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PERSPECTIVES

Experts' views on the green and social transition

Trimestrial - issue 9 - January 2024 | *on physical risks and climate adaptation*

Tackling physical climate risks and their socioeconomic impacts

by **Jessica Troni,** Chief Climate Change Adaptation Unit and Adaptation Portfolio Manager UNEP and **Sumalee Khosla,** Global Climate Finance Adaptation Adviser at Ecosystems Division UNEP

Adaptation investors increasingly focus on nature-based solutions and private sector funding.

Developing countries may need $387 billion per year (2021-2030) of tailored finance to achieve their own climate adaptation priorities (UNEP Adaptation Gap Report, 2023). But in 2021, public finance flows to them for this purpose declined by 15% to around $21 billion.

Nature-based solutions can shield physical assets and people from the impacts of climate change, but in 2022 they received only 0.3% of overall spending on urban infrastructure. In its analysis carried out for Ghana in 2022 to build resilient infrastructure there, UNEP assessed 156 built and natural infrastructure assets and scoped 35 priority adaptation solutions for energy, water and transportation. Almost half comprise investment in the natural environment, notably to address floods and droughts. Many cities worldwide are exposed to extreme weather events. One UNEP project in Laos, financed by the Green Climate Fund, is investing in nature-based sustainable drainage solutions in four cities to reduce climate-induced floods. In the building sector, climate change risks revolve mainly around heatwaves and a lack of affordable cooling for millions of people globally. Adaptation measures include new building designs, more shading, insulation and ventilation.

The agriculture sector also faces high risks linked to climate change. Higher temperatures, increased droughts and flooding, destroy crops and livestock. This makes it especially hard for small-scale farmers – who produce 50% of the world's calories – to feed their communities and make a living.

In Africa and Asia, UNEP is applying ecosystem-based adaptation practices in food systems to agriculture-based projects, such as permaculture, climate-smart agriculture, and agrosilvopastoral systems. Project goals include protecting farmed soil from thinning, and cultivating a more diverse range of crops than just corn, rice and wheat.

There is an untapped opportunity for the private sector to invest in the estimated $2 trillion climate adaptation market by 2026. The PRB Adaptation Target Setting report (UNEP, 2023) guides banks on setting credible adaptation targets, incorporating adaptation considerations in transition plans and sustainability strategies, and leveraging the co-benefits of adaptation.

ADAPTATION: THE OTHER CHALLENGE FOR CLIMATE ACTION

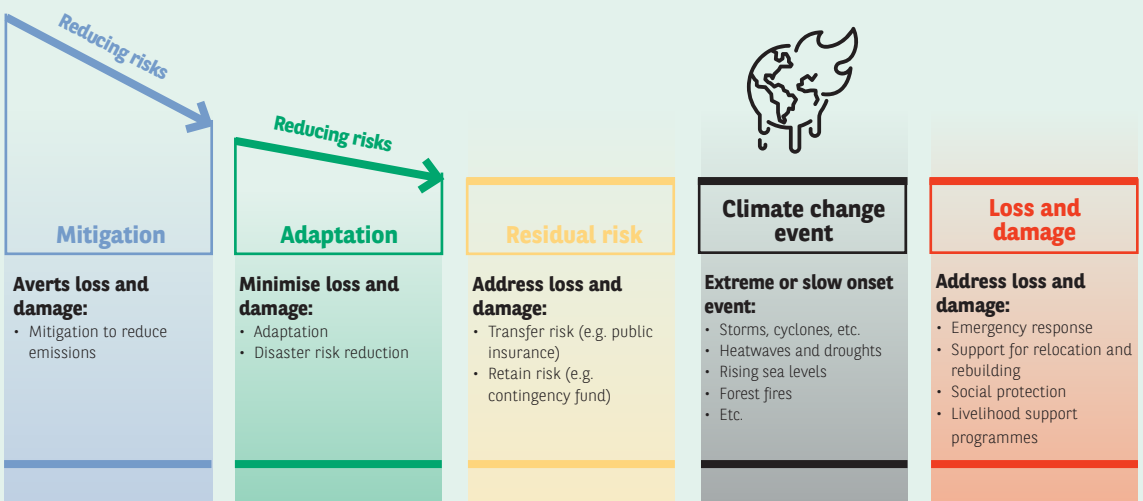
Recent extreme weather events have been harsh reminders that efforts to tackle climate change should not be limited to reducing greenhouse gas emissions. The transition must also include major efforts on adaptation.

The latest IPCC report says that 40% of the world's population lives in areas highly vulnerable to the impacts of climate change, endangering above all the poorest people. UNEP estimates that between $215 and 387 billion per year are required to reduce the associated losses and damages, as well as to boost the resilience of our societies and natural ecosystems. Such action is even more urgent given the fact that adaptation measures will become more limited and less effective as the climate heats up.

We already have several tools needed to tackle erosion, restore ecosystems, prevent fires and floods, and adapt infrastructures. All these solutions can contribute to dealing with climate challenges, while simultaneously building a more inclusive economy.

Nathalie Jaubert, *Deputy Head of CSR, BNP Paribas*

Averting, minimising and addressing climate loss and damage



Source: UNEP, Richards, 2022

Climate risks will accelerate with every fraction of a degree because of the compounding and cascading nature of climate-related impacts. In the long term, residual climate risks will inevitably lead to losses and damages. It is consequently crucial to accelerate adaptation and mitigation policies by focusing on anticipatory, just and effective measures.

What's at stake

Limiting the impact of climate risks

Despite mitigation efforts, climate risks are set to increase.
Adaptation and risk reduction measures can help limit the impact.

Banking sector analysis of physical climate risk

by **Marie-Stéphanie Diouf,**
RISK ESG – Senior Risk Manager,
BNP Paribas

The analysis by banks needs to provide a vision of the net risk, which should take into account adaptation and mitigation measures (insurance, government support, etc.).

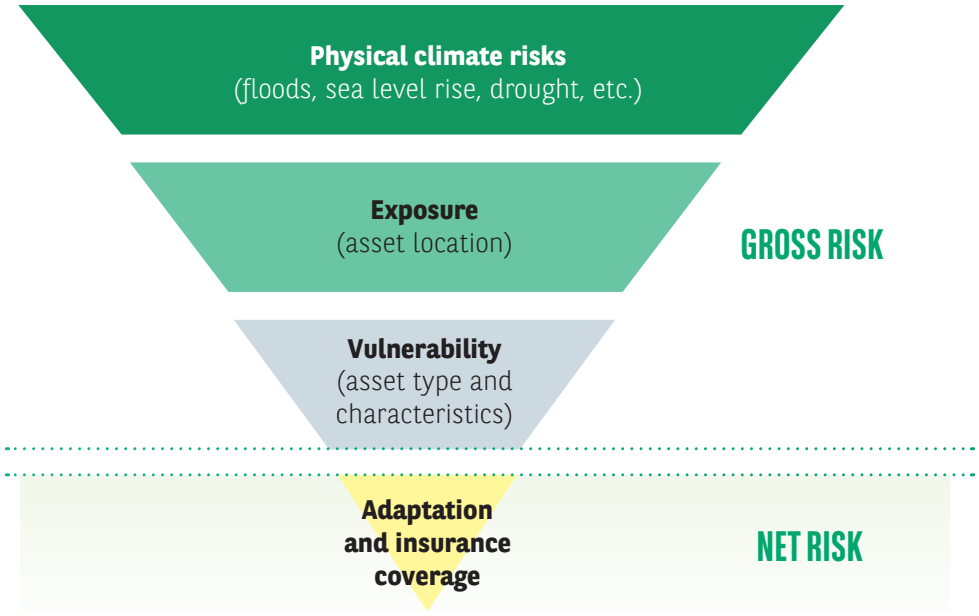
The physical risks associated with climate change can be acute, e.g. floods, storms, droughts, heatwaves or wildfires; or they can be chronic, e.g. gradually rising sea levels or increasing temperatures.

For a bank, transmission channels may be linked to our activities (offices located in a high-risk area), the presence of financed assets (residential mortgages in high-risk areas), or the presence of our customers' activities (a company consuming fresh water in an area where droughts are increasingly frequent). These risks would materialise if the insurance cover failed. In order to manage these risks, it is important to consider not only events in the past, but also the future impact of climate change. Banks make use of climate models to predict, over different time frames, the frequency and severity of events according to different IPCC scenarios. These predictions are then compared with our current exposures, in order to anticipate risks.

> "THE KEY CHALLENGE IS RELATED TO FINANCED ASSET DATA, AND TO THE DEVELOPMENT AND INTEGRATION OF MODELS THAT ALLOW A PROPER ASSESSMENT OF THESE RISKS."

The key challenge is related to financed asset data (location, type of assets, size and strategic importance), and to the development and integration of models that allow a proper assessment of these risks. To gain a net view of the risk, we must take into account the possible adaptation measures for our customers and insurance cover, as well as the support offered by governments through natural catastrophe funds. This involves having discussions with data providers, with insurers who are on the front line of these risks, with our peers to exchange on best practices and of course, with our clients who share precious information on their exposure to and management of these risks.

Economic sectors can be impacted by several different factors, which can vary from one region to another. These adaptation measures are a major area of development over the next few years, and they were a central theme at COP 28. Banks will play a role in the financing of adaptation measures, while also anticipating and monitoring the associated risks.



The first step in assessing physical risk is to use climate models to identify geographical areas at risk (lower end of the pyramid).

The assets in scope must then be identified, and their location reconciled with the climate hazards maps.

The vulnerability which is specific to each asset characteristic must also be taken into account.

Lastly, any possible adaptation measures and insurance coverage must be taken into account to get a clear view of the risk.

Source: BNP Paribas

Regulatory watch

The slow introduction of adaptation plans

The EU has made national adaptation plans mandatory, but many challenges remain. A key one includes how to assess the impact of adaptation measures.

Protecting our food and water supplies

by **Constance Chalchat,** Chief Sustainability Officer, BNP Paribas CIB

COP28 highlighted the growing importance of climate adaptation and nature-based solutions.

Climate and adaptation finance are lagging, which brings food and water security risks, especially in emerging markets. At COP28, emerging countries sought expertise and investment partnerships. COP delegates also approved the operationalisation of a fund to help vulnerable countries cope with climate change-related loss and damage.

Given the potential inflationary impact of food and water, all countries called for adaptation of systems and infrastructures before risks materialise. Priorities are to invest in biodiversity through food and water security, and allocate capital to precision farming, as well as water collection and treatment. At COP, the Sustainable Markets Initiative launched a framework to boost regenerative farming and make it financially viable and scalable.

Due to floods, droughts and freshwater decline, people everywhere must do more with less. It is why smart metering, nature-based disclosure and accurate weather modelling are increasingly crucial but remain very complex as acknowledged by companies across sectors. Reporting frameworks (TNFD) and AI, by helping assess physical climate risks and supporting nature modelling and reporting, will enable informed decision-making.

Climate adaptation: challenges in regulation and reporting

by **Sophie Prugnard de La Chaise,** Director, Head of Sustainable Business Development Plan, Company Engagement Group, BNP Paribas and **Dr. Ralf Lütz,** Senior Advisor, Sustainable Advisory & Business, BNP Paribas CIB

The regulatory framework for climate adaptation, influenced by global commitments, faces challenges due to a lack of data and maturity, as well as the priority given to mitigation efforts.

Regulation on climate adaptation is evolving, shaped by initiatives like the Paris Agreement, the EU Taxonomy and the CSRD. However, further action is still required to develop a more comprehensive regulatory approach, which would be a key driver for adaptation. While frameworks like the IFRS and ISSB allude to reporting on adaptation exposure, namely on risks and opportunities, obligations are less mature than on mitigation, which is and remains a priority for all. Adaptation is nonetheless recognised as a parallel necessity and national adaptation plans are now an EU requirement.

Corporate policy on adaptation is reflected in actively considered, though not always publicly disclosed, adaptation plans. Insurance companies, at the forefront on this topic, followed by banks and asset managers, can play a key role in initiating these plans by embedding them in risk assessments and business continuity frameworks.

Companies with climate adaptation plans will pose a lower credit risk over time. Accompanying corporates on their climate adaptation trajectory can also represent a business opportunity. Insurers and banks are thus primed to complement the actions of public bodies: the former can evaluate the physical risks linked to climate change, while the latter can provide the investments necessary to prevent these risks.

Adaptation and mitigation, the two sides of climate action*

	Risks	=	Climate hazards	X	Exposure	X	Vulnerability
BUSINESS AS USUAL	Risks	=	↑	X	↑	X	↑
MITIGATION ONLY (I.E. GHG EMISSIONS REDUCTION)	Risks	=	↓	X	↑	X	↑
ADAPTATION ONLY (I.E. ADJUSTMENTS TO EXPECTED CLIMATE AND ITS EFFECTS)	Risks	=	↑	X	↓	X	↓
MITIGATION AND ADAPTATION	Risks	=	↓	X	↓	X	↓

Source: UNEP FI

Although too often contrasted, mitigation and adaptation are complementary and crucial for reducing our vulnerability to climate change. Mitigation helps to reduce the risks, while adaptation is necessary to limit the damages. Insufficient mitigation measures lead to increased adaptation needs. Meanwhile, insufficient adaptation leads to significant damages to human systems, particularly in vulnerable and exposed regions. An analysis of different studies on the topic has even shown that integrating mitigation and adaptation policies helps to maximise the impact.

**The table presents a simplified risk approach to underline the complementarity of mitigation and adaptation to climate change. For example, mitigation can also have an impact on exposure and vulnerability, although it mainly has an impact on climate-related events.*

Industries in depth

Anticipating sectoral and geographical impacts

The main challenge for adaptation is to prepare for various impacts of climate change on each sector, across different regions of the world.

Planning for agriculture in 2050

by **Serge Zaka,**
Doctor in Agrometeorology and Stormchaser

The climate is changing significantly, yet plants continue to grow and farmers keep on working. When assessing solutions, there is only one watchword: anticipating.

Over the last few years, we have seen more and more climate change-related events. Floods follow periods of drought, storms and heatwaves. If we are to avoid an 'emergency society', it is crucial to anticipate climate change up to 2050. The most common adaptation measures, such as improving crop varieties and creating water reserves, will not be sufficient. Climate change is happening too fast and too fiercely.

Even though many solutions exist, we need to understand first before taking action. Crops are influenced by four key factors: April frosts, extreme temperatures, drought and hail. These hazards cause extensive damage and significantly reduce yields. We now need to urgently rethink solutions at regional level, because everything is connected and complementary. This is the very definition of an ecosystem. For example, keeping living soils by ploughing less often, never leaving them bare and reducing the frequency of crop rotations, can considerably increase their fertility, their capacity to absorb water and their biodiversity. Crops then become more resistant and resilient to climate hazards. Selecting the varieties to be cultivated according to the environment and developing other crops, could prevent the 50% yield loss foreseen in 30 years' time. Lastly, digital technology should boost the development of precision agriculture.

We can expect a major transformation of agriculture overall, including crop harvesting. What is needed now is a Europe-wide debate, one that must take into account biogeography, the science of varieties distribution, and changes in food geopolitics. Banks and insurers have a vital role to play, particularly by supporting sustainable and fair investments.

A vulnerable and precarious world facing climate challenges

by **Sumati Semavoine-Jain,**
Sustainability Research Analyst, BNP Paribas CIB

Rising physical climate risk has macroeconomic and social implications. Agriculture is a potential source of global inflation volatility, necessitating sustainable practices across food supply chains.

Current food prices reveal a stickiness not seen in the past, due to supply-side shocks. In the short-term, a strong El Niño episode, as well as the war in Ukraine, may keep prices elevated. Without sufficient adaptation, climate change will result in unexpected losses and regular cost pressures for agriculture in the medium term.

Our climate adaptation readiness scores reveal significant pockets of vulnerability in countries' ability to respond to shocks. Some of the weakest scores are in South Asia, as well as in parts of sub-Saharan Africa and northern Latin America.

Local impacts can bring global consequences. For example, El Niño contributed to significant rainfall pattern disruptions in Asia, where most rice production occurs, quickly translating to global price pressure from late 2022. Given that a small share of rice production volumes is actually traded, one exporter's change in rice yields or export policy can affect dependent countries considerably. In particular, rice imports from Asia account for a substantial share of diets in a number of African countries. To address the policy, infrastructure and funding gap at hand, climate adaptation needs a diversified toolbox and innovative financing solutions. Investing in sustainable food systems offers a number of underpriced returns, from replenishing the water cycle to supporting local communities.

Climate adaptation readiness scores: regional averages

Data shows that South Asia is highly exposed to natural hazards. Scores are based on a range of variables from 0 to 100 (100 being the highest exposure to risk), collected for 112 countries.

	SOUTH ASIA	SUB-SAHARAN AFRICA	LATIN AMERICA & CARIBBEAN	MIDDLE EAST & NORTH AFRICA	EAST ASIA & PACIFIC	EUROPE & CENTRAL ASIA	NORTH AMERICA
Total score	**70**	**62**	**57**	**53**	**51**	**36**	**32**
Physical risk (30%)	75	48	56	60	58	37	50
Food security (20%)	60	67	54	58	52	36	24
Economics (20%)	60	56	57	44	36	45	36
Institutions (20%)	76	74	65	50	47	33	11
Health (10%)	85	83	52	46	60	22	27

Percentages indicate weight of category in overall score.

Source: BNP Paribas, find out more in our January podcast Markets 360

Industries in depth

Railway in the time of climate change

by **Benoit Chevalier,**
Chief Network Strategy Officer,
SNCF Reseau

Maintaining the rail network in a hotter climate calls for major investments.

SNCF Réseau has always dealt with the consequences of bad weather. A storm can lead to a tree falling on the track, an embankment may become unstable due to a flood, while a heatwave can cause rails to expand. We ensure a high level of safety, but the impact on service quality can be significant.

For instance, we work with Météo France to anticipate these climate hazards, which can extend to halting train traffic ahead of a major event, as was the case with the recent storm Ciarán. Internally, surveillance systems feed into software and set off alarms when a problem occurs. We also take preventive measures throughout the network. Every spring, we therefore anticipate summer heatwaves by adjusting the rails and adding ballast on the tracks to prevent the steel expanding. However, climate change is going to become more common and these, previously exceptional, phenomena more severe. This directly costs SNCF Réseau some €30 million a year, due to cancelled trains and repair expenses, without including the cost of the numerous resilience measures like vegetation treatment. There are also indirect costs, such as rising insurance premiums.

France's prime minister has announced an ambitious plan to accelerate renovation of the rail network, to make it more resilient. In parallel, we are continuing studies and exchanges with many partners so we can advance further. Particularly with industry, in order to improve the components used, as well as with the agricultural world for a better control of water run-off.

Insurance for natural disasters

by **Maya Bonan Guillou,**
Risk ESG Officer and **Christina Fiamma Frison,** Global coordination & social impact,
BNP Paribas Cardif

Reducing the protection gap is a top priority of the EU agenda, but it comes with major challenges.

According to the EEA, in Europe, less than 35% of the €500 billion in losses linked to natural disasters between 1980 and 2020 were insured, resulting in a protection gap of over 65%. This gap is likely to increase, given the rising frequency and severity of future hazards (floods, hurricanes, thunderstorms, droughts, forest fires, etc.), and the resulting losses. Insurers could then be forced to limit their risk appetite, especially in the context of higher interest rates affecting the valuation of their assets.* Moreover, the widely held perceptions that risk assessments are underestimating actual loss experience may also lead investors to lower their financial support to insurers, which would further reduce the latter's capacity to take on risk. Countries most exposed to physical risks would then be facing greater financial vulnerability.

Consequently, the ECB and EIOPA launched a discussion on how to better distribute the costs and responsibilities between the various stakeholders (insurers, private individuals and public authorities), while limiting moral hazard.**

Four strategic and complementary options are emerging:

1) An evolution towards an impact underwriting insurance model with an offer covering a wide range of hazards, at variable prices, depending on the mitigation and adaptation measures implemented by the policyholders and public authorities. Such differentiated pricing remains a technical challenge for insurers, who must be able to assess accurately the impact of these measures on the product's risk profile. EIOPA and the ECB also underline the key role of public authorities in supporting this transformation.
2) The extension of public-private partnerships to supplement the coverage offered by insurers in response to climate perils.
3) Measures promoting the development of the 'cat bonds' market,*** which offers fast access to liquidity when climate hazards occur, allowing to speed up reconstruction while relying on financial markets to pool some of the risk.
4) The launch of a European insurance fund, to which EU countries would contribute. This fund would serve twin goals: a better pooling of the risks and funding for climate transition, through investments in various financial instruments such as green bonds.

* *Rising interest rates result in higher claims costs for the insurer, while the value of its assets declines.*
** *Moral hazard is a risk that becomes a reality when a policyholder adopts riskier behaviour because they know they are protected.*
*** *Catastrophe bonds are financial instruments issued by insurers, in order to transfer to investors the risks associated with the insured losses related to catastrophes, including natural disasters.*

Innovation watch

Drawing inspiration from nature

Ecosystems can offer a wide range of adaptation solutions, but they need substantial investment and the support of all stakeholders.

Catalysing localised climate change adaptation

by **Davide Forcella,** Director, JuST Institute and **Jason Spensley**, Senior Specialist in Climate Change, Global Environment Facility

Financial institutions can be an engine that powers transformative climate adaptation efforts but barriers to change are slowing progress and innovation.

The UN's Adaptation Gap Report 2023 estimates that developing countries will have to pay between $215-387 billion per year this decade to fund climate adaptation. Yet progress must be made in building resilience among the planet's most vulnerable populations according to Dr Davide Forcella, director of the JuST Institute.

Partnering with experts and institutions across the public and private sectors, the JuST Institute uses an experimental method for generating new climate adaptation financing, based on an actual offer of products and services. Members draw on joint technology, knowledge and expertise to drive innovation. "We want to create a world where financing goes where it's best placed to build resilience and have a significant impact for people and the planet," Dr Forcella says. "We take a transformative approach to addressing challenges around traceability and transparency, capacity, and the limited scope of existing financial products, driving the sector forward by proving our value to the planet, people and the marketplace while delivering just climate transitions on the ground."

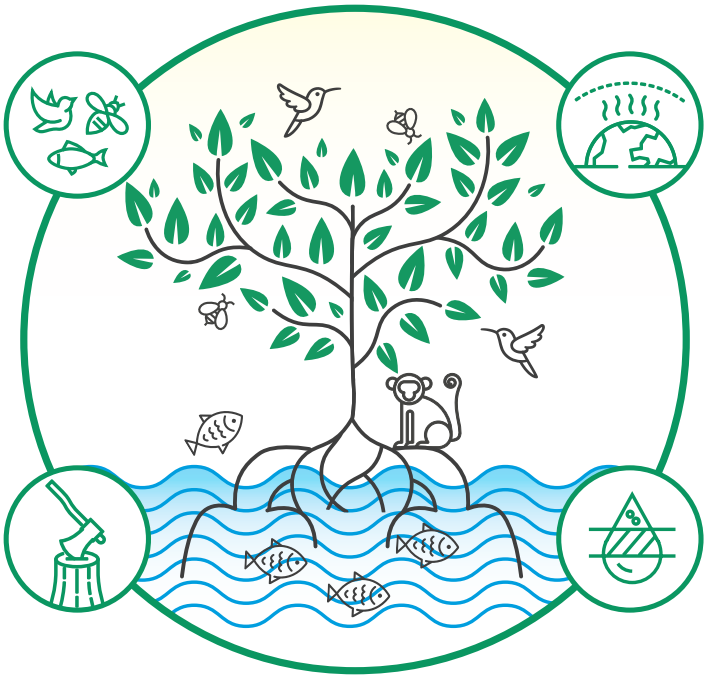
The JuST Institute's projects with BNP Paribas, the Global Environmental Facility (GEF) and the UN's International Fund for Agricultural Development (IFAD), based in Colombia, Morocco and Senegal, use concrete indicators – including the number of people and hectares of land that financing has helped – to ensure the right impacts on the ground.

"Accessible localised microfinance has the potential to get urgently needed capital in the hands of hundreds of thousands of smallholder farmers and businesses," adds Jason Spensley, GEF Senior Specialist in Climate Change. "We need the whole financial sector developing climate-resilient and nature-positive products if we're going to achieve the scale of climate adaptation and resilience that's urgently needed."

Mangroves play numerous roles

Biodiversity
They provide habitat, food store, refuge and nursery for many species of mammals, fish, and insects, etc.

Climate
Mangrove forests are vital for regulating the climate and strengthening our resilience to climate change hazards.



Resources
They notably provide construction wood and charcoal for local communities.

Protection
They protect coasts from erosion and extreme weather events, and they contribute to water quality by filtering it.

Sources: Wildlife Conservation Society, UNEP (UN)

Nature-based adaptation solutions leverage nature and the power of ecosystems to reduce the vulnerability of people and the environment to climate change. They must definitely also offer benefits for biodiversity.

For example, safeguarding coastal habitats, such as mangroves, helps to protect against floods, stabilises the coasts and reduces erosion, improves the quality of water that flows from rivers and watercourses, and absorbs the effects of storm surges during extreme events.

Moreover, mangroves capture and store significant amounts of greenhouse gases, have a positive effect on temperature and precipitation, and enhance economic benefits for local communities.

Our clients commit

Regenerating forests and soil

Adapting forests and farm crops to enhance resilience.

Protecting pasta production in perilous times

by **Marcin Adamczyk,**
Portal Development Specialist and Sustainability Officer, BNP Paribas Poland

Poland's biggest food group is piloting new solutions to help wheat farmers adapt to global warming.

Climate change is unlikely to be reversed in the coming decades, so adaptation is vital. Agriculture, closely tied to nature and the environment, is directly impacted by the effects of climate change – including extreme weather such as drought, floods and strong winds. Farmers must quickly adapt their work and practices to these challenges, but they will require far more support from governments and climate adaptation funds.

Farmers across Europe are expected to suffer a serious drop in crop productivity due to rising temperatures. For example, a 2°C increase could result in a 25 to 50% drop in grain maize yields in much of France, as well as significant parts of Germany and Poland. In Poland, promising solutions are being developed to several farming problems. These include crops that need less fertiliser or are more resilient to drought conditions.

Maspex Group, Poland's largest food producer, is quickly adapting its agricultural business and value chain. It has developed various solutions to tackle the impacts of climate change and especially to aid its suppliers.

One pilot project involves some 15 suppliers, and soon 10 times more, to improve farmers' resilience and ensure the quality of resources and crop yields. Lubella, the group's pasta brand, depends on imported durum wheat. Yet half of durum wheat in Europe is produced in Italy, which will be seriously impacted by climate change. Maspex is therefore expanding its durum wheat cultivation in Poland, with a new crop variety for future growing conditions.

According to Maspex, more and more farmers rely on soil and smart watering systems, or agrometeorology stations. Collecting and analysing data from this infrastructure will facilitate climate adaptation.

The company believes that 'regenerative agriculture' – where farmers focus on reducing the impact of production on the land – will also be key in ensuring the sector meets the recently agreed Global 2030 Adaptation Outcome Targets for food and agriculture systems.

Restoring life to land

by **Sylvain Goupille,**
General Director and Co-founder of le Printemps des Terres and **Laurent Piermont**, President and Co-founder of le Printemps des Terres

Le Printemps des Terres buys damaged forests, degraded and agricultural land with the ecological transition as a purpose and a specific response to climate change.

The Office national des forêts estimates that almost half of France's forests will need to be regenerated in the next few decades, which will involve significant investments. This is because the forests are not adapted to the climate that will dominate a few decades from now. Creating sustainable management enables carbon sequestration and promotes biodiversity, while producing wood sustainably, in forests that are better adapted.

France's National Research Institute for Agriculture, Food and Environment (INRAE) estimates 30 million tonnes of extra carbon could be sequestered each year in local soils and forests; this could be achieved without any drastic change in practices. Le Printemps des Terres buys land in order to operate over the long term. Reconstructing a forest, restoring a new natural space or planting hedges takes time – but major results can be achieved after a few years.

The ecological diversification and development of forests is essential given the uncertainties caused by climate change. This can be done in various ways: organic transition, agroforestry (combining trees, crops or farmed animals on a single plot of land), the planting and restoring of hedges, and riverine forested areas (protection and planting of trees or shrubs and bushes along watercourses to prevent erosion).

Work must be local and adapted to the land, without overlooking what is happening elsewhere. We visited Australia to see how maritime pines can be grown in a climate similar to that which EU could be facing in 2050. We also learned how foresters in Scotland are handling a climate buffeted by many strong winds.

We are observing an increase of awareness among all stakeholders. This is gradual, with sudden changes due to increasingly frequent events: storms, heatwaves, invasions by parasites, etc. The response remains insufficient, but solutions exist.

The ecological transition needs for land and forests, which are the backdrop of our countryside and living spaces, are enormous and could require billions. Yet in light of the economic issues, financing is possible – especially when boosting the commitment of businesses and citizen-consumers.

Flashforward

The human cost of climate change

Unless an adaptation strategy is found, the number of climate refugees and displaced persons will increase, with women and children particularly at risk.

Giving a voice to refugees and climate-displaced people

by **Céline Schmitt,**
Head of External Relations & Spokesperson, UNHCR

Over 70% of refugees are from countries highly vulnerable to climate change.

The term 'climate refugee' is often used, but is not found in international law. And this is the case whether one is talking about refugees (fleeing their country) or internally displaced people (fleeing within their country). In this respect, the UNHCR has notably formulated legal recommendations on the applicability of international law, so as to protect people who are fleeing climate hazards.

During the period 2012-2022, we counted on average 21.6 million internal displacements linked to natural and climate disasters every year. Furthermore, the underlying climate and geopolitical reasons for this are far from being completely independent of each other. As an example, drought in some regions accentuates food insecurity, a factor that can lead to the emergence of conflicts or persecution. This situation is clearly evident in South Sudan, the Sahel countries, Afghanistan and Somalia.

"WOMEN AND CHILDREN ARE 14 TIMES MORE LIKELY TO BE KILLED BY NATURAL AND CLIMATE DISASTERS."

In all likelihood, this will not improve in the near future. In the Sahel region, for example, temperatures are rising one and a half times faster than the global average. In our strategic action plan, we have therefore identified various areas for improvement.

First of all, we will continue to raise awareness among all the stakeholders, in order to achieve and amplify the pledges made at COP27 regarding aid to poor countries. Above all, we underline the importance of listening to the people affected when projects are being set up. Gender equality is also a key goal to be taken into account, because women and children are 14 times more likely to be killed by natural and climate disasters.

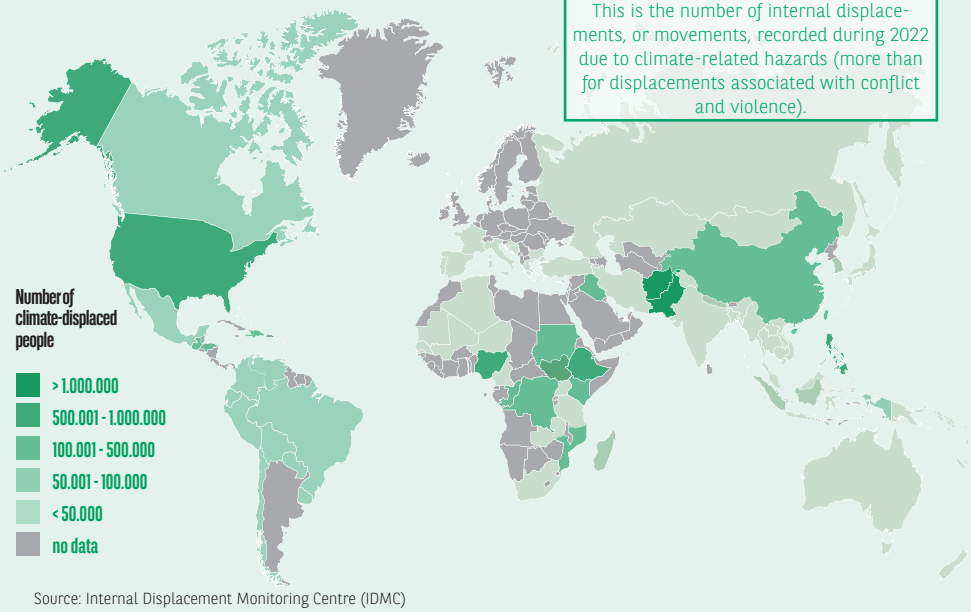
Secondly, we are also committed to greening our own behaviour. For instance, by replacing diesel-powered generators with solar panels, in order to supply the electricity urgently needed in refugee camps.

A 45% rise in climate-displaced people in 2022

Every year, millions of people are forced to leave their homelands due to floods, droughts and other natural disasters. Climate change is aggravating these effects. In late 2022, the IDMC counted **8.7 million internally displaced people** (people who have not left their country). **This figure has increased 45% over one year**, notably due to the terrible floods in Pakistan.

Internally displaced people due to natural disasters in 2022: Afghanistan (2,164,000), Pakistan (1,025,000), Nigeria (854,000), Ethiopia (717,000), South Sudan (665,000), United States (543,000), Philippines (533,000), Kenya (373,000), DR Congo (283,000), Sudan (227,000).

32.6 million
This is the number of internal displacements, or movements, recorded during 2022 due to climate-related hazards (more than for displacements associated with conflict and violence).



Source: Internal Displacement Monitoring Centre (IDMC)

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