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# ► Social protection and climate change

The role of social insurance



# ► **Social Protection and Climate Change**

The role of social insurance

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## ► Abbreviations, figures and tables

### Abbreviations

|                 |                                                                         |
|-----------------|-------------------------------------------------------------------------|
| ABND            | Assessment Based National Dialogue                                      |
| ACTRAV          | ILO Bureau for Workers' Activities                                      |
| AFD             | French Development Agency                                               |
| ALMP            | active labour market policies                                           |
| AODP            | Asset Owners' Disclosure Project                                        |
| ARC             | African Risk Capacity                                                   |
| CO <sub>2</sub> | carbon dioxide                                                          |
| COP             | United Nations Climate Change Conference                                |
| COVID-19        | coronavirus disease                                                     |
| DAEI            | Délégation aux Affaires Européennes et Internationales                  |
| DEVINVEST       | ILO Development and Investment Branch                                   |
| EASE            | effective active support to employment following the COVID-19 crisis    |
| EU              | European Union                                                          |
| FbF             | forecast-based financing                                                |
| GDP             | gross domestic product                                                  |
| GhG             | greenhouse gas                                                          |
| HDP-N           | Humanitarian–Development–Peace Nexus                                    |
| ICTD            | information and communication technologies and data                     |
| IDMC            | Internal Displacement Monitoring Centre                                 |
| ILC             | International Labour Conference                                         |
| ILO             | International Labour Organization                                       |
| IPCC            | Intergovernmental Panel on Climate Change                               |
| ISSA            | International Social Security Association                               |
| IUCN            | International Union for Conservation of Nature                          |
| LDC             | least-developed country                                                 |
| NASA            | National Aeronautics and Space Administration                           |
| NDC             | nationally determined contribution                                      |
| NGFS            | Central Banks and Supervisors Network for Greening the Financial System |
| NIS             | National Insurance Scheme                                               |
| OCHA            | UN Office for the Coordination of Humanitarian Affairs                  |

|                |                                                                                                                                |
|----------------|--------------------------------------------------------------------------------------------------------------------------------|
| <b>ODA</b>     | overseas development assistance                                                                                                |
| <b>OECD</b>    | Organisation for Economic Co-operation and Development                                                                         |
| <b>PATH</b>    | Programme of Advancement through Health and Education                                                                          |
| <b>SDGs</b>    | Sustainable Development Goals                                                                                                  |
| <b>SOCPRO</b>  | ILO Social Protection Department                                                                                               |
| <b>SPACE</b>   | Social Protection Approaches to COVID-19 – Expert Advice helpline                                                              |
| <b>TICPE</b>   | Taxe intérieure de consommation sur les produits énergétiques (domestic consumption tax on the consumption of energy products) |
| <b>DESA</b>    | Department of Economic and Social Affairs of the United Nations Secretariat                                                    |
| <b>UNDP</b>    | United Nations Development Programme                                                                                           |
| <b>UNFCCC</b>  | United Nations Framework Convention on Climate Change                                                                          |
| <b>UNHCR</b>   | Office of the United Nations High Commissioner for Refugees                                                                    |
| <b>UNU-EHS</b> | United Nations University Institute for Environment and Human Security                                                         |
| <b>USP2030</b> | Global Partnership for Universal Social Protection to Achieve the Sustainable Development Goals                                |
| <b>WFP</b>     | World Food Programme                                                                                                           |
| <b>WMO</b>     | World Meteorological Organization                                                                                              |

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Woman cleans a solar energy panel, Fulani village of Hore Mondji, Mauritana, 2019.  
© Photo: Raphael Pouget / Climate Visuals Countdown

## ► Executive summary

Climate change is the defining challenge of our time. Time is fast running out for us to avert the worst impacts of climate disruption and protect our societies from the inevitable impacts to come.

► António Guterres, Secretary-General of the United Nations, 2020

This publication presents the results of a literature review and other analytical work conducted in 2022. The material has been reviewed and edited for clarity, and certain sections have been streamlined. The analysis, data and references reflect the state of knowledge at the time the research was undertaken and have not been updated to incorporate subsequent developments. While the document is issued in its present form to support ongoing dialogue and knowledge-sharing, readers are encouraged to interpret its findings in light of its original timeframe.

Social protection provides coverage against life-cycle risks over the course of a person's life. It is a human right, and its implementation worldwide was one of the twentieth century's major social achievements. Yet at the beginning of the twenty-first century, more than half the world's population, including the most vulnerable, still lack basic coverage. At the same time, the global risk posed by climate change is apparent to States and individuals alike and threatens to undo decades of development, including poverty reduction efforts, disrupt human society and the environment and further exacerbate social inequality. Universal social protection and the fight against climate change share the common urgent goal of protecting both people and planet.

To strengthen this synergy, the *Agence Française de Développement* (AFD) and the International Labour Organization (ILO) have established a partnership to explore the linkages between social protection and climate change. This report examines how different actions to address the causes and consequences of climate change can build on the social protection mechanisms identified by means of a literature review and with the guidance of ILO normative frameworks. It focuses in particular on contributory social protection in the context of climate policies, which has been paid little attention in existing literature. Although the report focuses on climate change, it also draws on knowledge gathered in other contexts, such as

economic, financial and humanitarian crises and from the ongoing COVID-19 pandemic, whose complex global effects are often seen to offer a glimpse of the potential disasters likely to be caused by climate change in the future.

**Section 1** introduces the phenomenon of climate change and its implications within the frameworks of the SDGs and the future of work, as well as the main policies intended to address its causes and effects. It briefly outlines how it is possible, despite climate threats, to move towards a safe and just space for humanity.

**Section 2** provides an overview of the capacities and limitations of national social protection systems in general, and of social insurance in particular, in supporting countries in adapting to the effects of climate change while enabling essential transformations to the world of work driven by environmental and climate change mitigation goals (ILO 2019a). The social protection systems defined in the ILO's normative framework are designed inherently to prevent and absorb shocks throughout the human life cycle. However, climate change is a systemic challenge that requires social protection systems to consider and respond to a multitude of complex and evolving situations that affect that cycle. This challenge necessitates the systematic adaptation of national systems' parameters, processes and resilience strategies beyond any specific stand-alone programme, particularly by integrating the considerable knowledge base of, and lessons learned by, the various agencies and actors working in the field of social protection.

Climate-informed social protection may therefore centre on two main goals:

- to achieve universal coverage of life-cycle risks while improving the alignment of entitlements with the evolving needs of rights holders in the context of both climate change and the policies designed to mitigate its causes, within the broader perspective of achieving the SDGs;

- ▶ to ensure the resilience and continuity of national social protection systems despite the physical, functional and financial stresses caused by climate change.

Section 2 also draws attention to questions of governance, financing and the alignment of public policies, notably those related to climate change mitigation and adaptation. It examines increasing inequalities as both cause and effect of climate change and highlights the capacity and limitations of social protection in terms of combating them.

**Section 3** explores some of the lessons learned from specific country cases and, in so doing, also recalls the human distress that lies at the heart of this study. Since examples related specifically to climate change are scarce, it draws on knowledge from other contexts that share commonalities, from coverage extension strategies to resilience to covariate shocks and entitlement portability in situations of mobility. It examines the capacity and limitations of social protection, with a focus on social insurance schemes where possible, in providing adequate and predictable coverage against life-cycle risks exacerbated by climate change. To that end, it focuses on the two key provisions of social protection – health insurance and income security – and the priority area of human mobility, where much remains to be done to ensure access to, and the maintenance of, social protection coverage, including through contributory schemes that imply access to decent work within and across borders for workers and families displaced by climate change.

**Section 4** draws conclusions and makes recommendations for the development of social protection systems and social insurance schemes in the context of climate change. It highlights that the rights-based approach and the principles of solidarity, social dialogue, collective financing and risk pooling provide a solid foundation for protecting humans from the risks of climate change and for facilitating the transition to a green economy.

However, social insurance schemes and the national social protection systems of which they are an integral part must be adapted and strengthened to face the many new challenges posed by climate change. Some of the recommendations therefore highlight:

- ▶ the need to develop social insurance in low- and middle-income countries, where it is considerably undervalued and underutilized, provided that it is adapted to climate risks

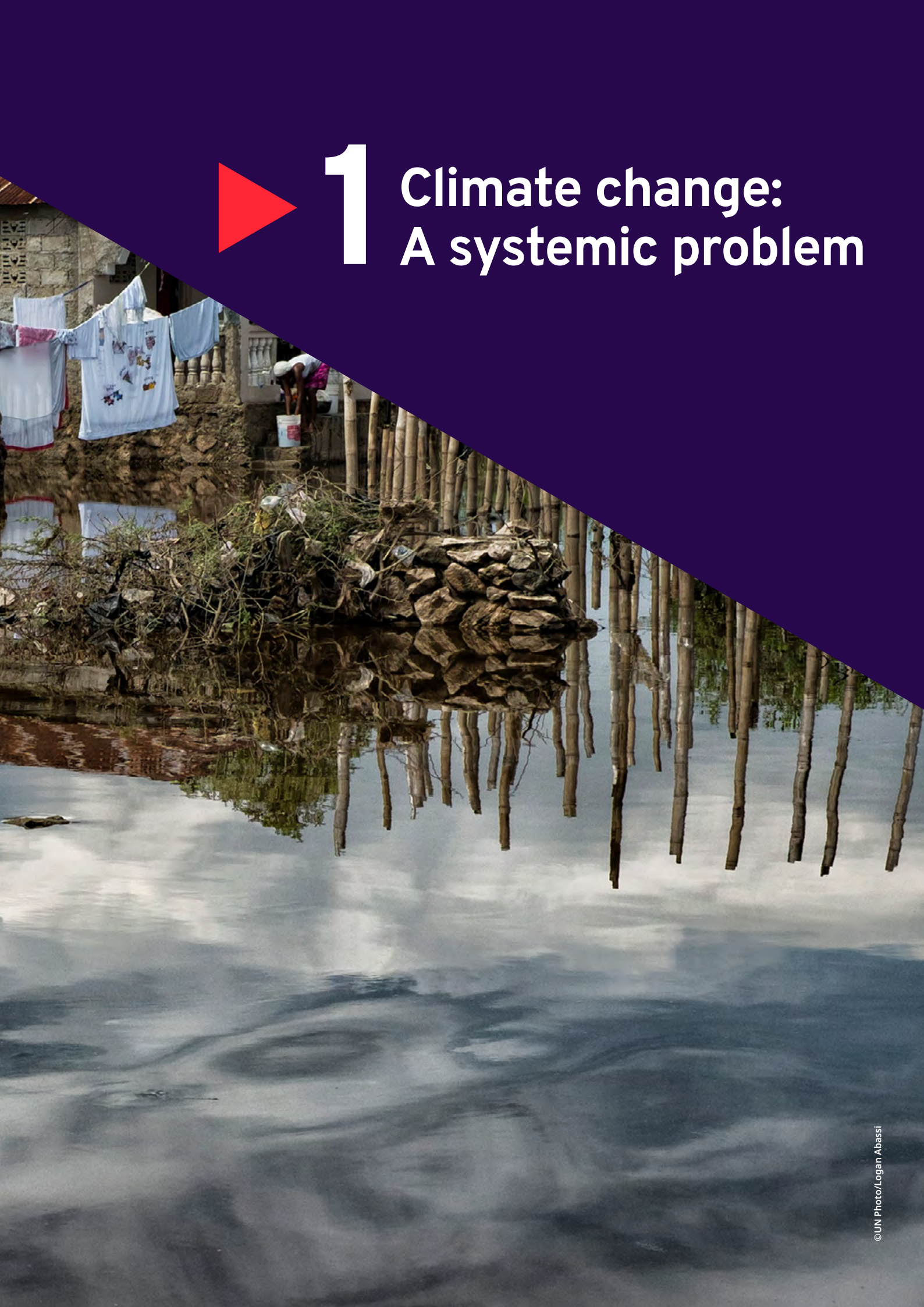
in terms of the contingencies covered, assumptions and financial resilience and by ensuring that it can be extended to workers in the informal economy;

- ▶ the need for innovation in social insurance approaches and practices, including by sharing experiences, technologies and data with public and public-private initiatives that apply the principles of solidarity and risk sharing; involving the social partners, environmental experts, actuaries, risk managers and specialized institutions such as the International Social Security Association (ISSA) and focusing on priority branches such as health protection and income security, with coverage for persons with fixed domiciles and individuals on the move. Data linking social protection and climate change should take into account gender, persons with disabilities, displaced persons, indigenous persons and other vulnerable groups. Sector-specific data should allow for the negative effects of the ecological transition to be measured and adequate social protection policies implemented to ensure that no one is left behind;
- ▶ the need to raise awareness among public social insurance funds, such as pension funds, and to persuade them to adopt socially and ecologically responsible institutional investment strategies and partnerships monitored by regulatory frameworks, not only to demonstrate their validity in managing financial risks for rights holders, but also to renew commitment to solidarity with future generations who will face a legacy of daunting challenges.

Lastly, this study reveals that, whatever the approach, the solution will always be rooted in the human capacity for cooperation, at both the global and local levels: working together to solve complex problems, pooling technical and financial resources, sharing values of solidarity and universal rights and ensuring that no one is left behind.

The convergence of objectives between the fight against climate change and the progressive realization of universal social protection presents a powerful opportunity to reinforce the long-term values of social justice and sustainable development – one that must be seized now.



A photograph of a coastal village scene. In the foreground, a large pile of debris, including branches and plastic waste, is in the water. Behind it, a stone wall has laundry hanging on a line. A person is visible near the wall. The background shows a body of water with many vertical wooden poles. A large purple diagonal shape covers the top right of the image, containing the title text.

# 1 Climate change: A systemic problem

## The Anthropocene:<sup>1</sup> The age of humans. For the first time in our history the most serious and immediate, even existential, risks are human made and unfolding at planetary scale.

► UNDP, 2020

Over the last century, studies of climatic changes<sup>2</sup> during the Earth's geological history have shown that human-made global warming is amplifying a long-term rise in global temperatures. This has increased dramatically since 1945 (Steffen et al. 2015) owing to the accelerated pace of population growth, deforestation and energy use. The mass production of goods and the generation of electricity have relied primarily on fossil fuels such as coal, oil and gas, leading to unprecedented levels of emissions of carbon dioxide (CO<sub>2</sub>), "the principal anthropogenic greenhouse gas (c) leading to global warming" (Stocker et al. 2013). The World Meteorological Organization (WMO)

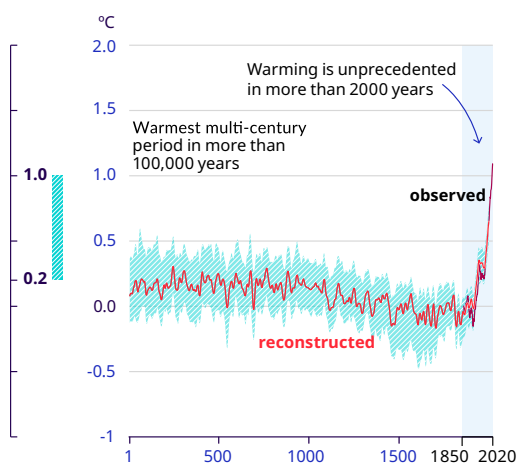
reports that the global average temperature in 2019 was around 1.1°C above that of the pre-industrial period and that the past decade (2010–19) was the warmest on record. Using 18 years of National Aeronautics and Space Administration (NASA) satellite data, a recent study (Zhao et al. 2021) shows an increase in global patterns of temperature variability from the warmest (80.8°C, ten degrees higher than the previous global record of 70.7°C in 2005) to the coldest (-110.9°C), highlighting the type of extremes faced increasingly by different ecosystems.

Many of the most severe adverse effects of climate change begin to occur at the 1.5°C mark.

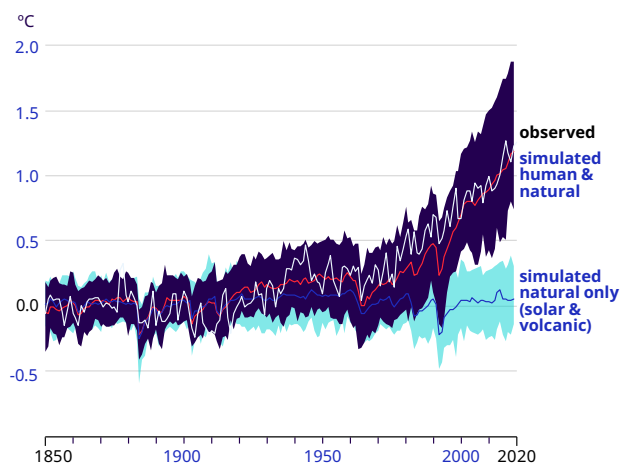
► Figure 1. History of global temperature change and causes of global warming

Changes in global surface temperature relative to 1850-1900

a. Change in global surface temperature (decadal average) as reconstructed (1-2000) and observed (1850-2020)



b. Change in global surface temperature (annual average) as observed and simulated using human & natural and only natural factors (both 1850-2020)



Source: IPCC, 2021, p. 6.

<sup>1</sup> The Anthropocene is a proposed geological epoch dating from the commencement of significant human impact on the Earth's geology and ecosystems, including, but not limited to, anthropogenic climate change.

<sup>2</sup> Climate change refers to a measurable change in the state of the climate over an extended period of time (decades or more) "which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods" (UNFCCC, 1992, Article 2).



Thousands displaced by floods and conflict, Jowhar, Somalia, 2013. ©UN Photo/Tobin Jones

At 1.5°C, 13.8 per cent of the world's population would be exposed to severe heatwaves at least once every five years, a figure that increases threefold (to 36.9 per cent) with global mean surface temperature warming of 2°C, a difference of around 1.7 billion people. A rise of 3°C rise would see the disappearance of Greenland's ice sheet and threaten millions with starvation. A 4°C rise would make large areas of the Earth too hot for human habitation, erasing entire nations and creating billions of climate refugees. A 6°C rise would eliminate most life on Earth, including much of humanity (Lynas 2020). A 2021 forecast by the WMO indicates that there is a 40 per cent chance that at least one of the next five years, 2021–25, will be 1.5°C warmer than pre-industrial levels, and that this probability will increase over time. The Sixth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) (2021) confirms

that global warming will exceed both 1.5°C and 2°C during the twenty-first century unless CO<sub>2</sub> and other greenhouse gas (GhG) emissions decrease significantly in the coming decades.

The 2015 United Nations Climate Change Conference (COP21) adopted the Paris Agreement on Climate Change (UNFCCC 2015), the first universal, legally binding global climate change agreement, which aims to avoid dangerous climate change by limiting the increase in global average temperature to below 2°C and pursuing efforts to limit it to 1.5°C. Every five years, each country is expected to submit an updated national climate action plan, known as a nationally determined contribution, or NDC,<sup>3</sup> that includes the action planned to reduce their GhG emissions and to build resilience to adapt to the effects of rising temperatures.

<sup>3</sup> Article 4(2) of the Paris Agreement requires each Party to prepare, communicate and maintain successive NDCs that it intends to achieve in terms of efforts to reduce national emissions and adapt to the effects of climate change. To increase ambition over time, the Paris Agreement provides that successive NDCs (submitted every five years to the UNFCCC secretariat) will represent a progression beyond the previous NDC and reflect the Party's highest possible ambition. During the first round, from 2015–19, 186 countries submitted their plans. Parties are expected to submit new or updated NDCs by 2020.

Climate change is not uniform across the Earth: regional effects may be disproportionate and differ from global trends (IPCC 1997). Global warming has major consequences for regional climates, including changes to ice melting in the hydrological cycle of evaporation and precipitation and to ocean currents and air flows in the atmosphere. Natural drivers and internal variability will modulate changes caused by humans, particularly at the regional level and in the short term. As global warming progresses, every region is expected to experience increasing concurrent and multiple changes in drivers of climatic impact. Although GhGs have a global impact on the climate, the effects of climate change are highly localized regardless of where GhGs are emitted. It is important to consider these modulations in planning for the full range of possible changes. From this perspective, it is reassuring to know that interdisciplinary scientific research and technological development, including modelling and artificial intelligence, have greatly increased our ability to understand, predict and visualize the risks associated with climate change at localized levels.

Lastly, and of particular significance to this paper, our relationship with time is deeply altered by

global warming. Indeed, the production of CO<sub>2</sub> and other GhGs for immediate consumption will affect the climate and our environment for thousands of years: many changes caused by past and present GhG emissions will be irreversible for centuries or millennia, particularly changes to oceans, ice sheets and the global sea level. Moreover, the inertia of the climate system will delay the effect of even strong and sustained mitigation measures by several decades, and it is therefore unlikely that global mean temperature will stabilize before the second half of the twenty-first century. These changes also lead to increasing uncertainty in the short and medium term, as adverse events directly or indirectly caused by the climate are expected to become more complex. The unpredictability of the future can engender a constant sense of urgency, which is by no means desirable and which can be avoided by embracing this new reality. After the Holocene, a long period of climatic stability lasting 10,000 years that allowed humans to settle and develop civilizations, we are now entering the Anthropocene, an era of changing climate to which we must adapt in order to survive, but also to thrive in a new, and hopefully better, world.

## ► 1.1. Towards a safe and just space for humanity

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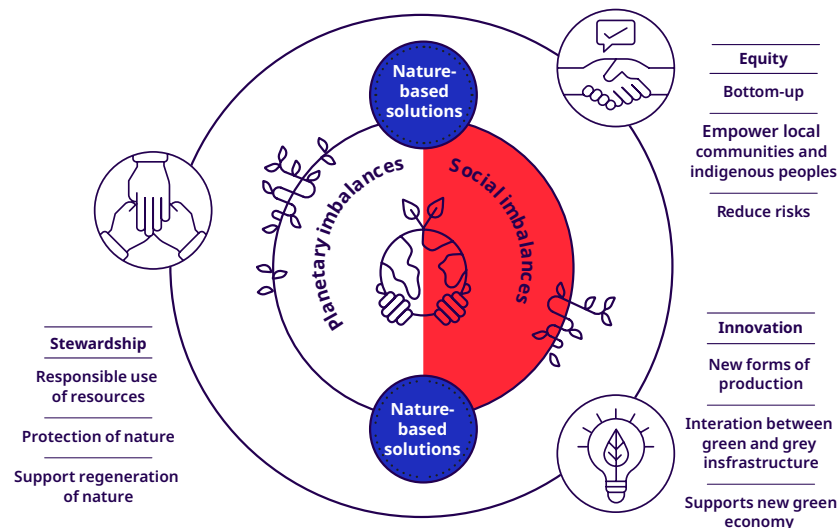
► Progress made in last decades in terms of social justice must be preserved and protected, while the global solutions to new challenges and opportunities must be centred around human, environmental, economic and societal values.

► Gilbert F. Hounbo

Our awareness of anthropogenic climate change and the progress made in gathering scientific knowledge of its long-term consequences give us no other choice but to question our way of life, not merely for the benefit of today's society, but for generations to come. Climate change calls for a fundamental societal paradigm shift. The broader debate on human development

and climate change that has been under way for some years provides a natural framework for this study, which is ultimately about the ways in which social protection can be instrumental not only in absorbing shocks, but also in promoting more sustainable ways of living together that build stronger foundations for the future.

► Figure 2. Nature-based solutions and the potential for a virtuous cycle between people and planet



Source: UNDP, 2021, Figure 6.1, p. 185.

By way of illustration, figures 2 and 3 provide a useful reference to, respectively, the United Nations Development Programme (UNDP) Human Development Report 2020 and the Doughnut Theory developed with Oxfam by economist Kate Raworth. Both express the aforementioned aspiration in a simple but telling way, as well as the need to build a society shaped by a holistic vision of human well-being and driven by the simultaneous achievement of the environmental, social and economic goals reflected in the United Nations 2030 Agenda for Sustainable Development.

Climate change is not the only systemic challenge threatening human life on earth: it is just one of nine critical planetary boundaries for a safe operating space for humanity, first identified

in the mid-2000s by scientists at the Stockholm Resilience Centre in Sweden.

At least five of these nine boundaries – climate change, biodiversity, changing land systems, biogeochemical flows and, since 2021, chemical pollution – have already been crossed and, since their adverse effects are mutually reinforcing, it is essential that all of them are considered in our plans for the future.

To be effective, the fight against climate change must therefore avoid siloed environmental strategies, since it is known that security threats arise from “the interconnections between different aspects and forces in particular situations” (UNDP 2022). Human security,<sup>4</sup> as a broad and flexible concept that can relate to different policy and operational areas, merits

<sup>4</sup> Human security is at the heart of the UNDP Human Development Report 2021, as well as its 2022 special report entitled *New Threats to Human Security in the Anthropocene*, which explore what it means today to “live free from want and fear”, echoing the Human Development Report 1994, which introduced the concept. According to General Assembly resolution 66/290 of 2012, “human security is an approach to assist Member States in identifying and addressing widespread and cross-cutting challenges to the survival, livelihood and dignity of their people.” It calls for “people-centred, comprehensive, context-specific and prevention-oriented responses that strengthen the protection and empowerment of all people” (<https://www.un.org/humansecurity/wp-content/uploads/2017/10/h2.pdf>).

Working together in the pursuit of equity, innovation and planet stewardship can steer actions towards the transformational changes required to advance human development in the Anthropocene.

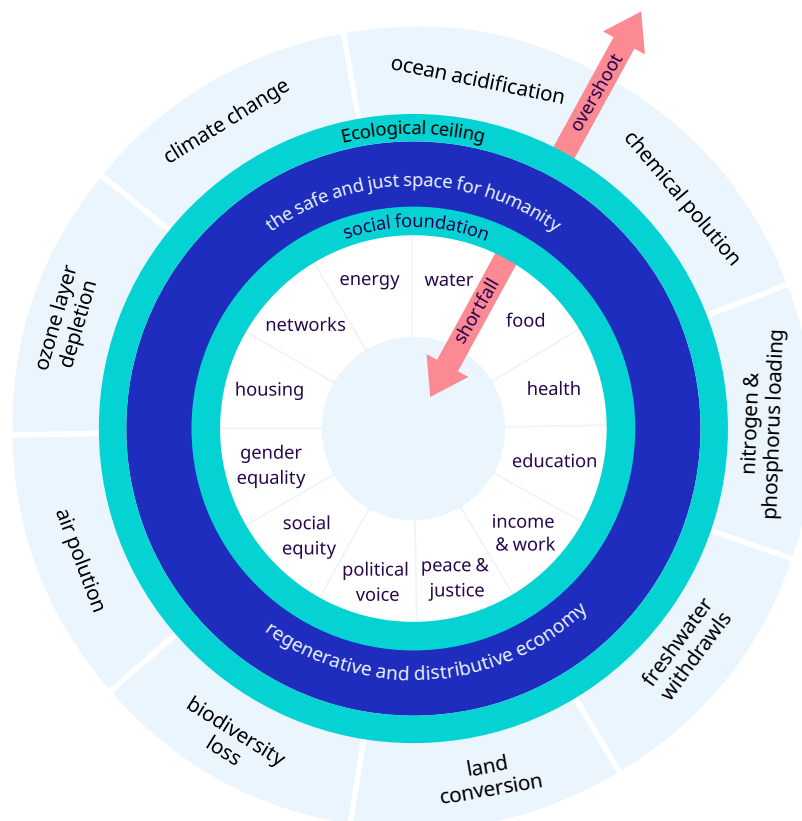
► UNDP, 2020

consideration as a potential framework for alignment for our topic.

The Sixth Assessment Report of the IPCC indicates that incremental, iterative steps towards global warming of 1.5°C are no longer a reasonable course of action. Alongside the notion of a transition that focuses on socio-technical systems, such as energy, ecosystems, infrastructure and

industry, which has already been well established in previous reports, the authors of the Assessment Report, seek solutions, by also emphasizing the notion of a transformation as a means of better addressing issues of equity, climate justice and large-scale institutional and societal change, with a particular focus on transformational adaptation. Indeed, only transformations on the scale of the rapid and profound societal changes seen in the

► Figure 3. The Doughnut Theory



**Note:** The 11 dimensions of the social foundation are illustrative and are based on governments' priorities for Rio+20. The nine dimensions of the environmental ceiling are based on the planetary boundaries set out by Rockström et al. (2009).

**Source:** Oxfam, 2017.

Between an upper boundary set by biophysical limits and a lower boundary set by decent levels of wellbeing for all today lies a safe and just space for humanity.

► Kate Raworth, 2017

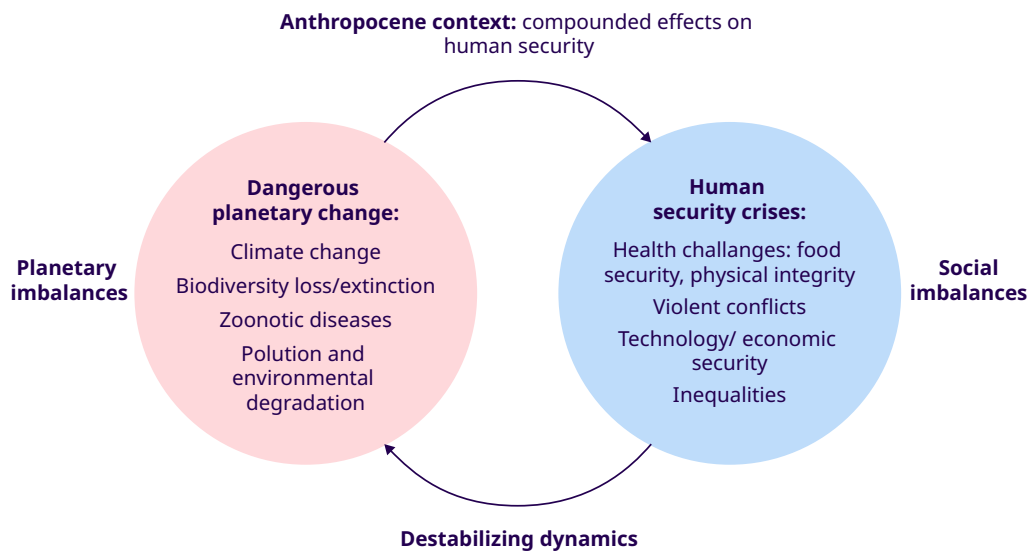
last 200 years can meet the challenge, based on the principles and objectives of sustainable development and climate risk management. It is in this sense that the concept of climate-resilient development<sup>5</sup> is presented as central, particularly when addressing aspects of the transformations necessary in relation to issues of justice, for example just transitions, power and politics.

This calls for renewed political ethics, as outlined, for instance, in the Declaration of Ethical

Principles in relation to Climate Change (UNESCO 2017), and for a collective agenda of precaution and prevention (Gough 2017), achieving improved balance and synergies between the economic, environmental and social dimensions.

This re-thinking is at the centre of approaches such as the capabilities approach, theorized by Amartya Sen and introduced into policy debate by the Human Development Report, which uses human capabilities, rather than gross domestic

► Figure 4. The Anthropocene is reshaping human security through the interaction of dangerous planetary changes and social imbalances



Source: UNDP, 2022, p. 46.

<sup>5</sup> Climate-resilient development is enabled when governments, civil society and the private sector make inclusive development choices that prioritize risk reduction, equity and justice, and when decision-making processes, finance and actions are integrated across governance levels, sectors and time frames. Climate-resilient development is facilitated by international cooperation and by governments at all levels working with communities, civil society, educational bodies, scientific and other institutions, media, investors and businesses; and by developing partnerships with traditionally marginalized groups, including women, youth, indigenous peoples, local communities and ethnic minorities. These partnerships are most effective when supported by enabling political leadership, institutions, resources, including finance, as well as climate services, information and decision support tools (IPCC 2022).



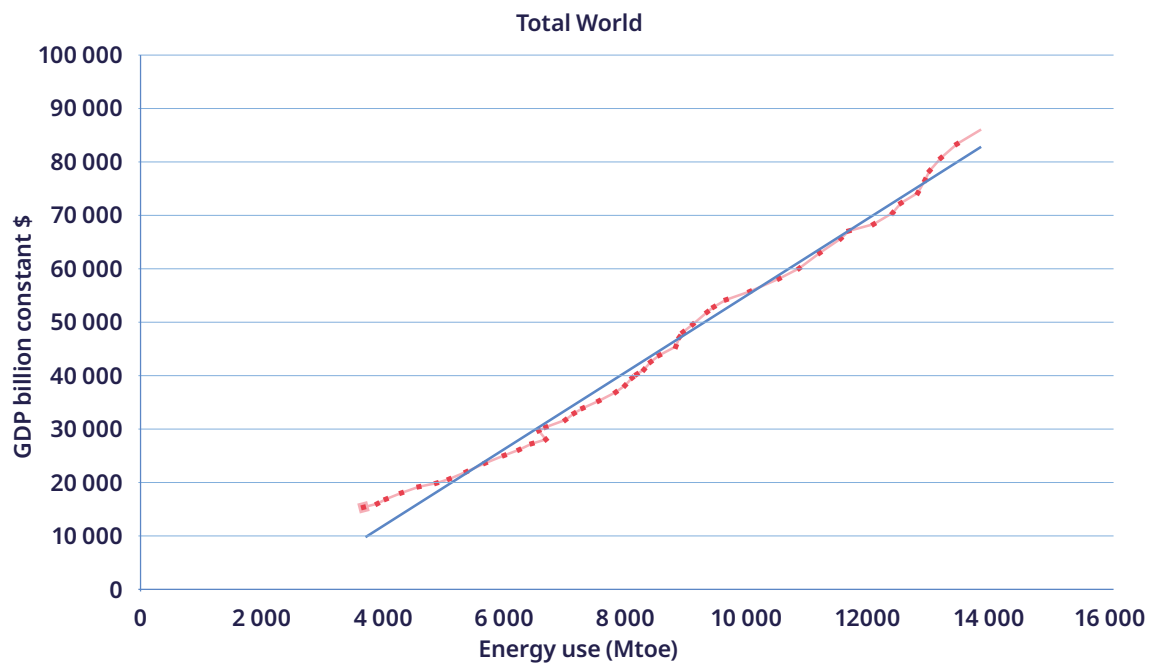
Behind the wall, a man walking on top of a giant sea wall protecting Jakarta, Indonesia, 2021. ©Climate Visuals Countdown/Irene Barlian

product (GDP), as the metric for assessing the economy. When GDP growth and macroeconomic stability are considered core markers of development, they are often presented as value-free, neutral concepts, desirable because of their effectiveness in producing other desired outcomes. This misguided view of value, which sees activities that harm persons and the environment as creating value, fails to consider the true value of social services, social protection and the public good (UNDP 2020). Climate change is identified as the greatest risk to the achievement of the 2030 Agenda for Sustainable Development, illustrating the high cost of inaction.

By way of illustration, it is useful to visualize the remarkable linear correlation between energy use and GDP that lies at the heart of climate change today. This correlation (figure 5) may be understood easily since energy is required

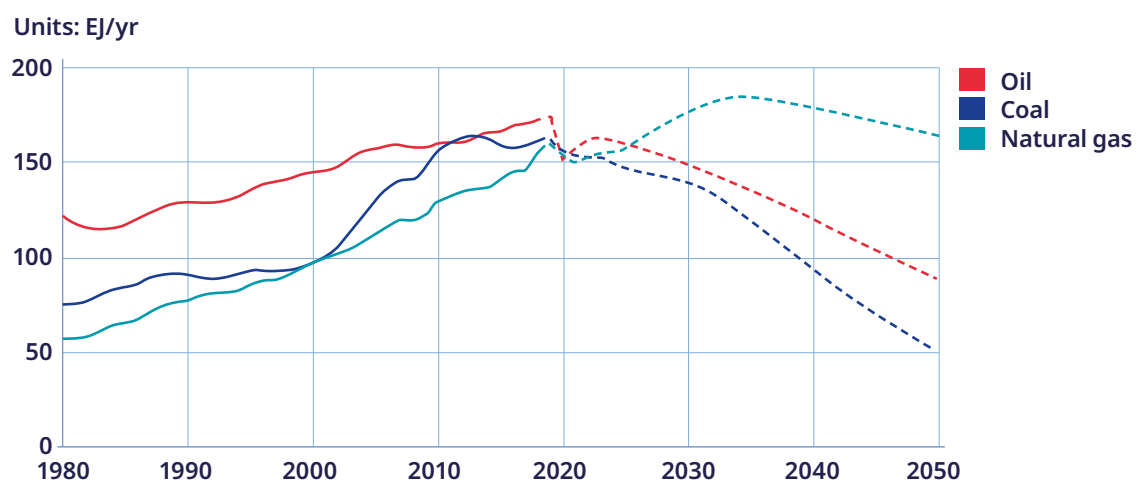
to transform natural resources into goods and services. Most of these energy sources, primarily fossil fuels, currently emit greenhouse gases. This means that, at least temporarily and until alternative, non-polluting energy sources can replace them, GDP is likely to be affected by mitigation measures. If we add to this the fact that fossil fuels are non-renewable and that they will remain available for a few decades more at most (figure 6), we can see how this re-thinking is vital and urgently needed.

► Figure 5. Correlation between energy use and GDP



Source: The Shift Project Data Portal 2021, based on World Bank GDP and energy data. <http://theshiftdataportal.org/>.

► Figure 6. World primary fossil fuel supply by source



Source: IEA, 2019

## Climate change and the future of work

■ If climate change is a consequence of human activity, then that activity is, for the most part, work or work-related... [a] nd if work is the predominant cause of climate change, then inevitably it must be central to strategies to prevent, mitigate and adapt to it.

► **Guy Rider**, former Director-General of the ILO

Many of the challenges that individuals and societies face today will occur in the world of work owing to the ever more rapid evolution of labour markets driven by ecological, technological and demographic transformations. The need for protection and the promotion of resilience will increase disproportionately in certain geographic areas, such as those that are hard to reach, for certain types of employment, such as in the informal economy, and, for example, owing to other specific vulnerabilities linked to persistent inequalities, such as forced displacement or poverty. Simultaneously, new opportunities will arise from the need to reduce social and ecological imbalances, fostering, for example, the circular economy, the economy of care and nature-based solutions.<sup>6</sup>

The Global Risks Report 2020 (WEF 2020) finds that the top five risks for the world of work between 2020 and 2030 are climate change and related environmental issues. The main risks arising from climate change range from economic and employment losses to negative effects on human health and well-being, reduced labour productivity and forced labour migration.

The interrelation of these and other risks poses significant challenges for decent work and social justice. In many instances, jobs in sectors characterized by informality and decent work deficits are likely to be further undermined by climate impact. Corporate investment in climate action and resilience is particularly important from this standpoint; the International Trade Centre's SME Competitiveness Outlook found that resilient firms were five times less likely to lay off workers and more likely to enjoy stable revenue. Nearly 60 per cent of African firms found that greening their business resulted in better quality products, increased productivity, new markets and lower input costs (ITC 2021).

The 2018 ILO report *World Employment and Social Outlook 2018: Greening with Jobs* stresses that while action to limit global warming and foster environmental sustainability will inevitably cause job losses in certain sectors as carbon- and resource-intensive industries are scaled down, they will be more than offset by new job opportunities (ILO 2018a).

The ILO Guidelines for a just transition towards environmentally sustainable economies and societies for all (ILO 2015) provide guidance on protecting populations affected by climate change and facilitating the transition of the workforce to greener sectors while addressing the impact of job losses and gradual industry closures on workers and communities. The Guidelines represent a critical achievement for the global labour movement in particular, resulting from more than a decade of negotiations. Parties to the Paris Agreement have committed to considering "the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities" (UNFCCC 2015, preamble), while pursuing efforts to mitigate and adapt to climate change. The Secretary-General of the UN, António Guterres, and the former Director-General of the ILO, Guy Ryder, launched the Climate Action for Jobs Initiative at the Climate Action Summit 2019. Under the Initiative, 48 countries committed to supporting a just ecological transition by putting jobs and

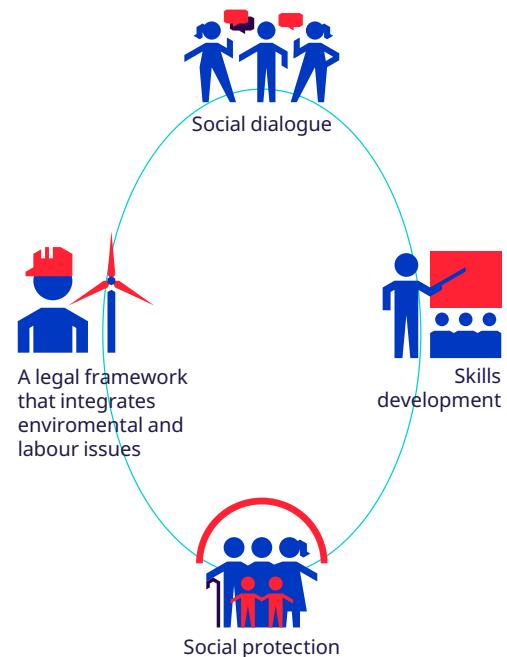
<sup>6</sup> The International Union for Conservation of Nature (IUCN) defines nature-based solutions as: "Actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously benefiting people and nature."

livelihoods at the heart of their ambitions for a greener future. The ILO is leading the Initiative, which is designed to support governments in their commitment to enabling ambitious climate action that creates decent jobs and advances social justice. The Initiative provides, inter alia, technical support for the development of just transition measures.

As this study will show, universal social protection can act as both a necessary safeguard and a catalyst in this endeavour, enabling workers to enjoy decent jobs and afford a good standard of living, while embracing changes with confidence and coping with shocks when necessary.

The COVID-19 crisis has highlighted the vital role of social protection as a social buffer and economic stabilizer. This role will continue to expand in the context of climate change, as expressed, for example, in the global call to action for a human-centred recovery from the COVID-19 crisis that is inclusive, sustainable and resilient (ILO 2021a). This agreement commits countries to addressing the global dimensions of the crisis through enhanced international and regional cooperation, global solidarity and policy coherence across the economic, social, environmental, humanitarian

► Figure 7. Policies can advance a transition that is also just



Source: ILO, 2018a.

#### ► Box 1. What is meant by a “just transition”?

The just transition framework conveys the idea that for the transition towards sustainability to be fair and viable for all, it requires a holistic approach combining country-specific macroeconomic, industrial, cultural, sectoral and labour policies that enable a sustainable economic environment for enterprises and the creation of decent work. It involves managing the green transition through social dialogue mechanisms and long-term planning; anticipating and assessing the employment, socio-economic and environmental impact of climate change and providing adequate protection, skills development and employment services for workers with a view to building equitable and productive green economies.

Since the twentieth session of the Conference of the Parties (COP20) in Lima in 2014, Parties have been invited to communicate their intended nationally determined contributions, which were subsequently formalized as nationally determined contributions (NDCs) under the Paris Agreement. The Agreement also recognizes the “imperatives of a just transition of the workforce and the creation of decent work and quality jobs” and calls on Parties to strive to formulate and communicate long-term low greenhouse gas emission development strategies. Social protection systems, together with active labour market policies including skills development, are central to advancing a just transition. They play a critical role in safeguarding income security and access to health care, supporting workers affected by structural transformations, and facilitating transitions to alternative livelihoods and sectors in a manner that is socially equitable and ensures that no one is left behind.

Source: ILO, 2015; UNFCCC, 2014; UNFCCC, 2015.

and health domains, thereby enabling all countries to overcome the crisis and expedite progress towards achieving the 2030 Agenda, the Addis Ababa Action Agenda of the Third International Conference on Financing for Development, and the Paris Agreement.

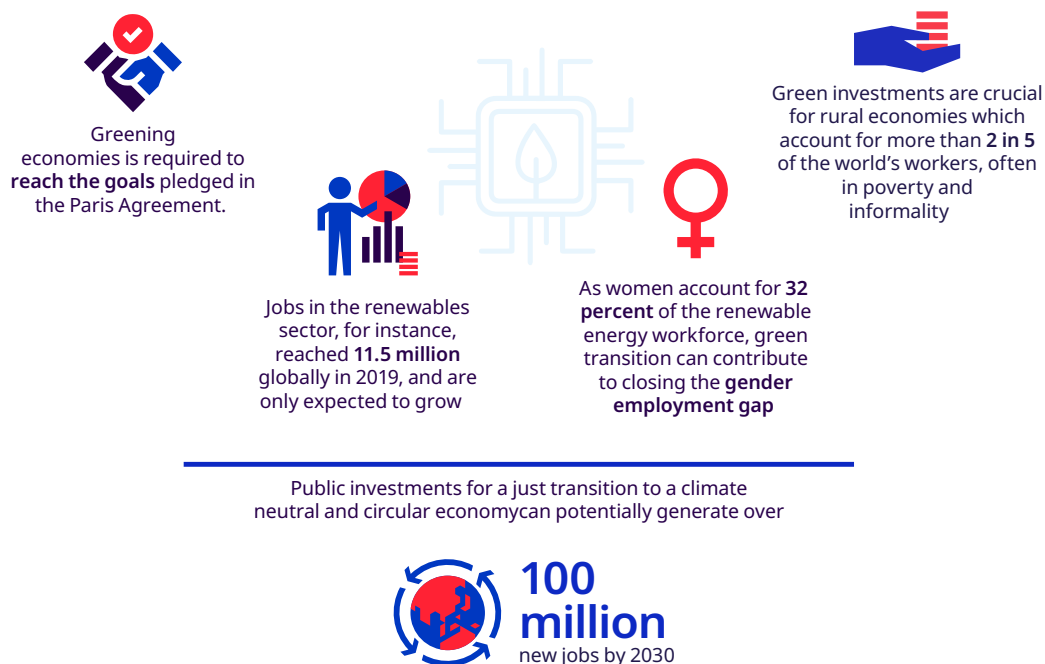
To catalyse broad, systemic effort in this direction, in September 2021 the Secretary-General of the UN launched the Global Accelerator on Jobs and Social Protection for Just Transitions (United Nations Secretary-General 2021), which is expected to foster a new era of universal social protection, green and job-rich growth and to put the world back on track to achieve SDG 1, SDG 8 and related goals.

The Global Accelerator, led by the ILO, will foster multilateral cooperation in the social sector,

promoting a One UN approach and greater collaboration with financial institutions and the private sector, civil society and youth. It will also build on and scale up pre-existing strategies, such as the Global Partnership for Universal Social Protection to Achieve the Sustainable Development Goals (USP2030) and the Climate Action for Jobs Initiative at the national level.

Its aim is to create at least 400 million jobs, primarily in the green and care economies, and to extend social protection floors to those currently not covered by any social protection measures (approximately 4 billion men, women and children) by 2030, with a focus on low- and middle- income countries, small island developing States and countries in fragile situations.

► Figure 8. Investing in jobs and social protection for poverty eradication and a sustainable recovery



Source: UN, 2021, p. 14.

## ► 1.2. Climate policies

Climate policies fall into two main categories: mitigation and adaptation, which address the causes and effects of climate change, respectively.

Both approaches are necessary, often complementary and tied to each other (Pachauri et al. 2014). Moreover, the emerging concept of climate-resilient development and its focus on transformational adaptation allow for the implementation of incremental and transformational action with no strict division between the two, but rather mutual reinforcement.

The link between the two approaches is symbiotic, since the level of mitigation determines the required level of adaptation, as set out in figure 9, which

illustrates the difference between two opposite scenarios, with and without mitigation.

Collaborative intersectoral approaches are thus necessary to address the complex and interrelated nature of climate risks. Such integration relates to, for example, the convergence of climate change adaptation, disaster risk reduction and humanitarian policies, and integrated approaches to health, (WHO 2017) recognizing the interconnections between persons, animals, plants and their shared environment.

A typical example of such an interconnection is agriculture, which plays an equally crucial role in mitigating climate change by reducing GhG

► Figure 9. Portraits of two opposite scenarios



Source: IIASA, 2022.

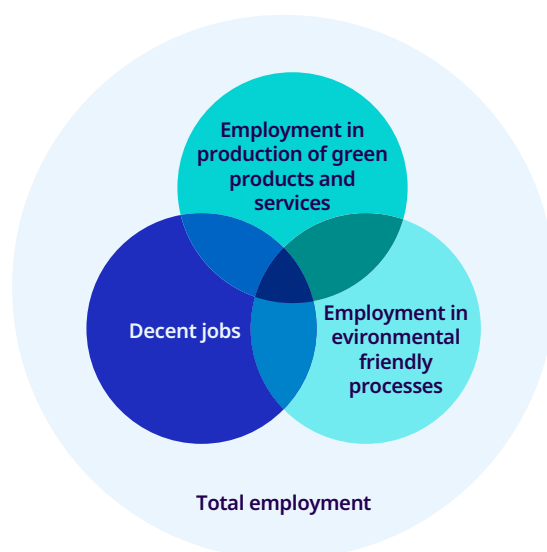
emissions<sup>7</sup> as it does in adapting to it by producing the necessary quantity and quality of food for the world's population. Similarly, in *Nature Hires: How Nature-Based Solutions Can Power a Green Jobs Recovery*, the ILO demonstrates how nature-based solutions,<sup>8</sup> alongside the necessary transitions in our energy, urban and industrial systems, can deliver both climate mitigation<sup>9</sup> and adaptation outcomes that are economically, socially and environmentally beneficial at the local, regional and national levels (Lieuw-Kie-Song and Pérez-Cirera 2020). This approach is adopted transversally in the Human Development Report

2020: *The Next Frontier – Human Development and the Anthropocene* (UNDP 2020), which makes the case for nature-based human development and for the cumulative effects that local initiatives can have at the global level.

### Green jobs: a concept at the core of climate policies

Green jobs support climate policies because they can, for example, limit GhG emissions, minimize waste and pollution, protect and restore

► **Figure 10. Green jobs are decent jobs that contribute to preserving or restoring the environment, be they in traditional sectors such as manufacturing and construction, or in new, emerging green sectors such as renewable energy and energy efficiency**



Source: ILO, 2016a.

**While we mitigate global warming  
in the long run, we must adapt and prepare  
for shocks now**

**Green jobs must be decent jobs and  
therefore extend social protection,  
including social insurance**

<sup>7</sup> Approximately 23 per cent of total net anthropogenic GhG emissions between 2007 to 2016 came from agriculture, forestry and land use (IPCC 2019). Livestock supply chains alone account for an estimated 14.5 per cent of global anthropogenic GhG emissions (Gerber et al. 2013).

<sup>8</sup> The concept of nature-based solutions was developed by the World Bank in 2008 and adopted the same year by the IUCN. Initially intended to support climate change adaptation and biodiversity conservation, they more recently gained attention for climate change mitigation.

<sup>9</sup> A recent report by the IUCN and the United Nations Environment Programme summarizes the major studies into the mitigation potential of nature-based solutions (Miles et al. 2021).

ecosystems and support adaptation to the effects of climate change. If they are decent, they extend social protection, including social insurance (Schmitt and Félix 2010).

The development of green jobs faces many challenges. Most importantly, the need for these jobs to meet minimum labour standards and for workers in existing “green but not decent” jobs to enjoy increased security, social protection and formalization (UNDP 2018).

The ILO launched the Green Jobs Initiative in 2009 to promote the creation of green jobs throughout the world and is also supporting the Green Jobs Assessment Institutions Network,<sup>10</sup> a network of policy research institutions and experts that analyses the social and employment-related outcomes of greening policies and regularly publishes green jobs assessment reports<sup>11</sup> to inform policymakers of the social, employment and economic impacts of climate policies.

## Climate change mitigation

It's not only the mining industry that is going to lose business, the people there working at the power stations are going to lose jobs. In those power stations, how many families are going to suffer?

► 29-year-old coal miner, Komati Power Station, South Africa

Climate change mitigation includes all processes that aim to reduce emissions or enhance GhG sinks.<sup>12</sup> This is a vitally important policy, as it will, quite literally, determine humanity's survival on the planet.

To appreciate the scale of this challenge, it is useful to refer to figure 11, which highlights the massive amount of fossil fuels (oil, coal and gas) currently produced in the world compared to less polluting, more renewable sources.

Examples of mitigation approaches include:

- major shifts towards net zero in economic sectors such as energy, agriculture, food production, recycling and waste management;
- social and individual behaviour change in relation to, for example, buying habits – that is, buying less to make everything last longer – and consumption patterns, including low-carbon diets, housing and transportation;
- environmental management policies, including in the areas of land use, reforestation and biosequestration;

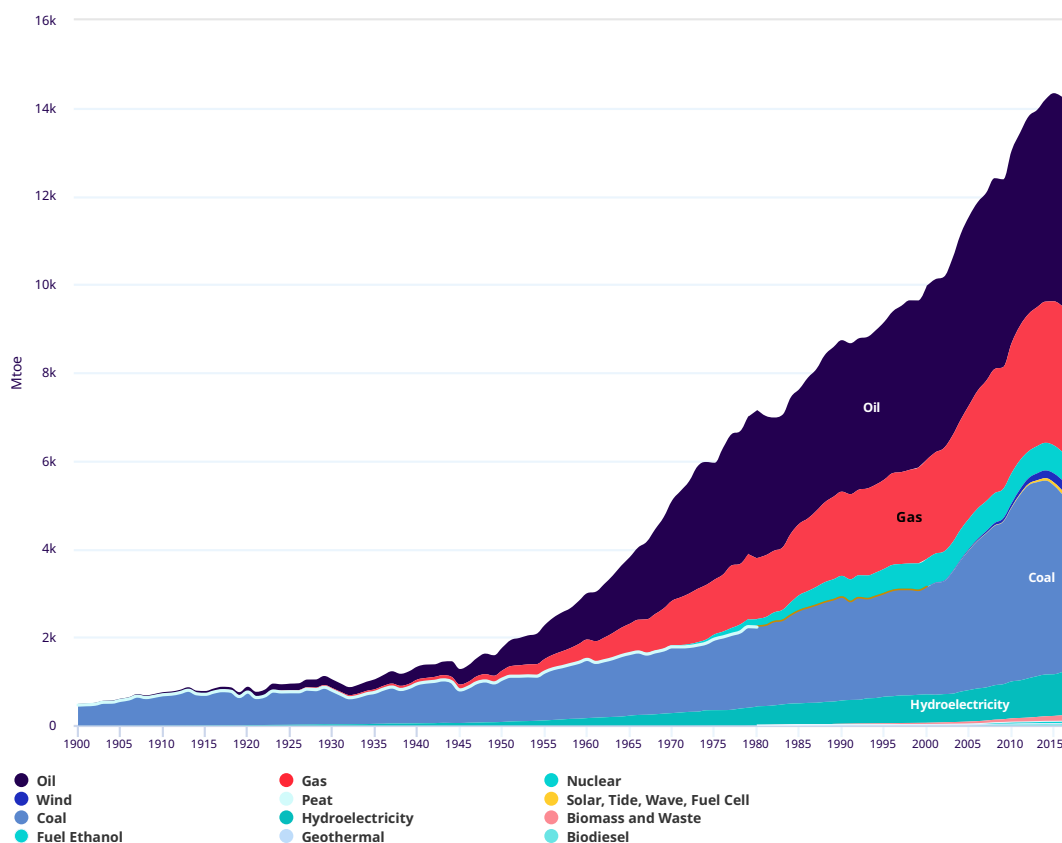
Today, most economies are attempting to shift to, inter alia, more environmentally friendly technologies to improve labour conditions and reduce emissions. Given the urgency and scale of the challenge, it is worth highlighting that hybrid approaches are frequently adopted to support transition strategies, including hybrid vehicles, hybrid photovoltaic/diesel rural electrification systems (ILO 2018b), hybrid green/brown sectors (Alarcon and Ernst 2017) and hybrid occupations, such as green accountancy (CEDEFOP 2011).

<sup>10</sup> See “[Green Jobs Assessment Institutions Network \(GAIN\)](#)”.

<sup>11</sup> See “[Green jobs assessment reports \(Green jobs\)](#)”.

<sup>12</sup> “Sink” means any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere (UNFCCC 1992).

► Figure 11. Primary energy production by source, world, 1900-2016



Source: [The Shift Project](#). n.d. Primary Energy Production by Source, World, 1900–2016. Data visualization based on historical energy data (including sources such as BP Statistical Review and other global datasets).

## Current trends in national commitments to support climate policies

According to the 2021 UNFCCC NDC Synthesis Report, current targets for reducing GhG emissions by 2030 amount to less than 1 per cent, nowhere near the 45 per cent needed to limit warming to 1.5°C. Because necessary action has been repeatedly delayed, the carbon emissions budget (the total volume of emissions compatible with avoiding catastrophic climate change) is nearly exhausted and almost all developed countries need to further strengthen their targets to reduce emissions as fast as possible, as highlighted in the most recent update of the

Climate Action Tracker (Climate Analytics and New Climate Institute 2021).

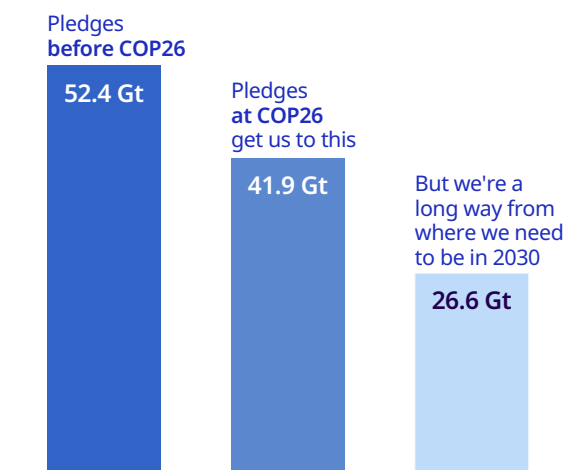
Consequently, as the European Systemic Risk Board points out, the transition to net zero is by now bound to be “too late and too sudden” (ESRB 2016). Countries have very different levels of dependence on extractive resources and very unequal capacities to diversify and avoid catastrophic economic disruption; an abrupt transition is likely to result in greater social and economic disruption for the poorest and most fossil-fuel-dependent countries.

The “green” credentials of national stimulus packages following the COVID-19 crisis is a good indicator of this political will: a recent report (Vivideconomics and Finance for Biodiversity

► **Figure 12. Pledges to cut emissions of greenhouse gases in 2030 in Gigatons**

**Big emissions cuts still need to limit warning to 1.5°C**

Projected greenhouse gas emissions in 2030, gigatonnes (Gt)

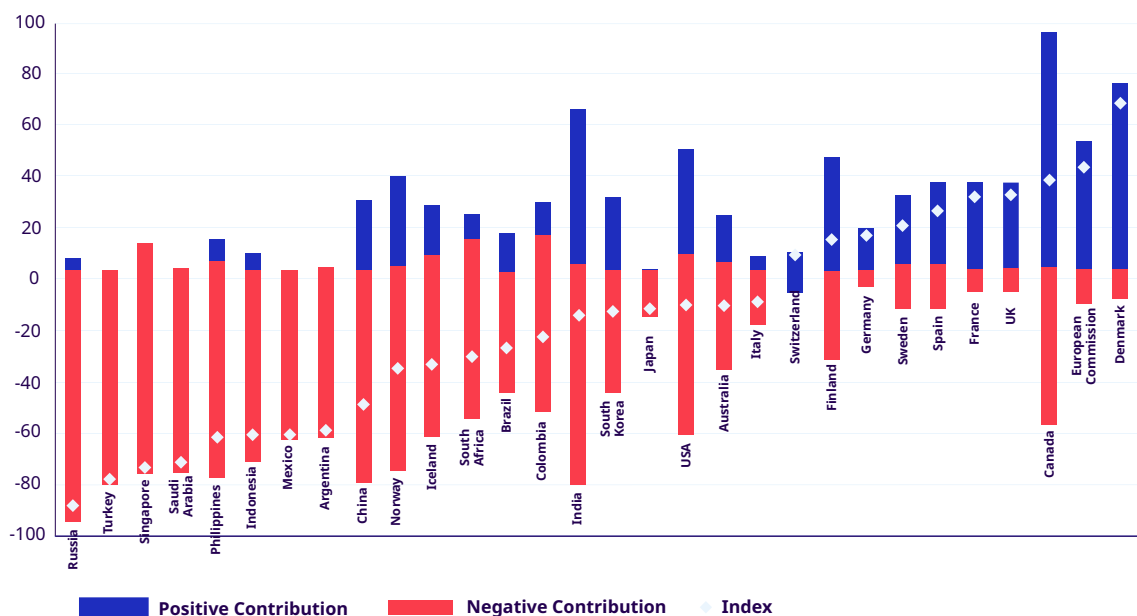


Source: BBC 2021, based on Energy Transitions Commission 2021.

Initiative 2021) indicates that, among major economies, many countries made efforts to direct at least part of their stimulus spending towards green objectives, albeit too often in the short term, while many others simply reinforced carbon-intensive economic activities, as highlighted in figure 13. Ultimately, the extent and timing of these transitions will be determined by political decisions that consider interacting variables and trade-offs, such as the availability and cost of fossil fuels in relation to other alternative sources, the social acceptability of energy price increases and sectoral unemployment compared to the growth generated by new eco-social economic models and, probably, a more restrained lifestyle.

Although many countries are now setting carbon neutrality targets, they have yet to turn commitments into actions, however. As the Secretary-General of the WMO, Professor Petteri Taalas, warns, "[a]t the current rate of increase in greenhouse gas concentrations, we will see a temperature increase by the end of this century far in excess of the Paris Agreement targets of 1.5

► **Figure 13. Greenness of Stimulus Index, G20 economies plus Nordic countries, Colombia, Switzerland, Spain, Singapore and the Philippines**



Source: Vivideconomics and Finance for Biodiversity Initiative, 2021.

to 2 degrees Celsius above pre-industrial levels. We are way off track". According to the Production Gap Report 2021, governments are, in aggregate, planning to produce around 110 per cent more fossil fuels in 2030 than would be consistent with limiting global warming to 1.5°C, and 45 per cent more than would be consistent with limiting warming to 2°C, on a global level (SEI et al. 2021). The Climate Action Tracker reveals that, so far, only one country, the Gambia, has taken adequate measures to limit warming to 1.5°C.

**The transition to low-carbon economies is expected to create 24 million new jobs by 2030**

**Workers and communities who are left behind in the process will require protection and support**

## Climate change adaptation

■ ■ We are already gasping for survival. Tomorrow is not an option, for it will be too late.

► **President of Seychelles Wavel John Charles Ramkalawan at the 2021 United Nations Climate Change Conference (COP26)**

Climate change adaptation is defined by the IPCC as the "adjustment in natural or *human systems* in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities. Various types of adaptation can be distinguished, including anticipatory, autonomous and planned adaptation" (IPCC 2007). Given the inevitability

of altered climates, adaptation strategies are becoming increasingly important for most countries and critical for the poorest, which are disproportionately affected by the effects of climate change.<sup>13</sup>

The purpose of adaptation is to reach a more resilient state, that is, a state in which human and natural systems are able to maintain their essential functions and adaptive capacity in the face of climate shocks.

Examples of human adaptation approaches include:

- the preservation and development of ecosystems, since they provide services that can help human, animal and plant life adapt to both current and future climate risks (Locatelli 2018);
- the use of data management and remote-sensing technologies to monitor climate-related processes, such as deforestation and rising temperatures, and to improve early warning and forecasting systems to trigger timely responses;<sup>14</sup>
- the development of innovative rights-based social protection approaches to support and protect persons vulnerable to the risks associated with climate change, for example adaptive and shock-responsive social protection systems;
- the design and development of innovative climate-resilient infrastructure and technology, including water treatment plants, decentralized renewable energy and climate-smart forestry and farming approaches, such as resilient crops;
- migration, which is an important adaptive response for persons facing the adverse effects of climate change, including environmental insecurity caused by, for example, natural disasters; economic insecurity, such as that brought about by loss of livelihood; food insecurity and personal insecurity, for example caused by conflict. The ILO's experience has shown that labour migration, when governed in accordance with international labour

<sup>13</sup> "Poor countries are more heavily affected by extreme weather events and future climate change than rich countries. This discrepancy is sometimes known as an adaptation deficit" (Fankhauser and McDermott 2013).

<sup>14</sup> For example, see European Union, "[Climate ADAPT](#)".

standards, can play an important role in development in both countries of origin and destination (ILO n.d.(a));

- the design and development of innovative approaches to funding and financial risk management, taking into consideration global temperature variability, for example weather-indexed insurance products and reinsurance mechanisms to protect insurance funds against covariate risks, carbon markets, pooling schemes, mechanisms to protect assets from associated losses and damages (UNFCCC n.d.),

catastrophe bonds and long-term contingency funding.

It should be noted that, in the case of animal (IUCN 2019) and plant life, adaptive evolutionary changes of all kinds are also taking place, such as behavioural, physiological and genetic changes, including hybridization. Climate change is also causing the geographical redistribution of plant species (Theunis 2019) and animal species (The Nature Conservancy n.d.) globally. All these changes will, in turn, affect human society and alter life-cycle risks.



Flood protection. Two men work on repairing and refilling breached sections of embankments, Sri Lanka, 2007. ©World Bank/D. Sansoni

Adaptation is a new scientific discipline (Patt 2013) involving a diverse, complex and constantly evolving field of knowledge, exposing it to the double challenge of producing knowledge at different scales and putting it to practical use at different levels of governance (Richard 2017).

## The urgent need for adaptation in the developing world

In terms of both funding and implementation, adaptation measures are lagging behind mitigation measures, reflecting the inherent inequity in the distribution of the causes and effects of climate change between the most and least developed countries. The need for greater balance in funding between adaptation and mitigation, taking into account country-driven strategies, and the priorities and needs of developing countries, is stated explicitly in article 9 of the Paris Agreement (UNFCCC 2015). While international funding for adaptation is, however, starting to increase, from around US\$9 billion per year in 2015–16 (a 20 per cent increase) to US\$15 billion per year in 2017 (a 25 per cent increase), resources are still predominantly spent on mitigation policies (Karthi et al. 2020). At the end of COP26 nearly 200 countries committed to the Glasgow Climate Pact, which includes a call to at least double adaptation funding and affirmation of the pledge by developed countries to provide US\$100 billion per year to developing countries. Furthermore, a recent study found that nearly half the world's most climate-vulnerable nations, from Haiti to Afghanistan, missed out on the first round of grants for adaptation projects from the UN's Green Climate Fund for reasons entirely related to their fragility combined with the complex administrative processes involved in accessing the Fund (Garschagen and Doshi 2022).

Climate change affects the provision of safe, healthy and decent working conditions (ILO 2018c).

Both climate adaptation and disaster risk reduction strategies are essential to the world of work given that uncontrolled climate impact has the potential to damage infrastructure – including transportation systems, power lines, sewage, water and communication networks

► Figure 14. Job losses in 2030 due to heat stress

The equivalent to full-time jobs will be lost in 2030 due to heat stress



Source: ILO, 2018a.

– disrupt business activity and cause the loss of jobs, livelihoods and lives at an unprecedented scale. The ILO estimates that by 2030, more than 2 per cent of total working hours worldwide could be lost each year to the impact of climate change, either because it will be too hot to work or because workers will have to work at a slower pace.

The effects of climate change will be particularly acute in the agricultural sector and among workers in emerging countries and in the informal economy, and they will likely erode some of the achievements made in gender equality in the world of work (ILO 2018b). Today, 1.2 billion jobs – or 40 per cent of the global labour force – are at risk because of environmental degradation (ILO GB.338/POL/1).

The ILO report *Working on a Warmer Planet: The Impact of Heat Stress on Labour Productivity and Decent Work* (ILO 2019e) highlights that climate change will increase the frequency and intensity of extreme weather events, including heat stress, which alone is projected to reduce total working hours worldwide by 2.2 per cent and global GDP by US\$2,400 billion in 2030, primarily affecting agricultural and construction workers. Heat stress increases workers' risk of daily dehydration, exposure to toxic chemicals resulting from increased heat induced

► **Box 2. Green works – an example of climate change adaptation through employment**

Green works refer to the employment intensive development, restoration and maintenance of public infrastructure, community assets, natural areas and landscapes to contribute to environmental goals such as adaptation to climate change and natural disasters, environmental rehabilitation, ecosystem restoration and nature conservation (ILO n.d.(b)). The ILO's Employment-Intensive Investment Programme is meant to support local economic, social and environmental development in both rural and urban areas. Key areas of the Programme's adaptation measures include flood control, drainage and water conservation structures in both rural and urban areas; the improvement and maintenance of rural transport to ensure that transport networks can withstand increased levels of rainfall and flooding; and climate proofing infrastructures.

The ILO has been strengthening its collaboration and partnerships with leading agencies in all environmental fields in order to adapt its programmes to apply the most effective intervention modalities, such as nature-based solutions that are suited to addressing various problems at the local level posed by environmental issues such as water scarcity, desertification, deforestation, biodiversity, adaptation to climate change and natural disasters, while promoting social protection and decent jobs.

evaporation, vector-borne diseases and work-related injuries such as heat stroke.

While it is indeed essential to protect the human and material assets that constitute the world of work from the impact of climate change, it is also necessary to consider its potential for adaptation. In that sense, public work programmes have become increasingly central to social protection

systems in many countries exposed to the impact of climate change.

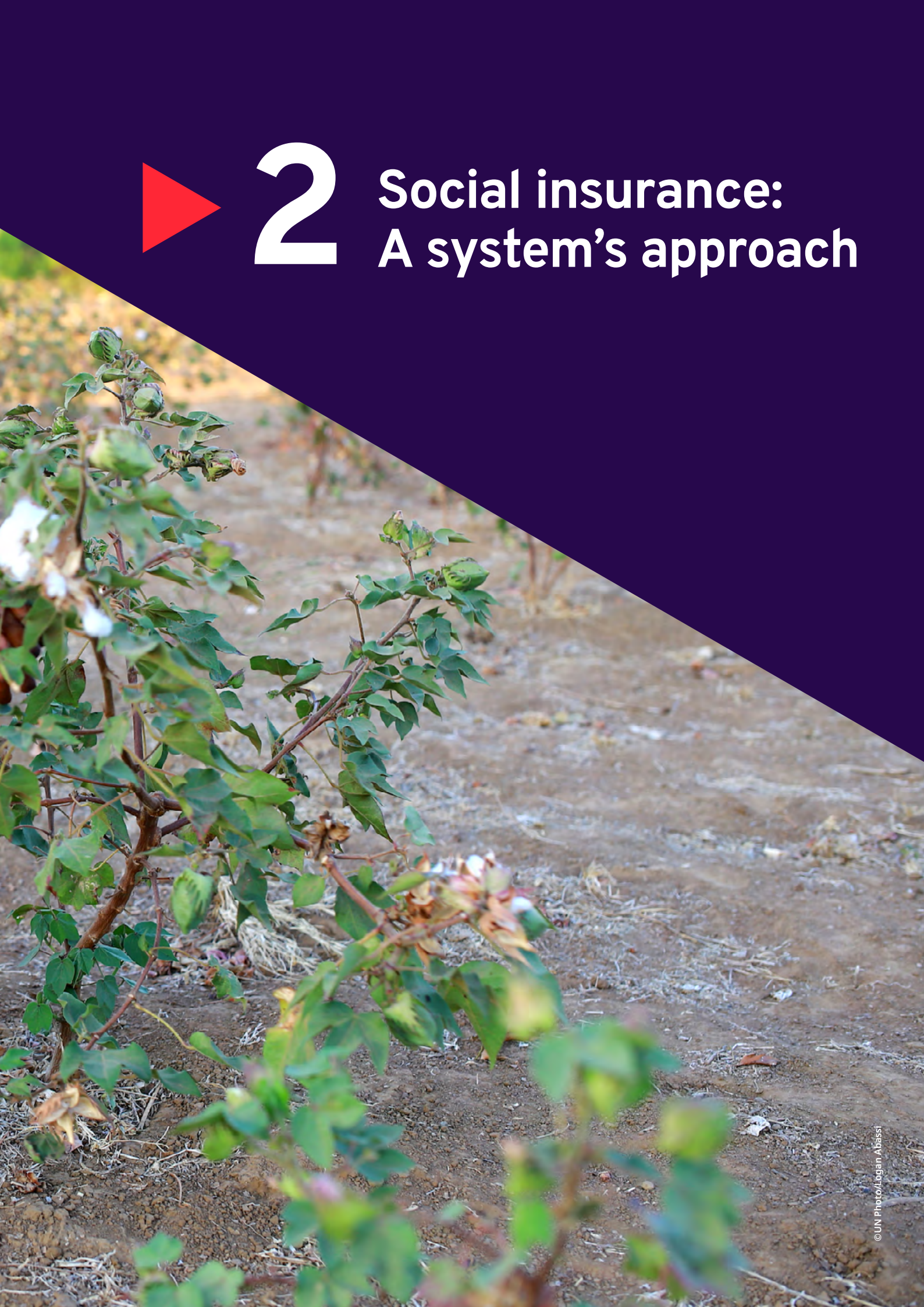
The ILO has increased significantly the recognition of global environmental concerns and their integration into public work programme activities, including a number of key areas related to climate change adaptation, including reforestation, water management and flood protection, and combating desertification (McCord et al. 2021).

**Both climate adaptation and disaster risk reduction strategies are necessary for the resilience of the world of work**

**Climate change effects will be acute in the agricultural sector and among workers in emerging countries and in the informal economy**

**By 2030, more than 2 per cent of total working hours worldwide could be lost every year to climate change impacts**





# ▶ 2 Social insurance: A system's approach

Social protection systems bolster societies' resilience and represent a means of responding to structural transformations, including climate change and natural disasters.

The social protection systems defined in the ILO's normative framework are designed inherently to prevent and absorb shocks across the life cycle. However, climate change is a systemic challenge that calls for climate-informed social protection systems that go beyond specific programmes in order to systematically adapt their parameters, processes and resilience strategies.

Climate-informed social protection may therefore centre on two main goals (building on ILO and AFD 2019):

- ▶ to achieve universal coverage of life-cycle risks while strengthening the alignment of entitlements with the evolving needs of rights holders in the context of climate change and the policies designed to mitigate its causes, within the broader perspective of achieving the SDGs;
- ▶ to ensure the resilience and continuity of national social protection systems despite the physical, functional and financial stresses caused by climate change.

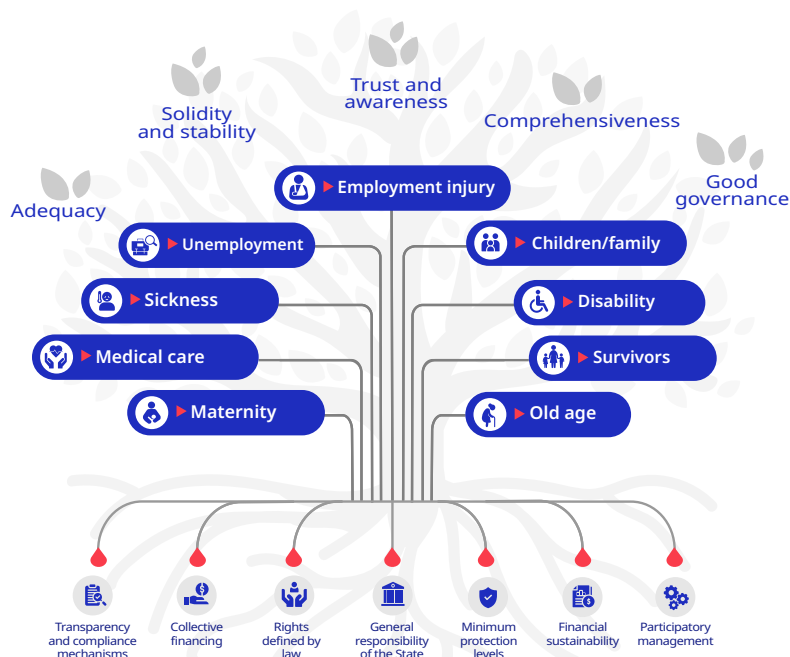
In the following pages, and because social protection generally adopts the strategy of combining different approaches, including contributory and non-contributory approaches, social insurance will be presented in the broader context of a systemic approach.

## ▶ 2.1. The human right to social security

The rights-based approach renders social protection (ILO n.d.(c)) stronger and broader, since it links it to the convergent and mutually reinforcing body of ILO Conventions and

human rights treaties. Through risk pooling and redistribution mechanisms – including solidarity between the healthy and the sick, between economically active persons and older adults

▶ Figure 15. Social protection as defined by the ILO norms and standards



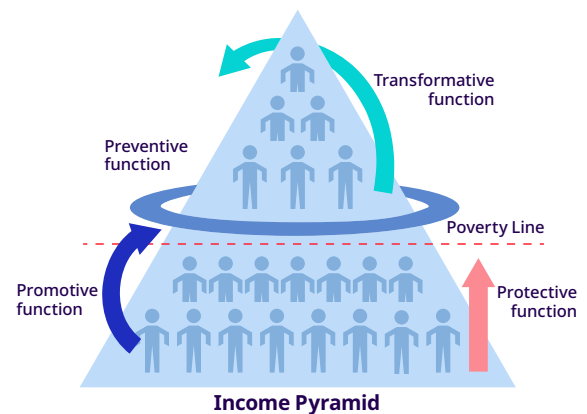
Source: ILO, 2020h.

and children and between persons with high incomes and persons without employment or earning low salaries – social protection systems have the potential to guarantee protection for all members of society; to uphold fundamental rights, such as the rights to food, education and health, throughout the life-cycle; to protect the most vulnerable and to support individuals during shocks, including those stemming from climate change, local environmental degradation and life and work transitions. Rights-based social protection systems ensure that the social protection-related rights and obligations of all parties concerned – governments, State institutions, employers and workers – are anchored in law and duly observed (ILO 2018a).

The social protection systems defined according to the ILO's normative framework are designed inherently to prevent and absorb shocks across the life cycle, since rights holders and individuals become agents of change, not merely passive agents or beneficiaries (Barrantes 2020).

Social protection is a means of reducing poverty, inequality and vulnerability to both life-cycle and climate risks. In that regard, it has at least the following functions, including in crisis situations:

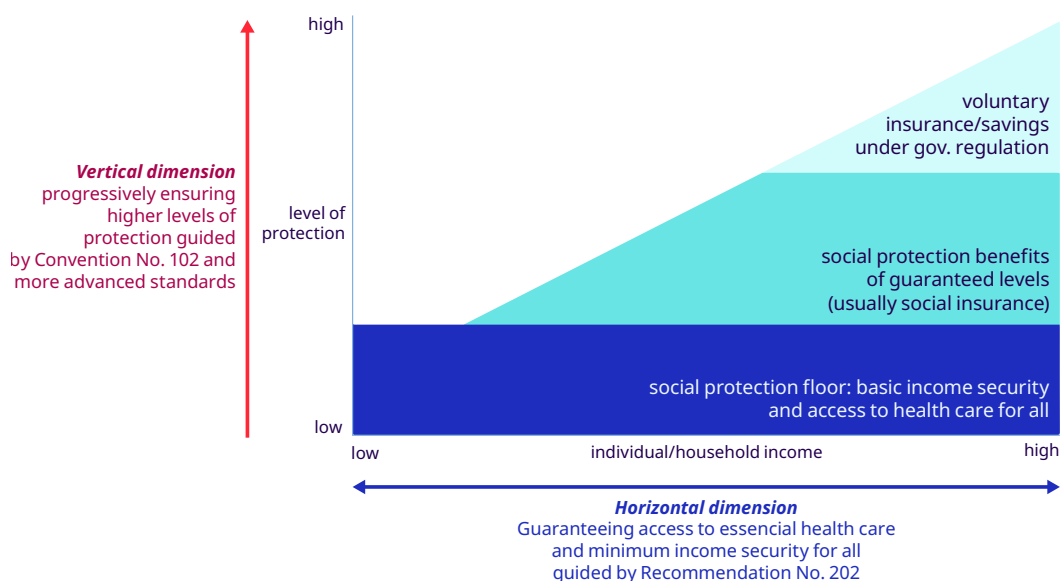
► **Figure 16. General functions of social protection systems**



Source: Loewe and Schüring, 2021.

to prevent poverty (preventive), to alleviate poverty (protective), to fight poverty by reducing uncertainty and enabling individuals to take new risks in their income-generating activities

► **Figure 17. Extending social protection to all**



Source: ILO, 2011.

(promotive) and to remove barriers to higher social equality (transformative) (Devereux and Sabates-Wheeler 2004). These functions are cross-cutting in supporting climate policies and merit strategic consideration to maximize their contribution to transformational adaptation and climate-resilient development.

The ILO's approach to social protection is based on international labour standards and instruments and is centred on a two-dimensional strategy that was adopted ten years ago by governments, employers and workers at the 100th Session of the ILC (ILO 2011).

The two-dimensional strategy aims to rapidly implement national social protection floors with basic social security guarantees over the life cycle that ensure universal access to essential healthcare and basic income security at a nationally defined minimum level (horizontal dimension), in line with the Social Protection Floors Recommendation, 2012 (No. 202). At the same time, countries should aim to achieve progressively higher levels of protection (vertical dimension) within comprehensive social security systems, in line with up-to-date social security

standards including the Social Security (Minimum Standards) Convention, 1952 (No. 102), the only international treaty that offers a systemic view of social security.

In protecting people across the life cycle, national social protection systems should comprise at least the following four social security guarantees, as defined at the national level: (i) access to essential healthcare, including maternity care; (ii) basic income security for children, providing access to nutrition, education, care and any other necessary goods and services; (iii) basic income security for persons in active age who are unable to earn sufficient income, in particular in cases of sickness, unemployment, maternity and disability; and (iv) basic income security for older persons (ILO Recommendation No. 202, Paragraph 5).

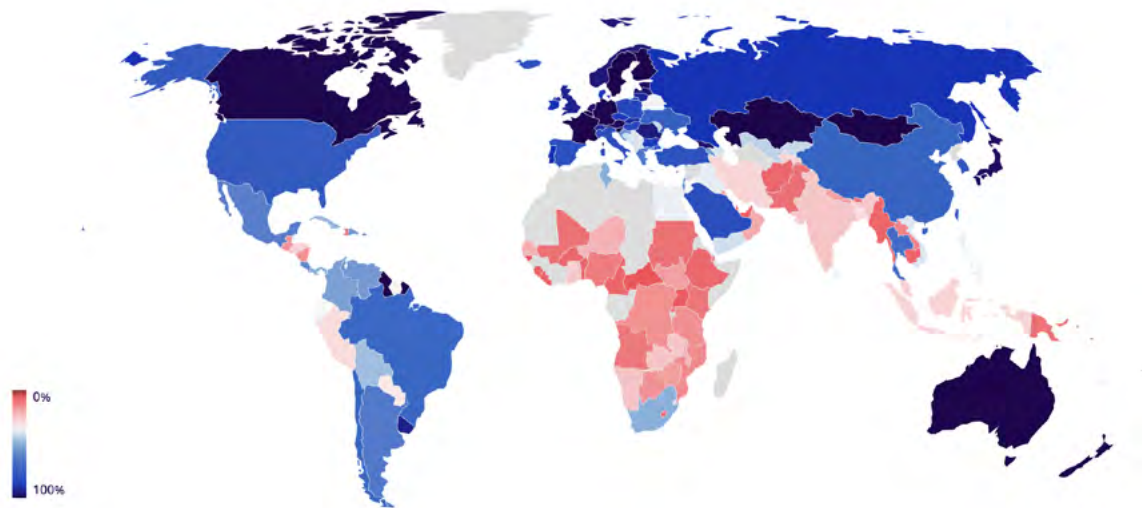
Specific guidance on the provision of social protection to displaced persons and refugees is also provided by the Maintenance of Social Security Rights Convention, 1982 (No. 157). Moreover, the Employment and Decent Work for Peace and Resilience Recommendation, 2017 (No. 205), is relevant in crisis situations arising from conflicts and disasters.

► Figure 18. National social protection floors

| Social Protection Floors | Four guarantees                                                                     |                                                                                                                                                                                  | Possible mechanisms                                                                                                                                                                                                       |
|--------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |  | All residents have access to <b>essential health care</b> , including maternity care                                                                                             | Social health insurance, free access to health and maternal care                                                                                                                                                          |
|                          |  | All <b>children</b> enjoy basic <b>income security</b> , providing access to nutrition, education, care, and any other necessary goods and services                              | Universal child benefits, family allowances, scholarships, school feeding programmes, free or subsidized access to child care centres                                                                                     |
|                          |  | All persons in <b>working age</b> who cannot earn sufficient income, enjoy <b>basic income security</b> , particularly in cases of sickness, unemployment, maternity, disability | Unemployment insurance, public employment schemes, cash transfers, employment injury insurance, sickness benefits, disability pensions, maternity insurance + Linkages with job placement and skills development services |
|                          |  | All <b>older persons</b> have basic <b>income security</b>                                                                                                                       | Old age pensions, long term care services                                                                                                                                                                                 |

Source: UN 2021. ILO Social Protection Floors Recommendation, 2012 (No. 202), para. 5.

► Figure 19. Social protection coverage around the world, share of the population covered by at least one social protection benefit (percentage), 2021



Source: ILO n.d. (g).

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Comprehensive social protection systems are essential to the realization of the human right to social security, a precondition for economic and social development, and are key to supporting persons in navigating life and work transitions.

However, social protection today covers less than half the world's population, or 46.9 per cent (ILO 2021d), with the remainder often exposed or vulnerable to climate change.

Social protection covers less than half the world's population

Rights-based social protection systems ensure that the rights and obligations of all parties concerned are anchored in law and duly observed

Social protection systems are designed inherently to prevent and absorb shocks across the life cycle

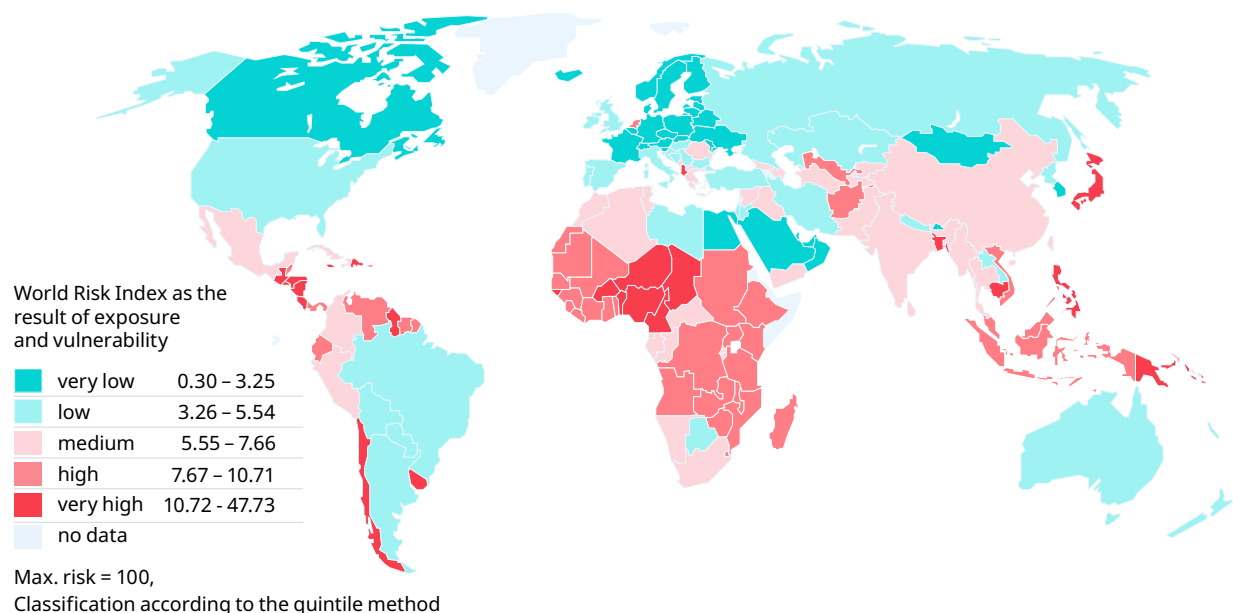
The functions of social protection, from alleviating poverty to removing barriers to higher social equality, must be given strategic consideration in order to maximize their contribution to transformational adaptation and resilient development

## ► 2.2. Social protection at the crossroads of social and climate policies

■ We recognize our role in working to ensure that no one is left behind in the transition to a net zero and climate-resilient future.

► Signatory countries of the Just Transition Declaration at COP26

► Figure 20. World Risk Index<sup>15</sup>



Source: Aleksandrova et al., 2021.

Boundaries shown do not imply endorsement or acceptance by the ILO. See full ILO disclaimer

This map from the World Risk Report highlights risk, understood as the combination of exposure and vulnerability, to climate change-induced events. On its own, and even more so when compared to the previous map on gaps in social coverage (less than 50 per cent coverage worldwide, and often less than 10 per cent in Africa, Asia and Latin America), it provides

a striking visualization of this fact: *climate change risks are higher where social protection gaps are bigger*. We can therefore say that there exists a convergence of objectives between the extension of social protection and climate policies. This convergence is an opportunity to further align policies and operational strategies in the two fields.

<sup>15</sup> The World Risk Index provides an assessment of countries' risk of facing disasters resulting from extreme natural events, taking into consideration social factors, political conditions and economic structures.

To accelerate the mutually reinforcing dynamic between social protection and climate action, joint indicators should be developed, data collected and analysed and research developed to produce evidence-based approaches to policy and programmatic development.

## Governance levels

The institutional centre of gravity for both climate change and social protection policies lies at the national level, as enshrined in the Paris Agreement and ILO Recommendation No. 202, which confirms the State as the entity with overall and primary responsibility for social protection.

Similarly, by placing growing emphasis on preventive (ex-ante) rather than responsive (ex-post) approaches, humanitarian strategies are shifting the decision-making process from international to national actors (Costella et al. 2021). Moreover, it is striking that governments around the world have increasingly linked social protection to national, regional and international frameworks associated with the fight against climate change, to which the ILO contributes substantively, including through formal contributions to international policies that promote the integration of decent work and a just transition, the gender dimensions of climate responses and the rights of indigenous and tribal peoples. Such frameworks include the Sendai Framework for Disaster Risk Reduction 2015–2030, the Strategic Framework 2018–2030 of the United Nations Convention to Combat Desertification, the Warsaw International Mechanism for Loss and Damage,<sup>16</sup> the Cancun Agreements on climate change adaptation (UNFCCC 2011) and the Grand Bargain, which aims to improve the effectiveness and efficiency of humanitarian action.

Social protection is a cross-cutting issue in NDCs since many countries mention the need for a just

transition and social protection measures. Just 10 countries, however, refer explicitly to SDG 1.3. National climate ambitions often remain disconnected from social protection-related goals such as no poverty (SDG 1) and reduced inequalities (SDG 10) (Aleksandrova 2021). While green jobs are mentioned in fewer than 30 of the 197 NDCs, nature-based solutions are overwhelmingly endorsed in 119 of them. These numbers highlight the importance of advocating among social partners and policymakers, as well as funding institutions and development partners, for the progressive mainstreaming of universal social protection as a means of addressing climate change while supporting, for example, nature-based solutions for tackling socio-environmental challenges. In this regard, the USP2030<sup>17</sup> provides a platform for conveying evidence-based policy recommendations relating to social protection directly to the highest levels of governance with a view to their concrete implementation in countries within a supportive international setting. It is worth noting that USP2030 recently hosted the Working Group on Social Protection and Climate Change, which aims to do just that.<sup>18</sup>

Similarly, climate change and eco-social priorities are increasingly taken into account in social protection approaches. Although the topic of climate change is not yet the subject of a specific international convention, standard or agreement on social protection, it is addressed from different angles as a cross-cutting issue in many ILO papers and programmes;<sup>19</sup> in national social protection priorities as part, for example, of shock responsiveness, as is the case in Senegal; and in scientific and institutional literature, particularly in matters of advocacy (Costella et al. 2021).

Given the many levels of responsibilities involved in promoting collaboration between such different policy areas, economic sectors and technical fields, we naturally conclude that this

<sup>16</sup> The Technical Expert Group on Comprehensive Risk Management, established in 2019 under the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts (WIM), promotes cooperation on risk management approaches and instruments, including social protection (although more often as social assistance). More information is available at "[United Nations Climate Change](#)".

<sup>17</sup> See "[USP2030](#)".

<sup>18</sup> See ILO, "[Social Protection Platform](#)".

<sup>19</sup> See ILO, [The role of the ILO in addressing climate change and a just transition for all](#), GB.338/POL/1.



A man waters his crops. Thick smoke from peat fires disrupt the daily activities of local people, Indonesia, 2015. © CIFOR/A. Erlangga

approach should be driven by the highest levels of national governance.

## The role of cities

Although not a focus of this research, it is worth mentioning here the important role that cities are playing in the governance of climate risks, for instance by developing adaptation plans, net-zero transition strategies and pledges.<sup>20</sup> It should be remembered, for example, that cities were at the forefront of efforts to keep the Paris Agreement targets in place following the decision of the

Government of the United States of America to withdraw from it in 2017.<sup>21</sup>

Urbanization is also a key driver of environmental change, and cities are massive contributors to global warming since they are responsible for around 70 per cent of global energy-related GhG emissions. Simultaneously, building climate resilience is becoming a key urban policy as many cities are highly exposed and vulnerable to the adverse effects of climate change, notably because they are mostly located near water, putting them at risk of rising sea levels, floods and storms. With regard to systems' physical

<sup>20</sup> See "[UN-Habitat Climate Change](#)".

<sup>21</sup> See "[C40 Cities](#)".

resilience to climate shocks, which we will discuss later, it is worth noting that ministries and institutions associated with social security, such as databases, are often located in urban areas and therefore share those vulnerabilities.

The Red Cross Red Crescent Climate Centre has highlighted that the role of social protection in managing urban climate risks is underestimated (McDowell et al. n.d.). Additionally, disruptive processes that are exacerbated by climate change, such as disaster, conflict and displacement, are likely to expand urban areas in the coming

decades, which in turn will put more pressure on urban infrastructure and public services and concentrate more of the poor in cities, often in inadequate housing in precarious locations such as mountainsides or floodplains. Today, 55 per cent of the world's population lives in urban areas, a proportion that is expected to increase to 68 per cent by 2050, and nearly 90 per cent of this increase will occur in Asia and Africa (DESA 2018). Globally, there are an estimated 880 million persons living in informal urban settlements that are highly vulnerable to climate change (UN-HABITAT 2021).

**Climate change risks are higher where social protection gaps are bigger. There exists a convergence of objectives between the extension of social protection and climate policies**

**Data should be collected and research developed to accelerate the mutually reinforcing dynamic between social protection and climate action**

**The State is the entity with overall and primary responsibility for social protection, climate action and disaster risk reduction**

**National climate ambitions often remain disconnected from social protection goals**

## From policy to delivery: the need for coordination

■ A strong common narrative of universal reach based on solidarity and enhanced agency at the local level can be a powerful device to successfully address human security.

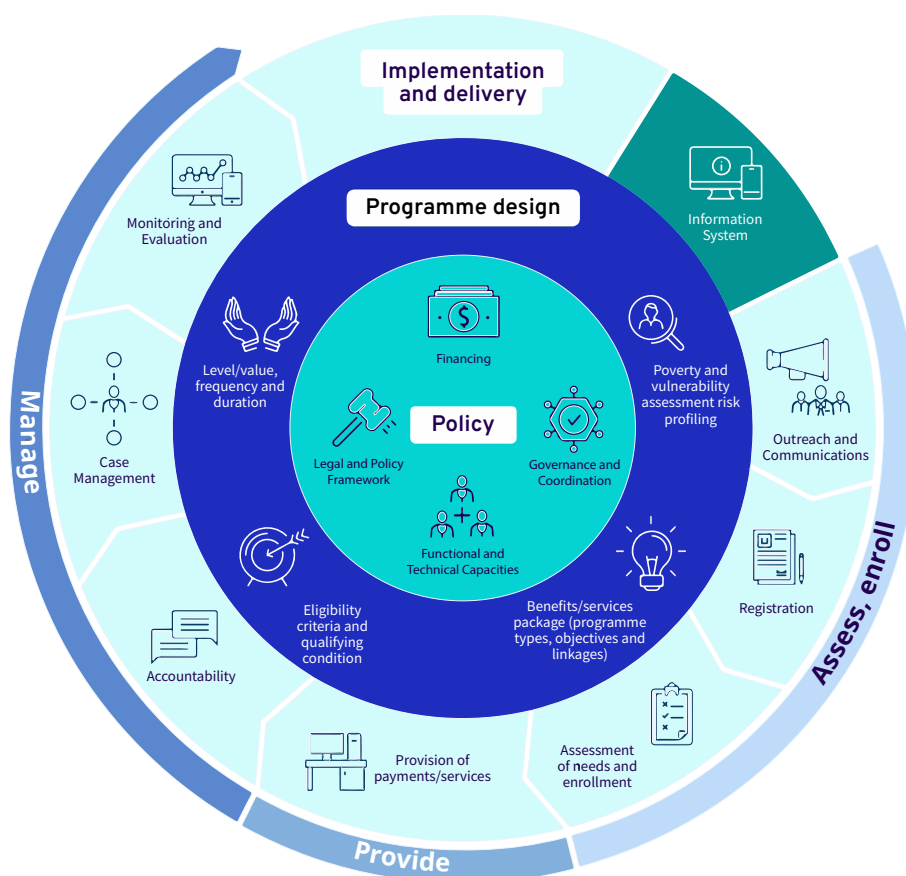
► UNDP, 2022

The coordination of social protection policies with social, economic and environmental policies is essential to achieve greater efficiency and effectiveness in social protection systems informed by climate risks.

The potential for social protection, including social insurance, to contribute to a just transition will depend greatly on the coordination of the entire social protection system, as expressed in the circular diagram in figure 21. It includes coordination at the policy, operational and service delivery levels (ILO 2021b).

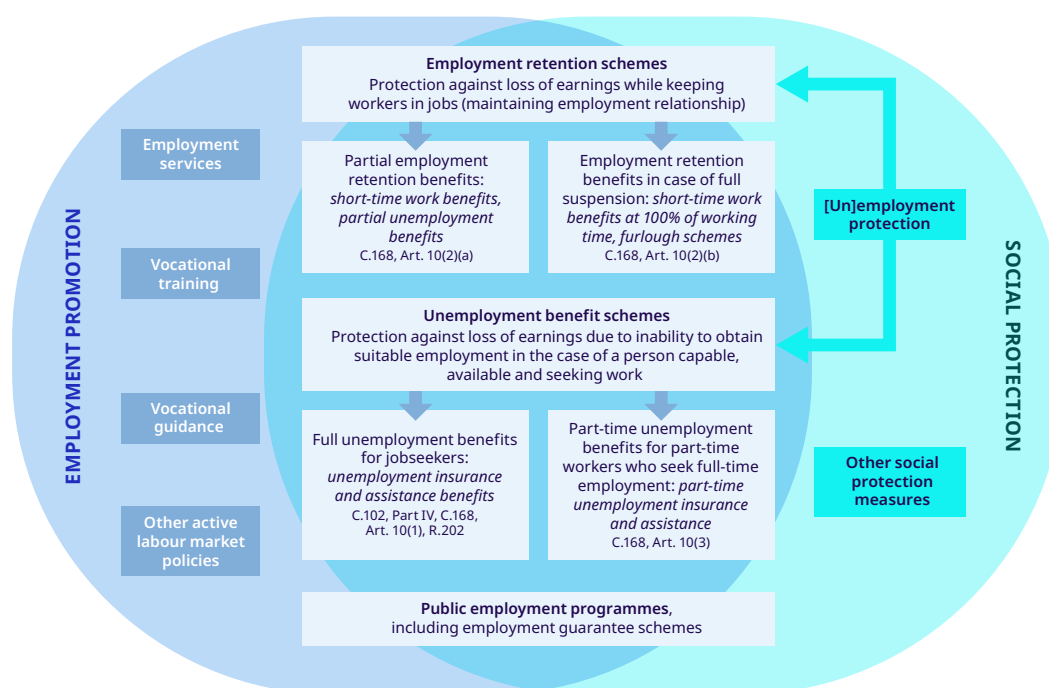
In the case of unemployment protection, which is mainly covered by social insurance, even if a very large portion – around 80 per cent – of unemployed persons do not receive any form of benefit, coordination ALMPs, such as training, re-skilling and investments in green jobs, is

► Figure 21. Social protection as a “solar system”



Source: Barca et al., 2023.

► Figure 22. Unemployment protection: A close articulation between social protection and employment promotion



Source: ILO, 2021c.

essential for a just transition and the promotion of productive and decent employment in the green economy<sup>22</sup> (ILO 2021c). To that end, an increasing number of approaches link social protection, ALMPs and economic and employment policies such as those developed by the ILO under, for example, green works, the Climate Action for Jobs Initiative and the Global Accelerator on Jobs and Social Protection.

Similarly, the combination of different types of benefits and services, such as health services and education, and in particular the complementarity of cash benefits and services, are important for enhancing the performance of social protection systems and the effective protection and resilience of populations. While improved coordination between cash benefits and access

to services can help ensure that individuals' needs are better met, policy design and delivery mechanisms should be carefully developed in line with international labour standards.

In many countries, responsibility for the delivery of social protection benefits is often spread among various ministries (for example ministries of labour and social security, health and social welfare), departments and public agencies, including social security administrations and institutions, and it is often outsourced through public-private partnerships. Furthermore, developing specific social protection schemes informed by climate risks would require the involvement of several other ministries and public agencies, including those responsible for education and research, energy, transportation,

<sup>22</sup> A green economy is defined as low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services (UNEP n.d.).

environment, agriculture and civil protection. The financing of social protection also depends on the allocations made by ministries of finance and the contributions collected by social security institutions.

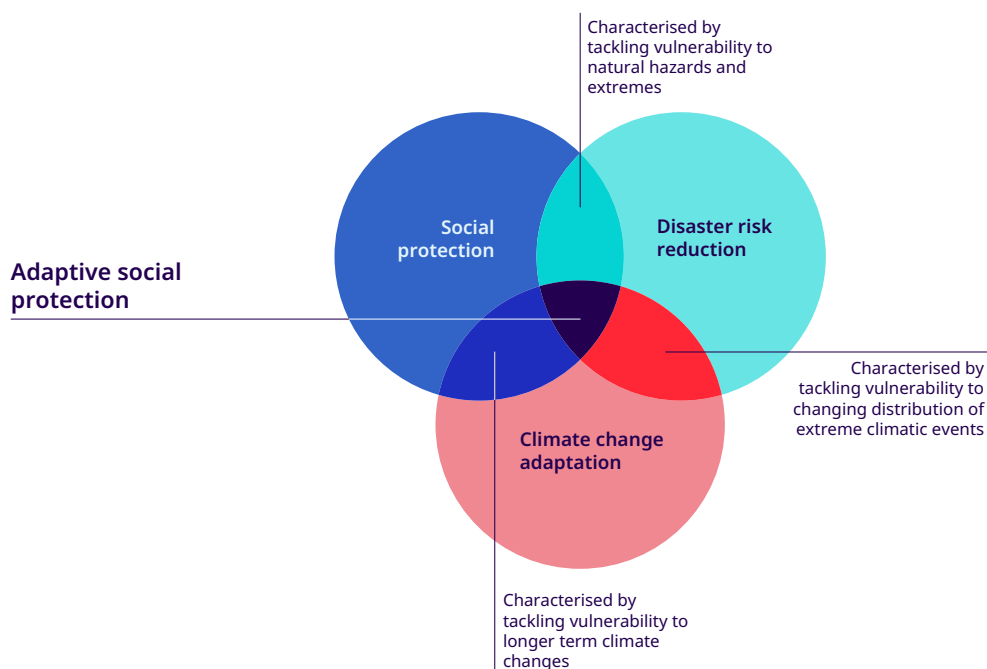
Coordination across institutions for the delivery of social protection, including social insurance benefits, requires, inter alia:

- ▶ the improvement of registration in schemes through unified registration systems, thereby contributing to better compliance and the identification of potential new beneficiaries, complemented by appropriate inclusion and accountability mechanisms;
- ▶ measures to address fragmentation and strengthen delivery, thereby contributing to administrative and cost efficiencies and improved outreach;
- ▶ improvements to information and communication technologies and data (ILO 2021b);

- ▶ the strengthening of evaluation and monitoring to ensure that needs are met appropriately.

With regard to social protection and climate change adaptation, it is widely recognised that effective coordination is essential and must integrate disaster risk reduction and humanitarian response approaches. Across these programmatic fields, several complementary approaches and associated terminology have emerged in recent years, including adaptive social protection (Davies et al. 2009, World Bank 2018; GIZ 2020), climate-responsive social protection (Wiseman et al. 2012), shock-responsive social protection (OPM 2017, UNICEF 2019, TRANSFORM 2020) and social protection across the humanitarian-development nexus (EC 2019b), to which a dedicated section is provided below. Other approaches focus on specific thematic priorities, such as food security and nutrition (Solórzano and Cárdenes 2019; FAO and Red Cross Red Crescent Climate Centre 2019) or, more recently, the COVID-19 crisis, including initiatives such as the Social Protection Approaches to

▶ **Figure 23. Coordination between climate change adaptation, disaster risk reduction and social protection programmes**



Source: Davies et al., 2009.

COVID-19 Expert Advice Helpline. While it has been argued that the notion of shock-responsive social protection may be conceptually redundant (Freeland 2021), these approaches converge around a shared recognition of the central role of social protection systems in anticipating, absorbing and responding to shocks and crises, as well as a common objective to strengthen the effectiveness, coherence and systematisation of policies and programmes. This convergence is further supported by inter-agency coordination mechanisms, such as the Social Protection Inter-Agency Cooperation Board, the Inter-Agency Social Protection Assessments initiative, the Technical Expert Group on Comprehensive Risk Management, the CALP Network, the Grand Bargain cash transfer<sup>23</sup> and social protection workstream, and the Working Group on Social Protection and Climate Change<sup>24</sup> operating under USP2030.

In the field of social protection, the coordination of humanitarian and development measures is highly relevant. Indeed, well-functioning and

scalable social protection systems that have the potential to be extended to populations affected by climate risks in a fast and cost-efficient manner play an important role in protecting individuals against the consequences of shocks (EC 2019b; FAO and Red Cross Red Crescent Climate Centre 2019). International commitments enshrined in global frameworks, such as the 2030 Agenda for Sustainable Development, the Grand Bargain,<sup>25</sup> the New York Declaration for Refugees and Migrants, the human security approach, the new European Consensus on Development, ILO Recommendation No. 205 and the Guidelines for a just transition, all stress the importance of linking humanitarian and development programmes, including in terms of social protection.

These convergences between policy areas offer opportunities to place climate risk at the heart of social protection systems (Aleksandrova 2019), particularly in developing countries, provided that all actors coordinate and collaborate within a common risk management framework, which represents a significant challenge.

**The potential for social protection to contribute to climate action will depend on the coordination of the entire social protection system, from design to delivery**

**Social protection to support climate mitigation in particular must be coordinated with ALMPs and employment policies**

**Social protection to support climate adaptation must integrate disaster risk reduction**

<sup>23</sup> Cash transfers commonly refer to non-contributory programmes that provide cash to individuals or households. These can be universal, categorical or means-tested, such as social assistance as referred to in the Social Security (Minimum Standards) Convention, 1952 (No. 102). Cash transfers are also often used in humanitarian relief operations.

<sup>24</sup> More information is available at "[ILO Social Protection platform](#)".

<sup>25</sup> See the "[IASC's Grand Bargain](#)".

## Participation: the meaningful involvement of persons concerned

Social dialogue<sup>26</sup> is key to designing and implementing comprehensive social protection and social insurance policies, particularly in a changing climate.

### ► Box 3. ILO principles on the governance of social security schemes

An international consensus was forged by governments and employers' and workers' organizations on appropriate management and design principles for social security systems. These are reflected in the principles embodied in international social security standards.

They include the involvement of the social partners in the management and governance of social security schemes and consultations with other stakeholders and recognize the need to ensure social dialogue and the representation of protected persons in social security governance bodies. The principle of the participatory management of social security systems was established long ago in international social security standards, namely Article 72(1) of Convention No. 102, which stipulates that "where the administration is not entrusted to an institution regulated by the public authorities or to a government department responsible to a legislature, representatives of the persons protected shall participate in the management, or be associated therewith in a consultative capacity, under prescribed conditions; national laws or regulations may likewise decide as to the participation of representatives of employers and of the public authorities".

Source: Ortiz et al., 2018.



A coal miner walking barefoot through heaps of coal dust at a coal mine and processing plant, Jharkhand, India, 2017. ©Climate Visuals Countdown/Rajesh Kumar Singh

<sup>26</sup> Social dialogue includes all types of negotiation, consultation and exchange of information between or among representatives of governments, employers and workers on issues of common interest relating to economic and social policy (ILO n.d.(d)).



Buses and ship travel through flood waters, Bangkok, Thailand, 2011. ©iStock/Lekyum

Social dialogue and concerted action by governments and employers' and workers' organizations is not only used during times of non-crisis, but can also ensure (climate-)informed

design and implementation to address a crisis and its effects and provide a path to medium- and long-term recovery (ILO 2020g) and sustainability.

#### ► Box 4. Germany – Social dialogue to adjust social insurance during shocks and crises

In Germany, the Government and the social partners adopted various measures to adjust the rules governing its short-time work scheme, known as *Kurzarbeit*, to support employers and workers affected by the COVID-19 crisis through the provision of income and job protection. Unemployment benefits were increased, with the Government paying 60 per cent of pre-crisis salaries, or 67 per cent for employees with children. Employers' access has been facilitated to allow companies to use the scheme if 10 per cent of their workforce has been affected by a lack of work, a significantly reduced requirement compared with the pre-COVID requirement of 30 per cent. Additionally, employers are temporarily relieved of the requirement to pay social protection contributions for workers affected by short-time work measures. Around 10.1 million workers have been affected by reduced working hours since the beginning of the pandemic.

These measures have been complemented by sectoral agreements on increasing unemployment benefits to grant workers a higher replacement rate. This has been done through collective bilateral agreements signed between the Mining, Chemical and Energy Industrial Union (IG-BCE) and employers' organizations that have enabled workers to receive an additional top-up to the short-time work allowance, bringing the unemployment benefit to 90 per cent of net salaries. Some 75 per cent of all workers in the industries where the IG-BCE is active benefit from increased short-time work benefits. In the case of the glass industry, the IG-BCE and the German employers' association for the glass and solar sectors have signed a federal collective agreement, increasing the benefit level to 80 per cent of net salaries and benefiting 50,000 employees. Additionally, the social partners agreed on a full package of measures, including a shorter notice period for short-time work, simplified rules for mobile work and flexible shift working hours. Similar arrangements were negotiated with other industrial sectors.

Source: ILO, 2020g.

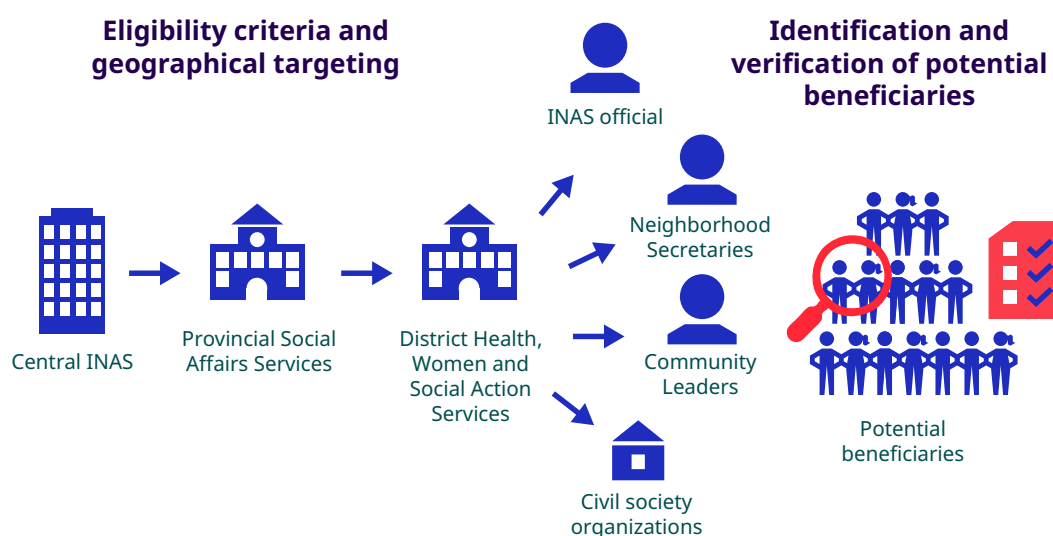
The quality of policy design and strategies can be enhanced through information-sharing between governments and the social partners<sup>27</sup> to identify the gaps in, and barriers to, protection for employers and workers, defining national priorities and developing responses to close any gaps, including with respect to financing.

Social dialogue can therefore contribute to building ownership and commitment to the policies and strategies formulated, help create the trust that is needed to overcome differences, and strengthen social cohesion, stability and resilience. Social dialogue at the country level remains essential for informing policy decisions

and resource allocation to address urgent needs, while systematically supporting the extension of social protection. This can increase collective buy-in and consensus around social protection, and therefore its sustainability.

Additionally, the development and implementation of social protection measures will also benefit from consultation with other relevant and representative organizations of persons concerned, such as organizations representing persons outside formal employment, who are often the most in need and do not have a voice in formal institutional tripartite structures.

► **Figure 24. Civil society involvement in the identification and verification process for potential beneficiaries of the social protection plan in response to the COVID-19 crisis in Mozambique**



**Note:** "INAS" refers to the National Institute of Social Action.

**Source:** ILO 2020i, Figure 3, p. 10.

The quality and level of participation are key factors in inclusion in general. With regard to gender equality, for example, greater collaboration and coordination with gender practitioners and organizations is needed to better integrate issues such as unpaid care and violence against women into social protection

programmes. "[I]n many countries, experts and organizations working on violence against women have spent decades thinking through the provision of coordinated, multisectoral services for survivors; however, systematic links and referrals between social protection systems and violence services remain rare" (Camilletti

<sup>27</sup> Together, employers' and workers' organizations constitute the social partners (ILO n.d.(d)).

et al. 2021). It is therefore essential to integrate civil society organizations into social dialogue processes and other social protection planning processes, such as Assessment Based National Dialogue (ABND), in order to link persons with

technical expertise to persons with specific vulnerabilities to make social protection systems responsive and accountable to their rights and needs when facing the challenges of climate change.

The quality and level of participation are key factors for inclusion, in both social protection and climate action

In times of crisis with mounting social tensions, such as during climate-related shocks, there is more need than ever for social dialogue

Social dialogue must be designed to enable a link between persons with technical expertise and persons with specific vulnerabilities to make social protection systems responsive and accountable to their rights and needs in the context of climate change

## ► 2.3. Social insurance

- Having a job, preferably a decent job, can be considered as the most important strategy to build a person's resilience, as it provides income, allows the building of assets, helps the individual cope with shocks and also allows them to enrol in social insurance mechanisms.

► Oxfam, 2019

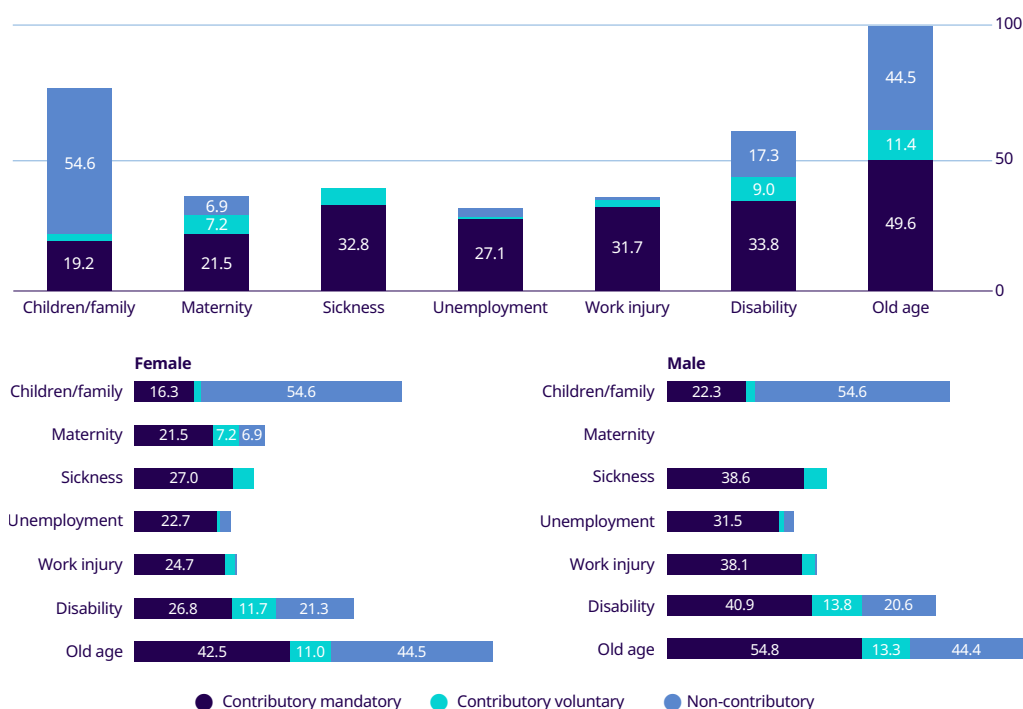
The universalization of social protection and its capacity to cover every individual against all risks related to life as framed by Recommendation No. 202, Convention No. 102 and the ILO global call to action for a human-centred recovery from the COVID-19 crisis that is inclusive, sustainable and resilient<sup>28</sup> represent a highly suitable and practically unparalleled solution to the problem of protecting vulnerable persons during climate changes and impact, provided that it works effectively for all. In that sense, we have seen that deploying social insurance in combination with social assistance lies at the heart of the ILO's two-dimensional strategy to close coverage gaps both

horizontally (covering new groups of persons) and vertically (providing higher levels and a greater range of benefits) (ILO 2019b).

Figure 25 the global balance between social insurance and social assistance by categories of life-cycle risks and by sex. Although spread unequally across countries and regions, as well as in terms of sex and the contingencies covered, it is clear that social insurance plays a major structural role in building social protection systems, most notably in covering the risks most likely to be multiplied by climate change, such as unemployment and sickness.

<sup>28</sup> See ILO, "Global agreement reached at ILO Conference on action for COVID-19 recovery".

► Figure 25. Legal coverage of social protection by function and by sex (percentage) worldwide



Source: ILO n.d. (g).

As a fundamental approach, social insurance is therefore expected to play a key role in the design and financial sustainability of social protection in

a changing climate, and, as such, as an important driver across the range of complementary policies aimed at achieving the SDGs.

#### ► Box 5. Definition and core characteristics of social insurance

Contributory social insurance schemes are characterized by rights and benefits that are guaranteed through an insurance mechanism.

For rights to be guaranteed, prior payment of contributions is required. In contrast to the individually calculated risk premiums seen in commercial insurance, social insurance is primarily based on the dual statutory principles of solidarity and compulsory contributions. This allows for a much broader approach to the pooling of contributions and risks, maximizing the financial capacity to cover risks that would otherwise be difficult to insure because of their high probability (as in the case of old age or pre-existing health conditions) or when they affect many individuals simultaneously (as in the case of a shock or disaster). The contributions of employers and workers, with the guarantee of the State, constitute a common social insurance fund. Social insurance schemes are usually governed and managed through tripartite participation, representing workers, employers and the government (ILO 2017a). Solidarity is organized between large and small contributors and between generations; it is therefore a progressive redistribution mechanism that fights inequality and poverty.

The primary objective of social insurance is to replace lost earnings when incomes and livelihoods are at risk, such as in the event of illness, unemployment, old age or pregnancy.



Two men load solar panels on a boat, Longech Village, Kenya, 2018. © Climate Visuals/Maurizio Di Pietro

The main social insurance schemes include:

- ▶ **health insurance**, which covers health-related expenses, both curative and preventive, depending on the financial capacity of the insurance scheme and the cost and availability of the services themselves, which are often limited to public health services, especially in developing countries;
- ▶ **income security insurances**, including, but not limited to:
  - ▶ **unemployment insurance**, whose objective is twofold: to guarantee income security in the case of partial or full job loss and to promote decent employment; for that reason it is often strategically linked to employment promotion measures and ALMPs (ILO 2021e);
  - ▶ **sickness cash benefit** temporary income replacement provided to insured persons during medically certified absence from work due to illness;
  - ▶ **paid maternity leave**, which provides a replacement income for workers who give birth and usually lasts for at least 12 weeks, although in many countries it can last for 14 weeks or longer;
  - ▶ **disability insurance**, which provides income replacement in the form of a pension for recipients who have a disability because of work-related or non-work-related accidents or diseases;
  - ▶ **survivors' insurance**, which provides an income in the form of a pension for an insured person's dependants in the event of the loss of life of the breadwinner;
  - ▶ **old-age pension**, a replacement income for workers once they have reached the nationally defined retirement age; the pension is usually contingent on the number of years worked and the level of contributions.

Many contributory social security schemes are presented and described as "insurance" schemes yet often also include benefit entitlements to strengthen the position of persons with low incomes or short or interrupted work careers, among others. These can be financed either by other contributors (redistribution within the scheme) or the State. Mandatory contributions by employers and workers play a significant role in a good number of countries, accounting for around half of social insurance financing. On average globally, in 2018 employers contributed 15.75 per cent and workers 9.85 per cent of covered earnings.

## Planning social insurance

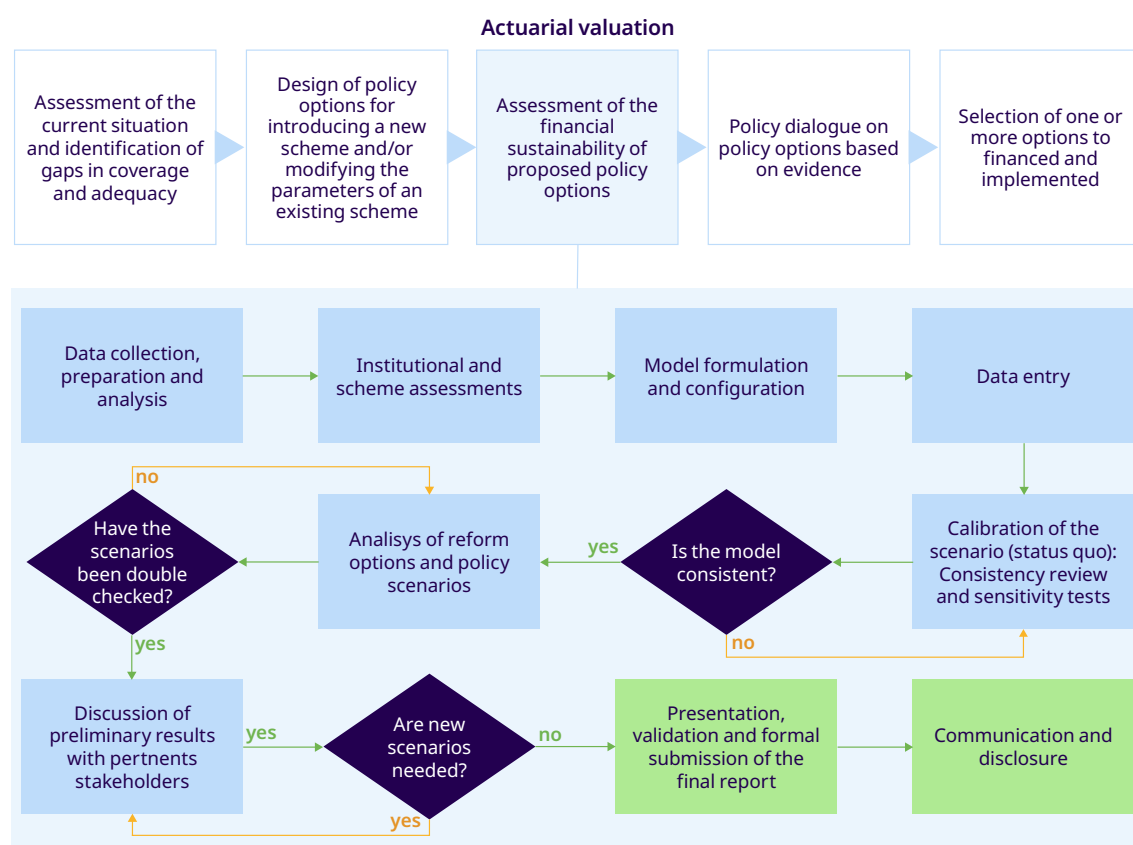
### Prevention means the difference between disaster and resilience.

► **Mami Mizutori**, Special Representative of the Secretary-General of the UN for Disaster Risk Reduction

Social protection systems demand political and technical design processes that operate in a cycle of assessment, enrolment, provision of benefits, management and improvement. Social insurance

design<sup>29</sup> also involves careful planning, as illustrated in figure 26, including forward-looking assumptions and actuarial valuations which in turn consider, inter alia, demographics, contingencies to be covered, their cost and frequency, and contributory options. Actuarial valuations are central to contributory social insurance schemes. They are needed in order to assess the sustainability of social security programmes, but also to assess the long-term adequacy of a system's financing and benefit calculations and to inform social insurance funds' investment decisions. Social security institutions ensure that regular actuarial valuations are carried out to assess and monitor social security programmes' financial situations and whenever a programme is created or modified.

► **Figure 26. Overview of the policy process of extending social protection benefits and general workflow of actuarial valuations**



Source: ISSA and ILO, 2016.

<sup>29</sup> It is worth noting that the Social Protection Department of the International Labour Office has developed online projection and simulation tools, ILO/HEALTH and ILO/PENSIONS, to support the costing and design of social protection system reforms. These tools provide information on the expected financial impact of the introduction of, and/or parametric changes to, social protection schemes for pensions and health (medical care, sickness and maternity).

In many regards, the design of a social insurance scheme is consistent with a long-term climate risk prevention planning exercise, as the following sections will illustrate.

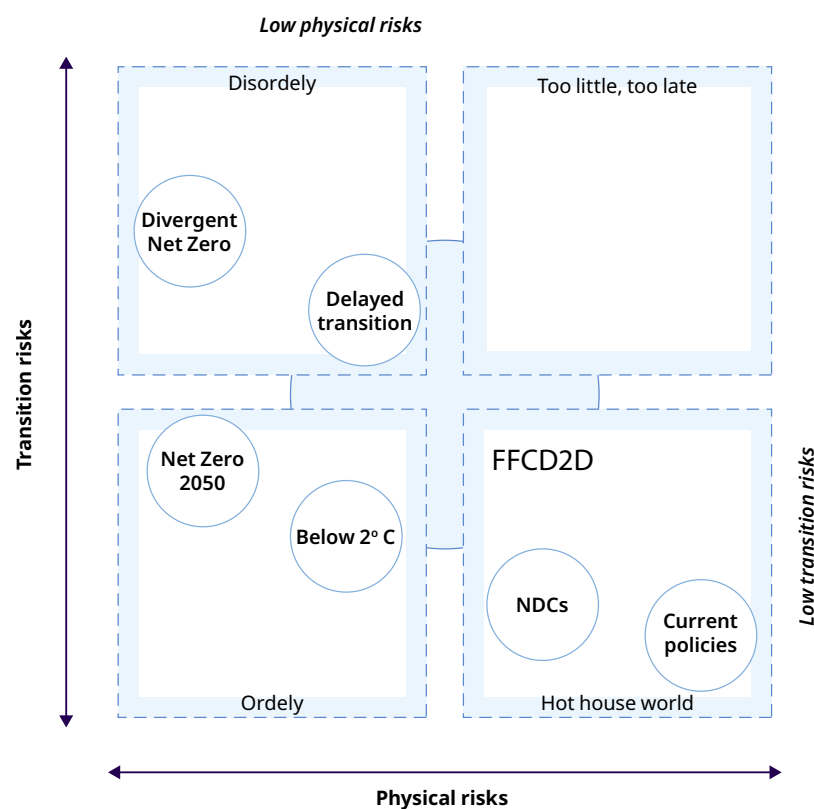
This is because, firstly, social security planning is one of the few programming cycles with long time frames, lasting 20 to 30 years, which are compatible with the time scale of climate processes, as discussed in section 1.1.

Secondly, climate change, although global in scope, will have adverse effects that will vary according to local contexts and vulnerabilities. That is consistent with the social insurance approach of pooling individual risks that do not affect the whole population at once. Benefits

related to life-cycle risks will undergo iterative changes as the climate imposes highly localized variations in living conditions.

As regards social insurance, statistics and actuarial models based on past data will be able to account for some occurrences and evolving reserves. However, as changes in climate increase, and the availability of data increases, for example through the Actuaries Climate Index,<sup>30</sup> a shift towards prospective analysis will be increasingly necessary, including climate scenarios such as those identified by the Network for Greening the Financial System,<sup>31</sup> as well as more bottom-up assessments such as vulnerability and capacity assessments.<sup>32</sup> In response to the challenges

► Figure 27. Six different scenarios to assess transition and physical risks



Source: NGFS, 2022.

To enable actuaries and social security institutions amongst others to manage climate change risks, the NGFS has developed 6 scenarios incorporating a wide range of physical and transition risks, in collaboration with academic research institutions, based i.a. on those conducted by the Intergovernmental Panel on Climate Change (IPCC).

<sup>30</sup> See Actuaries Climate Index, "[Data Disclosure](#)".

<sup>31</sup> See "[NGFS Scenarios Portal](#)".

<sup>32</sup> See International Federation of Red Cross and Red Crescent Societies, "[Vulnerability and Capacity Assessment: A Toolbox](#)".

posed by climate-related risks, several actuarial organizations have already developed catastrophic risk guidelines, are using modelling approaches based on climate-based scenarios, as illustrated in figure 27, and have joined forces, for instance to set up the Climate Risk Task Force within the International Actuarial Association.<sup>33</sup>

Risks related to effects and adaptation, as well as approaches to mitigation and environmental protection, will become more complex and localized, calling for decentralized assessments of life-cycle risks in a changing climate. Those assessments can then be pooled at more global – national, possibly regional, and international

– levels, allowing not only schemes, but also public services, to meet local needs when necessary, as well as achieving sustainable financial balance overall. Such an exercise will also consider sector-specific risks in national labour markets and the transfer of risks between sectors. For example, if the risk of climate change is high for the agricultural sector, workers in that sector and related value chains will be much more exposed to health and unemployment risks compared to workers in other sectors, while the contributory capacity of employers and workers in that sector must consequently be reassessed.

**Social insurance can provide the security of guaranteed rights and therefore better protection.**

**The design of a social insurance scheme in the context of climate change is consistent with a long-term climate risk reduction exercise**

**Climate change risks will become more complex and localized, calling for decentralized assessments of life-cycle risks in a changing climate, pooled at the national, and possibly regional, level**

**Designing social insurance with a long-term perspective can provide governments with a basis for assessing, costing and anticipating life-cycle risks based on assumptions correlated with climate risk**

## Features of social insurance

Apart from the risk-prevention benefits mentioned above, the strengths most often associated with social insurance are:

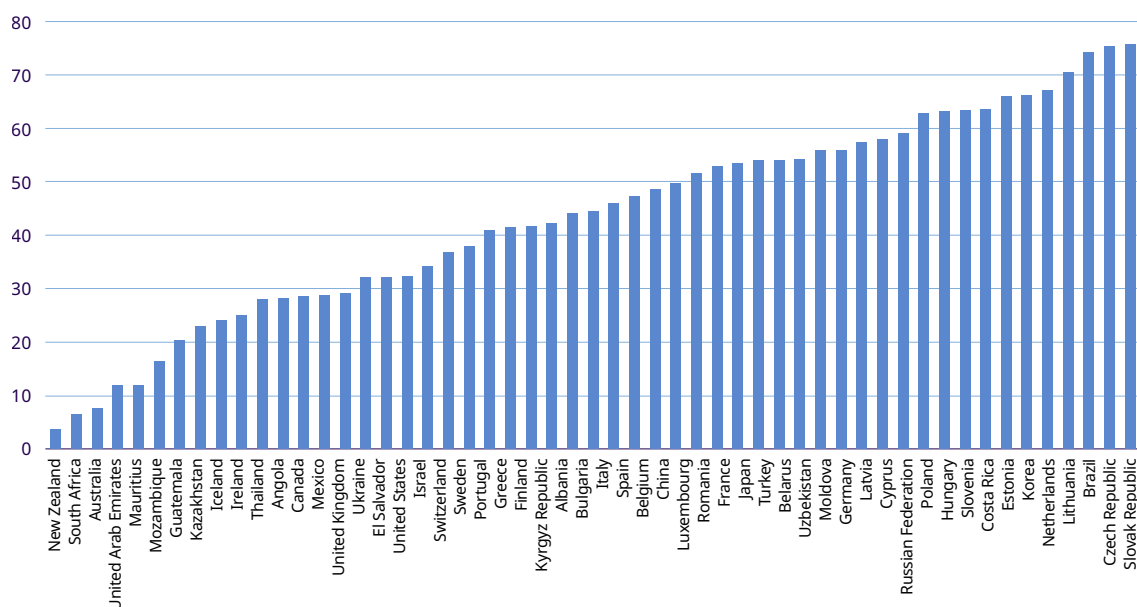
- ▶ an entitlement to benefits as a right guaranteed by the State;
- ▶ predictable benefits should defined contingencies occur, contributing to the health and income security of individuals and their families;
- ▶ sustainability in the long term, if insurance schemes are properly administered;
- ▶ the promotion of social dialogue, including the empowerment of employers' and workers' representatives;
- ▶ the reduction of inequality through solidarity, not only between workers earning high and low incomes, but also between healthy workers and workers affected by illness or disability, women and men, and young and old, for example;
- ▶ the right of appeal in cases of the refusal of benefits or complaints as to their quality or quantity.

<sup>33</sup> See "[International Actuarial Association](#)" website.



Two men load solar panels on a boat, Longech Village, Kenya, 2018. © Climate Visuals/Maurizio Di Pietro

► **Figure 28. Social contribution as a percentage of public social protection expenditure (including healthcare), 2016, selected countries**



Source: Ortiz et al., 2019.

Some countries finance almost all their social protection expenditure through social insurance contributions. However, in most countries, contributory social security reaches few groups of workers in formal employment owing to the limiting nature of the informal economy and the fact that their social security systems are at an early stage of development. In some of these countries, total social spending is very low.

The contributory nature of social insurance renders access to it difficult<sup>34</sup> for many employers and workers and the poorest and most vulnerable groups. It can be difficult to meet contribution duration requirements in order to be eligible for social insurance entitlements, which vary from medium-term (unemployment, maternity and illness cover, usually up to nine months) to long-term (pensions), as well as contributory capacity requirements. This is particularly true for occupational categories characterized by interrupted or employment; employment on an as-needed basis, leading to unpredictable income or few working hours; and the absence of employer-employee agreements for workers in so-called non-standard employment. At the margins of social insurance schemes, the risks faced by vulnerable groups will be, in part, covered by social assistance financed through government budgets or funded by overseas development assistance (ODA), including humanitarian assistance, or by other non-standard forms of solidarity, such as savings groups or remittances.

Globally, just 28.9 per cent of persons considered vulnerable – all children, along with persons of working age and older adults not covered by social insurance – and just 7 per cent in low-income countries, receive social assistance; vulnerable population groups face much greater challenges than other sections of the population (ILO 2021c). The Decent Work Agenda<sup>35</sup> must be recognized as a fundamental opportunity to extend the right to social protection and to steer development towards green growth, both of

which are essential elements in the fight against climate change.

The reputation of social insurance funds as financially robust needs to be understood in a nuanced manner, particularly with regard to exposure to the risk of depletion owing to, for example, demographic ageing, which, relatively speaking, increases the load and decreases revenues (ISSA 2012); the temptation for governments to tap into reserve funds to deal with shocks; and, more broadly, systemic risks of a financial nature. The financial risk inherent to social insurance is increased by climate change, for instance by the likelihood of repeated covariate shocks and by the underestimation of the social needs and life-cycle risks amplified by climate change.

It is important to know what can be expected from social insurance and when other instruments are more appropriate, either within the context of the social protection system as defined above, or through other types of protection, assistance or insurance, as advised, for example, in Recommendation No. 205 and set out in Recommendation No. 202. For example, in the context of recurrent climatic shocks, humanitarian cash transfers may simply be more effective than standard forms of social protection, particularly in the short term and particularly if they are delivered in the context of weak or developing social protection systems. Urban areas offer greater access to the cash economy, while in rural areas or refugee settings, in-kind distributions of essential commodities such as food, or mixed strategies that include both cash and in-kind transfers (Rafiei et al. 2022), will be more appropriate. As seen above in relation to the human security framework, in areas of high vulnerability, inequality and poverty, there is a greater need for a holistic approach that links existing social protection to complementary programmes delivering basic services aimed at the same target groups.

When dealing with critical situations, it is clear that the limitations of each separate approach render complementarity and coordination essential

<sup>34</sup> “Most social insurance schemes have systematically built-in barriers for the self-employed and workers with irregular, short or interrupted employment records” (Gassmann 2021).

<sup>35</sup> See ILO, “[Decent Work and the 2030 Agenda for sustainable development](#)”.

to enable social insurance, together with social assistance, to maximize the potential of social protection systems which themselves form part of coordinated synergy with other public or private support mechanisms, which should be agreed upon in advance. This planning, which must be well coordinated between specialized social protection actors, from routine public systems to emergency response agencies, is known as the Humanitarian–Development–Peace Nexus (HDP–N), discussed in section 3, and should ideally be coordinated through predetermined agreements between agencies and with social partners to minimize gaps in protection coverage, depending on the fragility of the situation and the severity of the human security risks.

### Differences and commonalities with “commercial” insurance

Social insurance differs from “commercial” insurance (ILO 1984; ILO 2017a) by virtue of its risk pooling, solidarity and State guarantee. However, it is worth considering the knowledge gained through private insurance when integrating climate risks into public social insurance. Commercial insurance is at a turning point: while protection against the new risks arising from climate change seems to lie at the very heart of the insurance business, insurability itself is called into question. Against the backdrop of the current historic trajectory of GhG emissions, which is highly likely to cause a temperature increase of 4°C (IPCC 2021), it is worth remembering the prophecy of AXA’s Chief Executive Officer at COP21 that a world that is four degrees warmer will be uninsurable. Consequently, the insurance sector has intensified the research and development of innovative approaches to risk mapping and modelling, using new technologies and artificial intelligence, with an emphasis on prevention and early warning systems such as parametric, or index-based, insurance, building on experience of natural disaster risk reduction.

The UN Environment Programme Finance Initiative’s Principles for Sustainable Insurance (UNEP 2021), launched at the 2012 UN Conference on Sustainable Development (Rio+20) and aligned with the Task Force on Climate-Related Financial Disclosures,<sup>36</sup> serves as a global framework for the insurance industry to address environmental, social and governance risks and opportunities.

### Opportunities for collaborative innovation

As climate change has become increasingly imminent, significant scientific and technological advances have been made that allow regional and local entities to analyse their risks and vulnerability and to plan accordingly. These include the regional interactive map recently published online by the IPCC<sup>37</sup> and the INFORM<sup>38</sup> multi-stakeholder platform for developing and sharing quantitative data and analysis relevant to humanitarian crises and disasters under the scientific leadership of the Joint Research Centre of the European Commission.

It is also worth highlighting here the InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions,<sup>39</sup> launched at the 2017 UN Climate Change Conference in Bonn, since it has the potential to strengthen the financial risks architecture of social protection, for instance by providing support for country-level risk analysis to understand and bridge gaps in data for designing comprehensive and holistic risk strategies. To that end, the United Nations University Institute for Environment and Human Security (UNU-EHS) has coordinated the development of the InsuRisk assessment tool to evaluate climate and disaster risk patterns globally while assessing country performance in terms of readiness to adopt insurance solutions to manage climate and disaster risks, thereby providing a useful guide for climate risk-informed decision-making for public and private actors. This inter-agency initiative is of particular relevance to our topic because while distinct from

<sup>36</sup> See “[Task Force on Climate-related Financial Disclosures](#)”.

<sup>37</sup> See “[IPCC WGI Interactive Atlas](#)”.

<sup>38</sup> See European Commission, “[Risk Facts & Figures](#)”.

<sup>39</sup> See Adaptation Community “[Climate and Disaster Risk Finance and Insurance](#)”.

insurance in the broadest sense, as we have seen, social insurance also shares some commonalities and in practice interacts in the field with the same populations. In this regard, it is interesting to note the UNU-EHS 2021 report entitled *Disaster Risk, Social Protection and Readiness for Insurance Solutions* (Sett et al. 2021), which emphasizes that, driven by the common need to expand social protection to close both horizontal and vertical protection gaps, insurance services should be combined with social protection in order to add an important element to the mix of solutions where necessary to reduce the risk and vulnerability of countries and populations that are exposed and vulnerable to climate change. Recommendations include sharing knowledge, lessons learned and data; opening up a normative debate on the issue and strengthening the integration of

adaptation, risk reduction and social protection policies. These arguments are valid provided that they do not contradict or compete with the pursuit of universal social protection as a human right for the benefit of a market-based approach, but rather that the two concepts are mutually beneficial.

InsuResilience already works alongside regional organizations such as the Caribbean Catastrophe Risk Insurance Facility and African Risk Capacity (ARC). It is worth noting that there are several collaborative research initiatives and communities of practice on the issue of risk assessment and modelling, such as the Knowledge Action Network on Emergent Risks and Extreme Events<sup>40</sup> and UNEP's Principles for Sustainable Insurance (UNEP 2021). There is a strong case for including social insurance in this emerging area of learning.

**Social insurance in low-income countries is under-utilized and therefore has important potential for growth**

**Social insurance is not always affordable to all. However, it is possible to simplify access and to develop extension strategies in coordination with other programmes**

**The financial risk inherent to social insurance is increased by climate change, for instance by the likelihood of repeated covariate shocks and by the underestimation of the life-cycle risks amplified by climate change**

**Social insurance needs to benefit from, and contribute to, innovation, models and data in the broader field of climate change risk insurance**

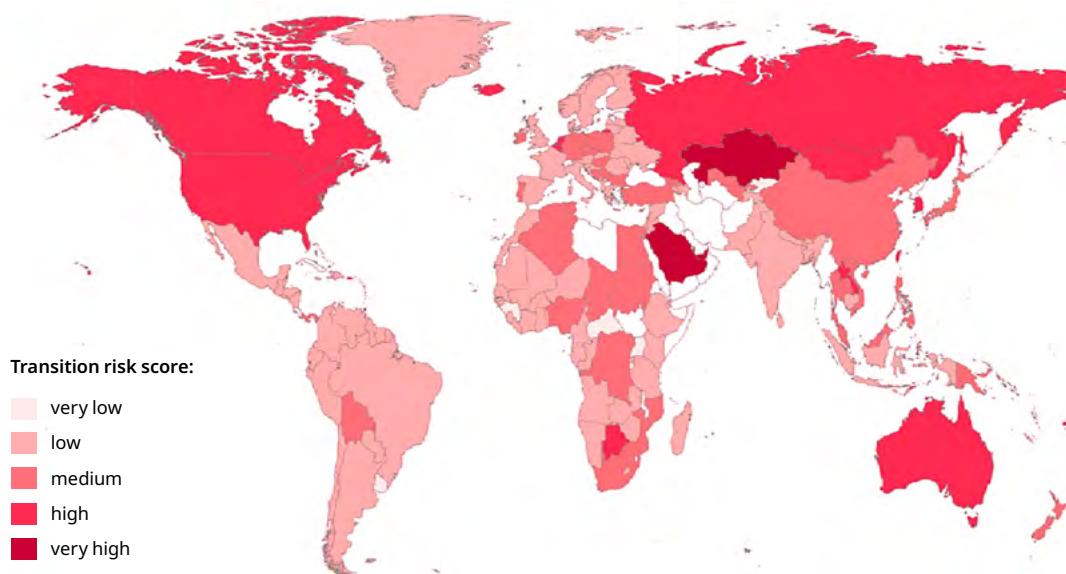
<sup>40</sup> For more information, see "[Knowledge Action Network on Emergent Risks and Extreme Events](#)".

## ► 2.4. Mitigation of climate change

► The true challenge of the ecological and energy transition is not technical, but social.

► Vincent Escoffier, Professor of Energy Transitions

► Figure 29. Transition risks



The transition risk scores are based on an assessment of a country's exposure to the economic changes implied by the global climate transition and on their capacity to reduce the negative impacts of that exposure (mitigation capacity). The long-term economic impact of the climate transition will be lower for countries that can shift swiftly to a lower-carbon development model.

Source: European Investment Bank, 2021, figure 3, p. 15.

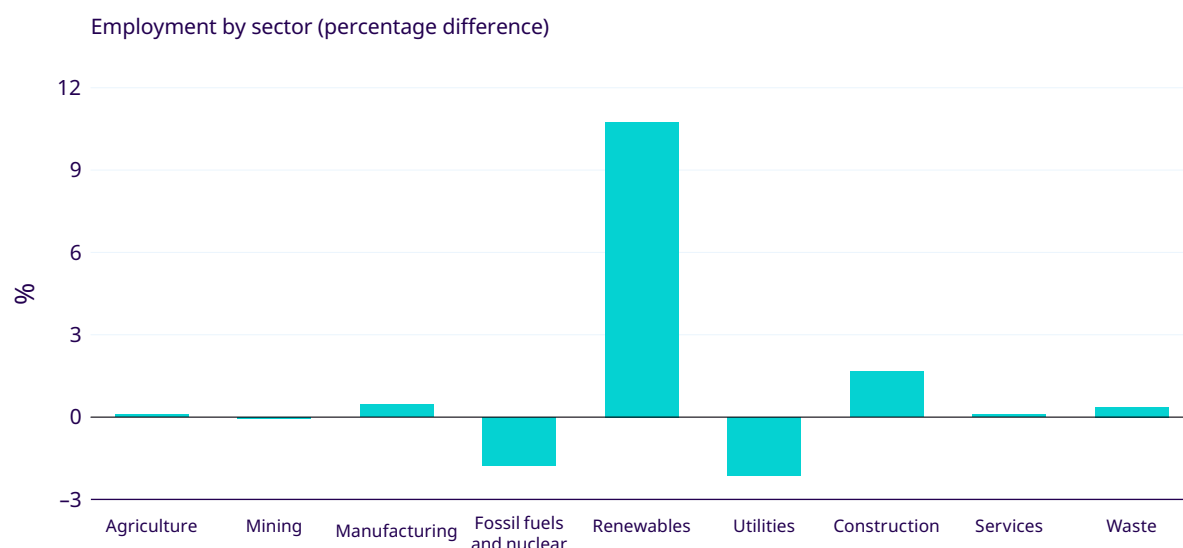
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The mitigation measures adopted by countries to reduce GhG emissions have significant implications, both positive and negative, for the world of work.

Owing to the acceleration of climate change and the scale of the effort required to decarbonize the economy while investing in adaptation, the transition to net zero is likely to involve major changes in growth patterns over a 30-year period and a surge in public and private investment. Without efforts to make this a just transition, this could also have significant negative effects on social services, including social protection.

Poor persons are most likely to suffer from these adverse effects, for example when low-skilled or older workers, or communities directly dependent on the sites of declining high-emission industries, are forced into unemployment and migration; when consumer prices rise because of the removal of fossil fuel subsidies; when the use of natural resources, such as in the forestry and fisheries sectors, is restricted and regulated; or when the investment and costs required to implement the transition, combined with a likely decline in growth, reduce the proportion of public budgets devoted to social protection. Indeed, in

► Figure 30. Energy sustainability and employment by sector in 2030 (net percentage difference)



Source: ILO, 2018a.

recent years a growing number of governments have come to a more realistic appreciation of the political economy constraints of the green transition. For example, the European Commission (2021) has proposed that 25 per cent of the resources from the new European Union (EU) Emissions Trading System should be allocated to a dedicated social fund, with individual Member States contributing an equivalent amount (Pisani-Ferry 2021).

The transition to low-carbon, environmentally sustainable economies is expected to create 24 million new job opportunities by 2030 through skills upgrading, social justice and poverty eradication, allowing for climate-resilient economic growth and sustainable development.<sup>41</sup>

Workers, and their communities, who are left behind in the process will require support, including social protection.

For example, in fossil fuel industries such as oil, coal, tar sands and natural gas extraction, fracking, oil refining, gas manufacturing and

fossil fuel power generation, 5 million jobs are expected to be lost by 2030 (ILO 2018a). The specific nature and magnitude of the changes likely to occur in labour markets have yet to be measured specifically by country or in quantitative terms, paving the way for costed social policies in the sectors that produce the most GhGs and are therefore most likely to be adversely impacted, as illustrated in figure 30. However, interest in this area is currently growing significantly, and guidelines are emerging, such as the ILO Green Jobs Assessment Institutions Network methodology<sup>42</sup> (see also section 1.2.) for measuring and modelling the social and employment outcomes of climate and sustainable development policies and the guidelines for governments produced by the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development on improving legal frameworks for assessing and managing environmental and social impacts (including social protection) in the mining sector (IGF 2019). However, the literature varies widely on the notion

<sup>41</sup> The 2018 ILO report quantifies job losses and job creation in the transition to a green economy based on projections to 2030 on the basis of the agreed policy goal of limiting global warming to 2°C.

<sup>42</sup> See ILO, "[Green Jobs Assessment Institutions Network](#)".

of social protection, which is too often confused with insurance or simple cash transfers without integration into a normative framework. This situation calls for the strengthened integration of social protection across these methodological approaches so that the resulting policies and programmes are more coherent, efficient and socially just.

**The potential for job creation will eventually outweigh the risk of job losses.**

In the meantime, governments, with the social partners, will have to consider carefully the social acceptability of these transitions, to avoid confrontations and civil unrest, as was the case in France with the *gilets jaunes*, or “yellow vests”, movement, which in 2018 organized nationwide demonstrations against the increase in fuel prices resulting from the rise in the domestic tax on the consumption of energy products. The tax includes a carbon component that allows the taxation of different energy products to be adjusted according to their CO<sub>2</sub> emissions and that was set to increase under the country’s low-carbon strategy to combat global warming. As a result of the movement, the French Government was forced to abandon the tax increase and to implement further tax cuts.

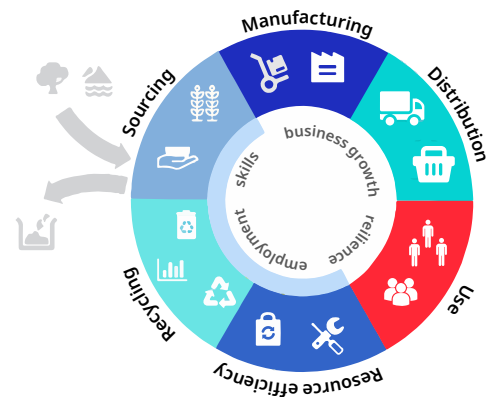
Job growth will be driven mainly by increased demand for sustainable energy sources, green buildings and electric vehicles, leading to around 13 million net new jobs in renewables, construction and manufacturing (mainly transportation) combined. Services, waste management and agriculture will also benefit from employment gains thanks to economic linkages between existing sectors and the emergent sectors creating climate-friendly jobs. For example, the circular economy, a model based on the sustainable reuse, recycling, remanufacture and repair of goods rather than the traditional pattern of extraction, manufacture, use and disposal, could result in the significant transformation of production systems and provide a net total of 7 to 8 million new jobs by 2030 (ILO 2018a).

Sectors benefiting from job creation will require a workforce equipped with the right skill set, whereas sectors that will lose jobs or be phased

► **Figure 31. Jobs creation in the circular economy**

**6 million**

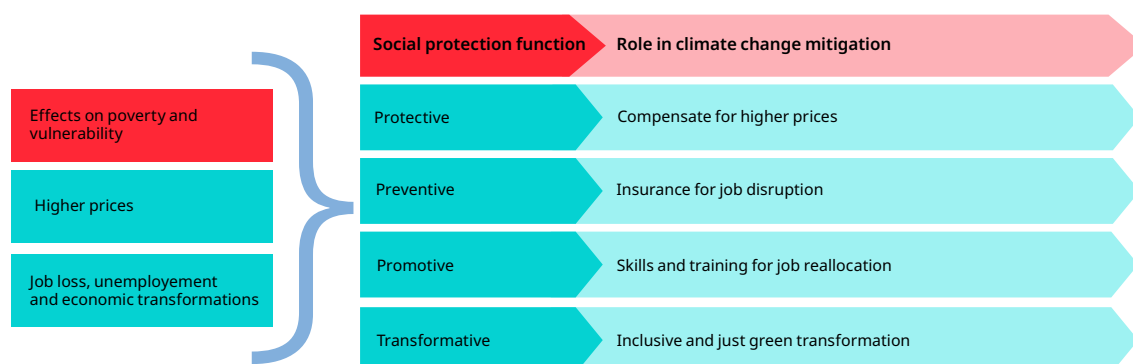
jobs can be created by embracing a circular economy



Source: ILO, 2018a.

out altogether will need an approach that combines social protection and ALMPs<sup>43</sup> to reskill, make sectoral shifts, support laid-off workers and leave no one behind. In any case, positive labour market outcomes that enable decent work and a just transition for all will require the strong, constant commitment of all actors in the world of work. In France, for example, social dialogue in the workplace is gradually tackling issues related to the ecological transition, assisted by the Climate and Resilience Act 2021, which added environmental issues to the competencies of the social and economic committees set up within companies.

► Figure 32. Core functions of social protection in supporting climate change mitigation policies



Source: Malerba, 2021.

The application of general social protection functions to climate policies (Malerba 2021) is useful in strategizing the impact of social protection on those policies.

In the context of climate mitigation policies, social protection, sometimes in conjunction with employment policies, may be:

- preventive and promotive, typically when it takes the form of social insurance schemes such as unemployment insurance in conjunction with active labour market measures, including training and employment promotion, to anticipate the risk of job losses and income insecurity and enable the transition to a greener economy;
- protective, most often, but not exclusively, when related to social assistance and cash transfers for the poorest individuals and families to offset inflationary pressures such as a general increase in energy prices owing in part to the phasing out of subsidies for fossil fuels. This increase will hit hardest low-income households, which spend a larger proportion of their incomes on energy-intensive needs such as heating;
- transformative, when it contributes to improving, directly or indirectly, environmental outcomes and helps to move society towards a better eco-social balance (for example payments for environmental services).

The potential of social protection is therefore multifaceted since, beyond preserving decent living conditions, it can also enable recovery and better livelihood opportunities. In practice, these functions need to be considered strategically in terms of their contribution to climate change resilient development, for example, by strengthening approaches that are known to be synergistic but insufficiently implemented in reality, such as mobilizing social dialogue, advocating for corporate eco-social responsibility and complementing social protection with employment promotion, particularly in relation to environmental resilience.

The stakes are so high that they can only be approached, as Chomsky (2020) puts it, as “the political economy of saving the planet”, or, as stated in the Sixth Assessment Report of the IPCC, “climate-resilient development”. This is the perspective taken in the Green Deal initiatives, including UNEP’s 2009 call for a global green new deal (UNEP 2009), the European Green Deal (EC 2019a), and also in the Global Accelerator on Jobs and Social Protection, discussed in sections 1.1, 2.2 and 2.7. These strategically link the post-COVID recovery to a just transition towards a green and sustainable economy. The examples in box 6, and further examples in the following sections, illustrate how social protection can support climate mitigation policies, highlighting the need for a global approach that includes a strengthened approach to social protection, including social protection floors.

Paths to solutions exist outside the immediate need to respond to a current problem, as in the Islamic Republic of Iran, where fiscal space for social protection was increased to compensate

for inflation caused by the reduction of subsidies for fossil fuels, and in Cameroon, where structural regulatory measures were defined.

#### ►Box 6. Social protection to support climate change mitigation policies and a just transition

In early 2020, the EU launched its ambitious European Green Deal with a view to transitioning towards a zero-carbon economy in a manner that leaves no one behind. The plan includes a just transition mechanism and a just transition fund that aim to mobilize at least €100 billion to support regions, sectors and workers that will be most affected by the transition, notably those dependent on the fossil fuel industry (EC 2020). This plan is to be combined with other policies to strengthen social protection, including the European Pillar of Social Rights.<sup>44</sup> In the United States, attention has been drawn to the need to provide support through healthcare and pensions to low-income households, particularly those reliant on high-carbon sectors, such as coal mining communities and workers. China and Brazil have already realized the need to integrate their pro-climate reforms with social protection in the form of unemployment benefits and social transfer programmes for persons affected by environmental regulations imposed on the forestry, agriculture and energy sectors (ILO 2017a). In the same vein, Costa Rica has identified the need to establish equitable and sustainable health and social security systems as strategic areas of its decarbonization plan (Costa Rica, Climate Change Directorate 2018).

#### Islamic Republic of Iran: Enabling the reduction of fossil fuel subsidies for green growth by strengthening social protection (2010–16) (ILO 2019d)

The Islamic Republic of Iran carried out comprehensive energy subsidy reforms as part of a broader structural reform agenda to foster inclusive growth and job creation. Previously, fossil fuel subsidies accounted for the largest portion of the US\$100 billion spent every year on subsidies, contributing to a level of fossil fuel consumption twice that of that of other Middle Eastern countries. To mitigate the price increases caused by the subsidy reform, the Government introduced a universal cash transfer, in the form of a universal basic income, for households, with three objectives:

- to reduce domestic consumption and misuse of fuel subsidies to green the environment, while reducing air and noise pollution;
- to use social protection to increase the reforms' social acceptance and further reduce inequalities (by increasing redistribution among Iranians since energy subsidies are usually regressive in nature, benefiting the rich more than the poor) and compensate enterprises for a loss in competitiveness through fiscal policies and other measures;
- to compensate enterprises for a loss in competitiveness through fiscal policies and other measures.

Around 80 per cent of the savings achieved through the subsidy reform were redistributed through cash transfers. As a result of the redistributive elements of the universal cash transfer, inequality as measured by the Gini coefficient improved from 0.41 in 2010 to 0.37 in 2011, with a particularly sharp drop in inequality in rural areas, a result that has likely since been eroded by inflation and sanctions.

A second area that benefited from the additional fiscal space was the health sector. The health reform included different interventions and aimed to increase the coverage of basic health insurance among the population, increase the quality of care in hospitals and reduce out-of-pocket payments for inpatient services.

**Note:** Owing to the escalation of sanctions and other factors, this reform is currently suspended.

**Source:** ILO 2019b.

<sup>44</sup> For more information, see European Commission, "[European Pillar of Social Rights](#)".

## ► Box 6. (cont'd)

**Cameroon: National Social Insurance Fund setting environmental standards for suppliers**

Since 2016, the National Social Insurance Fund of Cameroon has required the inclusion of corporate social responsibility and health, quality, safety and environmental standards in its procurement processes. All companies bidding to carry out work or provide supplies must comply with such standards as set out by the social insurance funds and apply the relevant code of conduct. The reference framework includes the application of environmental and social standards. Only service providers that comply with these standards will receive approval and be awarded a contract by the National Social Insurance Fund. Any failure to comply results in the withdrawal of approval as a supplier to the Fund and disqualification from submitting tenders in future.

Source: ISSA, 2020a.

There is an urgent need for social policies, including social protection, and environmental policies to address the growing inequalities and conflicts that are likely to emerge as foreseeable consequences of the decarbonization of production and consumption patterns. At the same time, strategic synergies must be developed between them to move towards genuine eco-social policies.

### **Leveraging social insurance funds to promote the green economy**

When examining the financing gap and sustainability of social protection systems, a proper assessment must be made of the investments made by social security institutions and their respective agencies. In many countries, pension funds are among the largest pooled investment entities and their potential influence is not to be underestimated. With more than US\$44 trillion in assets worldwide (OECD 2019b), public and private pension funds have the power to move financial markets and the potential to play an important role in countries' transitions to a low-carbon and climate-resilient economy and, more broadly, in green growth (Della Croce et al. 2011). The world's 100 largest public pension funds have combined assets worth over US\$11 trillion (AODP 2018).

However, a report from the Asset Owners Disclosure Project (AODP), which rates and ranks

the world's largest institutional investors and assesses their response to climate-related risks and opportunities, indicates that, although a small number of public pension funds, mostly based in Europe, are aligning their investments with the low-carbon transition, over 60 per cent of the world's largest public pension funds have little or no strategy on climate change. On the contrary, less than 1 per cent of assets in the world's largest 100 pension funds are invested in low-carbon solutions, and just 10 per cent of the pension funds assessed have a policy to exclude coal from their investment portfolios (Timperley 2022). In addition to the existential risk to workers, who may be inadvertently financing the production of GhGs, these investments in fossil fuel assets are increasingly volatile owing to their foreseeable depletion and the increasingly hostile regulatory environment and thus present a huge risk to workers' retirement savings.

In the United Kingdom of Great Britain and Northern Ireland, pension schemes will soon be required to disclose publicly the risks posed to their contributors' investments by climate change and the net-zero transition under new rules proposed by the Department for Work and Pensions, as per the reporting guidelines of the Task Force on Climate-Related Financial Disclosures.

The clean energy lobby group Market Forces has launched a campaign to push the industry superannuation fund Hostplus to reduce its fossil fuel exposure after pressure from the fund's

young members. While most pension funds are more interested in lower-risk investments that provide a steady, inflation-adjusted income stream, investments in green projects such as sustainable energy sources and clean technology, or in green bonds, are attracting more interest as an asset class. There is an emerging trend driven in part by generational change and younger millennials more interested in moving away from fossil fuel investments. To foster this trend, governments can support innovative technologies and improve carbon pricing to better consider pollution and negative externalities (OECD 2017; Della Croce et al. 2011).

Several pension funds have expressed their interest or are already investing in climate change-related assets (see figure 33). They have also formed various industry groups to engage in dialogue with governments to scale up green investments. The Institutional Investors Group on Climate Change (which has €6 trillion in assets) is

one such forum comprising European investors and aims to catalyse greater investment in climate change-related assets. Similar groups have also been set up in the United States, such as the Investor Network on Climate Risk (US\$9 trillion in assets), and in Australia and New Zealand through the Investor Group on Climate Change.

A recent World Bank study focusing on forestry found that pension funds in both developed countries and emerging economies invest little in emerging “green” markets, despite those markets’ financial returns and environmental benefits, which range from watershed protection to carbon storage (Binkley et al. 2020). It highlights that pension plans, particularly domestic plans, may have a unique role to play in achieving, for example, the Bonn Challenge targets<sup>45</sup> to restore 150 million hectares of degraded and deforested landscape worldwide by 2020 and 350 million hectares by 2030.

► Figure 33. Countries with high Bonn Challenge pledges and significant domestic pension assets

| Country    | Bonn Challenge Pledge (million ha) | Domestic Pension Assets, 2019 or latest (% GDP) | Doing Business 2020 Ranking (Score out of 100) | Worldwide Governance Indicators (Ranked from -2.5 to 2.5) |
|------------|------------------------------------|-------------------------------------------------|------------------------------------------------|-----------------------------------------------------------|
| Brazil     | 15.28                              | 12                                              | 154 (59.1)                                     | -.29                                                      |
| Chile      | 0.5                                | 81                                              | 59 (72.6)                                      | .93                                                       |
| Colombia   | 1.0                                | 27                                              | 67 (70.1)                                      | -.22                                                      |
| Costa Rica | 1.0                                | 32                                              | 74 (69.2)                                      | .53                                                       |
| India      | 21                                 | 2                                               | 63 (71)                                        | -.19                                                      |
| Kenya      | 5.1                                | 13                                              | 56 (73.2)                                      | -.60                                                      |
| Malawi     | 4.5                                | 15                                              | 109 (60.9)                                     | -.57                                                      |
| Mexico     | 12.17                              | 16                                              | 60 (72.4)                                      | -.44                                                      |
| Nigeria    | 4.0                                | 7                                               | 131 (59.9)                                     | -1.17                                                     |
| Tanzania   | 5.2                                | 8                                               | 141 (54.5)                                     | -.58                                                      |
| Uganda     | 2.5                                | 9                                               | 116 (60)                                       | -.62                                                      |
| Uruguay    | 0.2                                | 28                                              | 101 (61.5)                                     | .83                                                       |

Source: Binkley et al., 2020, p. 41.

<sup>45</sup> The Bonn Challenge is a multilateral initiative launched in 2011 by the Government of Germany and the IUCN to restore 150 million hectares of degraded and deforested landscape worldwide by 2020 and 350 million hectares by 2030. For more information, see “[Bonn Challenge](#)”.

This table shows that at the confluence of international and national investments in the green economy, and international and national social insurance funds (mainly pension funds), there is a unique opportunity to foster social, economic and environmental objectives simultaneously. There is also great potential to strengthen the principle of solidarity at the heart of contributory schemes by shifting investment strategies more decisively towards biodiversity-positive and nature-based approaches, thereby generating mutually reinforcing social, economic and environmental benefits (OECD 2021a; OECD

2021b). This is especially true in developing countries where there are large social security funds and potential for such green investment, nationally or regionally (for example in East Africa, as illustrated above).

Social security schemes, particularly long-term pension schemes, therefore have the power not only to halt or decelerate climate change, but also to contribute to mitigating its impact on persons and to support adaptation strategies, as well as to support technological change to slow climate change and its impact on livelihoods and ecosystems.

### ► Box 7. Pension funds supporting green initiatives

#### United States (California)

The California State Teachers' Retirement System was the first North American pension fund to apply environmental, social and corporate governance criteria in their investment policies. With a green initiative task force, the fund assesses each asset class on environmental, social and corporate governance risks and opportunities relative to their investment space. With a total of US\$190 billion in pension assets, the fund is the second largest public pension fund in the United States.

Source: Politsch, 2019.

#### Netherlands

PGGM is a not-for-profit pension fund that administers pension assets for five pension funds in the Netherlands, including Pensioenfondsen Zorg en Welzijn, the second largest pension fund in the country. With €100 billion in pension assets, PGGM focuses on investments in renewable energy, such as wind farms.

Source: PGGM, 2019; Della Croce et al., 2011.

#### South Africa

The Government Employees Pension Fund is Africa's largest pension fund, with US\$138 billion in assets, and the largest investor in the Johannesburg Stock Exchange. It invests in four main asset classes, including equities, fixed income, properties and the Isibaya Fund. The Isibaya Fund targets investments in four areas: economic infrastructure, including energy projects; social infrastructure, including education, affordable housing and healthcare projects; economic growth and transformation, including alternative energy and environmental protection/restoration projects; and environmental sustainability, with a focus on renewable energy generation and clean technology. The Fund aims to generate social impact in combination with sound, low-risk financial returns. Approximately 5 per cent of the Government Employees Pension Fund portfolio is invested through the Isibaya Fund.

Source: OECD, 2012.

#### Denmark

More than half of the pension funds registered in Denmark have set goals to increase investment in green energy. The Danish Pension Fund considers human rights, labour, climate and environmental issues when formulating its investment policy and decisions. Since 2008, it has published a climate report on internal administration and operations and how its investment choices reflect the responsibility criteria set out in its governance policies. Its investment policy requires companies to respect the rules, norms and standards set out in conventions and other international agreements ratified by Denmark, even if a company's activities and operations primarily take place outside the country.

Source: ISSA, 2014.

Institutional investors are increasingly recognizing the need to rapidly decarbonize the global economy and their portfolios to lessen the impact of climate change on financial returns and their beneficiaries' quality of life, and to avoid the potentially catastrophic scenarios of global warming. Within portfolios, funds deriving from social insurance, particularly public pension funds, have huge potential to foster eco-social investments that are today largely untapped. Among its core recommendations in that sense, the AODP advises that:

- ▶ regulatory frameworks and mandatory requirements for climate-related disclosure should be strengthened;
- ▶ the social partners and insured persons' representatives should put pressure on pension funds to strengthen the disclosure and management of climate-related risks and opportunities;
- ▶ pension funds must act and account for climate change in their investments in line with their duty to invest in savers' long-term interests. This includes collaborative and holistic approaches to risk management, including collaboration and co-investment between international and domestic funds in developing countries.

Over the course of the ecological transition, the potential for job creation will eventually outweigh the risk of job losses, but workers and their communities who are left behind in the process will require social protection and opportunities for better livelihoods

Countries need to measure specifically, by sector and in quantitative terms, the changes likely to occur in labour markets to design, budget for and implement enabling social policies, including social protection

A systemic approach is needed that strengthens approaches in reality, such as social dialogue, corporate eco-social responsibility, social protection and employment promotion, particularly in terms of environmental resilience

The reserve funds generated by long-term contributory schemes, such as pension funds, can promote investment in climate adaptation and mitigation at the national and regional levels

## ► 2.5. Adaptation to climate change

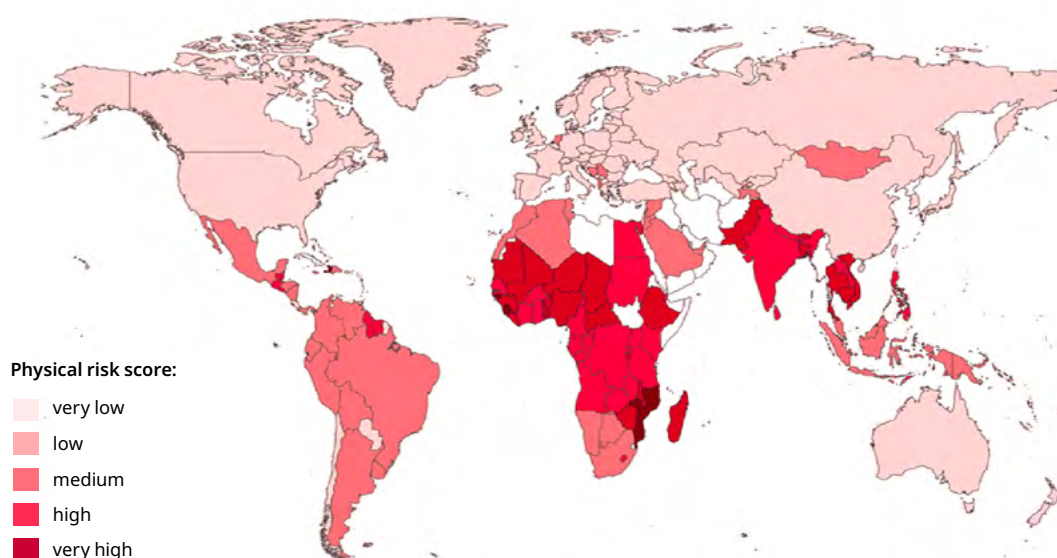
► We need to start thinking about climate change as a risk-multiplier. It has the potential to take all the other critical issues we face as a global community and transform their severity into a cataclysm.

► Anthony Johnson, *The Millennial*, 2017

The highest levels of risk occur where high vulnerability and high exposure overlap. No country is immune to the impact of climate change, but some countries and regions are much more vulnerable to the direct, physical effects of the changing climate than others. The physical risk country scores calculated by the European Investment Bank show very clearly the most

at-risk regions: sub-Saharan Africa, particularly the Sahel; South and Southeast Asian economies, particularly those with a high dependence on agriculture and low-lying coastal areas; and small island developing States in the Caribbean and Pacific (EIB 2021). According to Sett et al. (2021), the countries with the highest overall risk scores are the Philippines, Haiti, Dominica, Honduras and

► Figure 34. Physical risks posed by climate change



The physical risk scores are based on an estimate of the total annual burden each country faces in damages, costs and losses related to climate change. The scores comprise:

- acute risks of extreme weather events, such as storms, heatwaves and fog, and other climate-related natural disasters, including floods, landslides, droughts, wildfires and glacial lake outburst floods;
- chronic risks arising from long-term and gradual shifts in climate patterns, such as the impact on agriculture and food production, rising sea levels, the quality of the infrastructure needed and the impact of higher temperatures on labour productivity, particularly for outdoor activity.

Source: European Investment Bank 2021, figure 3, p. 15.

*Boundaries shown do not imply endorsement or acceptance by the ILO.  
See full ILO disclaimer*

Pakistan, while the average overall risk of the high-income group is the lowest of all the income groups, with the notable exception of Japan, owing to its exceptionally high exposure. Some sectors will also be more severely impacted than others. For example, according to a recent report by RTI International (Van Houtven et al. 2022), the combination of projected sea level rise and more severe storms by 2050 is likely to cause billions of dollars of additional storm-related port damage and disruption costs each year unless significant mitigation and adaptation measures are adopted. Moreover, these additional costs are expected to double between 2050 and the end of the twenty-first century.

Setting up adaptive mechanisms that can gradually expand the scope of social protection in those countries and sectors requires a global effort and integrated policies.

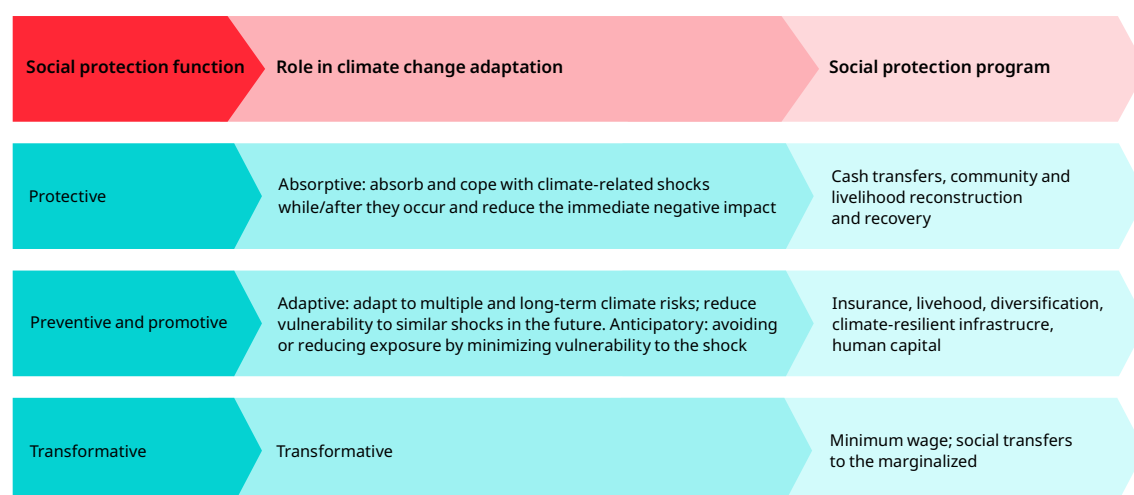
Once again, Malerba (2021) interprets the general functions of social protection in the context of climate adaptation, as follows:

- ▶ promotive and preventive, which are typical attributes of social insurance insofar as it anticipates risk and reduces vulnerability;
- ▶ protective or, in the case of shocks, absorptive;
- ▶ transformative, when it addresses the root causes of disasters and helps to move society towards better eco-social balance.

Again, these potentialities, which connect well with the notion of capabilities introduced in section 1.1 and are transversal to our topic, should be considered strategically in relation to the construction of programmes and schemes to maximize their ability to bring about transformative adaptation and climate-resilient development

Adaptation, coordination and planning processes take place at different levels of planning, including regional,<sup>46</sup> national, local, urban and sectoral, and it is important that social protection actors are present.

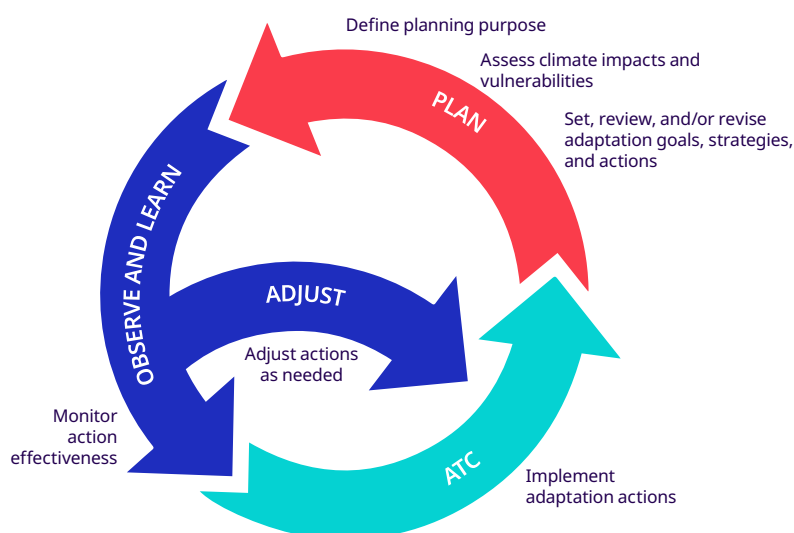
▶ **Figure 34. Core functions of social protection in supporting climate change adaptation**



Source: Malerba, 2021.

<sup>46</sup> For example, the [Caribbean Community Climate Change Centre](#), which coordinates the Caribbean region's response to climate change.

► Figure 36. Climate change adaptation cycle



Source: Blackfeet Nation, 2018.

Once climate change risks and vulnerabilities have been assessed and preferred adaptation options identified and selected, a framework for implementing adaptation action, comprising a strategy and an action plan, can be established. As discussed further in section 2.3, social protection can play a supporting role at every stage of this planning process and is therefore worth integrating as part of a cross-sectoral approach.

Adaptation planning processes must identify potential maladaptations or perverse incentives in cases where measures adopted to respond to climate change may end up increasing individuals' vulnerability. For example, while social protection measures targeting persons living in disaster-prone areas may reduce communities' short-term vulnerability to climate variability and extremes, they may also constitute incentives to remain in places threatened by environmental insecurity (Aleksandrova 2019).

In contrast, it is also worth considering instruments that can promote behaviours considered positive

for the environment and climate, such as payments for environmental services,<sup>47</sup> which are similar to conditional cash transfers and used increasingly as incentives for individuals and communities to engage in climate action and mitigation but also adaptation when pursuing food security objectives, for example. The *Bolsa Floresta* (Forest Grant) and *Bolsa Verde* (Green Grant), which aim to reduce extreme poverty while improving ecosystem conservation in Brazil, are emblematic examples of payments for environmental services schemes integrated into an overall social protection system (Schwarzer et al. 2016).

Adaptation to climate change cannot be an isolated action, but rather must be a comprehensive, cross-cutting strategy that involves everyone, influences all sectors and brings about fundamental societal change rather than fragmented or incremental change.

<sup>47</sup> For more information, see "[Climate Investment Funds](#)".

## National Adaptation Plans (NAPs)

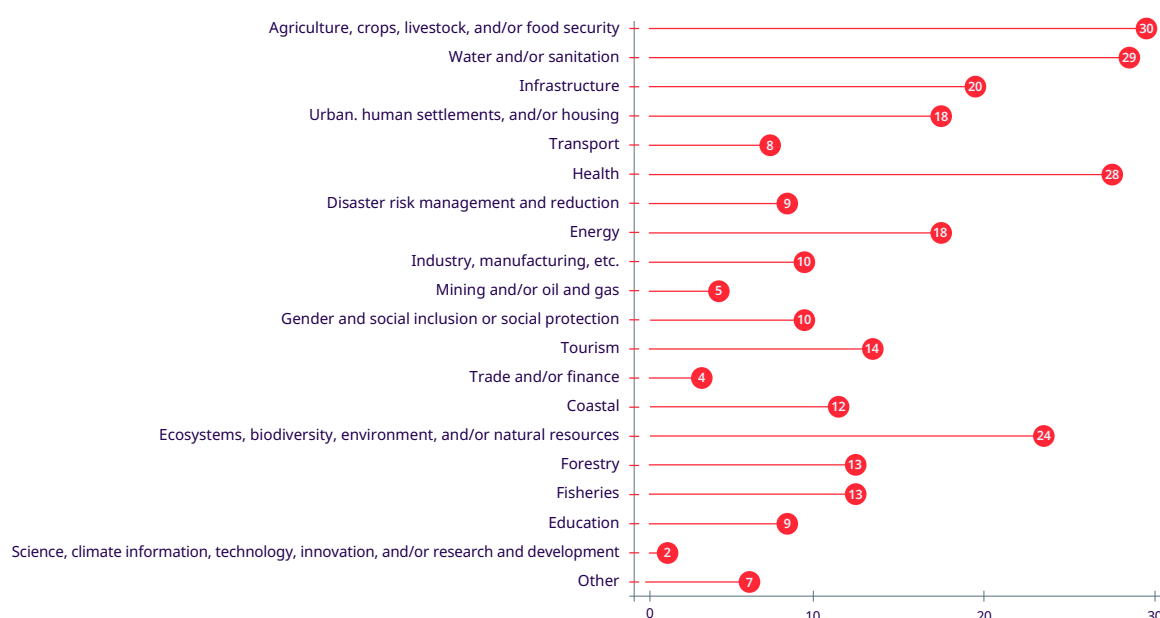
Over the last 20 years, weather-related events have caused 90 per cent of natural disasters. However, in 2018 and 2019 there were fewer disasters compared to the decade from 2008 to 2017, a downward trend that partly reflects the growing effectiveness of disaster risk reduction strategies combined with climate change adaptation policies (CRED and UNDRR 2020). The ongoing consolidation of comprehensive and coordinated action<sup>48</sup> by public administrations on this dual front represents an important step towards greater cross-sectoral coherence to approach climate change, not only from a prevention, response and recovery perspective (OECD 2020), but also from a transformational standpoint, fostering iteratively innovative knowledge, practices and policies.

The breadth of the range of organizations and individuals responsible for reducing vulnerability

often means that essential synergies are missed; they must therefore be created urgently. We have seen the potential of social protection to provide a fighting chance against the effects of climate change, which could result in increased vulnerability, income insecurity, sickness, injury and death. Policy integration and alignment represent essential leverage for climate change policies, since the trend of mainstreaming climate issues in each sector multiplies the risk of duplication and conflicting priorities between sectoral approaches. It therefore seems essential that social protection, as a long-term system rather than a targeted or temporary programme, should be recognized more widely by all parties as a necessary strategy for adapting to climate change.

The NAP process<sup>49</sup> established by the United Nations Framework Convention on Climate Change (UNFCCC) provides a foundation for such integrated planning and budgeting at the national level that can extend to complex and interconnected crises beyond the immediate effects of climate change. Currently, as monitored by the NAP Global

► Figure 37. Percentage of NAPs that identify sectors as priorities



Source: NAP Global Network n.d.

Note: Data as accessed in 2022.

<sup>48</sup> See "[Platform for Climate Adaptation and Risk Reduction](#)".

<sup>49</sup> For more information, see United Nations Climate Change, "[Overview - National Adaptation Plans](#)".

Network,<sup>50</sup> a total of 129 developing countries have initiated their NAP process. Just 10 per cent refer specifically to social protection, often extending the concept to various forms of safety nets and climate insurance. Significantly, close to 60 per cent refer to conflict resulting from climate change, and 90 per cent mention the need to engage with the private sector.

Although not mandatory, more and more countries (Smithers et al. 2017) are also including an adaptation component in their nationally determined contributions (NDCs), on top of their mitigation commitments.

An analysis of NDCs under the Paris Agreement indicates that 55 per cent of countries have identified health as a sector that is particularly vulnerable to climate change impact. Several governments, including those of Cambodia, Ecuador, Egypt, Sudan and Zambia, have proposed various measures to enhance the adaptability of social health protection to the effects of climate change, including:

- ▶ increasing food security and nutrition;
- ▶ raising the public's awareness of preventive measures and the health risks associated with climate change;
- ▶ making adequate investment in improving health infrastructure, services delivery and capacities;
- ▶ expanding access to affordable healthcare, including for populations living in remote and climate-vulnerable locations;
- ▶ enhancing the knowledge base and assessing the existing and potential risks of climate change to human health, including by collecting gender-disaggregated data;
- ▶ establishing surveillance systems to monitor human health, viruses, mosquitos and the weather for early warning signs of increased risk;
- ▶ implementing mechanisms to control vector- and water-borne diseases.

While health concerns currently feature more prominently in national climate commitments,

some governments also integrate social protection into their sustainability plans. Cambodia, El Salvador, the Marshall Islands, Peru and Viet Nam have committed to strengthening the adaptability of social protection to address climate change impact. Other countries pay particular attention to the needs and vulnerabilities of specific groups. Egypt has highlighted the need to expand social security and health insurance coverage to include self-employed farmers. Similarly, the Republic of Moldova is investigating how the resilience of rural workers can be enhanced through social protection programmes, while Tajikistan recognizes the need to ensure maternity and childhood protection in the context of global warming.

In general, it would be useful to have more specific guidance in the guidelines for the development of NDCs and NAPs to better reflect the purpose and scope of the measures set out in relation to social protection, which often extend to public-private insurance policies or to monetary transfers outside of the systems regulated by normative frameworks.

## Enhancing preparedness for shocks through social protection

▶ We must boost the power of prediction for everyone and build their capacity to act.

▶ António Guterres, Secretary-General of the UN

Experience shows that preparedness and local ownership through social dialogue are key ingredients of well-coordinated emergency responses. Many climate-related risks can be predicted, including their location, intensity, probability and duration, and integrated into risk models. When forecasts are combined with additional information, such as exposure and vulnerability, and with core functionalities such

<sup>50</sup> For more information, see "[NAP Global Network](#)".

as social registries, it is possible to identify and protect populations that may be affected before a disaster occurs.

Unlike the standard humanitarian model, in which aid agencies receive funds only after a crisis has occurred, this method allows governments and their partners to plan and respond before the most severe effects of, for example, a drought are felt, thereby saving more lives and livelihoods. Key to this approach are early warning systems that advise individuals of imminent adverse weather conditions and inform government, community and individuals to act to minimize the impending impact. The Global Commission on Adaptation, in its "Adapt Now" report (GCA 2019), reveals that early warning systems save lives and property worth at least ten times their cost; a simple 24-hour warning before a storm or heatwave can reduce the damage that follows by 30 per cent.

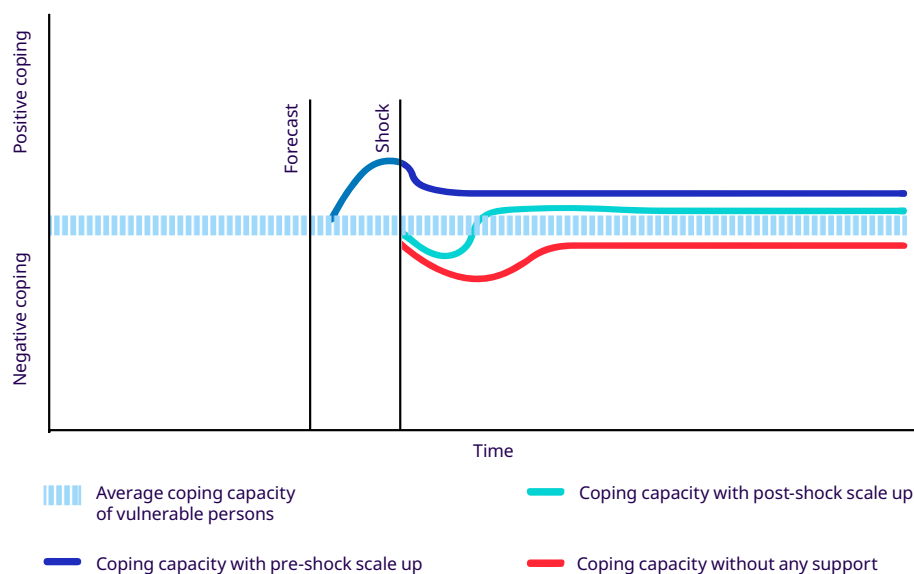
The Sixth Assessment Report of the IPCC highlights that one third of the world's population, mainly in least-developed countries (LDCs) and small island developing States, are still not covered by early warning systems. In Africa, the situation is even worse: 60 per cent of the population lacks coverage. The Secretary-General of the UN has

therefore announced (UNFCCC 2022a) a new and ambitious objective: within five years, every person on the planet should be protected against extreme weather events and climate change by early warning systems. He has tasked the WMO with leading the effort and presenting an action plan to achieve the goal.

Forecast-based financing (FbF) is a mechanism that enables early warning systems to trigger early action based on pre-agreed forecast triggers and protected funding, such as index-based or parametric insurance, a concept more frequently applied to social assistance (as shown in the example below) but that can also be extended to social insurance. The indexing of benefits is a mechanism that is already well established in social protection systems since ILO instruments require benefits to be indexed regularly because the costs of guaranteeing living standards are affected by inflation (ILO 2021c, p. 95). National practices in this respect vary across countries and schemes, from ad hoc mechanisms to automatic indexation (within limits).

An FbF system consists of a series of hazard levels or thresholds based on weather forecasts, with corresponding pre-agreed actions built into

► **Figure 38. Forecast-based social protection supports earlier coping capacity for improved outcomes**



Source: Costella et al., 2018, figure 1, p. 2.

standard operating procedures or plans, and a pre-defined source of funding for these actions. These elements are essential to ensure that, once a threshold is exceeded, the system will be able to act effectively, before a potential hazard materializes.

The potential of early action and social protection as complementary approaches has been discussed widely, for example by the Risk-Informed Early Action Partnership (2021), which highlights the potential of, and challenges faced

by, this approach, including the need for more and better data and the need to strengthen social protection systems since this approach requires effective coordination, social registers and delivery mechanisms.

As the examples in box 8 illustrate, FbF can combine the mechanisms of insurance, reinsurance and disaster risk reduction to develop an innovative approach to social protection in the context of climate change.

#### ► Box 8. Innovative weather-based social protection mechanisms

An example of an FbF mechanism can be found in Kenya, a country highly vulnerable to climate change with temperatures projected to rise by 2.5°C between 2000 and 2050 and that is also developing social protection policies that are shifting towards universal programmes with a life-cycle approach.

The Hunger Safety Net Programme, a shock-responsive cash transfer scheme available to vulnerable communities affected by drought, is administered by the National Drought Management Authority. It uses early warning drought indicators that also serve as indicators to release funds to households. It is a strong example of convergence between local climate change adaptation mechanisms and national environmental and social risk management institutions.

#### **The ARC Replica programme: an innovative approach that combines parametric insurance and social assistance**

The ARC Replica<sup>51</sup> programme allows non-governmental organizations (NGOs) to work side-by-side with governments to manage disaster risks. The programme enables civil society actors to purchase parametric insurance using international donor funds to pay premiums, alongside, or replicating, their government counterparts using national public funds to purchase policies (WFP 2019). A specific risk modelling system, the Africa RiskView, is used to anticipate crises and estimate the number of persons likely to be affected and the cost of the response per household. The programme is run in partnership between Start Network; ARC; Member States of the African Union, including the Governments of Senegal and Zimbabwe; and the WFP. It is funded by the German Federal Ministry for Economic Cooperation and Development through the Kreditanstalt für Wiederaufbau (KfW) Development Bank and the United Kingdom's Foreign, Commonwealth and Development Office.

For example, in 2020 a drought in Senegal triggered a double release of funds, US\$10.6 million to Start Network and US\$12.5 million to the Government of Senegal, reaching, when combined with an additional US\$375,000 in emergency funds, US\$23.1 million, enabling both parties to provide in-kind and in-cash assistance to 970,000 at-risk Senegalese households.

These forms of solidarity and risk pooling respond to similar goals at different scales. However, because resources are scarce and climate risks systemic, to have impact those initiatives should

ideally learn from each other and harmonize with national social protection systems capable of guaranteeing the rights of all in an equitable manner.

<sup>51</sup> For more information, see "[Start Network](#)".

## Enhancing social protection systems' preparedness for shocks

To strengthen the resilience of social protection it is necessary to protect the system itself from the potential impact of climate change in order to preserve the continuity and integrity of its operations during crises.

It is therefore essential that governments, with the social partners and social security agencies, develop and implement institutional plans to manage the risks of systemic disruption, including those induced by climate, based on a detailed analysis of risks and vulnerabilities and with regard to the protection of staff, the physical integrity of the infrastructure, functional and financial continuity and the system's potential scope, from the social registry to the delivery

of benefits. Several aspects will be addressed later, notably in the sections on financing and — e HDP-N, but it is worth outlining some other key elements here.

The elaboration of the business continuity plan for the Institute of Social Security for Workers in the State of Chiapas, Mexico, developed with the support of the ILO after the 2017 earthquake, is a good example of how a methodology inspired by the Sendai Framework for Disaster Risk Reduction can structure such a process if all stakeholders are brought together and legal texts are adapted accordingly (Schwarzer and Gutiérrez Haaz 2019).

Lastly, from the perspective of contingency planning, it is necessary to understand the risks associated with the level of integration of the social protection system within the wider context of the systems to which it is attached and on which it depends.

**Adaptation to climate change cannot be an isolated action, but rather must be a comprehensive, cross-cutting strategy that involves everyone, influences all sectors and brings about fundamental societal change rather than fragmented or incremental change**

**Social protection can play a supporting role at every stage of the climate adaptation planning process and is therefore worth integrating as part of a cross-sectoral approach**

**Social protection can enable the development of strategies to encourage engagement in climate action, either in terms of adopting positive behaviours or by promoting integration into environmental programmes**

**Social protection must consider potential maladaptations or perverse incentives when designing measures to address climate change which may end up increasing individuals' vulnerability**

**Social protection, as a long-term system rather than a targeted or temporary programme, should be more frequently acknowledged as an inherent component of climate change adaptation**

**Social protection can benefit from, and contribute to, hybrid approaches combining several converging areas in the context of climate change adaptation**

Social protection systems must protect themselves against the potential impact of climate change in order to preserve the continuity and integrity of their operations during crises

More specific guidance on social protection in the development of NDCs and NAPs would be useful to strengthen the significance and scope of the intended policies and their implementation

## ► 2.6 Inequality and climate change

Climate solutions that neglect inequality are doomed to fail.

► Naomi Klein, 2015

► Figure 39. The intersection of inequality and climate change



Inequality is heightened in times of crisis, exposing huge divides in individuals' capacity to adapt.

Source: Oxfam in Horn, East and Central Africa 2021. The intersection of inequality and climate change.  
Available at: [The intersection of inequality and climate change | Oxfam in Horn, East and Central Africa](#)

Climate change is a problem deeply rooted in social inequality. Over the past 25 years, the richest 10 per cent of the world's population has produced 52 per cent of carbon dioxide emissions; in contrast, the poorest 50 per cent has produced just 7 per cent of cumulative emissions (Karthi et al. 2020). This gap can be narrowed by building community resilience to climate change and creating new jobs in the green economy. Without adequate social policies and the means to implement them, however, inequalities are likely to grow further, resulting in winners and losers from climate policies, with dramatic consequences for those on the wrong side, and, ultimately, a self-defeating transition.

A 2014 report of the IPCC highlights that climate change “exacerbates inequalities”, since socially and geographically disadvantaged persons, including persons facing discrimination based on gender, age, race, class, caste, indigeneity and disability, particularly suffer the negative effects of climate hazards (IPCC 2014). Inequality can be exacerbated through the disproportionate erosion of physical, human and social assets. The effects are particularly acute for the most vulnerable workers: workers from lower-income countries and small island developing States, rural workers, persons living in poverty, indigenous and tribal peoples and other disadvantaged groups are most affected by the impact of climate

change, biodiversity loss and environmental degradation (ILO GB.338/POL/1).

Foreshadowing the effects of climate change, the COVID-19 crisis has highlighted and exacerbated deep-rooted structural socio-economic labour market inequalities within and between countries. Intersecting health and social inequalities and increased morbidity (and comorbidity) have led to disproportionate infection and mortality rates in ethnic minority communities and low-income groups, reflecting systemic racism and discrimination in important social services, as well as exclusion from decent work and access to care. The COVID-19 crisis has also highlighted the primacy of universal and inclusive approaches to social protection in addressing poverty and inequality (ILO 2021d).

At the same time, the “green revolution” is taking place, accelerated by a collective awareness and the unprecedented confluence of technological innovation and commitments to reduce GhG emissions. It also very concretely raises the question of who should bear the cost of climate action, both within and between countries, which if left unaddressed will fall disproportionately on the most vulnerable, exacerbating inequalities and threatening social cohesion, as highlighted clearly by the French experience with the *gilets jaunes* movement.

#### ► Box 9. A new “green” social contract

As strategic, and even popular, as they may be, climate policies, whether for adaptation or mitigation, whether international or national, must be designed with equity and social justice at their core, and this is precisely what a new green social contract should address (Tagliapietra 2021). This echoes the call for a renewal or “reinvigoration” of the social contract, a notion at the heart of the human-centred agenda for the future of work (ILO 2019f). Moreover, as Sharan Burrow, former General Secretary of the International Trade Union Confederation, puts it, “a new social contract must bring a recovery [from COVID-19] with a resilience against future shocks that is built on jobs, living wages and universal social protection”.

## Inequalities within countries

- Climate change is not a basic cause of poverty and inequality, as they are inherent to human society and have existed throughout human history. But the hazards of uncontrolled climate change constitute an epochal ‘threat multiplier’.

► Ian Gough, 2017

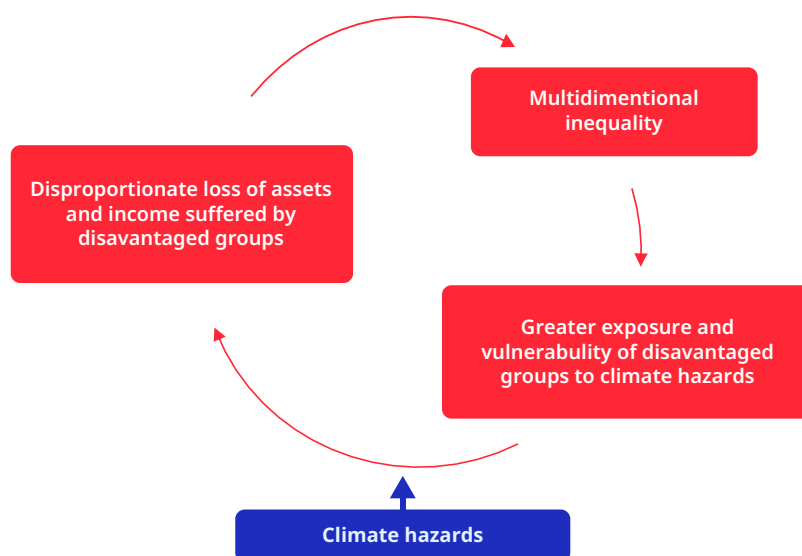
The effects of climate change and structural inequalities are locked in a vicious circle.

Although climate change affects all regions around the world and virtually all persons, its effects are uneven and are felt most keenly by the poorest groups, unemployed persons, and workers in the informal economy and their families. Evidence collected in Viet Nam and Indonesia, for example, shows that income

inequality increases with climate variations, while poor persons, rural households and minorities bear the greatest burden of climate variability and are thereby forced into a spiral of poverty and social exclusion (Pacillo et al. 2020).

Children, women (UN WomenWatch 2009), persons with disabilities and older persons have little access to adequate social protection, and policies are urgently needed to counter those social and economic effects.

► Figure 40. Climate change – the vicious circle of inequality



Source: DESA, 2017.

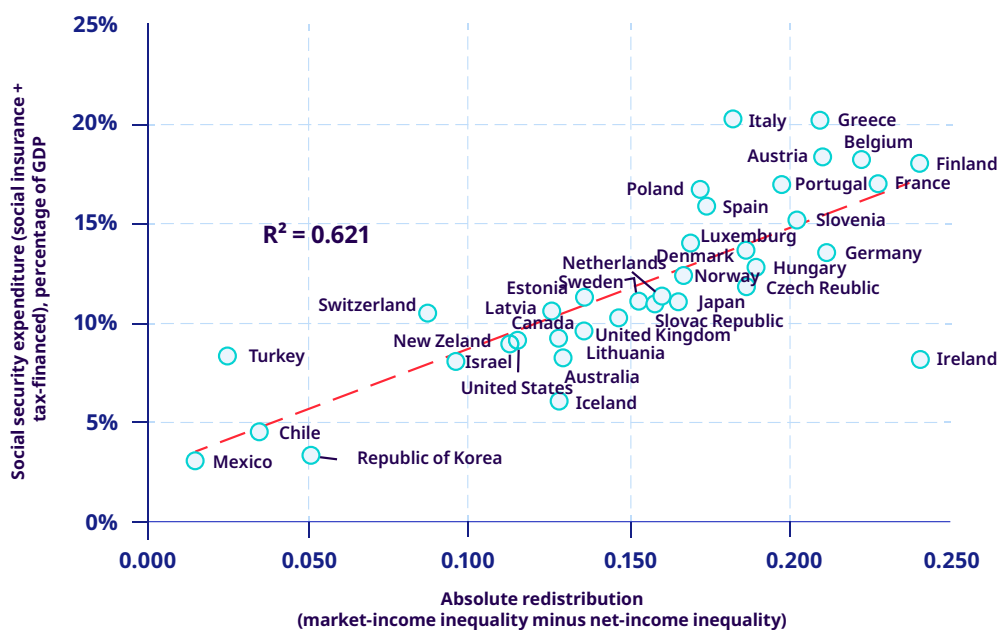
## Social protection and inequality

Since it is a key instrument for the redistribution of income and the universalization of access to basic services, contributory and non-contributory social protection is widely recognized as a central component of policies to contain and reduce

income and non-income inequalities (Ortiz et al. 2019; ILO 2017a).

Social protection constitutes an important mechanism for reducing income inequality and economic insecurity and supporting both vertical and horizontal redistribution.

► Figure 41. Correlation between inequality reduction and level of investment in social security in OECD countries (2017–19)



When we consider 120 countries globally, including many LDCs, we see that those that invest more in social protection are more successful in reducing income inequality among their citizens.

Source: Kidd et al., 2022.

Health insurance, for example, beyond its primary role as a coping and recovery mechanism for individuals, is also a core financing mechanism for health systems that is essential if the exacerbating effect of climate change on existing inequalities is to be reduced. To cope with climate risks, and in the absence of health insurance, disadvantaged groups and poor households are often faced with a difficult choice between protecting their human capital and preserving their physical capital. When they are affected by health problems caused by the direct or indirect effects of climate hazards, they often sell physical assets to meet the related health costs, thereby compromising their ability to earn an income in future (DESA 2016). Alternatively, to maintain their meagre physical assets, poor

households may opt to reduce their consumption and investment in human capital (Carter et al. 2007), which has a negative impact on household members' long-term health and education. In sub-Saharan Africa, climatic hazards mean that asset-poor households are more likely to give their children poorer quality food and less likely to take sick children to the doctor. This can have long-term effects on those children and their development prospects (Hallegatte et al. 2016). As the current pandemic illustrates dramatically, countries are also facing impossible budgetary choices between addressing urgent health needs, supporting jobs and income – including through basic social protection – and investing in the SDGs and a more sustainable and resilient future.

## Climate change and gender inequality

### Climate change affects women and men differently.

#### ► Green Climate Fund

Women and girls experience specific vulnerabilities to climate change and disasters as a result of cultural norms and their lower socio-economic status in society. Women's unequal participation in decision-making processes and labour markets compounds inequalities and often prevents them from contributing fully to climate-related planning, policymaking and implementation (Olson et al 2014). On the other hand, it is increasingly recognized that reducing gender inequality and empowering women can strengthen adaptive capacity and improve the effectiveness of climate change responses (Andrijevic et al. 2020). Women often possess a strong body of knowledge and expertise that can be used in climate change mitigation, disaster reduction and adaptation strategies. Furthermore, women's responsibilities in households and communities render them stewards of natural and household resources and position them well to contribute to livelihood strategies that are adapted to changing environmental realities (UN WomenWatch 2009).

Because they are perceived as transgressing dominant gender roles and norms, lesbian, gay, bisexual, transgender and intersex persons and other sexual minorities face specific challenges as a result of repressive (and often violent) responses to their identities. Throughout their lives, these persons experience discrimination that reduces their access to education, employment and social protection and can lead to death (UNDP 2022).

As discussed in section 3.5, the phenomenon of human mobility, including forced displacement, will increase significantly as a result of climate change. To better understand the experiences of displaced women, a specific index, the Women, Peace and Security Index, has been developed to assess their access to inclusion, justice and security in five sub-Saharan African countries characterized by high levels of displacement: Ethiopia, Nigeria, Somalia, South Sudan and

Sudan (GIWPS and PRIO 2021). In all five countries, the Index scores for displaced women are worse than for non-displaced, host country women, with an average discrepancy of around 24 per cent.

Overall, there is a body of evidence indicating that despite climate change's significant gendered impact, policies and practices for mitigation and adaptation strategies continue to struggle to incorporate gender mainstreaming (Alston 2014).

## Social protection and gender

Although women remain under-represented in the labour force, employment and decent work, certain gender gaps have narrowed in developing and developed countries, particularly in terms of labour force participation (ILO 2018a). Nevertheless, deficits remain, and, in the past few years, progress towards decent work has not kept pace with economic growth, as wage growth has stagnated and, by and large, inequality is rising again, a situation worsened by the COVID-19 crisis given that women have been affected by employment loss to a greater extent than men.

If the apparent neutrality of social policies, including social protection, is not questioned, they will retain the cultural, ethnic and gender biases present in their cultural environment and thus deprive rights holders in these unnoticed categories of their rights.

For example, in 2010 and 2011 Pakistan experienced mega floods that affected more than 20 million persons (Sawas and Bose 2021). When the floods hit, 2 million hectares of crops were ready to be harvested. This led to massive food insecurity and destroyed livelihoods. The Citizens Damage Compensation Programme provided universal social assistance to all households in the affected areas through an updated register maintained by the National Database and Registration Authority. The Pakistani government provided nearly US\$400 million in cash grants to more than 1.62 million families through special cash withdrawal cards, known as Watan cards.

Although the National Database and Registration Authority did an important job in registering 96 per cent of citizens, the vast majority of persons who fell through the cracks were poor women and girls. At least 10 million individuals remained unregistered at the time of the floods and

therefore could not receive their own Watan card and had to rely on family members. Moreover, even for women who did receive a card, social norms regarding their mobility made it much more difficult for them to access clean water and wait for ATMs in queues of mostly men. Another problem is that very little information about the programme filtered down to communities' most marginalized women and girls.

There is growing acknowledgement of the need to include gender equality, as well as persons with disabilities, in particular, in national policies and programmes. However, the effective integration of these issues and the concrete implementation of related policies is generally limited. Moreover, while policies often include women and persons with disabilities in the "poor and vulnerable" category by default, this obscures the need to adapt social protection programmes specifically to these categories of beneficiaries, from design and implementation to monitoring and accountability mechanisms. There is an urgent need to build policy and operational frameworks that overcome these biases and blind spots and guarantee greater inclusion and equality, beginning with more influential and representative social dialogue and considering the difficulties entailed in ensuring that rights holders have access to, and receive, benefits.

In 2021 the ILC concluded the Recurrent Discussion on social protection by making strong recommendations to pursue gender-responsive social protection policies and address gender gaps in coverage and adequacy, to ensure that social protection systems address gender-related risk over the life cycle and promote gender equality, while highlighting the need to further develop data on the adequacy of social protection and gender gaps in benefit levels and coverage (ILO 2021d).

## Social insurance and gender

The redistributive function of social insurance is key to reducing gender inequality in particular, but faces many challenges owing to persistent patterns of inequality, discrimination and structural disadvantages that vary according to national context (ILO 2021d). Contributory pensions, for example, play a key role in providing adequate retirement coverage for

women, particularly if they include credits that recognize and reward time spent caring for children or other family members and guarantee a minimum income in line with international social security standards (ILO 2021d). Several advanced economies, such as Canada, France, Germany and Sweden, improve pension adequacy by compensating for periods of unpaid work when care providers make limited or no pension contributions, for example when they are caring for children. In most countries, however, older women do not benefit from social insurance owing to the nature of their integration into the labour market, particularly where they are over-represented among informal workers. In the area of long-term care, coverage gaps more often affect women, who, on one hand, and given their higher overall life expectancy, are more likely to require care, and who, on the other hand, are responsible for additional unpaid care work, limiting their participation in paid employment and thus their access to social protection, particularly contributory social protection (ILO 2021d). In green sectors, too, women's participation in the workforce is currently lower than that of men, and gender-sensitive policies are therefore needed to enable women to share equally in the benefits of the transition to sustainability (ILO 2019g).

## Inequality between sectors and categories of employers and workers

Inequality among workers, employers and their families and communities in the face of climate change is a notion that cuts across the concept of a just transition, and this study. It is worth emphasizing in this section, however, that employers and workers, their health and their incomes are affected differently depending on their geographic location, sector and employment status. The strongest impact will be felt by:

- ▶ the working poor, workers in the informal economy, seasonal and casual workers, the self-employed and micro- and small enterprises;
- ▶ sectors most dependent on natural resources and climate, such as energy, water, agriculture and food production, tourism, transport, public services and industry.

For example, agriculture, which employs around 1.1 billion people worldwide (ILO 2014), will be heavily affected by climate-induced crop losses and reduced physical work capacity owing to heat stress, which in turn will negatively impact incomes and livelihoods. The fisheries and aquaculture sector will suffer from ocean acidification and rising water temperatures that alter fishing cycles and the abundance and biodiversity of marine populations, a situation exacerbated by pollution and the overexploitation of marine resources linked to unsustainable commercial fishing practices (FAO 2019). Declining fish stocks jeopardize the incomes and livelihoods of fishery workers and can also lead to further decent work deficits in the form of forced labour and increased safety and health risks as fishers are forced to travel longer distances for longer periods (ILO 2016b). The increased frequency and intensity of extreme meteorological conditions also represent additional climate change-related risks to this sector, as extreme weather events can claim the lives of fishers, inflict damage and losses on assets and disrupt the entire sector.

Climate change will also foster human mobility. For example, the energy transition and the adaptation to new working conditions will trigger migration between sectors, and possibly across borders. This raises the question of equality between workers doing the same job and the need to address unfair competition between migrant and national workers. Indeed, the exclusion of migrant workers from contributory social security schemes can create a perverse incentive to recruit them as cheap, unprotected labour. A recent ILO mapping of 121 countries found that 58 per cent have national laws with provisions granting equality of treatment between nationals and non-nationals in respect of contributory social security.

Social protection, including social insurance, plays a central role in supporting employers and workers through these difficult circumstances and in reducing these inequalities. Examples related to income and health protection are discussed in more detail in section 3.

► Figure 42. Equality of treatment in countries with respect to social security



Source: Van Panhuys et al., 2017, figure 2, p. 10.

## Climate change and intergenerational equity

What you do or don't do, right now, will affect my entire life, and the lives of my children and grandchildren.

► Greta Thunberg, aged 15

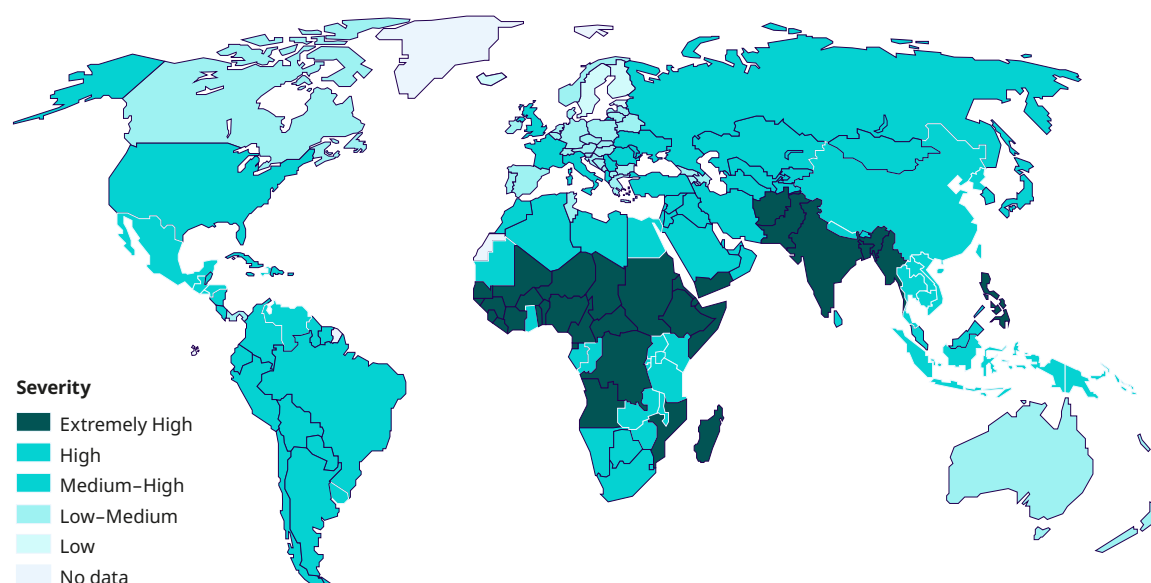
Younger generations will face greater risks during their lifetimes than older generations. This raises important questions of solidarity and equity between generations, an issue that is increasingly central to young persons' concerns about their future. Recent qualitative studies show that in many children and young persons

around the world, climate change is associated with climate anxiety rooted in the perceived inadequate action by adults and governments, feelings of betrayal and abandonment, moral injury and distress (Hickman et al. 2021). Despite, or because of, this feeling of betrayal, young persons are aware that they have a role to play in raising awareness and holding authorities accountable to protect their future. The example of Greta Thunberg is known worldwide in this respect, echoing a growing number of youth-led citizen initiatives. In Australia, the Federal Court recently ruled on a class action suit brought by eight teenagers to stop the federal Minister for the Environment from approving a proposal to expand the Vickery coal mine in northern New South Wales. The court accepted expert evidence that carbon emissions from mining and burning fossil fuels will contribute to widespread harm to young Australians and ruled that the



Reservoir used to irrigate the crops, Rwanda, 2007. ©ILO/Marcel Crozet

► Figure 43. The Children's Climate Risk Index



Source: Camilletti et al. 2021.

Boundaries shown do not imply endorsement or acceptance by the ILO. See full ILO disclaimer

Government has a duty to protect young persons from harm caused by climate change (Devarajan 2021). The case echoes a ruling in Germany in which the Federal Constitutional Court stated that the Government should set clear targets for reducing GhG emissions after 2030, arguing that existing legislation risked placing too great a burden on younger generations in the fight against climate change (*Economist* 2021). Young persons are clearly a powerful voice in demanding climate justice and in influencing how countries, communities and businesses respond to the impact of climate change, and they are increasingly involved in decision-making processes in those areas (see, for example, Global Youth Call to Action: Adapt for Our Future).<sup>52</sup>

A recent report by UNICEF indicates that almost half the world's 2.2 billion children live in 33 countries classified as "at very high risk" of the impact of the climate crisis, a situation that jeopardizes their health and their rights and to which are added other types of psychological and political risks, drastically reducing their future potential (Camilletti et al. 2021). Recent research (Thiery et al. 2021) indicates that, under current

climate policy commitments, children born in 2020 will experience up to seven times more extreme events compared to those born in 1960, especially if they were born in poor countries.

Policies and actions to tackle the effects of climate change that cause inequality should embed intergenerational equity and sustainability in their design.

In acknowledgement of the fact that the actions taken today will affect future generations disproportionately, the concept of intergenerational equity is enshrined in the Paris Agreement.

Nevertheless, only 42 per cent of all NDCs refer directly to children or youth, and just five refer to human rights in the context of intergenerational equity or future generations.

Particularly significant in this regard is the amount of debt that has accumulated to finance responses to crises, including COVID-19. This is particularly applicable to developing countries, since most financial support for adapting to climate change is given as loans. The OECD reports that although

<sup>52</sup> For more information, see "[Global Center on Adaptation](#)".



Greta Thunberg, Climate and Environmental Activist, Sweden speaking at the World Economic Forum Annual Meeting 2020, Davos-Klosters, Switzerland ©World Economic Forum/Manuel Lopez

donor countries mobilized US\$71.2 billion in climate aid in 2018, developing nations are expected to repay nearly three quarters of that amount (OECD 2019a).

On the individual and community levels, climate change may also worsen the intergenerational transmission of poverty, given that natural disasters, for example, are known to affect human capital accumulation while reducing investment in children's education, nutrition and health, with large and quasi-irreversible effects on their prospects (Hallegatte et al. 2014).

## Climate change in an ageing world

An inclusive, intergenerational response is the only way to address the climate crisis that will define the lives of every person of every age over the next century. Nonetheless, both climate change and social protection policies must adapt and prepare for a radically different global demography. The pace of population ageing is much faster than in the past. There will be more than 2 billion older persons in the world by 2050, 80 per cent of whom will be living in low- and

middle-income countries. Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double, from 12 per cent to 22 per cent (WHO 2022a). For the first time in history, there will be more persons aged over 60 years than children under 15 years.

One of the main challenges for social security systems in countries that will have ageing populations in the coming years is ensuring an adequate level of protection for the most vulnerable older persons while building financial resilience without overburdening younger generations and national economies.

Climate change will increase the vulnerability of an ageing global population in the coming decades. Two thirds of persons aged 60 years or older live in low- and middle-income countries, where disasters are more likely to occur, and older persons are more vulnerable to the effects of extreme temperatures and weather events. Lastly, in low- and middle-income countries, older persons who have worked in the informal sector or in subsistence agriculture for most of their lives are unlikely to have savings or social pensions.

## Social protection and intergenerational equity

In many ways, social protection, and particularly social insurance, is capable of addressing certain intergenerational imbalances, especially when it comes to reducing the intergenerational transmission of poverty. Providing old-age pensions, for example, is a crucial welfare objective of modern societies that also eases the financial stress on families supporting their older members.

The principles of solidarity, collective financing and risk pooling, which are at the heart of social insurance schemes, are essential for sharing the burden of risks related to climate change among the members of a society and across generations. Some social insurance funds, and public pension funds in particular, have the potential to support investments in eco-social programmes that will foster both decent jobs and climate action.

However, the potential intergenerational inequality that also exists in the mechanism of social insurance must be resolved to address

climate risks adequately. Social insurance is based on the premise that a group of individuals vulnerable to a specific risk, such as sickness, make contributions to a fund, which is then used to pay benefits to compensate participants who suffer the materialization of the risk in question. It is, of course, necessary for the amount collected in the fund to be sufficient to make all payments promised to members with valid claims, in accordance with the general principle of actuarial balance (ISSA and ILO 2016). By this logic, any use of long-term social insurance reserves for purposes other than paying long-term benefits – such as to provide emergency benefits in the event of catastrophic weather-related events – represents a debt that future generations of employers and workers will have to repay, unless the State covers the gap with other fiscal revenues.

Once again, we see the need to systematize innovative financial mechanisms capable of anticipating climate contingencies, including reinsurance and emergency funds at the national, regional and international levels, as has already been mentioned.

## Climate justice and inequalities between countries

-  The effects of climate change are experienced to varying degrees across and within countries due to differences in exposure, susceptibility and coping capacities. If left unaddressed, climate change will lead to increased inequality both within and among countries and could leave a substantial part of the world further behind.

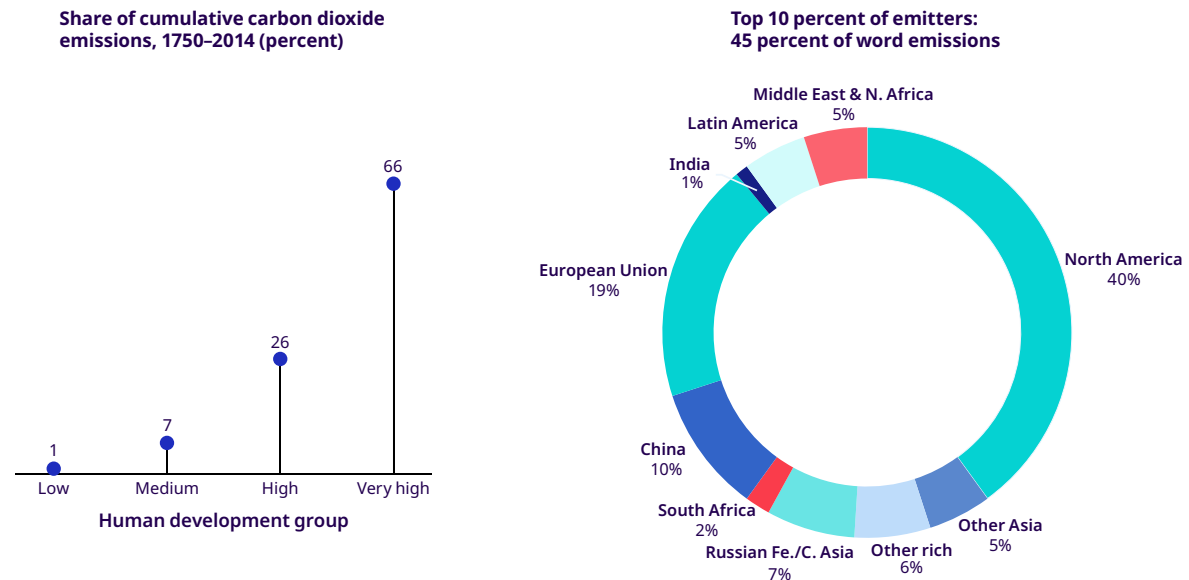
► DESA, 2020

Inequalities in cumulative CO<sub>2</sub> emissions – the most widespread GhG driven by fossil fuel combustion for electricity production, transportation, and other uses – are central to the global conversation on climate, particularly regarding climate justice, burden-sharing and differentiated responsibilities (UNDP 2020).

Climate finance policies are based on the recognition of this historical and ongoing climate injustice. Since the conclusion of the United

Nations Framework Convention on Climate Change (UNFCCC) Cancun Agreements in 2010, which were reaffirmed in the Paris Agreement in 2015, “developed country Parties commit, in the context of meaningful mitigation actions and transparency on implementation, to a goal of mobilizing jointly US\$100 billion per year by 2020 to address the needs of developing countries” (UNFCCC 2011, para 98), a commitment reiterated in the Glasgow Climate Pact (UNFCCC 2022b).

► **Figure 44. Share of cumulative carbon dioxide emissions (1750–2014) and top 10 per cent of emitters**



Rich countries have benefited disproportionately from the activities that contributed to global warming (Diffenbaugh and Burke 2019), while poorer countries are affected to a greater extent, either because they do not have the resources to protect themselves from it or because they are in warmer regions where further warming is detrimental. However, the discussion on climate justice must be nuanced, differentiating between territorial and consumption-based emissions. Indeed, globalization, coupled with deindustrialization in the North, has led to the outsourcing of an increasing proportion of emissions production from the North. As a result, Europe, the United States and Japan consume goods whose manufacture generates many more emissions than produced by those countries, while the rest of the world generates significant territorial emissions that it does not consume (Gough 2017).

Moreover, the economic burden of climate-related disasters is much greater in relative terms for poorer countries. Between 1998 and 2017, climate-related disasters resulted in average

losses of 0.41 per cent of GDP (US\$1.4 trillion) for high-income countries, compared with average losses of 1.8 per cent of GDP (US\$21 trillion) for low-income countries over the same period (CRED and UNDRR 2020). Similarly, the vulnerability gap between low- and high-income countries has widened (Formetta and Feyen, 2019). The IPCC reports that it is highly likely that, in a scenario of global warming of 1.5°C to 2°C, exposure to multiple climate-related risks would increase faster in Africa and Asia in particular (Masson-Delmotte et al. 2019). Paradoxically, in the period 2017–18, just 20.5 per cent of bilateral climate funding went to developing countries, including 3 per cent to small island developing States, most of it in the form of loans (Carty et al. 2020).

The distribution of the efforts that must be made by countries to limit global warming is a complex and sensitive debate that often leads to deadlock in climate negotiations. One of the difficulties is finding a common equity reference framework accepted by most stakeholders. In this sense, it is worth noting the existence of the Climate Equity Reference Project<sup>53</sup> launched by the EcoEquity<sup>54</sup>

<sup>53</sup> For more information, see "[Climate Equity Reference Project](#)".

<sup>54</sup> For more information, see "[EcoEquity](#)".

think tank and the Stockholm Environment Institute which proposes a framework for calculating the distribution of national efforts to finance the mitigation and adaptation measures needed to combat climate change.

## International solidarity

Solidarity as a value, an organizing principle and a system of transfers between nations, economic agents and individuals is central to the society that we must build to survive the existential challenge of climate change, while seeking a sustainable balance between social, ecological and economic priorities.

Unlocking potential partnerships between international and local pension funds to support productive investment in the green economy,

particularly in developing countries, is a means of multiplying the impact of the principle of solidarity that lies at the heart of contributory systems, particularly if those investments promote green jobs and include social protection and social insurance.

The global climate funding mechanisms referred to in the previous section, such as the Green Climate Fund, are intended to redistribute the financial burden of the ecological transition from developing to rich nations. In that sense, the emerging idea of a global funding mechanism for social protection has the potential to reduce climate inequalities between countries by transferring risks and the resources necessary for development and resilience in less developed countries that are most exposed and vulnerable to climate change and willing to engage further in green development and social protection.

Workers from lower-income countries and small island developing States, rural workers and workers in the informal economy, seasonal and casual workers, the self-employed, micro- and small enterprises, persons living in poverty, indigenous and tribal peoples and other disadvantaged groups are most affected by the impact of climate change

The green revolution raises the question of who should bear the cost of climate action, both within and between countries, which if left unaddressed will fall disproportionately on the most vulnerable, exacerbating inequalities and threatening social cohesion

The pace of population ageing is much faster than in the past. There will be more than 2 billion older persons in the world by 2050, 80 per cent of whom will be living in low- and middle-income countries. Between 2015 and 2050, the proportion of the world's population over 60 years will nearly double, from 12 per cent to 22 per cent. For the first time in history, there will be more persons aged over 60 years than children under 15 years. Both climate change and social protection policies must adapt and prepare for a radically different global demography

Two thirds of persons aged 60 years or older live in low- and middle-income countries, where disasters are more likely to occur, and older persons are more vulnerable to the effects of extreme temperatures and weather events

Providing old-age pensions can ease the financial stress on families supporting their older members. In that sense, social protection can reduce the intergenerational transmission of poverty

Health insurance, beyond its primary role as a coping and recovery mechanism for individuals, is also a core financing mechanism for health systems that is essential if the exacerbating effect of climate change on existing inequalities is to be reduced

The redistributive function of social insurance is key to reducing gender inequality

Solidarity as a value, an organizing principle and a system of transfers between nations, economic agents and individuals is central to the society that we must build to survive the existential challenge of climate change, while seeking a sustainable balance between social, ecological and economic priorities

Under current climate policy commitments, children born in 2020 will experience up to seven times more extreme events compared to those born in 1960, especially if they were born in poor countries

Fewer than 60 per cent of countries have national laws with provisions granting equality of treatment between nationals and non-nationals in respect of contributory social security. Equality of treatment and the portability of rights are essential for migrant workers, whose numbers are likely to increase because of climate change

## ► 2.7 Financing social protection in a changing climate

To ensure that social protection is not merely an empty promise when it comes to addressing climate-related hazards, but something that can bring about change in the lives of affected populations, sufficient funding needs to be allocated and secured in a sustainable manner.

The ILO estimates the financing gap for achieving universal coverage of the social protection floor for 2020 at US\$1,191.6 billion, taking into account the impact of COVID-19. Around two thirds of the gap (US\$750.8 billion) corresponds to the share of upper-middle-income countries, and 6.5 per cent (US\$77.9 billion) corresponds to the share of low-income countries (Durán-Valverde et al. 2020).

### Eight strategies to finance social protection

Extending fiscal space using domestic sources is a fundamental part of the strategy to create comprehensive, resilient, and shock-responsive social protection systems, including floors capable of withstanding and responding to the threats posed by climate change. Based on evidence (see box 10), the ILO, with support from other UN agencies and international financial institutions, has identified eight different strategies for creating fiscal space to finance social protection schemes. These should be examined in the context of national social dialogue and include:

(i) increasing tax revenues; (ii) expanding social security coverage and contributory revenues; (iii) eliminating illicit financial flows; (iv) reallocating public expenditure; (v) using fiscal and central bank foreign exchange reserves; (vi) managing debt by borrowing and restructuring existing debt; (vii) adopting a more accommodating macroeconomic framework; and (viii) increasing ODA and transfers (Durán-Valverde et al. 2020).

Social contributions and taxation play a central role in financing social protection systems.

On one hand, the continuity and economic sustainability of modern social protection systems would be impossible without social contributions. The contribution flows generated by social security systems are part of public financing, and any expansion of the social security system and its coverage therefore contributes directly to the creation of fiscal space. The expansion of the legal and effective coverage of contributory social protection schemes is therefore one of the most effective ways to expand fiscal space for social protection and to broaden social protection

coverage in a financially sustainable way. Virtually all countries in the world have some form of contribution-based social insurance system. It is therefore important to assess individuals' potential and capacity to contribute to social insurance and to develop strategies for extending coverage to all.

On the other hand, taxation is the main source of public finances; total tax revenues account for more than 80 per cent of total government revenue in around half the world's countries, and more than 50 per cent in almost every country. However, developing countries collect much lower proportions of their GDPs in tax revenue than OECD countries. There is therefore great potential to increase tax revenues in developing countries (Ortiz et al. 2019).

While the core financing of social protection should always be built around these two sources, other options, such as reallocating public expenditure (see box 10) and eliminating illicit financial flows, should be integrated into the strategy to expand fiscal space for social protection.

### ► Box 10. Increasing fiscal space for social protection

#### Thailand: reallocating public expenditure

The 1997–98 Asian financial crisis severely impacted the economy and society of Thailand. With the backing of the 1997 Constitution, calls by civil society to address neglected social policies led the Government to adopt the Universal Health Coverage Scheme in 2001. Most of the funding for the Scheme was mobilized through reduced defence spending (from around 25 per cent of total expenditure in the 1970s to 15 per cent in the 2000s and 7.62 per cent in 2015) and lower debt service payments. The Government incorporated the Scheme into a more general fiscal stimulus plan; other measures increased the amount of money in the hands of persons with a high propensity to consume and included the creation of a people's bank, a debt moratorium for farmers and a village fund (Ortiz et al. 2017).

## Synergies with innovative and emerging climate financing strategies

At the same time, synergies with innovative and emerging financing strategies can be explored.

For example, multilateral and national development banks are increasing their support for climate change mitigation and adaptation, as a recent AFD report highlights. In October 2021,

as part of the Finance in Common initiative, public development banks reiterated their commitment to tackling climate change, as evidenced by the investment in green projects of up to US\$1 trillion by the 26 public development banks belonging to the International Development Finance Club, along with commitments to further funding by 2025. Public development banks are also supporting more ambitious national projects and long-term strategies to reduce funding for fossil fuels. However, social policies, including

protection systems, remain insufficiently prioritized.

Debt-relief instruments include climate debt swaps, which entail creditors cancelling public or commercial debt in exchange for a commitment to invest the resources that are freed up in agreed priorities, including environmental and social priorities. Pilot debt-for-climate swaps initiatives are under way (United Nations and Inter-agency Task Force on Financing for Development 2021).

The Green Climate Fund, established in 2010 through the UNFCCC, serves as a mechanism for redistributing the financial burden of the ecological transition from developing to rich nations, a long-standing demand of developing countries. It currently supports 143 projects around the world (see box 12).

The Fund aims to consider the needs of developing countries given that they are both the most vulnerable to climate change impact and less able to implement low-carbon development, owing in particular to unequal access to capital. Based on the principle of common but differentiated responsibilities, developed countries are to provide financial resources to assist developing countries in implementing the UNFCCC's objectives. The Climate Investment Funds,<sup>55</sup> launched in 2008 by the World Bank, serves a similar purpose. It is one of the world's largest multilateral climate finance mechanisms for developing countries seeking to shift to low-carbon and climate-resilient development and to accelerate climate action. The Climate Investment Funds provides financing to reduce risk for investors, lowering barriers to piloting innovations, scaling up field-tested solutions and opening up sustainable markets, thereby mobilizing private sector capital for climate action.

Reciprocally, disaster risk financing approaches,<sup>56</sup> such as the FbF and index-based insurance mechanisms already discussed in the section on adaptation, offer innovative opportunities for social protection and social insurance. FbF's capacity to facilitate social protection by enabling preventive and preparedness action reduces

vulnerability while mitigating impact and losses, thus enhancing the resilience of individuals, economies and protection systems.

Financial resilience in LDCs is stronger in contexts that are integrated into an institutional risk anticipation framework, as in the Caribbean, for example. The Caribbean Catastrophe Risk Insurance Facility<sup>57</sup> was established as a multi-country climate risk pooling system that aims to limit the financial impact of natural hazard events on Caribbean and Central American governments by quickly providing short-term liquidity when a policy is triggered. The Facility offers parametric insurance policies for tropical cyclones, earthquakes, excess rainfall and the fisheries sector. Similarly, ARC is a regional body that aims to improve data collection and the coordination of disaster risk efforts and acts as a contingency fund, pooling risk across the region and providing a form of reinsurance. While the Caribbean Catastrophe Risk Insurance Facility and ARC were not established primarily to support national social insurance mechanisms during crises, the contingency funds that governments receive from ARC may be channelled through existing social insurance systems and thus may be seen as a form of reinsurance mechanism that could top up existing social protection benefits.

While some financing mechanisms already exist, there remains scope for improvement and a need for enhanced coordination and integration. The use of government-backed insurance schemes can be effective in increasing coverage since pooling brings the fund's average risk to an insurable level while ensuring that insurance continues to be provided in areas where, despite pooling, risks remain too high. However, these schemes represent a systemic financial risk for the public sector in the medium to long term. There is therefore an interest in diversifying financial strategies, going beyond frameworks exclusively designed for social protection to incorporate financing mechanisms that have the potential to support the financing of social protection, including contributory (insurance) schemes, such as disaster risk financing and climate risk

<sup>55</sup> For more information, see "[Climate Investment Funds](#)".

<sup>56</sup> For more information, see OECD, "[Disaster risk financing](#)" and World Bank, "[Disaster Risk Financing and Insurance \(DRFI\) Program](#)".

<sup>57</sup> For more information, see "[Caribbean Catastrophe Risk Insurance Facility](#)".

### ► Box 11. Contingency funding in Africa

ARC is a specialized agency of the 34 Member States of the African Union that was created to foster collaboration and forge access to innovative financing across the region with a view to improving planning, preparations and responses to extreme weather events and natural disasters, while strengthening national capacities.

ARC aims to strengthen the continent's disaster risk reduction systems through innovation and solidarity and to improve access to rapid and predictable financing when disaster strikes to protect the food security and livelihoods of African populations. It provides members with capacity-building services and access to state-of-the-art early warning technology, contingency planning and risk-pooling and transfer facilities.

ARC's financial affiliate also carries out the commercial insurance functions of risk pooling and risk transfer, in accordance with national regulations for parametric weather insurance.

ARC allows countries to manage their risk as a group in a financially efficient manner to respond to probable, but uncertain, risks. These techniques, while not new, can be applied by African countries in innovative ways to lower the cost of responding to disasters – before they become humanitarian crises – and provide better services to those affected.

Source: ARC n.d.

### Ethiopia

In Ethiopia, public works are an important component of the Productive Safety Net Programme, under which some 80 per cent of beneficiary households work to create or rehabilitate community assets, including soil and water conservation. The Programme includes a risk financing mechanism that provides additional resources that can be mobilized in the event of a disaster.

Source: ILO n.d. (e).

reinsurance mechanisms. The integration or coordination of different financing modalities also has the potential to better address vulnerabilities and inequalities across the population, integrating principles of social solidarity and collective financing more widely and ensuring solidarity in financing and the pooling of risk across the wider population.

## Global funding

Since the beginning of the COVID-19 pandemic, the labour movement has advocated for the establishment of a global fund to help bridge the gaps in financing for social protection floors in the poorest countries. The creation of a global fund for social protection was initially proposed in 2012 by the Special Rapporteur on the right to food, Mr Olivier De Schutter, together with the Special Rapporteur on extreme poverty and human rights, Ms Magdalena Sepúlveda Carmona (De Schutter and Sepúlveda 2012). The aim was to

provide financial and technical support to States willing to make greater and improved investment in their social protection systems, to move away from dependency on short-term humanitarian aid and to gradually gain the fiscal space required to finance social protection without external support. The concept is twofold:

- a facility branch would eradicate the shortfall in funding for establishing social protection floors in LDCs;
- a reinsurance branch would support social insurance schemes against the risks of excess demand and depletion triggered by major shocks.

Based on international solidarity, this fund would complement national budgets with the resources required to restart or bolster existing national social protection systems. Today, discussions on the desirability and feasibility of an innovative universal mechanism in support

of social protection floors remain ongoing, and it is not unrealistic to think that the looming manifestations of climate change could weigh in its favour, so strong is the feeling that such a mechanism is necessary.

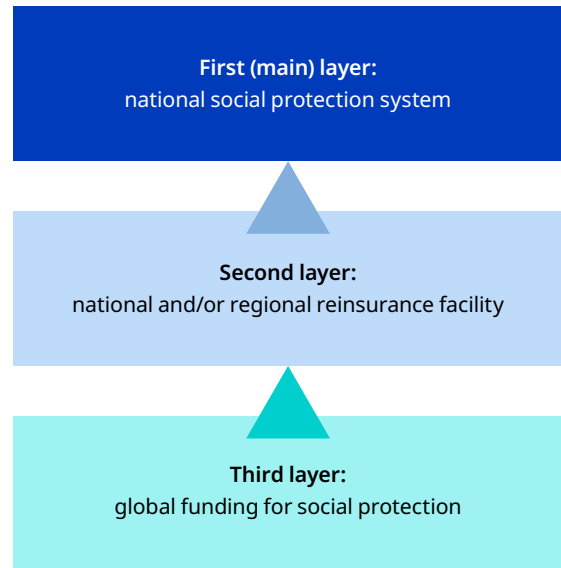
Considering the momentum gained by social protection as part of COVID-19 responses worldwide, tripartite partners and international and civil society organizations are now engaging in discussions to make this proposal a reality. By strengthening the resilience of countries to weather this and future crises, the fund would potentially contribute to guaranteeing the basic health and income security of working families that still do not enjoy their right to social protection (ITUC 2020). The last report of Olivier De Schutter to the Human Rights Council, in April 2021, represents another significant step in that direction; the report invites all States, international agencies, unions and civil society organizations to contribute to making this idea a reality.

An example of such a mechanism can be found in the economic response to the COVID-19 pandemic when, in April 2020, the European Commission proposed an instrument for temporary support to mitigate unemployment risks in an emergency, an initiative that could pave the way for the establishment of a permanent European unemployment reinsurance scheme to help Member States' public employment services cope with a rise in unemployment associated with an external shock, as outlined in the Commission's recommendation on effective active support to employment following the COVID-19 crisis (EASE).<sup>58</sup>

## A multi-layered financing infrastructure

While there is a wide range of financing tools that can be used to strengthen social protection systems and, above all, to extend their coverage, it would be useful to consider a multi-layered system able to afford national systems a much greater guarantee of continuity. While this is not

► **Figure 45. A multi-layered financing infrastructure**



Source: The authors.

yet often institutionalized, regional financing mechanisms (in the second layer as illustrated in figure 45) could build on the infrastructure of national social insurance schemes (in the first, main, layer), avoiding duplication and exploiting synergies and economies of scale, and also essentially ensuring that the key principles of social protection are enforced. Since climate change is a global phenomenon, the idea of a global funding mechanism for social protection could be considered as a third layer. A multi-layered financing infrastructure would therefore aim to provide medium-term support to countries to establish basic systems that could then act as the main layer in the model and become an integral part of the infrastructure.

Financing social protection is a strategic investment in the fight against climate change, as it actively strengthens the three priority areas (economic, social and ecological), which interact, for example by:

<sup>58</sup> The recommendation provides guidance to Member States on ALMPs and indicates how countries could use EU funds to support EASE policies, including those available under NextGenerationEU and the Recovery and Resilience Facility. For more information, see European Commission, "[Questions and Answers: Effective Active Support to Employment following the COVID-19 crisis \(EASE\)](#)".

providing a basic level of security for workers and entrepreneurs, enabling them, psychologically and materially, to engage in innovative fields and new, greener, professional activities;

- ▶ reducing risks and vulnerability to shocks, thus avoiding human, material and financial losses and fostering economic, social and ecological resilience;
- ▶ developing innovative financing mechanisms that, driven by the fundamental aim of universal social protection coverage and financing the associated gap, emerge from cross-fertilization with new, climate-related sectors and financial actors.

## The Global Accelerator on Jobs and Social Protection for Just Transitions

The call to action in the policy brief of the Secretary-General of the UN entitled Investing in Jobs and Social Protection for Poverty Eradication and a Sustainable Recovery (United Nations Secretary-General 2021) outlines priorities that will strengthen the integration of social protection and climate policies, and their operationalization in the framework of the just transition:

1. integrated and costed national policies and strategies combining job creation, green efforts, gender equality, a just transition and universal social protection systems;
2. the creation of the Global Accelerator to enhance multilateral cooperation while developing, for example, USP2030 and the Secretary General's Climate Action for Jobs Initiative;

3. a comprehensive financial architecture to support national strategies and global coordination, based on (i) domestic resources; (ii) international finances, including allocations and channelling of special drawing rights, multilateral development bank investment and ODA; and (iii) measures to leverage investment from the private sector.

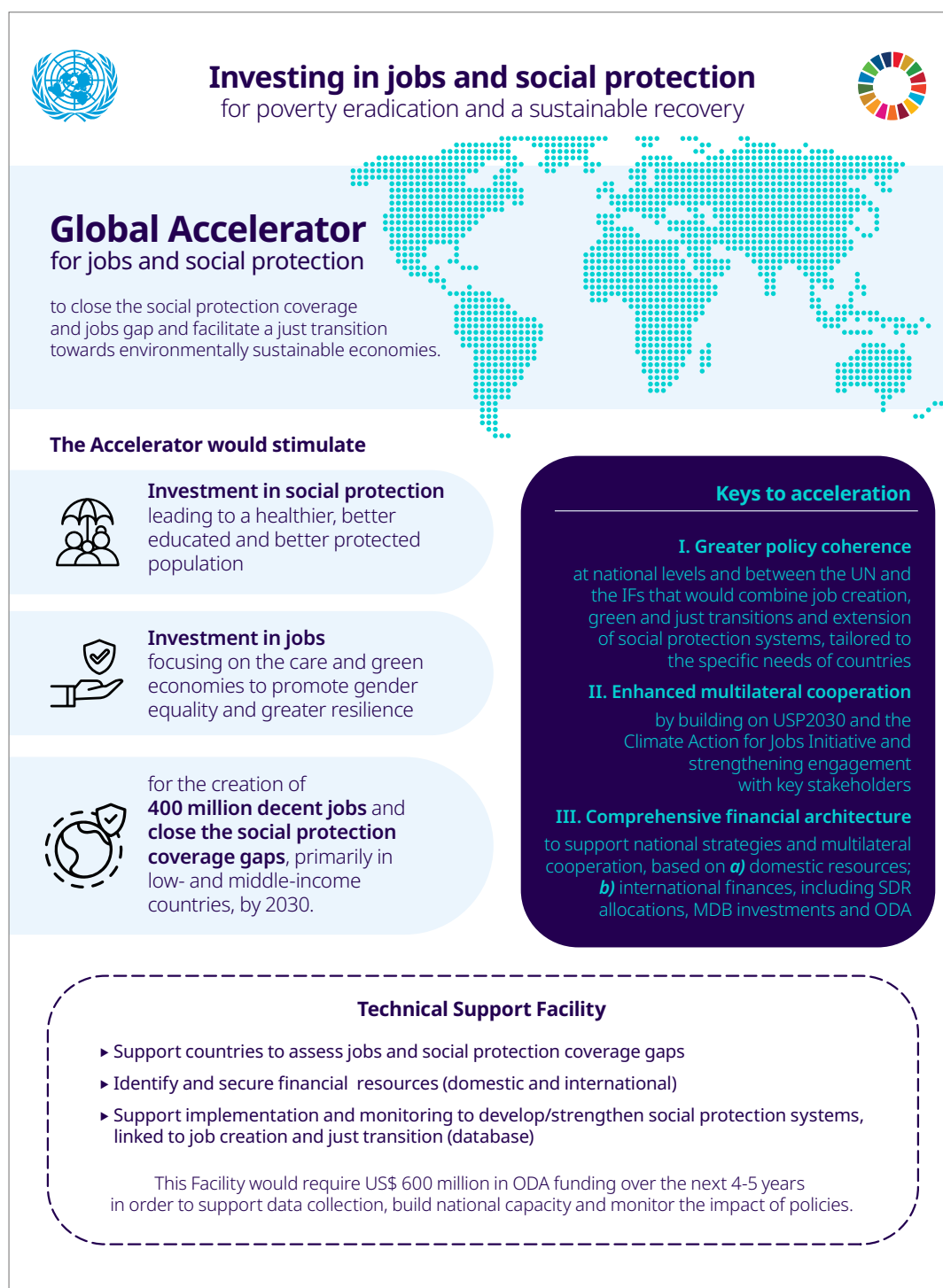
In the enabling context of this call to action, the Global Accelerator will promote renewed partnerships with international financial institutions such as the International Monetary Fund and multilateral development banks, as well as with donors (ODA) and the private sector, to leverage financial strategies in order to mobilize budgetary resources at the national and international levels and to scale up investment in strategic sectors, to promote entrepreneurship, effectively reaching women and women-owned enterprises in particular, to close the skills gap and to support national public social protection systems.

The core idea behind the Global Accelerator is that coordinated and scaled-up investments in decent jobs and social protection would create a virtuous circle of human-centered recovery and sustainable development.

A just transition – one that maximizes economic and social gains from climate action, while minimizing social disruption risks – is an indispensable part of this ambitious and integrated action on employment, social protection and climate change.

It is also essential for renewing the social contract between the government and the people, building trust and social cohesion. Investments in governance, social protection, the green economy and digitalization could lift 146 million people, including 74 million women and girls, out of poverty by 2030.

► Figure 46. The Global Accelerator on Jobs and Social Protection



Source: United Nations Secretary-General, 2021.

To ensure that social protection is not merely an empty promise when it comes to addressing climate-related hazards, but something that can bring about change in the lives of affected populations, sufficient funding needs to be allocated and secured in a sustainable manner

The ILO estimates the financing gap for achieving universal coverage of social protection floors in 2020 at US\$1,191.6 billion, taking into account the impact of COVID-19

The expansion of the legal and effective coverage of contributory social protection schemes is one of the most effective ways to expand fiscal space for social protection and to broaden social protection coverage in a financially sustainable way

While the commitment of international institutions, including multilateral and national development banks, to supporting climate policies is indeed increasing, focus on social protection systems, remains insufficient

Financial resilience in LDCs is stronger in contexts that are integrated into an institutional risk anticipation and FbF framework

To support the resilience of national social insurance schemes and ensure the continuity of key social protection principles, a multi-layered financing architecture should be considered, including contingency and reinsurance mechanisms at the regional and international levels

The Global Accelerator on Jobs and Social Protection will promote renewed partnerships with international financial institutions such as the International Monetary Fund and multilateral development banks, as well as with donors (ODA) and the private sector to leverage financial strategies to support, inter alia, national public social protection systems



# 3

Lessons learned  
from the  
implementation  
of social insurance



Without claiming to be exhaustive, this section provides some examples of policy and implementation approaches to social insurance in conditions likely similar to those generated by climate change. The focus is on how these

approaches, despite extremely difficult circumstances, are nevertheless able to maintain the fundamental principles upheld by the ILO in moving towards universal social protection.

### ► 3.1 Extension of social insurance

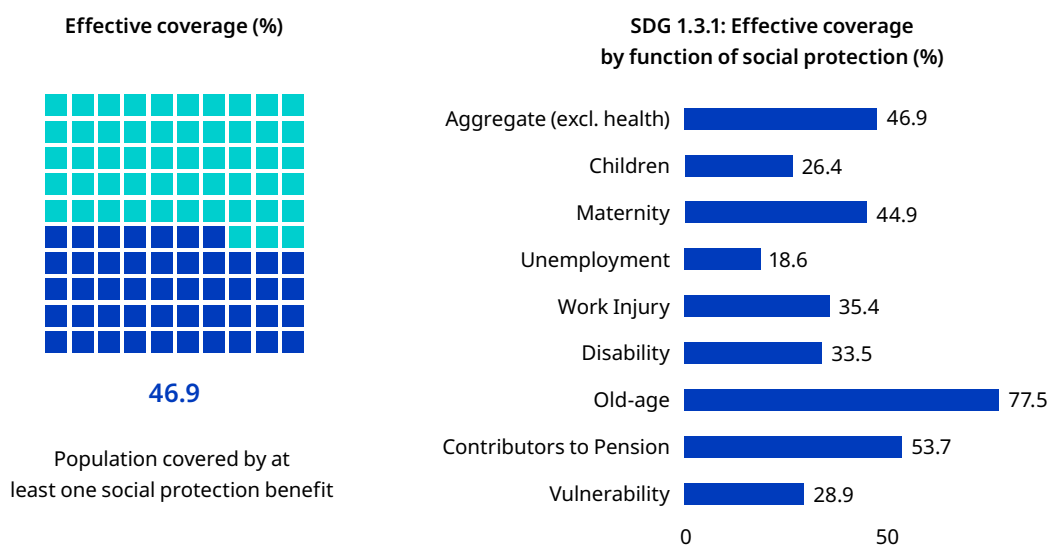
Although progress has been made, just 46.9 per cent of the world's current population is effectively protected by a social protection system in at least one area (ILO 2021c).

The extension of coverage should promote a comprehensive and integrated strategy and build on, inter alia, the principles of the universality of protection based on social solidarity; the adequacy and predictability of benefits; financial, fiscal and economic sustainability; solidarity in financing;

non-discrimination, gender equality and responsiveness to special needs; social inclusion; transparent and sound administration; and tripartite participation and social dialogue.<sup>59</sup>

However, at the same time, climate change is putting increasing pressure on national social protection systems, which should therefore be better financed and designed to adapt to emerging risks and needs, whether related to sudden crises or not. They should also have the capacity to be extended in coverage and

► Figure 47. Effective coverage of social protection (SDG 1.3)



Source: ILO n.d.(g).

<sup>59</sup> For more details, see ILO Recommendation No. 202, Para. 1.

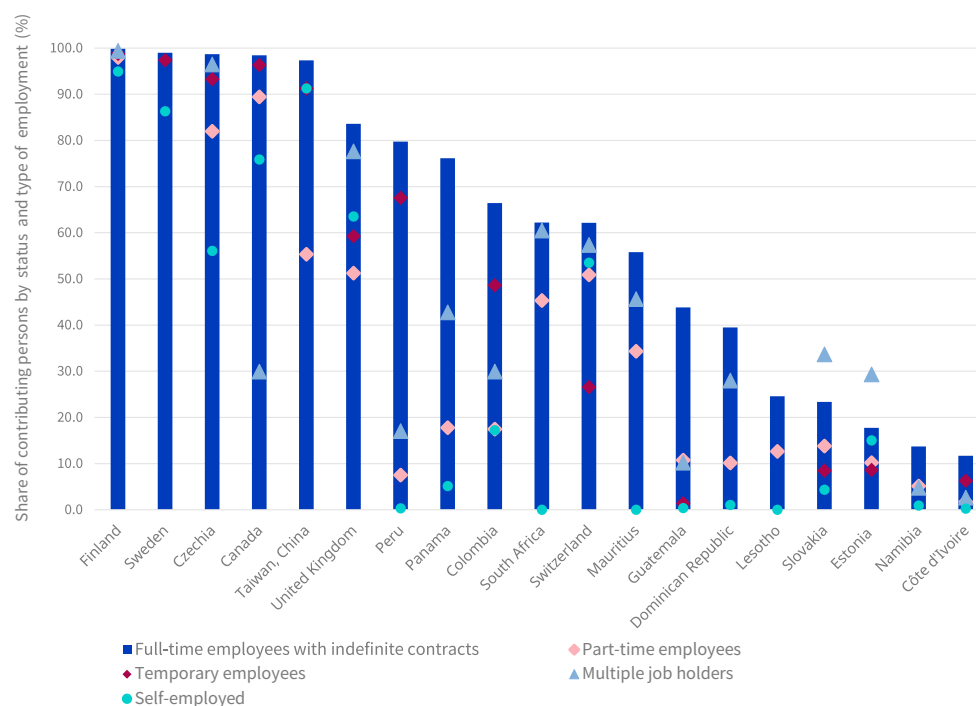
adequacy for the benefit of those not yet protected, including those affected by shocks and crises. Governments, together with the social partners, can achieve this by designing schemes that are well informed by the risks of climate change, based on either existing or new schemes within the framework of their national social security system and using a mixed approach, both contributory and non-contributory.

Extending social insurance that is informed by climate change must be viewed in the broader and very well-documented<sup>60</sup> context of extending social protection to workers in the informal economy. In fact, social insurance is indispensable to ensure progressively higher

levels of social security. Nonetheless, high levels of informality limit the ability of low- and middle-income developing countries to expand social insurance coverage and provide protection for persons most vulnerable, and/or exposed, to climate hazards. In contrast, social insurance systems, which exist in nearly all countries around the world, enjoy the highest coverage rates in countries with the lowest rates of informality, which are high-income countries.

While social insurance systems cannot cover everyone, extending social insurance to uncovered persons with contributory capacity is a key strategy to protect persons who are exposed and/or vulnerable to climate risk, as it reduces the gap to be covered by social assistance.

► **Figure 48. Share of persons in employment who contribute to a social insurance scheme, by type of employment, selected countries, latest available year**



**Note:** Multiple job holders are defined as employed individuals holding multiple simultaneous jobs (wage employment and/or self-employment).

**Source:** ILO, 2021c. Source: ILO n.d.(g).

<sup>60</sup> For example in ILO 2019c.

There are numerous challenges in extending the coverage of contributory schemes to groups that are difficult to cover, including legal exclusion and the failure to render coverage effective, limited contributory capacity and a lack of incentives for contributing.

While the extension of social insurance starts with categories of workers with a degree of contributory capacity, inclusive solutions can be supported further by subsidizing low-income workers using the State budget. Although contributions are most often mandatory, voluntary contributory schemes have also been developed in some countries to extend coverage to informal economy workers and micro-entrepreneurs, albeit with limited success (van den Heever 2021). Voluntary social insurance schemes whose initial implementation is limited in scope can be transformed progressively by integrating them into the mandatory social security system as technical constraints are identified and addressed over time.

Strategies for extending social insurance coverage to persons vulnerable to, and/or affected by, climate change may include (building on ILO 2019b):

- **Making the system affordable for both workers and their employers.** Recognizing that the income levels of most workers in the informal

economy are often low and their contributory capacities limited, scheme design should consider their limited contributory capacity.

- **Developing a person-centred approach** through the effective tripartite participation of representative organizations of employers and workers and in collaboration with other sectors, such as the environment and finance sectors.
- **Communicating to build trust.** Governments and social security institutions should raise awareness and inform employers and workers, as well as civil society and the public more broadly, of the benefits of coverage by public social insurance schemes in the context of climate change, highlighting the comparative advantage of the public approach to social insurance over other private or semi-private social insurance options in the same context.
- **Designing schemes** that meet current and longer-term priority needs of employers and workers who are exposed and vulnerable to climate risk, including in the informal economy, and ensuring that legal frameworks are appropriate and adapted in consequence.
- **Building on existing research, innovative approaches** and lessons learned from social insurance schemes worldwide.



Safari vehicle bogged on flooded dirt road, Amboseli National Park, Kenya, 2019. ©iStock/Lekyumu

► **Box 12. Extending social insurance coverage to uncovered groups**

**Philippines: The Domestic Workers Act (ILO 2013b)**

Being particularly prone to natural disasters and the effects of climate change, the Philippines has introduced policies to expand social protection to workers in the informal economy. The Domestic Workers Act No.10361, adopted in 2013, extended social security rights, including health insurance, to an estimated 1.9 million domestic workers, drawing on the Domestic Workers Convention, 2011 (No. 189). Workers with at least one month's service are eligible and covered by the social security system, the Employees' Compensation Commission, the Philippine Health Insurance Corporation and the Home Development Mutual Fund, including benefits covering death, funerals, maternity leave, permanent disability, retirement, sickness and involuntary separation or unemployment.

Contributions are paid in full by employers for domestic workers earning less than 5,000 Philippine pesos per month and are otherwise shared between employers and workers. The Act also provides for mechanisms for a quick response to combat abuse and for the settlement of grievances. The Act was supported by civil society organizations, which helped to change attitudes towards domestic workers. A National Domestic Workers' Day and regular media outreach are among the awareness-raising tools that, with strong political commitment at the national and local levels, have made the new law a success (ILO 2019b).

**Brazil: Transition to formal employment**

Brazil is one of the most successful examples in Latin America in terms of reducing informal employment. The formalization strategy involved an integrated approach that combined measures to introduce simplified standards, increase productivity through innovation and technology transfer, provide access to credit and financial services, introduce incentives by linking formalization to social security benefits and strengthen the efficiency and effectiveness of the labour inspection system and the quality and accuracy of data on informality.

The transition to formal employment helped Brazil to expand both its fiscal space and its social security coverage significantly. Since 2002 formal employment has increased by more than 15 per cent and the number of employees paying social security contributions by more than 23 million.

Source: ILO 2019c.

**Mali: A mixed approach that complements compulsory health insurance with a non-contributory scheme**

The *Régime d'Assistance Médicale* (Medical Assistance Programme) is a non-contributory insurance scheme created in 2009. It aims to cover the healthcare costs of the poorest 5 per cent of the population, in addition to compulsory health insurance, which covers civil servants, formal sector workers and informal workers covered through mutual health insurance and their dependants (78 per cent of the population). The programme covers consultations, laboratory services, hospitalization costs, maternity services and medication. Treatment is available free of charge for members of the programme, with costs reclaimed from the public authorities by the service provider. As of late 2015, approximately 52,000 households had been enrolled in the programme.

Source: O'Brien et al., 2018b.

**Box 12. (cont'd)****Costa Rica: Collective insurance agreements with farmers**

In Costa Rica, own-account workers, including farmers, have been able to join organizations and enter collective insurance agreements with the social insurance system since 1984. To register, an organization files an application with the social insurance system, together with documentation proving its legal personality and associate number. After the organization is accredited, the negotiation procedure begins. Only own-account workers and those performing activities consistent with the nature of the organization may participate. The organization also negotiates group contributions with the Board of Directors. It is responsible for collecting the negotiated contributions from insured persons and transferring them, together with a monthly report, to the social insurance institution (the Caja Costarricense de Seguro Social (Costa Rican Social Security Fund)). The fund's Board of Directors is responsible for establishing general guidelines, approving contribution scale increases and settling force majeure disputes. Collective agreement registrants have the same rights as employed workers. Contribution levels are set according to the specific productive activity performed by the organization's registered workers and according to the contributory capacity of the registered group. They are established based on specific and regular reference incomes for certain members, rather than according to income categories as in the case of individual registration. Different contribution scales are established for individual members within the same organization. The organization itself decides on the most appropriate scale for a person's income, subject to periodic verification by inspectors.

Source: ILO, 2019b.

Although progress has been made, just 46.9 per cent of the world's current population is effectively protected by a social protection system in at least one area

Extending social insurance that is informed by climate change must be viewed in the broader context of extending social protection to workers in the informal economy

While social insurance systems cannot cover everyone, extending social insurance to uncovered persons with contributory capacity is a key strategy to protect persons from climate risk, since it reduces the gap to be covered by social assistance

In the context of climate change, social insurance schemes must be designed, in coordination with social assistance and ALMPs, to be affordable for both employers and workers with limited contributory capacity, including in the informal economy

In the context of climate change, social insurance schemes must be designed based on appropriate legal frameworks and on social dialogue to ensure that the immediate and longer-term needs of employers and workers vulnerable to climate risk are met

### ► 3.2 Health protection

► The risks posed by climate change could dwarf those of any single disease. The COVID-19 pandemic will end, but there is no vaccine for the climate crisis.

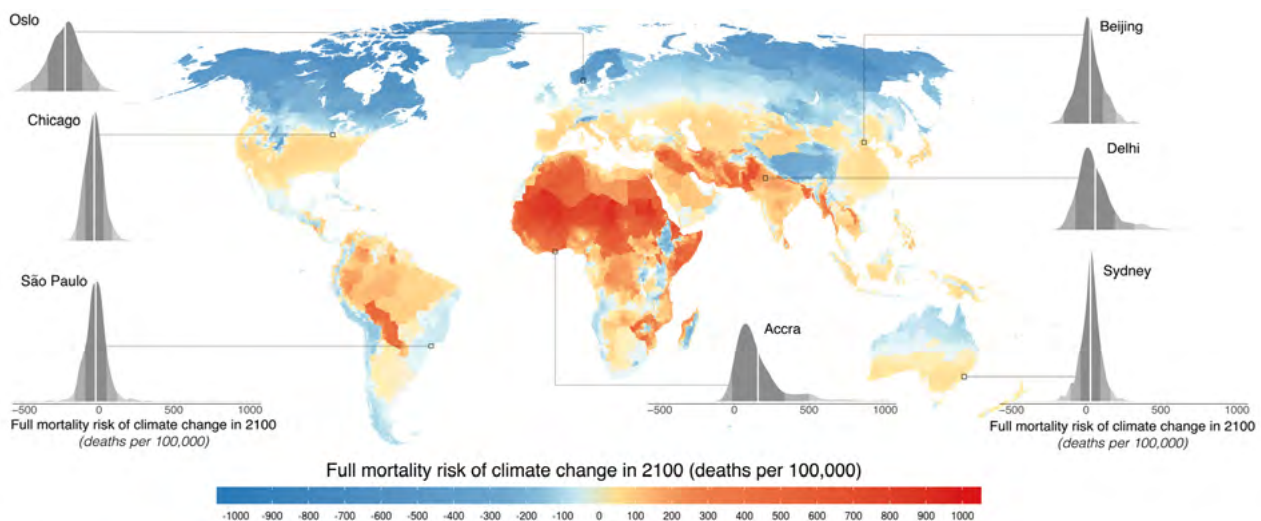
► **Tedros Adhanom Ghebreyesus**, Director-General of the World Health Organization

Higher atmospheric temperatures and changes in precipitation patterns are linked to the increased risk of transmission of vector- and water-borne diseases, such as dengue fever, malaria and Zika. Around half the world's population is now at risk of infection with the virus that causes dengue because the *Aedes* mosquito species responsible for its transmission thrives in a warmer climate (WHO 2019).

Heat stress limits the physical functions of humans and workers' productivity and capacity to work. Excessive heat can cause many health problems, including exhaustion, heat stroke

and even death. Between 1998 and 2017, more than 166,000 – mostly elderly – persons died as a result of heat waves, including 70,000 in Europe in 2003 alone.<sup>61</sup> Using empirical data from 732 locations in 43 countries during the 1991–2018 period, a recent study has shown that nearly 40 per cent of warm-season heat-related deaths can be attributed to anthropogenic climate change and that increased mortality is evident on every continent (Vicedo-Cabrera et al. 2021). While increased average temperatures may affect the health of the overall population, workers in effort-intensive and/or outdoor occupations, such as

► **Figure 49. Average mortality risk owing to climate change in 2100, accounting for both the costs and the benefits of adaptation**



**Note:** Density plots for select regions indicate the full probabilistic distribution of estimated impacts across simulations.

**Source:** UNDP, 2020, based on Carleton et al. 2020.

*Boundaries shown do not imply endorsement or acceptance by the ILO. See full ILO disclaimer*

<sup>61</sup> For more information, see WHO, "[Heatwaves](#)".

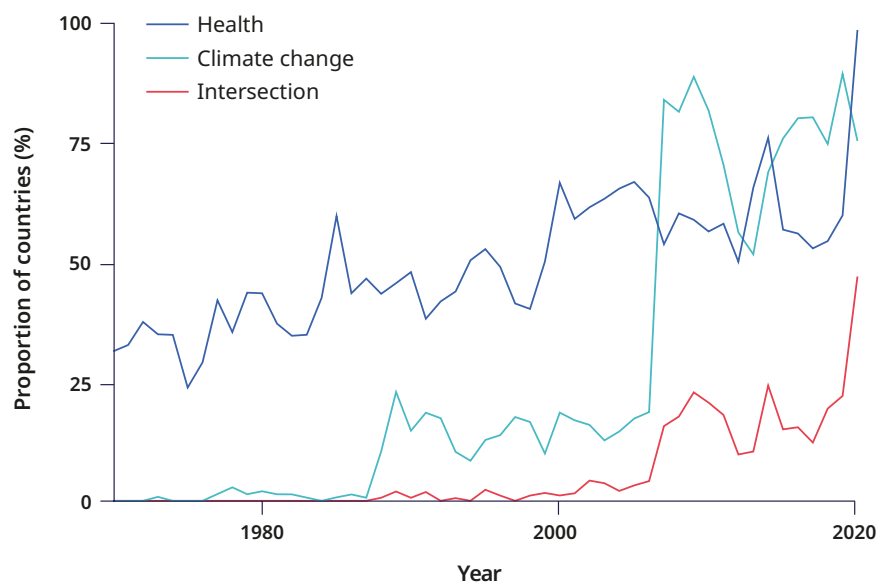
agricultural workers, construction workers, miners, waste site workers, street vendors and traffic officers, are particularly exposed to increased heat hazards. In some instances, this impact may also affect individuals' ability to earn an income when they are sick or injured, or when meteorological conditions prevent work altogether, creating a vicious circle of health and income fragility.

In an unprecedented call for emergency action to limit global temperature increases, restore biodiversity and protect health, the editors of health journals worldwide have warned that the temperature increase of around 1.1°C since pre-industrial times has already had significant consequences for human health: higher temperatures have led to an increase in dehydration and kidney problems, skin malignancies, tropical infections, mental health problems, pregnancy complications, allergies, cardiovascular and pulmonary morbidity, and mortality (Atwoli et al. 2021).

Furthermore, beyond their negative effects on human health, including death, injury, disability, food insecurity and psychological trauma, extreme weather events can also disrupt health services and infrastructure and put a severe strain on health systems, particularly in countries with weak health systems that are already stretched beyond capacity.

As the 2021 Report of the Lancet Countdown on Health and Climate Change concludes, despite years of scientific reports on the health impact of climate change, efforts to build resilience remain slow and uneven, with low-income countries least prepared to address the evolving health profile of climate change. Health financing also remains a persistent problem (Romanello et al. 2021). Nevertheless, it is notable that, particularly since the COVID-19 pandemic, governments are increasingly committed to addressing the health aspects of climate change.

► **Figure 50. Proportion of countries referring to climate change, health and the intersection between climate change and health in their UN general debate statements 1970–2020**



Source: Romanello et al., 2021.



Young Kenian fishermen in old wooden fishing canoe, Lake Victoria, Kenya, 2017. ©iStock/J. Watson

## Social health protection

Universal social health protection<sup>62</sup> schemes protect the population from the financial consequences of medical care costs; reduce or eliminate delays in accessing healthcare services, thereby ensuring early treatment; and contribute to increasing the quality of healthcare services through contractual arrangements between purchasers and providers. The risk of falling into poverty because of health expenditure is exacerbated by climate change and natural disasters, which can negatively affect human health and healthcare provision.

As seen in the previous section, significant gaps remain in achieving universal health coverage since more than half the world's population still lacks full coverage of essential health services, and around 100 million persons continue to be pushed into extreme poverty because of the need to pay for healthcare (WHO and World Bank 2017). The lack of affordable, high-quality healthcare, characterized by high out-of-pocket expenditure, hinders access to healthcare, in particular for poor and vulnerable groups. WHO estimates that an additional 18 million health workers would be needed to achieve universal health coverage by 2030 in low- and lower-middle income countries (WHO 2022b), in particular in rural and remote locations (ILO 2017a).

Aligning healthcare strategies with disaster risk reduction policies – including raising awareness of climate risks; early warning systems that monitor weather, air quality and diseases; and governance and coordination mechanisms to respond faster to crises, including epidemics – renders health systems more capable of preparing for, preventing, responding at scale to, and recovering from, climate-related impacts. Prioritizing anticipatory, preventive approaches rather than relying on ad hoc responses is fundamental.

In the context of a changing climate, social insurance is one of the major strategies used to address health risks in the most vulnerable populations.

A WHO survey highlights that around 50 per cent of countries reported having a national health and climate change strategy based on specific vulnerability and adaptation assessments (WHO 2019). This highlights the potential for developing evidence-based assessment and planning of social protection and health services informed by climate risks.

Climate risks should be factored into health benefits packages since they will multiply health vulnerabilities, including insufficient access to safe water and sanitation, zoonoses, food insecurity and limited access to healthcare.

<sup>62</sup> For more information, see ILO, "[Towards Universal Health Coverage: Social Health Protection Principles](#)", ILO Social Protection Spotlight brief, 2020.

► **Box 13. Temporary adaptations to health insurance during crises**

**Mexico**

During the 2008 economic crisis, the Mexican Social Security Institute extended health insurance coverage for up to six months for dismissed workers and their families (Source: Grosh et al. 2014). Following the crisis, the Mexican Government extended the grace period from three to six months for health insurance coverage after loss of employment (O'Brien et al. 2018b).

**China: Waiving social health insurance contributions during the COVID-19 crisis**

The Government introduced several measures in the face of the COVID-19 pandemic. To help ease pressure on employers, it reduced or waived their social health insurance contributions for a maximum of five months. It also adapted its healthcare system through a new policy to build a multi-level health security system that integrates prevention, testing and treatment measures in social health protection packages. The health insurance system also started to cover online consultations for chronic and common diseases and facilitated the electronic submission of medical reimbursement claims to reduce the risk of spreading the virus through face-to-face contact at health centres. The Government also integrated COVID-19 testing and treatment into healthcare benefit packages, which are available to informal economy workers.

**Source:** ILO, 2020d and 2020f.

**The Philippines: Support for hospitals through the health insurance system during the COVID-19 crisis**

For the last decade, the Philippines has had one of the most advanced social protection systems in the East Asia and Pacific region. In response to the COVID-19 pandemic, the Philippine Health Insurance Corporation released US\$583 million (tax-financed) in advance to accredited hospitals to support them in responding adequately to the crisis. It utilized its interim reimbursement mechanism to give healthcare providers the necessary liquidity to respond adequately to the increased demand and extended the deadline for the payment of contributions by self-paying members. It also adjusted its healthcare service package to include COVID-19 testing, referral and isolation.

**Source:** ILO 2020d.

Nearly 40 per cent of warm-season heat-related deaths can be attributed to anthropogenic climate change, and increased mortality is evident on every continent

More than half the world's population still lacks full coverage of essential health services, and around 100 million persons continue to be pushed into extreme poverty because of the need to pay for healthcare

Some countries are already adapting social insurance benefits to cover the health risks posed by climate change

Around 50 per cent of countries have a national health and climate change strategy based on specific vulnerability and adaptation assessments

Climate risks should be factored into health benefits packages since they will multiply health vulnerabilities, including insufficient access to safe water and sanitation, zoonoses, food insecurity and limited access to healthcare

Health insurance schemes, in coordination with social assistance and other measures, can contribute efficiently to crisis response

### ► 3.3 Income security

► Poverty anywhere constitutes a danger to prosperity everywhere.

► ILO Declaration of Philadelphia, 10 May 1944

Climate change's direct and indirect negative effects on employment and livelihoods will increase economic insecurity across affected and vulnerable population groups, exposing them to higher life-cycle risks in a trend likely to increase.

Between 2000 and 2015, 23 million working-life years, the equivalent of 0.8 per cent of a year's work, were lost annually owing to climate-related hazards (ILO 2018a). Moreover, evidence shows that the incomes and livelihoods of disadvantaged groups are disproportionately affected by the direct and indirect effects of climate change, such as the destruction of crops by climate change-induced flooding and the increase in the general level of food prices

because of flooding (DESA 2017). Hallegatte et al. (2016) find that persons living in poverty are more susceptible to climate-related diseases, which in turn frequently compromise their income in the short and long term. Another example relates to the income of older persons: with fewer hours worked owing to climate factors, such as heat stress and labour migration, workers will accrue lower levels of pension entitlements and have a more fragmented contribution history, may be temporarily or permanently excluded from social insurance schemes, and will eventually face higher risks of falling into poverty when they are older (ILO 2017a).

Positive effects on employment and livelihoods are also expected to increase, as adaptation and mitigation measures could lead to the net creation of green jobs for appropriately skilled workers and thus protect livelihoods, especially if the transition is facilitated by well-functioning social protection systems and active labour market approaches (ILO 2018b).

## One of the key roles of social protection is to ensure income security for all age groups

This includes income security for children and families through cash and in-kind transfers, for instance school feeding programmes, child grants and family allowances; for women and men of working age in the form of, for example, maternity protection, unemployment support, social assistance and disability and sickness benefits; and for older women and men through measures such as pensions. These schemes and programmes not only provide income security, but also contribute to smoothing incomes and aggregate demand, containing inequality and poverty, enhancing human capital and promoting decent and productive employment (ILO 2017a). The mandatory nature of social security contributions and the resulting legal entitlements help individuals manage short- and long-term income security planning over their lifetimes; for example, contributory pension schemes foster an understanding of the importance of income security in old age.

A small number of examples of social insurance adaptations to ensure income security in

times of crisis or transition, relating mainly to unemployment benefits and old age pensions, are documented below.

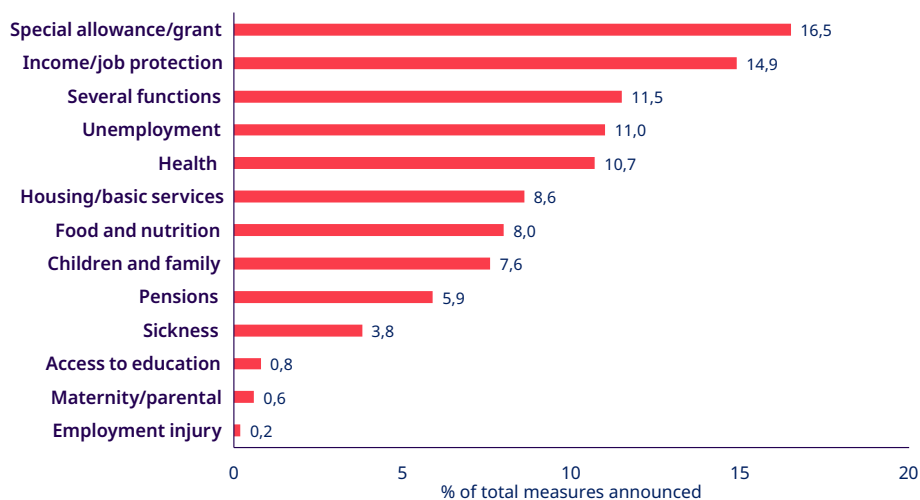
## Unemployment protection

The COVID-19 crisis has demonstrated the vital importance of income security in, among other things, prevention and physical recovery, and in combating health-related poverty, as well as for employers, workers and their families who are prevented from working during lockdowns.

Climate change will increasingly disrupt livelihoods and income sources, making it important for individuals to have an alternative source of income to fall back on. Unemployment protection programmes are crucial to support persons who are adversely affected, notably by climate change, facilitating structural adaptation and a just transition for businesses and workers in all sectors.

However, just 18.6 percent of the world's unemployed persons receive unemployment benefits (SDG indicator 1.3.1), with large regional disparities. This deficit owes to the absence of unemployment protection schemes in many countries, the legal exclusion of certain categories

► Figure 51. Social protection measures announced in response to the COVID-19 crisis, February–December 2020, by type and function (percentages)



Source: ILO 2021f.

of workers, high rates of long-term unemployment and restrictive eligibility requirements. Globally, 96 countries have established an unemployment protection scheme in law, the vast majority (nine out of ten) through social insurance mechanisms (ILO 2021d).

The examples presented in box 14 highlight different ways in which unemployment insurance has been used to provide a temporary income guarantee to persons affected by crises, whether

economic, environmental or health-related, or a combination of the three. It can be observed that the existence of an insurance fund makes this possible, provided there is a provision, preferably statutory, to cover all or part of these contingencies through contributions, through a contingency fund set up for this purpose or through social assistance measures complemented by ALMP measures.

#### ► Box 14. Temporary adaptations to unemployment insurance during crises

##### South Africa

During the COVID-19 pandemic, South Africa's Unemployment Insurance Fund has compensated affected workers through unemployment benefits, as well as a new national disaster benefit. A flat-rate benefit equal to the minimum wage of US\$200 per employee is paid for the duration of the 21-day national lockdown, or up to a maximum of three months. If an employee is ill, temporarily laid off or unemployed for more than three months, the normal benefits apply.

**Source:** South Africa, Department of Employment and Labour, 2020.

##### Algeria

Developed through tripartite dialogue, the National Fund for Paid Leave and Bad Weather Unemployment for the Building, Public Works and Hydraulic Sectors respond to the needs of the infrastructure sector, whose workers are particularly exposed to extreme weather conditions. Workers in the infrastructure sector have access to paid leave and unemployment protection in the event of poor weather conditions, defined as atmospheric events such as rainfall, snowfall, strong winds and heatwaves, which put the safety and health of workers on outdoor construction sites at risk and render working impossible. Financing is based on the principle of solidarity, with employers and workers each contributing 0.375 per cent or 0.75 per cent of the contribution base. In 2018, more than 195,000 workers in the sector benefited from this scheme. It not only protects workers' safety and health, but also prevents income loss and vulnerability among groups affected by climate change.

**Source:** Asenjo and Pignatti, 2019.

##### China

During the COVID-19 pandemic, China has enhanced its social insurance system for unemployed persons. It provides a subsidy of 80 per cent for persons who have exhausted their entitlements, along with extended unemployment benefits for persons within one year of retirement. It has also provided temporary unemployment assistance for workers who did not meet the conditions for social unemployment insurance. Two groups benefit from the unemployment subsidies: persons whose insurance benefit period has expired but who are still unemployed and persons who are unemployed and ineligible for the insurance benefit.

**Source:** ILO, 2020d and 2020e; ISSA, 2020b.

### Thailand

Following the massive 2011 flood that affected over 13 million persons in Thailand, the Thai Social Security Office launched several relief measures to ensure that unemployment insurance continued to operate as a cushion for workers. The application period for unemployment benefits was extended from 30 to 60 days to ensure that affected persons had sufficient time to request their benefits if they were directly impacted by the flood. The contribution rate collected from employers and workers was reduced from 5 to 3 per cent from 1 January to 30 June 2012 and to 4 per cent from 1 July to 31 December 2012.

**Source:** Ong and Peyron Bista 2015.

### Malaysia

During the COVID-19 pandemic, Malaysia's employment insurance system has provided a wage subsidy programme to assist employers in retaining their workers, granting between 600 and 1,200 Malaysian ringgit per month, depending on the size of the enterprise, for up to three months for workers earning up to 4,000 ringgits. Enterprises that receive support are required to retain their employees for at least six months. The system provides not only unemployment benefits and wage subsidies to retain workers, but also training, in line with physical distancing requirements, including digital training for a range of skill sets.

**Source:** ILO, 2020b and 2020d.

### The Philippines

The Philippines is one of the countries most exposed to natural disasters in the world. On average, 20 typhoons strike the country every year, affecting millions of persons and their livelihoods. To address its high vulnerability to socio-economic risks and natural disasters, the Philippines established its Integrated Livelihood and Emergency Employment Programme in 2009. As a public workfare programme, it provides short-term decent work opportunities to workers in the informal economy. The Programme provided income security and helped to rehabilitate communities when Typhoon Haiyan struck the country in 2013. It also stipulates that participants must be given access to health insurance, guidance on occupational safety and health and access to training opportunities.

**Source:** ILO and AFD, 2016.

### Bahamas

During the economic crisis of 2008–09, the Bahamas introduced a temporary income replacement measure under the National Insurance Scheme to pay up to 13 weeks' benefits at a rate just under minimum wage, US\$200 a week. In effect, benefits equated to 50 per cent of median weekly pay but were capped at US\$250 a week and overrode the minimum contribution requirements.

**Source:** Grosh et al. 2014.

### French Antilles

In responding to Hurricane Irma, which hit Saint Martin and Saint Barthélemy in 2017, France implemented a series of measures, totalling €500 million, that included a moratorium on employers' contributions and a temporary modification to partial unemployment benefits that allowed local companies to benefit from the system for up to 1,600 hours per employee, versus 1,000 hours normally. This was followed by a new training plan for employees who retained 100 per cent of their wages, at no cost to employers. This modified partial unemployment scheme proved to be a major social shock absorber. Designed to last one year and allow local businesses to retain their employees until the 2018–19 tourist season, it stabilized employment on both islands despite the sharp drop in economic activity.

**Source:** France, 2018.

### El Salvador

During the 2008 financial crisis, El Salvador extended social security coverage for workers who lost their jobs, covering them for an additional six months. A total of 8,000 workers benefited from the extension. These measures were complemented by several social assistance programmes, including a temporary income support programme offering income support and training, in particular to young persons aged 16 to 24 and female heads of households living in poor urban areas affected by violence.

**Source:** Beazley et al. 2016; Grosh et al. 2014.

### Uruguay

The main features of the reformed 2008 unemployment insurance law in Uruguay, introduced during the 2008 economic crisis, included the extension of benefit payments from six to eight months in the event of a nationwide recession, defined as two consecutive quarters of negative economic growth. That extension added a counter-cyclical component to the policy. The extended benefits are paid at a rate of 40 per cent of previous salaries. The reforms also extended benefits to discharged and suspended workers and workers over 50, as well as switching from a fixed-amount system to a system of decreasing benefits to lower the immediate impact on incomes while encouraging the pursuit of new employment, in coordination with active employment policies, and introducing mandatory attendance at training courses for subsidy beneficiaries.

**Source:** Casanova, 2009.

### Brazil

Brazil's Unemployment Insurance for Artisanal Fishers guarantees income security equivalent to the national minimum wage for fishers and their families during the temporary fishing bans that are imposed annually to preserve fish species during their reproduction period. The scheme ensures that artisanal fishers (small-scale, low-technology fisheries) do not fall into vulnerability, poverty or food insecurity during these times of transition, contributing to continued income and food security for workers in the artisanal fishing sector and their families.

**Source:** Brazil, National Social Security Institute n.d.

## Old-age pensions

While unemployment and health responses are common across the various measures observed, pension insurance also plays an important role during climate change-induced transitions and other crises. Globally, 68 per cent of persons above retirement age receive either a contributory or non-contributory pension, making it the most widespread form of social protection.

To ease pressure on older persons and their families during transitions and shocks, contributory pension schemes can be adapted

to enable early retirement for persons affected by labour market and economic restructuring, if adequacy is guaranteed. Such policy measures were introduced in Germany during the phasing out of coal mining in the Ruhr, and in China, where a ban on logging in the 1990s affected 1 million forest workers. Examples of early retirement, often coupled with ALMPs such as reskilling and re-employment programmes, are detailed in box 15 below.

► **Box 15. Old-age pensions and early retirement to facilitate labour market transitions or to respond to crises**

**China**

Serious drought followed by a devastating flood in the late 1990s triggered reforms to environmental policies, introducing a ban on logging in 73 million hectares of natural forests, equivalent to 69 per cent of the total natural forest area. Almost 1 million State forest workers lost their jobs. In response to the socio-economic consequences, the Ministry of Human Resources and Social Security, in consultation with tripartite committees at the national and local levels, including the forest workers' trade union, introduced measures to mitigate the effects on affected workers. Older workers were offered early retirement, while younger ones could opt for education and training programmes through employment service centres and were supported in finding employment elsewhere. By the end of 2010, 680,000 younger workers who had been made redundant had received one-off payments and 276,000 had been re-employed or had retired. Approximately 100,000 workers who had been made redundant and were unable to find new jobs received unemployment support to cover minimum living expenses and medical care. Additionally, a variety of social measures targeted local farmers affected by the logging ban.

**Australia**

In November 2016, the Paris-based company Engie announced the decision to close the Hazelwood Power Station to reduce its carbon emissions and also owing to the power station's age and high operating costs. The announcement of the complete closure with less than five months to prepare came as a major shock to the Hazelwood workers, unions and the local community. The State Government responded by establishing the Latrobe Valley Authority and began to engage unions, Engie and other power station owners, local government and community organizations to reach an agreement that included, in addition to training initiatives and skills development for all affected groups in the region, a worker transfer scheme to open up job opportunities by launching early retirement schemes at other power stations in the sector.

Source: Galgóczi, 2018.

**Italy**

The Italian power company ENEL developed a just transition framework agreement with its Italian union partners. The agreement involves a recruitment plan that uses apprenticeship to ensure the transfer of competences from older to younger workers; encouraging mobility and training to optimize internal resources. The framework agreement also includes dedicated training measures to ensure qualification and employability and the creation of new skills for the development of new business. Older workers with limited re-employment prospects and less capacity to reskill have also been afforded the opportunity to participate in an early retirement programme to ensure a just transition.

Source: Galgóczi, 2018.

**Germany**

Employment in the mining industry in the Ruhr was radically downsized from 473,000 jobs in 1957 to 11,448 by the end of 2013. Collective bargaining and contractual regulations and initiatives that benefited from an active contribution from the social partners led to a comprehensive agreement guaranteeing a socially responsible approach to the restructuring programme, part of which included an early retirement programme to support restructuring efforts and provide an early retirement package for older workers. The transition was also supported by the Ruhr Coal Vocational Training Society, a 100 per cent subsidiary of the mining company Ruhrkohle AG, providing reskilling and training for workers affected by the layoffs, including individual re-employment strategies.

The examples above illustrate the extent to which pension schemes are essential to protect persons from life-cycle risks in the context of climate change, because they provide income security to older persons and the communities supporting them; because they provide an instrument – the early retirement scheme – that helps enable climate mitigation policies; and, as we have

seen in section 2.4, because pension funds with large reserves have the power to invest in a way that actively contributes to fighting climate change and creating green jobs. Old-age social insurance schemes not only protect individuals from poverty in times of crisis, but also have the power to enhance climate-resilient development through their financial leverage.

Climate change will increasingly disrupt livelihoods and income sources, making it important for individuals to have an alternative source of income to fall back on, particularly for disadvantaged groups that are disproportionately affected

Climate change will affect productivity. With fewer hours worked owing to climate factors, workers will eventually face higher risks of falling into poverty when they are older

The mandatory nature of social security contributions and the resulting legal entitlements help individuals manage short- and long-term income security planning over their lifetimes

Unemployment support, typically covered by social insurance, is an under-used strategy to provide income security for individuals and their families/communities facing climate-related crisis in LDCs. At present, 80 per cent of unemployed persons do not receive any form of benefit

Unemployment insurance can be extended to climate-related crises, either to rights holders through scheme adaptation or to uncovered groups, in coordination with social assistance, specific contingency funds and other ALMP measures

Globally, 68 per cent of persons above retirement age receive either a contributory or non-contributory pension, making it the most widespread form of social protection

Old-age social insurance schemes not only protect persons from poverty in times of crisis, but also have the power to enhance climate-resilient development through their financial leverage

### ► 3.4 Human security

Eleven of the 20 countries most vulnerable to climate change have appealed for humanitarian aid in each of the past seven years. We need to do better in prioritizing climate change adaptation as part of humanitarian response.

► **Mark Lowcock**, United Nations Under-Secretary-General for Humanitarian Affairs and Coordinator for Emergency Relief (OCHA 2020)

In emergency situations, the key elements of a coordinated response include maintaining access to the services to which registered beneficiaries are normally entitled and adapting and extending social protection coverage to persons affected by the crisis, including by providing concrete local integration and return solutions to forcibly displaced persons and by linking social protection to humanitarian cash transfers (EC 2019b), an increasingly common strategy for the provision of humanitarian assistance, as opposed to in-kind assistance. However, in situations of crisis, public systems delivering social protection and other basic services may be overwhelmed or disrupted or, as is more often the case in LDCs, insufficiently comprehensive to deliver much-needed support. Humanitarian actors might consequently develop parallel structures to deliver cash transfers, for example through cash coordination groups, services such as mobile clinics, or in-kind transfers, such as food distribution.

The question of which humanitarian approach will fit in a changing climate is timely since mitigation and adaptation are largely the responsibility of governments and development organizations, and the anticipated frequency, intensity and interconnectedness of future crises do not favour the clustered and costly humanitarian architecture. Many options are currently being explored, including localization and greening in the sense of empowering local services, promoting locally defined nature-based solutions for disaster prevention and recovery, increasing cooperation with national governments, and a necessary shift towards a more preventive approach, blurring ever more frequently the line between humanitarian and development approaches.

► **Figure 52. The contribution of social protection to disaster risk reduction through its four functions**



Source: FAO, 2010.

This section builds on and extends the discussion started in sections 2.2 and 2.5 that calls for the integration or alignment of all climate change risk management strategies with social protection and just transition policies. Ultimately, it is a question of developing a continuous planning cycle that includes a shared and regularly updated assessment of risks and vulnerability to shocks, bridging typical disaster risk reduction categories (risk mitigation, preparedness, response and recovery) with social protection functions and related measures.

Today, humanitarian organizations are improving delivery for persons in crises by getting ahead



With more than 350 000 mostly Eritrean and South Sudanese refugees on its soil, Sudan is also among the top five host countries of refugees in Africa, Sudan, 2016. ©EU/ECHO/Anouk Delafortrie

of predictable shocks, implementing cash transfers and voucher assistance and involving communities in humanitarian action (OCHA 2020). According to the latest Global Humanitarian Overview (OCHA 2022), 274 million persons were expected to need humanitarian assistance and protection in 2022, a significant increase from 235 million the previous year, which was already the highest number in decades. The United Nations and partner organizations aim to help 183 million of the world's poorest persons in 63 countries, requiring US\$41 billion.

It is worth recalling here the broad concept of human security, which has been defined precisely to facilitate linkages across various policy areas related to ministries or departments and to facilitate the generation of sectoral agendas, notably through its seven core dimensions, most of which relate easily to several aspects of social protection:

- ▶ economic security (basic livelihood from work or social protection)
- ▶ food security (ready physical and/or economic access to basic food)
- ▶ health security (access to healthcare and/or social health protection)
- ▶ environmental security (protection against natural disasters and resource scarcity owing to environmental degradation)

- ▶ personal security (physical security from, for example, violent conflict, human rights abuses and domestic violence)
- ▶ community security (security from oppressive community practices and ethnic conflict)
- ▶ political security (freedom from State oppression and human rights violations)

At the operational edges of public systems, this framework can be useful to map out spaces for collaboration between institutions for the delivery of social protection, for example when basic food is no longer physically available on the market and a specialized food security organization must take over. This is the core principle at work in the HDP-N. Nevertheless, it is necessary to go beyond a purely humanitarian vision, which is dynamic and valid in its own context, but which must be integrated into a broader vision taking into account the inherent causalities in sustainable development and the necessary societal change.

## Beyond cash transfers

Linking humanitarian cash assistance with social protection systems and working alongside other relevant development partners allows actors to leverage each other's strengths to support governments in developing social protection systems that are better able to prepare for, and

respond to, shocks at the national level (UNICEF 2019). However, there is a need to go beyond cash transfers and develop holistic approaches that do not exacerbate exclusion by creating clusters, but rather integrate the most vulnerable persons into unifying, rights-based systems.

The ILO, recognizing the importance of this connection and seeking to establish continuity of action throughout the HDP-N, provides core guidance for the aftermath of a crisis:

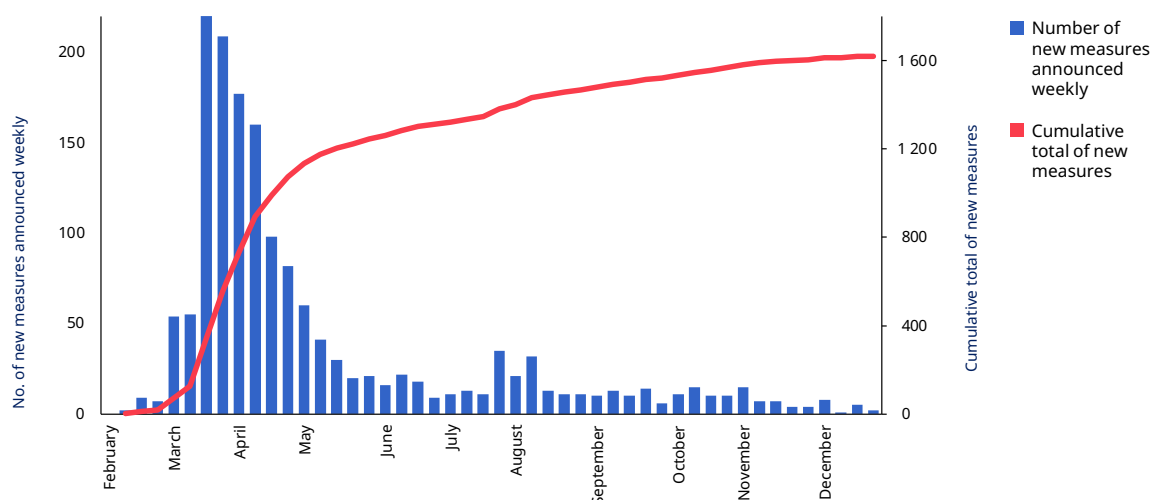
- ▶ provide immediate financial support to workers who have lost all or part of their income and to population categories that are poor or vulnerable, and/or support job retention measures, business continuity and business recovery;
- ▶ establish effective linkages between cash transfers and relevant ALMPs and other activation measures so that cash transfer recipients can improve their employability;
- ▶ strengthen the capacity of ILO constituents and relevant social security and labour market institutions to design and implement sustainable social protection and labour market policies and systems that are more resilient to future shocks and able to support recovery.

Emergency measures are short term in nature, as figure 53 shows clearly in relation to the COVID-19 crisis, and although they have the potential to alleviate immediate needs, fear and suffering, they must be integrated into a more systemic approach. This must be done not only by providing immediate income replacement, which will also support the economic situation of small businesses, but also by involving the social partners and civil society and promoting complementary active employment measures, including public works linked to post-crisis rehabilitation.

Employers' and workers' organizations must increase their engagement in designing response and recovery strategies that target the informal economy, rural workers, the urban poor and workers in disrupted economic sectors to develop potential opportunities to extend coverage on a more permanent basis while linking with ALMPs and the green economy wherever possible. Remarkably, during the COVID-19 crisis, social assistance and social insurance increased by 120 per cent and 110 per cent, respectively, while active labour market interventions increased by almost 330 per cent (Gentilini et al. 2022).

While humanitarian interventions typically fall within the category of non-contributory social

▶ **Figure 53. Worldwide number of social protection measures announced in response to the COVID-19 crisis, February–December 2020**



Source: ILO 2021c.

assistance, they can use the infrastructure of social insurance, such as its registries, to reach beneficiaries of contributory schemes who also require emergency support, as was the case during the COVID-19 pandemic, when health and unemployment benefits were expanded temporarily. It is worth noting the considerable advantage of social insurance when it comes to beneficiary identification, or targeting, since rights holders are readily identified and accessible, thus providing an immediate institutional basis for vertical extension, as well as a platform for horizontal extension, concepts that are defined below.

In countries where social protection systems are not yet sufficiently functional to be expanded, humanitarian agencies may align their programmes with those of the government, or vice versa. This particular synergy is at the heart of the work of the Social Protection Inter-Agency Cooperation Board Working Group on Linking Humanitarian Cash Assistance and Social Protection,<sup>63</sup> and several means of strengthening it have been highlighted during the COVID-19 humanitarian response, including the integration of social registries, designed to target specific groups, into government-led unified information and communication systems, as well as the need to improve coordination mechanisms and social protection governance.

## Extension of social protection and responsiveness to shocks

Climate-smart social protection programmes should be able to rapidly scale up during a crisis and back once the crisis is over.

► Costella et al., 2018

ILO Recommendation No. 205<sup>64</sup> provides guidance to Member States on measures to generate employment and decent work, including social protection, for the purposes of prevention,

recovery, peace and resilience with respect to crises arising from conflict and disasters. It is imperative to ensure income security and effective access to healthcare and basic social services, as well as to establish, re-establish or maintain social protection floors and seek to close gaps in their coverage in line with relevant social protection standards, such as ILO Convention No. 102, Recommendation No. 202 and the Guidelines for a just transition towards environmentally sustainable economies and societies for all. Responding to the needs of persons affected by a crisis, but also bouncing back by seizing the opportunities it creates, are the two core ideas at the heart of ILO Recommendation No. 205.

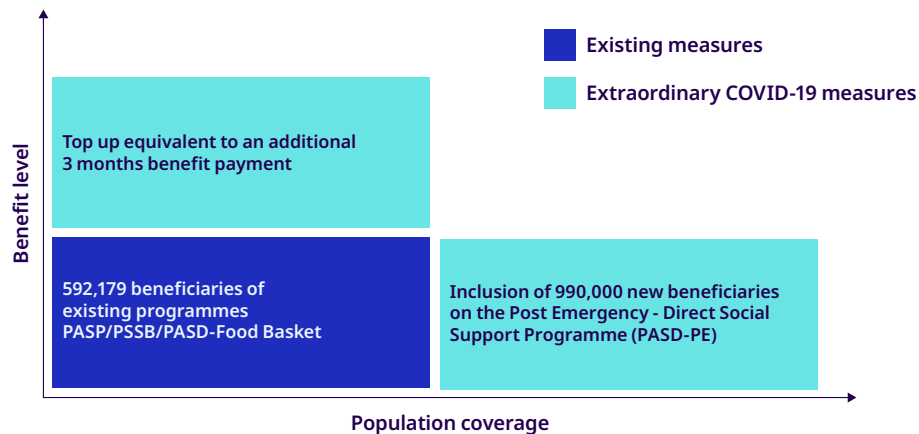
The emphasis on social protection systems' capacity for extension to reach new beneficiaries, defined here as persons affected in large numbers by a shock or disaster, which is characteristic of adaptive and shock-responsive approaches, echoes the discussion on the extension of social protection and the two-dimensional strategy of social protection floors seen in previous sections. The COVID-19 crisis has demonstrated extensively the capacity for scaling social protection systems up and down, and there is a strong argument for making these temporary extensions more structural and permanent, contributing more deliberately to comprehensive approaches to sustainable development, which represent our best chance of generating the societal change required to adapt to climate change.

In the process of scaling up, several increasingly innovative technologies and financing mechanisms have been introduced through heterogeneous, coordinated emergency programmes. Effort should be made to maintain these technologies and mechanisms, ensuring that they strengthen systems, for instance by kick-starting or expanding insurance schemes, which represents one way of linking preventive, promotive and transformative functions of social protection, a high road towards resilience building. This is ultimately a policy decision, and a win-win strategy, as illustrated in the Mozambique case in figure 54, although it relates more strongly to social assistance.

<sup>63</sup> For more information, see Holmes, "[Grand Bargain Workshop: Linking Humanitarian Cash and Social Protection](#)", 2019.

<sup>64</sup> See ILO, [Employment and Decent Work for Peace and Resilience Recommendation](#), 2017 (No. 205).

► Figure 54. The two-dimensional extension strategy to reach the most vulnerable persons in the social protection response to the COVID-19 crisis in Mozambique



Source: De Lima Vieira et al. 2020, figure 1, p. 6.

#### ► Box 16. Extension of social insurance across the Humanitarian–Development Nexus

Mozambique has experienced a variety of shocks that have increased in intensity in recent years. Many of these shocks are linked to climate change. Annual flooding and cyclones have affected, on average, up to 250,000–500,000 persons every few years. Cyclone Idai (2019), the strongest tropical storm ever recorded in Africa, was the most recent shock to affect the country, killing more than 1,000 persons and leaving 2.6 million in need of assistance. With a coastline of 2,700 kilometres and nine main river basins and deltas, Mozambique is particularly exposed to shocks like floods, while its southern and central regions are vulnerable to drought. Against this backdrop, the national social protection strategy, which was established in 2016 with tripartite agreement, aims to adapt the country's social protection programmes to render them more responsive to floods, cyclones and droughts, thereby opening the door to a more shock-responsive social protection system.

In 2019, the World Bank provided US\$35 million in additional financing to scale up the Government of Mozambique's social assistance programmes in response to Cyclones Idai and Kenneth. An additional grant of US\$10 million was provided through a multi-donor trust fund supported by the UK Department for International Development, the Netherlands and Sweden. These funds, which were primarily humanitarian in nature, were channelled through the existing social protection system and thus contributed to supporting an emergency response that was coordinated through existing national structures. This humanitarian assistance supports both the expansion of coverage to new groups and an increase in benefits for existing beneficiaries.

Source: Carty et al., 2020; Kardan et al., 2017.

By way of illustration, some of the ways in which social protection, including social insurance, can most effectively expand to respond to shocks are listed below (EC 2019b):

- ▶ **Vertical extension:** This is when the benefit level is increased and/or payment duration prolonged temporarily for some or all beneficiaries of a specific programme, also known as top-ups. It aims to provide additional assistance to individuals who are already receiving social transfers, whether contributory or non-contributory. Unlike piggybacking (see below), vertical extension does not occur separately to existing interventions, but rather is an integral part of them, focusing on scaling up entire programmes rather than merely borrowing elements of them.
- ▶ **Horizontal extension:** This is when assistance is temporarily expanded to uncovered groups that are vulnerable to a shock. This expansion to new beneficiaries or groups can be achieved by extending geographical coverage, modifying eligibility criteria or including new groups or beneficiaries within a region that is already covered. In countries where horizontal extension has been implemented successfully, the potential for expansion had been integrated into the initial programme design.
- ▶ **Piggybacking:** This occurs when an established system or programme is used to deliver a new type of benefit, allowing humanitarian actors to deliver assistance through pre-existing social protection systems, for example by using their beneficiary database or established payment channels. Piggybacking works both ways: humanitarian assistance can be channelled through pre-existing government programmes, or vice versa.
- ▶ **Design tweaks:** This entail modifying the design of existing social protection programmes to meet specific needs created by a crisis or shock, for instance by relaxing conditions on a conditional cash transfer programme for households in areas affected by a shock.

#### ▶ Box 17. Extension of social insurance in response to large-scale shocks

##### Argentina: Multi-functional extension of social insurance during crises

Many regions in Argentina have, for many years, been affected by extreme weather events such as floods, the effects of volcanic ash and landslides. The Government has introduced several measures to mitigate the impact of natural disasters and weather events, including a special top-up for social security beneficiaries registered with the National Social Security Administration (ANSES). While initially only family allowance payments – a mixed contributory/non-contributory system – were increased, support measures were later broadened to include retirement and unemployment benefits and even non-contributory benefits, thus covering a greater proportion of the affected population. The temporary supplements are equivalent to 100 per cent of the family allowance, unemployment benefit or pension payment given to persons seriously affected by natural disasters. Where affected individuals' homes are already registered on the ANSES databases, payments are made immediately if the postal code has been identified as an affected area. Otherwise, contact points are set up close to the affected areas to allow affected persons to register and request support. ANSES agents must then verify their needs on-site and disburse payments to the affected individuals.

Source: ISSA, 2016 and 2017.

##### Mexico: Horizontal expansion

In September 2017, two earthquakes with magnitudes of 8.2 and 7.1 hit the southern and central regions of Mexico, affecting 325 municipalities with a combined population of approximately 12 million persons. Consequently, the Government increased cash transfers temporarily to better respond to socio-economic

needs following the earthquakes, using existing social protection mechanisms. This horizontal expansion focused both on reincorporating households that had previously participated in the Prospera conditional cash transfer programme and were affected by the earthquakes in the eight affected states, and on incorporating households in affected areas that had not yet participated in the programme. This horizontal expansion was deemed cost-effective, as the Prospera programme had already collected these households' operational data. Using a pre-existing framework allowed the Government to build on a trusted system that people knew and respected.

Source: Beazley et al. 2019.

#### **Ecuador: Piggybacking**

Ecuador was hit by an earthquake on 16 April 2016, causing significant destruction. The Government declared a state of emergency in six provinces and initiated multiple response measures, including the provision of new cash assistance to affected households through the Bono de Acogida, Alquiler y Alimentación (Reception, Rent and Food Grant) and Bono de Alimentación Rural (Rural Food Grant) programmes. This response piggybacked on the capacity of the Ministry of Social and Economic Inclusion, which oversaw the implementation of the Bono de Desarrollo Humano (Human Development Grant), among other schemes. More specifically, the response used staff resources, an information technology platform, procedures and infrastructure provided through the Ministry, and the registration of families was organized through a register of affected households. The programme targeted families hosted in local communities or renting, as well as rural households, disbursing US\$100 per month for three months to affected families, while tenants and foster families received US\$135 per month for six months plus US\$15 for utilities. However, despite efforts to utilize pre-existing structures, the programme faced difficulties in disbursing the funds to those in need in a timely manner. It took three months before the register of affected households was fully operational, with most transfers made in July and August.

Source: Beazley et al. 2019.

#### **Philippines: Design tweaks**

Changes to the regulatory environment can enhance shock-responsive social protection, particularly when they are made before a shock occurs. The Department of Social Welfare and Development of the Philippines introduced a change to its social welfare system that allowed conditions for cash transfer programmes for households to be waived for three months during emergencies. This meant that the Philippines' conditional cash transfer programme (the Pantawid Pamilyang Pilipino Programme) automatically became unconditional following shocks, such as the one caused by Typhoon Haiyan in late 2013. At the same time, the WFP began planning emergency cash transfers through the Pantawid Pamilyang Pilipino Programme. With the WFP top-up, the Programme was able to expand vertically.

Source: Beazley et al., 2019; O'Brien et al., 2018a.

### **Vertical extension is the most common way for social insurance to respond to a crisis**

Such extension may take different forms: extending the duration of benefits, as seen in Thailand; reducing or varying contributions

with State support, as in Thailand, Japan, Saint Martin and Saint Barthélemy (France), and Fiji; or providing top-ups, like in Argentina and Jamaica. Vertical extension is often funded using tax revenue or other sources unrelated to the insurance scheme. However, in Jamaica, the one-off grant given to pensioners by the National Insurance Scheme in response to Hurricane Dean in 2007 was drawn from the actual pension fund

rather than extraordinary budget allocations, which many stakeholders warned would dilute the pension system in the long term (Beazley and Williams 2021).

The COVID-19 pandemic has provided several lessons on how social insurance can facilitate the provision of much needed benefits during socio-economic crises (see the examples from China and the Philippines in the section on health protection). In most cases, insurance benefits were topped up using government funds, while

social insurance mechanisms were used to channel emergency cash transfers. Given the localized nature of climate risks, social insurance schemes should have in place the administrative capacity to identify eligible affected populations and specific additional needs, measure the level and duration of additional coverage and deliver related benefits, while keeping expenses within national financing capacities. This seems feasible since it will not involve such a high degree of covariance as a pandemic.

#### ► Box 18. Vertical extension of social insurance in response to covariate shocks

The Jamaican social protection system is one of the most developed in the Caribbean and already plays an important role in shock preparedness and response. Programmes such as the National Insurance Scheme (NIS) and the Programme of Advancement through Health and Education (PATH) were designed to expand vertically in response to large-scale shocks. The vertical expansion of the NIS and PATH were also key elements of the response to Hurricane Dean in 2007. More than 75,000 NIS pensioners and elderly persons received grants of around US\$72 (9,273 Jamaican dollars), and approximately 90,000 households registered with PATH received cash grants of around US\$30 (3,863 Jamaican dollars); both were one-time payments. The relief assistance provided through these two schemes amounted to US\$8.4 million (1.1 billion Jamaican dollars).

**Source:** Beazley and Ciardi, 2020.

However, during the COVID-19 pandemic, some countries have tapped into their pension funds to pay emergency benefits, raising concerns about the effects of such action on fiscal sustainability and highlighting the fragility of contributory pension systems in the absence of alternative schemes to absorb shocks, such as unemployment protection schemes. In the future, those governments will have to fund more non-contributory pensions through taxes, and the adequacy of pensions will also be affected (ILO 2021g).

“Design tweaks”, or small adjustments to the design of a scheme, have been implemented in social insurance schemes to respond to crises. Advance payouts were authorized by pension scheme administrators in Fiji, Indonesia, the Philippines and India in response to disasters (EC 2019b).

In the light of the recommendations already made in the section on climate policies, we see

that social insurance can play a significant role in emergency responses, and also that it is worth taking advantage of the complementary activity packages provided, generally for short periods of time, to generate decent employment and thus social protection, which constitutes a solid bridge towards recovery in general.

### Preparedness of social protection across value chains

From the standpoint of business, there is a global lack of preparedness for the coming disruption to workforces, supply chains, communities and consumers caused by both the transition to net zero and adaptation to climate change (Moody's 2021). Yet the risks are considerable, for both companies and workers. According to the ILO's Working on a Warmer Planet report (ILO 2019d), at 33-34°C, a worker operating at moderate work

► **Box 19. Extension of social insurance through social dialogue across the Humanitarian–Development Nexus**

The COVID-19: Action in the Global Garment Industry call to action was launched in 2020 by the International Organisation of Employers, the International Trade Union Confederation and IndustriALL Global Union, with the support of the German Government and the ILO and the endorsement of several brands and manufacturers, as well as workers' organizations. The call to action resulted in a project supporting workers in garment supply chains in Bangladesh, Lao People's Democratic Republic, Ethiopia, Cambodia, Viet Nam, Indonesia and Madagascar. This support included specific social protection measures in line with ILO standards that combined temporary cash benefits with longer-term integration in, for instance, social insurance schemes. In Bangladesh, for example, a ready-made garment tripartite consultative council provided guidance and oversight during a process that was initiated through cash transfers in the form of a wage subsidy, leading to the development of unemployment insurance.

intensity loses 50 per cent of his or her work capacity, and at least 30 per cent of facilities in almost all sectors analysed will be exposed to both heat and water stress by between 2030 and 2040. These risks will impact public health and, in turn, labour productivity and business costs.

In anticipation of a future where extreme climate events are the norm, the scaling up of social

protection systems is a necessity: from this point of view, it seems desirable in the long run that all social protection approaches are integrated into a single system based on effective social dialogue. These approaches should include social assistance, with effort made on an ongoing basis to extend social insurance as a more financially stable approach that is more focused on long-term prevention and preparedness.

**Eleven of the 20 countries most vulnerable to climate change have appealed for humanitarian aid in each of the past seven years**

**In situations of crisis in fragile countries, even if social protection systems appear to be overwhelmed or disrupted, or insufficiently comprehensive to provide the necessary support, it is still possible to establish a partnership framework rooted in ILO principles**

**Social protection can contribute to every stage of a disaster risk reduction planning cycle**

**Linking cash humanitarian assistance with social protection systems in fragile countries allows actors to leverage each other's strengths to support governments in developing social protection systems that are better able to prepare for, respond to, and recover from shocks**

Emergency measures are necessary but short-term in nature, and they must be integrated into a systemic approach, not only by providing immediate income replacement, but also by involving the social partners and promoting active employment measures, including public works linked to post-crisis recovery

Social insurance can contribute to humanitarian responses in coordination with social assistance and humanitarian cash transfers by providing a functional and institutional basis for extension based on social protection principles, including social dialogue

### ► 3.5 Human mobility

Climate change is a risk multiplier, driving displacement and protection needs around the world.

► UNHCR, 2022

Disaster displacement is a global reality and an everyday occurrence.

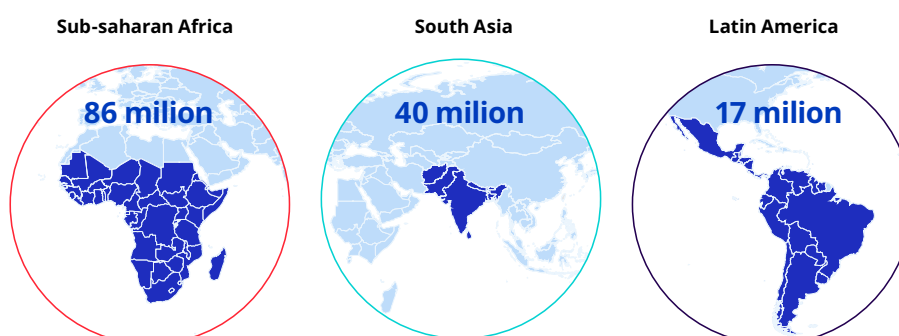
There is growing evidence that climate change is becoming an additional driver of migration, both internal and cross-border. In the case of slow onset events, climate variables interact with other key factors, including a lack of decent work and employment opportunities, weak governance and inter-communal violence. The sectors that employ the most workers are also among the most vulnerable to climate change.

When livelihoods are compromised and survival is at stake, individuals migrate in search of better opportunities. This is a growing trend, particularly among young persons (ILO 2021d). Larger, more frequent and more severe climate events are likely to trigger or accelerate migration and internal and cross-border movement, which in turn could increase existing civil and political tensions (Belén Sanchez and Poschen 2009).

According to the World Bank's Groundswell report (Clement et al 2021), climate change is

► Figure 55. Internal climate migrants across regions

If no action is taken, by 2050 there will be more than 143 million internal climate migrants across these three regions:



Source: Kumari Rigaud et al., 2018.

an increasingly powerful driver of migration and could force 216 million persons in six regions of the world to move internally by 2050, migrating from areas with lower water availability and crop productivity and from areas affected by rising sea levels and storm surges.

The report also states that immediate and concerted action to reduce global emissions and support inclusive and resilient green development could reduce the scale of climate migration by 80 per cent.

In the context of climate change, migration is most often viewed as an adaptation failure. However, migration can be an important adaptive response for persons facing slow-onset environmental change or disasters. The ILO's experience has shown that labour migration, when governed in accordance with international labour standards, can play an important role in the development of both countries of origin and destination (ILO 2021d).

In 2019, more than 10 million new internal displacements were recorded: 7 million driven by disasters such as Cyclone Idai in South-East Africa, Cyclone Fani in South Asia, Hurricane Dorian in the Caribbean, and floods in the Islamic Republic of Iran, the Philippines and Ethiopia. Floods were the natural hazard most frequently cited as a factor in displacement, followed by storms and droughts (IDMC 2021). As in previous years, disasters triggered by climate and weather-related hazards, such as storms and floods, were the drivers behind the largest share of displacement in 2018 (16.1 million persons, or almost 94 per cent) (IOM 2019a). While most of the more than 270 million Chinese persons migrating internally do so primarily for reasons other than climate change, it is recognized that the impact of climate change is increasing and will further accelerate rural-urban and interregional migration in the country (Sun et al. 2017). Extreme weather events such as heat waves are increasing the likelihood of movement into cities (Randall n.d.). At the same time, the

impact of global warming and climate change also contributes to increased cross-country migration (Lesolle 2012).

When considering the link between climate change and migration and displacement, climate is not yet fully understood as a driver against a historical backdrop of more recognized push factors, such as conflict and poverty, and pull factors, such as employment and kinship. This includes the role that adaptation policies and related social protection policies can play in preventing the need for migration. It may not be possible to establish a clear causality between climate change and the movement of persons, and, although often used in the media, the concept of a "climate refugee" (Apap 2019) does not exist in international law. The Office of the United Nations High Commissioner for Refugees (UNHCR) refers to "people displaced in the context of disasters and climate change", while the International Organization for Migration proposes a working definition of "the movement of a person or groups of persons who, predominantly for reasons of sudden or progressive change in the environment due to climate change, are obliged to leave their habitual place of residence, or choose to do so, either temporarily or permanently, within a State or across an international border" (IOM 2019b). Although this definition is purely operational, the term "climate refugee" is nevertheless used in the legally binding Cancun Agreements on climate change adaptation, adopted by the States parties to the UNFCCC at the 2010 Conference of the Parties. The Cancun Agreements identify three forms of "climate change induced" movement:

- ▶ displacement
- ▶ migration
- ▶ planned relocation<sup>65</sup>

The International Organization for Migration also refers to:

- ▶ trapped populations<sup>66</sup>

<sup>65</sup> Planned relocation: '[p]ermanent (or long-term) movement of a community (or a significant part of it) from one location to another, in which important characteristics of the original community, including its societal structures, legal and political systems, cultural characteristics and worldviews are retained: the community stays together at the destination in a social form that is similar to the community of origin'... It is considered a movement of last resort and is most often conducted by authorities" (Melde et al. 2017).

<sup>66</sup> Trapped populations: '[p]opulations who do not migrate, yet are situated in areas under threat, [...] at risk of becoming 'trapped' [or having to stay behind], where they will be more vulnerable to environmental shocks and impoverishment.' In particular households with a low-income level and few alternative livelihood options and social capital are understood to be 'trapped' (Melde et al. 2017).



Rural women's cooperative generates income and improves community life, Katfoura village on the Tristao Islands, Guinea, 2015. ©UN Women/Joe Saade

The recent UN decision that governments cannot return persons to countries where their lives are threatened by climate change is a step forward (Su 2020) although a specific framework for persons fleeing the conditions imposed by climate change that includes social protection has yet to be developed. In its 2021 report, and based on examples from the Pacific, the Caribbean and the Horn of Africa, the International Centre for Migration Policy Development stresses the importance of sustained political commitment to successfully address climate-related human

mobility, notably when establishing regional policy frameworks and migration protocols (Lennartz et al. 2021).

Among the most vulnerable migrants, particularly during shocks, are workers in the informal economy, and especially workers without documents, who find themselves exposed to all forms of exploitation, including indecent wages and working conditions and a lack of social protection.

Acting as automatic social and economic stabilizers, social protection systems have the potential to mitigate the impact of climate change-induced crisis and support building resilience (ILO 2017a) in the event of displacement or in the context of migration.

Social protection, in combination with ALMPs, public (green) works and other social services, can help workers and vulnerable groups through difficult transitions such as planned relocation away from areas with high climate-related risks.

To enable displaced persons to enjoy the full scope of their social protection rights, it is essential that countries facilitate the portability of rights within and across national borders. This can be achieved through the conclusion, with the participation of the social partners, of bilateral and multilateral social security agreements, as well as labour agreements that include provisions for social protection (see box 20). Where such portability arrangements are not in place, countries may adopt unilateral measures based on the principles of equality of treatment and non-discrimination (Brenner et al. 2020; ILO 2021e). At the implementation level, social protection systems and programmes must also take into consideration the increased vulnerability of internally displaced persons and families who may not have been registered previously as eligible for targeted social assistance programmes (ILO 2021e). Furthermore, while not applied in practice, the 1951 Convention relating to the Status of Refugees (the 1951 Convention) and its 1967 Protocol entitle refugees, among others, to benefits under national social protection systems, including social insurance provision, and other welfare schemes enjoyed by nationals, even if they do not meet any of the conditions of local residence or affiliation that may be required of nationals.<sup>67</sup>

**Internal migration:** climate change events are expected to increase further the magnitude of existing internal migration and displacement movements. Comprehensive and well-integrated social protection systems that are also built on social insurance mechanisms can provide income protection during times of crisis, although the

increased distress caused by these migration movements and displacements is likely to require adjustments to existing schemes, for example vertical or horizontal expansion of coverage and the consideration of new risks. Additionally, countries with fragmented and/or regionally divided social insurance systems, such as China, where social insurance benefits are linked to a persons' residential status, may face additional challenges when larger internal movements occur.

**International migration:** migrant workers are often excluded from social insurance schemes because of the sector or temporary nature of their employment, a lack of bilateral or multilateral agreements or the absence of administrative arrangements that ensure that benefits are delivered in countries of destination and origin. Appropriate and effective coordination mechanisms between countries should be in place to include migrant workers in social insurance schemes in their host countries (Taha et al. 2015; Behrendt and Nguyen 2018; ILO 2021d). The ILO and the UN have established a series of conventions that promote equality of treatment and non-discrimination against migrants in their host countries and recommend the conclusion of social security agreements between two or more countries to coordinate social security schemes for the benefit of migrant workers.<sup>68</sup>

In terms of social insurance, this study has found no relevant examples of schemes applied in the context of mobility caused by climate change. It should be noted, however, that human mobility could lead to significant population change in different geographic areas, for example in the wake of mass migration caused by water shortages or floods. Populations that have decreased or increased owing to migration could have very different risk profiles than before, including different demographic profiles, socioeconomic statuses and education levels, and national social insurance actuarial risk models would need to be updated accordingly.

Although migrant workers are major contributors to social and economic development, they

<sup>67</sup> UNHCR, [the Refugee Convention, 1951](#), Article 23.3

<sup>68</sup> These include the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families; the ILO Migration for Employment Convention (Revised), 1949 (No. 97); the ILO Migrant Workers (Supplementary Provisions) Convention, 1975 (No. 143); ILO Convention No. 157; the ILO Multilateral Framework on Labour Migration; the ILO Equality of Treatment (Social Security) Convention, 1962 (No. 118); and the ILO Maintenance of Social Security Rights Recommendation, 1983 (No. 167).

often face challenges in gaining access to social protection, rendering them more vulnerable to the health and socio-economic impact of climate change. Multilateral and bilateral social security agreements constitute an effective

means of overcoming, on a reciprocal basis, the barriers that might otherwise prevent migrant workers from receiving benefits under the social protection systems of the countries in which they have worked (ILO 2020c).

► **Box 20. Examples of agreements on the portability of social security rights (no example of an agreement specific to climate change has been found)** Multilateral and regional agreements

**Euro-Mediterranean Partnership:** since the 1990s, a partnership between EU Member States and 16 Southern Mediterranean countries in North Africa and the Middle East has facilitated the conclusion of social security agreements containing provisions on the portability of benefits for workers from these regions working in the EU. In 1995, under the Barcelona Declaration, negotiations continued to enhance social security agreements between the countries involved in the partnership. Cooperation agreements were re-launched in 2008 to coordinate social security between the EU and more partners.

**Ibero-American Multilateral Agreement on Social Security:** this Agreement was reached between 22 countries in Latin America, the Caribbean and the EU. It covers all persons who are subject to the social security legislation of any of the signatory States, as well as their family members, who derive rights from them. It guarantees the right of Ibero-American migrant workers and their families to a contributory old-age, disability or survivor's pension. The Agreement includes cash benefits in the event of disability, old age, the death of a family member or employment injury, that is, occupational accidents and diseases. It has been estimated by the Economic Commission for Latin America and the Caribbean that more than 5.5 million migrant workers benefit from this initiative.

A social security agreement between Southern Common Market (MERCOSUR) countries Argentina, Brazil, Paraguay and Uruguay was introduced in 2008 to manage the portability of the healthcare, old age, disability and survivors' benefits that each country provides under its national law.

A Caribbean Community (CARICOM) agreement likewise manages the portability of invalidity, disability, old-age and survivor's pensions and death benefits.

The Multilateral Convention on Social Security of the Inter-African Conference on Social Security (CIPRES):<sup>69</sup> CIPRES brings together 16 French-speaking countries from West, Central and Indian Ocean Africa. The Multilateral Convention on Social Security was adopted in February 2006 to better protect the social security rights of migrant workers in the region. The Convention covers all workers, members of their families and their survivors who are nationals of a State party to the Convention. It includes benefits in cash and in kind and provides for old age, disability, death, occupational accident, maternity, sickness and family benefits under all statutory social security schemes. The Convention upholds the principles of equal treatment with nationals of the host country and the maintenance of acquired rights and rights in the process of being acquired. The ratification of the Convention by Senegal, one of the main migrant-receiving countries in the region (along with Gabon and Cameroon), was an important step in ensuring better access to social security benefits for migrant workers in these countries.

<sup>69</sup> For more information, see "[Conférence Interafricaine de la Prévoyance Sociale](#)".

### Bilateral agreements

Malawi, the United Republic of Tanzania and Zambia have established bilateral agreements with each other that provide for the portability of rights for Malawian migrant workers. For instance, the workers' compensation scheme provides benefits to victims of occupational injuries. However, the agreement between Malawi and Zambia is not based on the principle of reciprocity since its provisions cover only Malawian migrant workers in Zambia, not Zambian migrant workers in Malawi.

Egypt has bilateral social security agreements with Cyprus, Greece, the Netherlands, Sudan, Morocco and Tunisia. The agreement with Cyprus covers old age, disability and death.

### Enabling legislation

The Constitutions of nearly all Central and South American countries have extensive social security provisions (ILO 2011, para. 238). Article 48 of the Colombian Constitution establishes that all inhabitants have an inalienable right to social security, while the Constitution of Costa Rica states that foreign nationals have the same rights as nationals. In Asia, the Constitutions of Bangladesh, India, Pakistan and Sri Lanka are other examples of constitutional commitment to social security (ILO 2011, para. 240).

### Unilateral measures

In the absence of bilateral social services agreements, unilateral measures on the part of countries of employment are of particular importance. However, even where bilateral agreements exist, unilateral measures may complement them and fill important protection gaps.

Through its Overseas Workers Welfare Administration, the Philippines affords migrant workers very limited benefits in the form of repatriation and burial benefits and facilitates registration with the Philippine Health Insurance Corporation for medical coverage.

The Sri Lanka Bureau of Foreign Employment provides very limited benefits through its Overseas Workers Welfare Fund. However, the benefits granted under those mechanisms are relatively modest.

**Source:** Chikova forthcoming; ILO, 2020c, 2017b, 2021d and n.d. (f).

While such agreements ensure the portability of social security benefits across borders, they should also include provisions that consider the possible onset of crises, such as those arising from conflict, pandemics and climate-related disasters. In the absence of multilateral or bilateral agreements, countries should expand social protection coverage to migrant workers and their families on a unilateral basis.

## Refugees

It is also expected that, as migration movements increase, the number of refugees will also increase further owing to ongoing crises that are likely to be fuelled by rising inequality and poverty, trends that have been exacerbated by climate change (Rowling 2019). According to the UNHCR's 2020 Global Trends report, there are

82.4 million forcibly displaced persons worldwide, including 26.4 million refugees (UNHCR 2021).

While refugees are often protected through social assistance programmes, Article 9 of the International Covenant on Economic, Social and Cultural Rights recognizes their right to social security, including social insurance. While most countries respect the provisions of the 1951 Convention that allow refugees recognized by the Government to work, refugees in many countries, such as Lebanon, do not have the right to work since they are recognized only by the UNHCR, and not by the Government, limiting their ability to participate.

Since 2014, the ILO and the UNHCR have been working together to find durable solutions to extend social health protection to refugees and other persons displaced by conflict and

persecution. This cooperation has resulted in a handbook on social health protection for refugees to assess and cost available options for their inclusion in existing national systems, such

as national healthcare services or social health insurance, thereby improving refugee access, reducing costs and avoiding the duplication of services (ILO 2018d; ILO and UNHCR 2020).

#### ► Box 21. The extension of health insurance to refugees

According to the UNHCR 2020 Global Trends report, Türkiye hosts nearly 3.7 million refugees, the largest population worldwide, almost half of whom are children. Around 6 per cent of Syrians present in Türkiye under the temporary protection scheme live in 21 official centres in provinces along the Syrian border, while the remaining 94 per cent live in host communities. Syrians under temporary protection are eligible to receive the same healthcare as Turkish nationals in their province of registration. They have free access to primary facilities, such as community health centres, and secondary facilities, such as hospitals. The Government funds the health services at the primary and secondary levels using insurance premiums paid by the Disaster and Emergency Management Authority to the Ministry of Health.

Lessons for shock-responsive social insurance:

- The Turkish healthcare system has the surge capacity to scale up its services substantially. Public health systems are designed with this capacity to accommodate additional demand. This is rarely the case in social protection, however, and if the objective is to use the social protection programme to provide additional support to a substantial number of persons affected by certain shocks, then surge capacity will have to be developed.
- The financing modality under which the Ministry of Health is insured by the Disaster and Emergency Management Authority, acting as a reinsurer, against a substantial increase in patients caused by an influx of refugees is a strategy that could be replicated in other countries and sectors.

It is worth noting here the Transition to Formality Programme (KİGEP)<sup>70</sup> implemented by the ILO Office for Türkiye and the Social Security Institution, in coordination with the Ministry of Labour and Social Security; KİGEP facilitates the labour market access of Syrians under temporary protection who came to Türkiye owing to conflict in the Syrian Arab Republic. It helps Syrians, as well as Turkish citizens, to develop and strengthen skills and competencies and promote formal employment.

#### Islamic Republic of Iran

Since 2015, the UNHCR has worked to enrol Afghan and Iraqi refugees in the Iranian universal public health insurance programme. The almost 1 million refugees living in the Islamic Republic of Iran can enrol in the scheme by paying a basic premium. However, 92,000 refugees – identified as vulnerable – are exempt from paying any premiums because they are fully subsidized by the UNHCR. Refugees now have access to access, and can benefit from, a comprehensive set of health benefits and services like those received by Iranian nationals.

**Source:** Assi et al., 2019; EU, 2018; Ekmekci, 2017.

Ensuring access to, and the maintenance of, social protection rights, including through contributory schemes that grant access to decent work within and across borders for workers and families displaced by climate change, and for host communities, is an

emerging topic that requires further exploration and for which adequate instruments must be developed, within countries, between countries and across regions.

<sup>70</sup> For more information, see “[Transition to Formality Programme \(KİGEP\) Informative Brochure](#)”.

Climate change is a powerful driver of migration and could force 216 million persons in six regions of the world to move internally by 2050

Because of the difficulty of establishing a clear causality between climate change and human mobility, the status of "climate refugee" is not yet formally defined

Immediate and concerted action to reduce global emissions and support inclusive climate-resilient development could reduce the scale of climate migration by 80 per cent

Migration can be an important adaptive response for persons facing environmental insecurity

Labour migration, when governed in accordance with international labour standards, can play an important role in the development of both countries of origin and destination

Among the most vulnerable migrants, particularly during shocks, are workers in the informal economy, and especially workers without documents, who find themselves exposed to all forms of exploitation, including indecent wages and working conditions and a lack of social protection

To enable displaced persons to enjoy their social protection rights, it is essential that countries facilitate the portability of their rights within and across borders

Coordination mechanisms between countries should be in place to include migrant workers in social insurance schemes in their host countries

Actuarial risk models for national social insurance need to be updated regularly to consider human mobility and, consequently, the evolution of the associated demographic and socio-economic profiles

While refugees are often protected through social assistance programmes, Article 9 of the International Covenant on Economic, Social and Cultural Rights recognizes their right to social security, including social insurance. However, refugees in many countries do not have the right to work



Men and children withdrawing water for irrigation in the Dogon plateau during a sandstorm day, Mali, 2014.  
©imagegeo.egu.eu/V. Coviello



## **4** Conclusions and recommendations



Climate change policies are an essential part of keeping human-made global warming within safe limits for human life and responding gradually to the consequences of the adverse effects of climate change, such as increased natural disasters, conflicts and human mobility, and, consequently, increased inequality, poverty and vulnerability.

This study has found that social insurance, combined with non-contributory provisions as part of rights-based national social protection systems aligned with ILO norms and standards, is a powerful and necessary instrument to facilitate climate policies and to achieve climate-resilient development.

However, social insurance in middle- and low-income countries, where vulnerability to climate risk often combines with gaps in social protection coverage, is significantly undervalued and underutilized, and therefore offers significant potential for expansion by incorporating climate-informed risks and assumptions, as well as inclusion, extension and financial resilience strategies, into the architecture of those countries' schemes.

Furthermore, it is particularly important to link the development of social insurance, from the standpoints of both employers and workers, and the governance of public insurance funds to efforts to increase decent work and investment in the green economy, which itself has the potential to strengthen climate policies.

Lastly, acknowledging the full significance of climate change in the coming years requires absolute unity, complementarity and efficiency in all aspects of social, economic and environmental policy, which also applies to the range of measures undertaken in relation to social protection.

The following recommendations draw on this study's findings. They are intended for the social partners, decision-makers and practitioners in the fields of social protection and climate change and should guide the design and implementation of social protection in the context of climate change.

## General recommendations

1. More than ever, there is a critical need to develop universal social protection systems to enable climate-resilient development while supporting a just transition that leaves no one behind.
2. Social protection in the context of climate change must be designed according to country-specific conditions as part of a broader policy response to climate risks linked to economic, environmental and social policies, including ALMPs, thus enabling individuals to develop new skills and find new employment opportunities, for example in the green economy.
3. To implement social protection policies in the context of climate change, it is essential to foster international cooperation between countries, particularly so as to develop innovative strategies for financing social protection systems exposed to a probable increase in covariate risks while stimulating job-rich investment in the green economy.
4. It is necessary to renew the social contract in line with the challenges arising from climate change and, on that basis, strengthen social dialogue, which lies at the heart of the process of defining and implementing social protection systems. This is particularly important for addressing the risks of exclusion, inequality and human needs that will be exacerbated by climate change, but also for driving our society towards greater harmony with nature and the achievement of the Sustainable Development Goals.
5. The development of a multi-layered international financing infrastructure to ensure the resilience and extension of national social security systems in low-income countries vulnerable to climate risk is critical. This requires broad partnerships that involve initiatives such as USP2030 and the Climate Action for Jobs Initiative, international financial institutions and development banks, the private sector, the social partners and civil society. Concretely, the diversification and integration of financial strategies can take the form of hybrid

approaches that factor in non-contributory elements such as social or humanitarian cash assistance with the potential to kick start and scale up contributory schemes, investment programmes to promote decent green jobs with contributory schemes, climate debt swaps to increase domestic funding, climate risk reinsurance schemes and contingency funding, the development of a global fund for social protection and the implementation of the Global Accelerator on Jobs and Social Protection for Just Transitions.

6. Social protection rights must be guaranteed and maintained, including through contributory social insurance schemes, for persons displaced by climate change and, consequently, so as to develop adequate portability instruments within and across borders.
7. Now is the time to invest in, and scale up, social protection programmes informed by climate risks with international technical and financial support in selected countries that have expressed the political will to initiate a renewed ABND process, by using social dialogue, cross-sectoral thematic round tables and transdisciplinary expertise to mobilize social protection systems, including contributory and non-contributory approaches, to address climate challenges and support climate policies.

of solidarity and risk sharing; involving the social partners, environmental experts, actuaries, risk managers and specialized institutions, such as ISSA; and focusing on priority branches such as health protection and income security, with coverage for persons with fixed domiciles and individuals on the move. Data linking social protection and climate change should be able to take into account gender, persons with disabilities, displaced persons, indigenous persons and other vulnerable groups. Sector-specific data should allow the negative effects of the ecological transition to be measured and adequate social protection policies implemented to ensure that no one is left behind.

10. The time is right to raise awareness among public social insurance funds, such as pension funds, and to persuade them to adopt socially and ecologically responsible institutional investment strategies and partnerships monitored by regulatory frameworks, not only to demonstrate their validity in managing financial risks for rights holders, but also to renew commitment to solidarity with future generations who will face a legacy of daunting challenges.

## Specific recommendations on social insurance:

8. Social insurance must be developed in middle- and low-income countries, where it is considerably undervalued and underutilized, provided that it is adapted to climate risk in terms of the contingencies covered, assumptions and financial resilience, and that it can be extended to workers in the informal economy.
9. There is an urgent need for innovation in social insurance approaches and practices, including through sharing experiences, technologies and data with public and public-private initiatives that apply the principles

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