lockdowns may compromise farming activities including land preparation, planting, crop maintenance, crop growth (weeding, fencing, and applying chemicals), harvesting, post-harvest handling, and transporting and storing food.}

\textsuperscript{30} Cheng et al. \url{https://environmentalevidencejournal.biomedcentral.com/articles/10.1186/s13750-017-0088-9}
\textsuperscript{31} \url{http://www.fao.org/3/cb0720en/CB0720EN.pdf}
What is clear is that access to electricity gives rise to new income earning opportunities. Because renewable energy projects can be presented as the solution or part of the solution to poverty, donors are generally keen to fund renewable energy projects in forested regions. They may therefore be less immediately excited by projects specifically focussed on forest poverty. Even so, the case for funding them, as a cost-effective mechanism for staving off absolute poverty in already poor communities, is strong and getting stronger because of the pandemic.

It would be a mistake, however, to see forest poverty projects as being in competition with renewable energy projects. The sad fact is that if global temperatures rise above Paris Agreement targets, many tropical forests will not survive. Renewable energy projects in forest regions are thus essential—as they are everywhere else—for keeping climate change in check.

In October 2020, an international collaboration involving more than fifty scientists in 10 countries published an assessment of evidence on linkages between poverty and living in or near forests. The study was compiled by the Global Forest Expert Panel (GFEP), set up by the International Union of Forest Research Organisations (IUFRO). It quotes World Bank data suggesting that an additional 88 to 115 million people worldwide will have been plunged into extreme poverty in 2020, the first increase in global extreme poverty for 20 years, as a result of the pandemic.

Against that grim overall background, the study finds that living in or near forests provides very poor communities with certain advantages that other poor communities may not have. For example, access to forest resources can ‘have a buffer function that supports livelihoods’, providing a kind of ‘natural insurance’ in difficult times. It says forests and trees play:

…a crucial role in risk management so that the poor do not sink even deeper into poverty and the non-poor avoid impoverishment. They perform this function by smoothing consumption and income across seasons and years through the provision of food, fodder, fuel and other products that may be consumed at home or sold.

The study says these factors are especially important in current circumstances:

Risk management is becoming even more critical in the face of the growing impact of climate change and other global shocks such as the COVID-19 pandemic.

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Both the climate crisis and COVID require systemic change, but the climate threat is much bigger and mostly ignored as a serious threat to our lives, economies and health. COVID should not distract attention away from the climate crisis but should focus our minds on the changes required. Global heating cannot be tackled without halting deforestation and increasing restoration, which must go hand in hand with emission reduction.

One can argue that increased awareness of forests as a protection against pandemics has drawn attention to a more general point – mess with forests at your peril. Even without the argument of zoonotic diseases, there is no getting round the importance of forests to mitigate climate change for policy makers. If they are serious about addressing the climate issue, they will have to put resources and attention into forests (ending deforestation being key). There is no climate solution that does not include forests.

This has always been true, but the argument has even more weight in the context of post-COVID economic recovery. Even judged by the narrowest economic criteria, any recovery from COVID will be short-lived unless stimulus programmes are used to fund the transition to a low emissions/sustainable economy. ‘Building back better’ has to mean bringing about the green transition. A green transition must include forests. Hence, climate – and the importance of forests in tackling this issue – is and should remain the core of any post-COVID resilience strategy.
Most EU green funding has, however, gone to renewable energy and not forests and that will remain the case. This needs to be seen in perspective, however. While forests may lose out to green energy from an immediate funding perspective, we should not lose sight of the fact that without an energy transition, many forests will die due to climate change anyway. Investment in green energy is good for forests and forest peoples. But already it is clear that green energy will attract more funding. In the EU’s original COVID recovery proposal, most of the extra spending badged as relevant to meeting climate objectives was destined for areas like renewable energy, clean hydrogen and upgrading the energy efficiency of buildings (which is labour intensive and good for job creation). Forests and biodiversity were mentioned but as an afterthought with relatively paltry funding attached. 34

As mentioned above, the direct links between COVID and climate are tenuous, except that air pollution increases the risk of people dying of COVID and that burning fossil fuels as well as bioenergy are leading causes of air pollution. Nonetheless, the pandemic may have helped create an environment in which people and policy makers are more open to making changes.

The key issue in the COVID/climate context is the need to stop deforestation. But this is a difficult one to get across, not least because we in Europe have destroyed most of our forests and are still heavily exploiting our remaining forests and plantations. Only 4 per cent of the world’s forests are in the EU, but the EU is the largest exporter of timber, which explains both Europe’s ‘intensive’ forest management and the power of the forestry lobby.

Climate change and biodiversity loss are linked, so the solutions must be too. The causes of biodiversity loss are the same as those linked to the emergence of zoonotic diseases such as COVID, notably habitat loss, due to land use change and the trade in wild species. The Convention on Biological Diversity (CBD) and the EU have developed many worthy policies and action plans to tackle biodiversity loss but it has only intensified as production and consumption spectacularly increased. How to reverse this? There are different schools of thought, roughly divided between those using the ‘economic’ or ‘business’ argument (staying within the system) versus those campaigning for a change in our dominant economic and cultural system. Is a combination of this possible? This is an important discussion to have.

Biodiversity, key to life

All ecologists know that biodiversity, the diversity of living creatures, is critical to resilience and hence survival. Species evolve, but if species die in large numbers, it is like Paul Ehrlich’s metaphor from the 1970s, “if an airplane keeps losing screws you may not notice it immediately but it will crash at some point”. Despite this, protecting or enhancing biodiversity has never been a national or international priority. Instead the vast majority of countries focus on an economic model of continuous growth and consumption. It is not surprising that biodiversity has been falling, and dramatically so in the last 50 years.

The biodiversity crisis and the climate crisis are intrinsically linked. Climate change accelerates the destruction of the natural world through droughts, flooding and wildfires, while the loss and unsustainable use of nature are in turn, key drivers of climate change. One cannot be solved without the other. Similarly, both have most negative impacts on poor people and neither can be solved without addressing the poverty crisis.

It is equally important to realise that those already suffering from poverty will be most affected by biodiversity loss. The rural poor rely on ecosystems for their daily needs, and to see them through times of trouble. When the services provided from ecosystems are disrupted, the disadvantaged lack the means to replace them. See Poverty and COVID, above.

The biodiversity crisis is specifically relevant for Indigenous Peoples and for poor people. Only 18 per cent of the world’s land area is owned or managed by Indigenous Peoples but it contains up to 80 per cent of terrestrial biodiversity.35 Hence respecting, demarcating and gazetting Indigenous Peoples land is one of most effective measures to halt biodiversity loss. Global discussions on biodiversity therefore must include Indigenous Peoples and understand their role as managers of biodiversity. Solutions should focus on what they need in order to continue and enlarge their role.

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Biodiversity loss costs, but little is being done to stop it...

To stem the loss of biodiversity, both economists and ecologists have attempted to put an economic value on it. This started in the 1970s, but became more mainstream, most notably due to the Economics of Ecosystems and Biodiversity (TEEB) reports ‘making nature’s values visible’.

In its Biodiversity Strategy, the EU states that the world lost an estimated €3.5-18.5 trillion per year in ecosystem services from 1997 to 2011, owing to land-cover change, and an estimated €5.5-10.5 trillion per year from land degradation. Putting that into context, the size of the EU economy was 18.8 trillion in 2018, representing 22 per cent of the global economy. In the EU alone, the Natura 2000 network arguably contributes 2 to 3 per cent of EU GDP (between €189 billion and 308 billion annually).36

But if losing biodiversity is so expensive, why does it happen and increasingly so? That is a critical question that should be looked at.

To ensure the EU economy recovers from the COVID-19 crisis, the EU aims to make the business case for biodiversity conservation.

“Adopted in the heart of the COVID-19 pandemic, this (biodiversity) strategy will also be a central element of the EU’s recovery plan. The business case for biodiversity is compelling. Over half of global GDP depends on nature and the services it provides, with three key economic sectors – construction, agriculture, and food and drink – all highly dependent on it.”

Although this is undoubtedly true, it was as true before COVID and importantly none of these arguments have ever had sufficient impact to create the change required.

On forests specifically, more of the same...

There is no forest policy similar to the Common Agriculture Policy (CAP), only a weak non-binding forest strategy (third iteration ongoing). This means there is limited power the Commission has over EU forests. Member States do not need to do what the Commission suggests. The idea of multifunctional forestry is key to the EU and Member State position on forests and does not leave enough space for biodiversity conservation, which would require drastic changes in management practices which the Member States do not want.

Should we put numbers on biodiversity?

As mentioned above, the climate and biodiversity crises are linked and, many argue, so are the solutions. There are roughly two streams of thought concerning solutions. The Nature Based Solutions (NBS) or Nature4Climate supporters argue that putting economic numbers on biodiversity, showing the economic losses and gains, will ensure decision makers fund good projects that will reverse the crisis. As “Box 2: the problem with nature-based solutions” shows, the numbers are often problematic.

Others, who could be called the ‘No Financialisation of Nature’ group, argue that putting numbers on biodiversity only makes it easier to trade biodiversity (through carbon or biodiversity markets), does not tackle the problem of continuous growth on a finite planet or other causes of biodiversity loss and argue for a new economic model which takes into account the ecological limits of the planet and the need for greater equality.

Can a bridge be built between these two different streams? Where do forest NGOs position itself? Do we need to better understand the alternative economic models (e.g. ‘the Donut model’ by Kate Raworth)? Should we look more into different theories of how to manage the global commons?
Box 2: The problem with nature-based solutions

Conservation NGOs (and the UK Government) are talking about ‘nature-based solutions’ or NbS. The phrase has become a mantra that is intoned in publications and on the conference circuit. Some of these organisations are now saying COVID economic recovery funds should be invested in nature-based solution projects which, they claim, can be a good way of creating jobs and business opportunities at the same time as tackling environmental challenges.  

The term nature-based solutions first appeared in the early 2000s, as an approach to tackling problems in agriculture such as pest control. The International Union for the Conservation of Nature (IUCN) played an important role in developing the concept. More recently, most of the mainstream NGOs and international bodies with an interest in environmental issues have jumped on board, including WWF, the Nature Conservancy (TNC), World Resources Institute (WRI) and the UNDP, along with prestigious scientific institutions such as the UK’s Royal Society and the Zoology Department at the University of Oxford. Institutions with an economic focus such as the World Bank and the World Economic Forum are also enthusiastic advocates, as is UK environment minister Zac Goldsmith (recently made a life peer).

The thinking behind NbS is set out in detail in lengthy documents published by IUCN and the Royal Society, among others. Last July, IUCN published a ‘Global Standard for Nature-based Solutions’. In earlier documents, IUCN defines nature-based solutions as ‘actions to protect, sustainably manage and restore natural or modified ecosystems, which address societal challenges (e.g. climate change, food and water security or natural disasters) effectively and adaptively, while simultaneously providing human well-being and biodiversity benefits’. This wording is repeated on numerous NbS supporting websites. It is kind of the official definition but what does it mean?

NbS is project based. Projects are in areas like forest and habitat restoration, planting willow trees near rivers and planting trees in cities to give a few examples. The range of possible projects is unlimited. They harness natural process to tackle local environmental concerns – like flood management and urban air quality. Done systematically on a vast scale, this additionally adds up to an effective mechanism for addressing planetary challenges like climate change and species extinction. At least, that is the narrative.

This extract from a World Bank document gives an indication of how NbS projects are supposed to function:

17 https://nature4climate.org/news/nature-at-the-heart-of-our-recovery/
18 https://platform.think-nature.eu/system/files/2b155ce05c13c9d033068311f333dee1fd.pdf
19 https://portals.iucn.org/library/node/46191
21 https://portals.iucn.org/library/node/40070
“The restoration and expansion of fringing coral reefs – as is being implemented with World Bank support in Belize – can be an alternative or addition to the construction of tropical breakwaters for coastal flood management. Coral reefs are often much cheaper than breakwaters, can reduce waves by 92%, and offer large potential for tourism income, livelihoods for local fisheries, as well as important biodiversity benefits. Similarly, the integration of parks and other green spaces in urban development can help reduce peak runoff and urban flooding, while improving quality of life, reducing air pollution, and increasing land value.”

The individual project face of NbS is rarely a concern. Why would anyone oppose restoring coral reefs or planting willow trees? The issue is whether myriad projects add up to a useful strategy for handling global climate and biodiversity loss, the biggest issues of our time. For biodiversity loss, the answer could be yes, it does, if the projects are good enough and numerous enough. The difficult issue is climate. Many conservation organisations – most recently IUCN in its ‘Global Standard for Nature-based Solutions’ – have claimed that the natural climate solution variant of NbS will deliver as much as 37 per cent of the climate mitigation required by 2030 to stay on track for the Paris Agreement target of below two degree temperature rises. The IUCN document quotes a figure of ‘around 30 per cent’. Other organisations have said 37 per cent.

This huge claim seems to be based on one single study published in 2017. The lead author (one of 32 authors) was Bronson Griscom, then director of forest carbon science at TNC. In this study, nearly three quarters of the claimed climate mitigation comes from a hugely implausible immediate halt to deforestation and the reforestation of an area the size of Australia or Brazil, which is hardly likely by 2030. Other mitigation measures include better mangrove and peatland management, which look sensible and worthwhile but have relatively little potential impact. Chris Lang and Simon Counsell cover this in detail in an article written for REDD Monitor.

At worst, climate focussed nature-based solutions will become the new BECCS (Bioenergy with Carbon Capture and Storage) – magical thinking that lets emitters off the hook and distracts attention from what really has to be done. Other worries about the NbS approach include the amount of funding and support coming from oil companies. Fern has written a blog on the dangers of NbS being a cover for offsetting. This is already leading to an obfuscation of emissions, based on totally unrealistic projections of NbS potential. Research released by Greenpeace UK in January 2021 found that emissions-intensive companies, in order to meet their net-zero targets, collectively plan to use far more land to plant trees than is globally available. Royal Dutch Shell alone wishes to use up a tenth of that land.

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45 https://www.pnas.org/content/114/44/11645
47 https://redd-monitor.org/2019/05/23/guest-post-nature-based-solutions-separating-the-wheat-from-the-chaff/?fbclid=IwAR0PflOYmnzA75U7BbdHAb7wCzqgq770LK3hQ- AGU1AeZ7VKbOg
COVID has raised interest in forest protection and restoration. As forest NGOs, we should use this opportunity to get good solutions adopted, but not get distracted as the underlying issues remain the same. In some ways the pandemic has made it easier to gain attention and to get EU Commissioners (and others) to attend conferences. But it is important to remember that not everyone attending a virtual event will actually be listening!

Fern hopes Mark Gregory’s analysis helps guide and inform forest NGOs’ responses to COVID, looking at both how forest protection can help stop future pandemics and how COVID recovery funds can build back a greener, fairer world.

Our organisational conclusion is that the pandemic has shown we are working on the right forest issues and that we should not be distracted. The solutions we were proposing pre-pandemic are the ones that will help deal with its long-term effects. The pandemic has, however, raised interest in forests issues, so forest NGOs should use this opportunity.

Our observation, however, is that COVID has increased understanding of – and rhetoric about-- the need to protect and restore forests, but this has not (yet) translated into real policy change. For example, negotiations on the Common Agricultural Policy so far indicate the deal adopted will not be radically different from the last – and therefore will continue to be a source of biodiversity destruction when it could be an engine for forest restoration – and the EU does not yet seem ready to truly examine and rethink the way its trade agreements are feeding deforestation in other parts of the world. EU Member States continue to insist the EU should not tell them to manage forests more sustainably, and the European Parliament still seems to be listening to the forestry lobby when it comes to incentivising biomass use and intensive forest management. Forest NGOs need to pull out all the stops in 2021 to make sure the increased high-level political rhetoric about forests turns into action where it counts.

But the pandemic has not just affected the outside world. NGOs, like all organisations, have been forced to make home working and virtual meetings a viable alternative to (often-polluting) face to face meetings. There are associated problems such as screen drain, increased workload, stress and the difficulty of virtual team building and virtual advocacy, but we should nonetheless consider how to reduce our own sector’s carbon footprint post-pandemic.
Fern believes forest NGOs – and decision-makers – need to prioritise the following actions in order to ensure the post-COVID world adequately prioritises forest protection and restoration:

- **Monitor and campaign on expenditure of EU COVID recovery funds.**

  Billions have been spent and billions more are being signed off with lightning speed and little oversight. Most of this is being done at the EU Member State level, so monitoring would need to be done by national NGOs. Civil society should be part of decisions on how funds are spent, but working effectively on finance requires specialist skills and knowledge so NGOs cannot and should not drop everything and jump in. Forest NGOs (especially those who take a hard line against the ‘financialisation of nature’) therefore need to consider how to be involved and how to ensure that COVID funds support (for example) poorer, fossil fuel dependent regions in the EU to transition to real renewable technologies rather than burning wood or coal, or to support forest restoration and a transition to a more ecological mode of forest management. Perhaps there are ways that forest NGOs can be involved in limited discussions where initiatives directly concern forests, such as carbon farming.

- **Ensure public funds support the recovery of forest health and biodiversity.**

  Forests’ value in improving mental health is increasingly being put on a par with their economic value (especially as people became more aware of their local environment in lockdown). But human health is most improved by being in healthy diverse forests rather than plantations. Politicians need to ensure that tree-planting initiatives restore forest health and involve local communities. They also need to ensure that new forested areas are linked so wildlife can move through them.

- **Ensure public funds don’t further entrench the meat industry.**

  Industrial animal farming has caused most new infectious diseases, the meat and dairy industry are a huge driver of deforestation, and meat packing plants spread COVID widely in the US, Germany, Brazil, China and others. Despite this, the meat industry has benefitted hugely from COVID relief funds. Politicians don’t seem to be putting forward alternatives to the continuation of the mega-meat industry. There were temporary bans on some meat supplies and shutdowns of processing plants, but nothing fundamental has changed. Big issues that were raised about the beef supply chain have not been resolved. Politicians and forest NGOs need to ensure post-COVID funding and policies do not further entrench the meat industry, and rather support a transition to more plant-based diets.

- **Monitor increased deforestation due to COVID.**

  Research by WWF revealed a 150 per cent increase in deforestation rates at the start of the pandemic, with 6,500 square kilometres of tropical rainforest disappearing in March 2020. They attributed this to a rise in criminal activity under cover of the pandemic which in turn is likely to be a result of less monitoring and checking for illegalities both in the forest and at the ports where timber is shipped. This shows that independent forest monitoring is working but that other mechanisms are needed in addition to stop illegal logging as the drivers are still there. Fern’s partners have reported being unable to visit forest regions during the pandemic, making it difficult to check what is actually happening and how serious the problems are.

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☑ Governments need to show clear commitment to enforcing forest and community rights protections.

The private sector is worried about lack of law enforcement, the breakdown of controls and general chaos in government resulting from the pandemic. They have expressed their desire for a stable legal environment and enforcement of rules in the forestry sector. They agreed with civil society organisations that empowering communities is crucial, and that the way to protect forests is to give communities more influence. But the message from governments is blurred, especially from the Indonesian government who has – since the pandemic – decreased its enforcement of forest laws, passed an Omnibus Bill that removed important forest protections, and threatened to suspend compliance with the terms of its FLEGT Voluntary Partnership Agreement with the EU.

☑ Ensure EU trade does not drive deforestation.

One effect of the pandemic is that the EU has realised it is over-dependent on imports of key products, notably from China. Difficulties in sourcing adequate quantities of medical products and protective gear during the pandemic have escalated an abstract issue into an urgent practical problem. Policy makers are deliberating between two ways of tackling the issue. One approach is to relocate production back to the EU (France is keen on this). The other is to diversify and broaden the range of countries from where imports are sourced. The latter has more support in the EU than re-localisation of production, and thus more impact on policy, although both tendencies are present. The main consequence of this is likely to be that the EU will negotiate more bilateral free trade agreements (FTAs). This could be of concern if it increases imports of forest risk commodities. One specific example is the industry lobby group Business Europe using the EU’s desire for economic recovery after COVID as an argument for quick ratification of the Mercosur agreement. Forest campaigners should hold a strong line that EU trade agreements – including Mercosur – should not be ratified unless they contain enforceable protections for forests and rights. Forest campaigners could also look at encouraging the move towards substituting imports with home-grown agricultural products (such as environmentally sustainable oil alternatives). As well as France, Germany has some interest in this, and the regional parliament for Brussels area is calling for an EU strategy for promoting local food supply chains as an alternative to environmentally damaging imports.

☑ Pay attention to framing and narrative.

The appetite for radical change and making the world a better place has perhaps been replaced by disillusionment and a yearn for how things were pre-pandemic. Focus on ‘le monde après’ has given way to nostalgia for ‘le monde avant’. This change in the public mood is important to bear in mind in formulating campaigns. Moves like Member States agreeing to expand the EU’s independent sources of revenue are of enormous significance, and reinforce the new sense of Europe pulling together rather than falling part. The recent decline in geopolitical credibility of the US – driven by the Trump presidency – also looks to be feeding an increased belief in the EU amongst Europeans.51

☑ Monitor and prioritise wellbeing of staff.

Campaigns thrive on face-to-face communication, brainstorming with other NGOs and direct meetings with policy makers to build trust etc. Without such interactions, work can feel more challenging and less rewarding. In addition, ‘virtual’ meetings offer less restraint to the number of meetings that can take place, meaning there are more of them. Forest NGOs need to ensure staff wellbeing is given the importance it deserves.

51 https://ecfr.eu/publication/the-crisis-of-american-power-how-europeans-see-bidens-america/
“Uncontrolled climate change would have economic impacts orders of magnitude greater than coronavirus – and the point of no return is imminent”