



Stepping stones towards social protection and climate resilience in the Maldives

Author:

Sheena Moosa

ESCAP Working Paper:

December 2024

Disclaimer: The designations employed and the presentation of the material in this policy brief do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries. Where the designation "country or area" appears, it covers countries, territories, cities or areas. Bibliographical and other references have, wherever possible, been verified. The United Nations bears no responsibility for the availability or functioning of URLs. The opinions, figures and estimates set forth in this publication should not necessarily be considered as reflecting the views or carrying the endorsement of the United Nations. The mention of firm names and commercial products does not imply the endorsement of the United Nations.

Please cite this paper as:

Moosa, S. (2024).

Stepping stones towards social protection and climate resilience in the Maldives. United Nations ESCAP, Social Development Division Working Paper No# 2024/05, December 2024. Bangkok.

About the author:

Ms. Sheena Moosa is a public health and population expert in New Zealand and the Maldives. Her work spans several decades covering areas such as medicine and public health, epidemiological and demographic analysis, research and situation assessments, addressing intersecting aspects such as gender equality and social inclusion, social protection and climate change in development policy and planning. Having worked with a diverse range of international organisations and government entities in the Maldives, including the Ministry of Family and Social Development and the Ministry of Climate Change, Environment and Energy, she brings a wealth of expertise and experience to this emerging issue of social protection and climate change.

Available at: https://www.unescap.org/kp/2024/stepping-stones-towards-social-protection-and-climate-resilience-maldives

Tracking number: ESCAP / 6-WP / 96

Table of Contents

A	cknowledgements	4
1.	Introduction	5
2.	Climate change hazards and impacts on people	11
	2.1 Climate change hazards	11
	2.2 Impacts on people	13
3.	Interlinkages between climate policy and social protection policy	20
	3.1 The Climate Emergency Act of Maldives	20
	3.2 Projects to promote renewable energy	20
	3.3 Adaptation policies and programmes	21
	3.4 Climate resilient policies for food security	21
	3.5 Climate resilient urban planning and management policies	22
4.	Social protection policies that can address climate change impact	23
	4.1 Synergies between adaptation and social protection initiatives	24
5.	Climate Finance	25
6. ag	Entry points and recommendations to integrate social protection into climate poli	
	6.1 Extend more universal coverage to ensure social protection floor for all	26
	6.2 Redirect investments towards just transition to enhance resilience of climate vulnerable populations	27
	6.3 Emergency cash transfers	28
	6.4 Social protection for informal and own account workers	29
	6.5 Education and training towards reskilling prospective workers to green climate resilient technology	29
	6.6 Improve access to climate finance for programmes with social protection components	30
	6.7 Generating evidence and knowledge management on synergies of social protect and climate resilient policies	
7	Conclusion and recommendations	32

Acknowledgements

This working paper was developed by the Social Development Division of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) under the overall supervision of Katinka Weinberger, Chief, Sustainable Socioeconomic Transformations Section, Social Development Division, ESCAP. The report was prepared by Sheena osa with support and input from Sayuri Cocco Okada and Stefan Urban from ESCAP. The team also wishes to acknowledge the constructive contributions by Aneta Nikolova, Environment and Development Division, ESCAP.

ESCAP is profoundly grateful to the Ministry of Climate Change, Environment and Energy, Ministry of Social and Family Development and National Disaster Management Authority of the Government of Maldives for their valuable inputs and contributions to the working paper.

Documentation support was provided by Ployparn Jariyakul and Pornnipa Srivipapattana.

1. Introduction

Despite its potential as a policy response to climate change risks, the integration of social protection within the climate policy agenda is currently limited. Social protection policies rarely integrate climate change concerns strategically while climate policies hardly recognise the potential of social protection in mitigation and adaptation to climate change risks. This is mainly because of the different understandings about the objectives of social protection and climate change policy by different sectors. There is a lack of integration of social protection and climate change policy, especially where social protection is still thought of as short-term measure to help smoothen consumption during an emergency rather than as an instrument to help address the climate risks.

Climate justice and rising socioeconomic inequalities are inextricably linked, with severe negative effects on the lives and livelihoods of marginalized people in vulnerable situations who lack the capacity and resources to cope with complex shocks related to health, income, food security, access to basic environment resources and necessities, and displacement. Many existing hotspots of climate-related multi-hazards are forecasted to expand or intensify while new hotspots emerge. People residing in these hotspots, often already poor with limited agency and access to natural resources and services, will be exposed to more frequent and intense sudden-onset climate change events such as flash floods, prolonged draughts and extreme weather events. They are also first in line to be affected by slow-onset climate change events, such as sea level rise, temperature change, and the impacts of adaptation and mitigation policies to tackle climate change.³

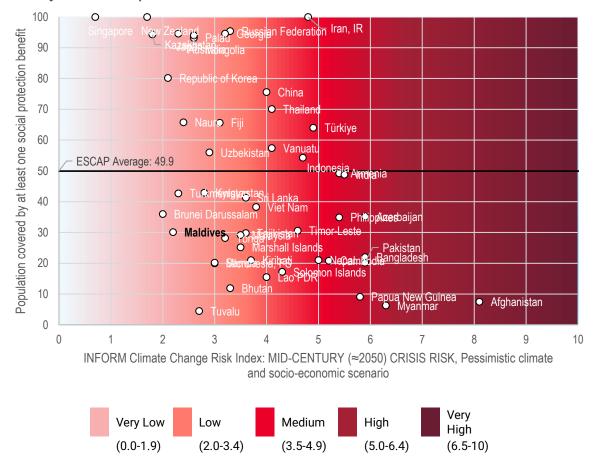
Lack of access to social protection will hamper resilience to these intensifying risks. Figure 3.1 depicts the proportion of the population covered by social protection and the projected level of crisis risk owing to the impacts of climate change from multiple natural hazards and socioeconomic trends by mid-century in a pessimistic climate and socioeconomic scenario (RCP8.5). Many countries have a high share of their population exposed to crisis risks but have low levels of social protection coverage to enhance coping mechanisms and responses. Although the index does not capture the level of climate change induced risk for the Maldives, it highlights the critical importance of social protection coverage to build the resilience of the majority of the population to multiple hazards.⁴

¹ Costella, Cecilia et al. 2023. Can social protection tackle emerging risks from climate change, and how? A framework and a critical review. Climate Risk Management. Volume 40, 2023, 100501

² International Labour Office. 2024. World Social Protection Report 2024-2026: Universal Social Protection for Climate Action and a Just Transition. ³ ESCAP. 2024. <u>Crossroads of risk: The climate change megatrend</u>. In Social Outlook 2024. Protecting our Future Today: Social Protection in Asia and the Pacific Storyline.

⁴The INFORM risk profile estimates Maldives to face relatively low-level climate change-induced risk. Although the Maldives scores high in exposure to one type of risk, it scores low in exposure to other types of risks. The INFORM methodology acknowledges some shortcomings in capturing the level of climate risk for small countries such as small island countries due to the use of global climate models that do note capture impact in the regional climate system. European Union. 2024. DRMKC — INFORM. Country risk profiles and Thow, A., Poljansek, K., Marzi, S., Galimberti, L. and Dalla Valle, D., INFORM Climate Change Quantifying the impacts of climate and socio-economic trends on the risk of future humanitarian crises and disasters, Publications Office of the European Union, Luxembourg, 2022.

Figure 1.1 Share of population covered by at least one social protection benefit and the projected level of climate change induced risk by midcentury in a pessimistic climate and socioeconomic scenario



Source: ESCAP elaborations using data from the European Commission, "INFORM Climate Change Risk Index", available at https://drmkc.jrc.ec.europa.eu/inform-index (accessed in May 2024) and ILO estimates, 2024; World Social Protection Database, based on the Social Security Inquiry; ISSA Social Security Programs Throughout the World; ILOSTAT; national sources.

Note: Pessimistic scenario, assuming Representative Concentration Pathway (RCP) 8.5 (high emissions) and Shared Socio-economic Pathways (SSP) 3 (Regional Rivalry – high challenges for both mitigation and adaptation, including higher population growth), is used to project the Hazard and Exposure dimension of the INFORM Risk Index into the future by mid-century (2050), taking into account changes to climate-related hazards (river flood, drought, coastal flood and epidemics) and the distribution of exposed populations. ESCAP average for the share of population covered by at least one social protection benefit is unweighted average.

This is especially the case as climate risk-specific indices such as the ND-GAIN Index 2020 ranks Maldives as highly vulnerable to climate change impacts, with a score of 44.3 in the 2020.⁵ Current estimates show that warming under the highest emissions pathway is likely to be slightly less than the global average of 3.7°C by the 2090s, but still over 3°C, that pose risks

⁵ ND-GAIN score calculates a country's vulnerability to climate change and other global challenges as well as their readiness to improve resilience. The more vulnerable a country is the lower their score. University of Notre Dame. 2020. Notre Dame Global Adaptation Initiative. Country index scores. The difficulty to capture the real climate change context for the Maldives should also be highlighted due to the inability of current climate models to simulate changes over very small island states and the lack of data on key variables used to compute models and risk indices. The World Bank Group and the Asian Development Bank. 2021. Climate Risk Country Profile: Maldives

to human health. Error! Bookmark not defined. Without improving coping capacity, climate change represents a major threat to ways of life in the Maldives.

Since the adoption of the Paris Agreement in 2015, the role of social protection in the context of climate change, including adaptation and mitigation, has been repeatedly acknowledged and is gaining traction to ensure sustainable and inclusive economic growth and a just transition in the wake of a changing climate. Integrating social protection into policies addressing environmental impacts and transition challenges is essential for achieving cumulative and transformative outcomes that are required in the context of climate policies. Effective policy packages involve inclusive social dialogue, linking labour market and industrial policies with social protection, and developing national just transition strategies.

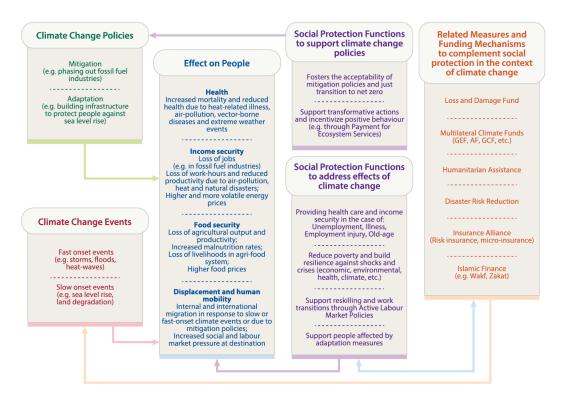
Climate change response policies and measures can be categorized into two main approaches: mitigation and adaptation. Mitigation focuses on addressing the causes of climate change, while adaptation refers to adjustments in ecological, social or economic systems in response to actual or expected climate effects. These two approaches are interconnected and often complement each other. In addition, climate policies also recognize the need to respond to loss and damage that cannot be prevented through mitigation and adaptation and to build resilience within the framework of just transition to unavoidable impacts from such climate change events (both slow and sudden/fast onset).

Both climate change policies, such as mitigation and adaptation policies, as well as climate events, both slow and fast onset, have a direct impact on people's lives, which can be categorized into four impact channels, including health, income, food security and displacement and human mobility. Figure 3.2 introduces the ESCAP framework on social protection and climate resilience and illustrates the various forces at play in the interlinkages between climate change events, policies and social protection.

⁻

⁶ ESCAP. 2023. 2023 Review of Climate Ambition in Asia-Pacific. Available at https://www.unescap.org/kp/2023/2023-review-climate-ambition-asia-and-pacific-just-transition-towards-regional-net-zero; UNFCCC. Why the Global Stocktake is Important for Climate Action this Decade. https://unfccc.int/topics/global-stocktake/about-the-global-stocktake/why-the-global-stocktake-is-important-for-climate-action-this-decade 7 IPCC 2023. Climate Change 2023: Synthesis Report. Geneva, Switzerland, pp. 35-115, doi: 10.59327/IPCC/AR6-9789291691647

Figure 1.2: Interlinkages between Climate Change and Social Protection



Source: ESCAP elaboration.

The framework³ above describes the interplay between social protection and climate change, differentiating between climate change policies and events. While both, climate change policies and events impact people's lives, they are also distinct and requires tailored policies, including social protection measures, to address them. Some social protection functions directly support climate change policies, fostering the acceptability of mitigation policies and just transition to net zero or by supporting transformative actions (e.g. through payment for ecosystem services), while others support people when affected by climate change events (e.g. providing health care and income security, and improving resilience). Last but not least, for social protection to play a stronger role in addressing the impact of climate change, building synergies and coordinating with related policy measures and funding mechanisms, such as the loss and damage fund, multilateral climate funds, disaster risk reduction frameworks, will be imperative.

We distinguish between four types of effects on people. These include effects on health, income security, food security and displacement and human mobility. For people to be sufficiently protected or to support and facilitate mitigation and adaptation policies, a variety of social protection functions are at play. Mitigation policies can entail job loss through shifts away from greenhouse gas emitting industries. As there are direct and indirect interlinkages between implementation of climate mitigation policies and labour markets, the provision of unemployment benefits, coupled with reskilling and active labour market policies, can support just transition. Social protection can also incentivize positive behaviour to support adaptation

policies, for example by providing Payment for Ecosystem Services, hence supporting transformative action. Further, social protection, coupled with active labour market policies such as reskilling, can help people better manage work and life-transitions. Such support is also relevant in the context of climate change adaptation measures. While climate change adaptation primarily focuses on helping people better cope with unavoidable risks and situations, in certain cases, adaptation measures can also affect people's livelihoods, for example, flood protection which makes land unusable or forces people to move.

On the other side, social protection directly supports people's health, income and food security and helps those affected by climate change induced displacement. Traditional social security schemes, such as unemployment protection schemes, provide income security during periods of unemployment which may result from climate change events (e.g. floods or tropical cyclones). Providing health care and income security are some of the primary roles of social protection systems, but in the context of climate change, the ability of social protection to reduce poverty and vulnerability and to build resilience against shocks and crisis (economic, environmental, health, climate, etc.) is another pivotal function and helps people better cope with the effects of climate change events. By providing regular and predictable transfers in case of unemployment, illness or old-age and thus reducing uncertainty, and by providing cash and other transfers pre-shocks, people can develop better coping strategies and build resilience prior to shocks or recuperate faster post shocks. The Philippines Integrated Livelihood and Emergency Employment Programme (DILEEP) provides public short-term employment opportunities to informal workers. DILEEP provided essential income stability and played a vital role in restoring communities following the devastation of Typhoon Haiyan in 2013.

In parallel to social protection schemes and programs, there are various related measures and funding mechanisms that can complement social protection in the context of climate change. While the Loss and Damage Fund is not yet operational, the fund's main purpose will be to respond to economic and non-economic loss and damage associated with the adverse effects of climate change, including extreme weather events and slow onset events.⁸ Existing social protection infrastructure may be used for payments. Likewise, multilateral climate funds, such as the Global Environmental Facility (GEF), The Adaptation Fund (AF) or the Green Climate Fund, have been set up to support climate change adaptation and mitigation measures. In 2022, a total of eight social protection related projects were funded with a total budget of USD 154 million.⁹ While these funds are not primarily aiming to support social protection measures, the relevance of social protection to address the social dimension of climate change policies has been acknowledged and is increasingly recognized in their frameworks.¹⁰

Humanitarian Assistance plays an important role in the context of climate related shocks and crisis and offers opportunities for building synergies with social protection by allowing

⁸ Kaltenborn M. 2023. The Relevance of Social Protection Systems for the Loss and Damage Fund and Funding Arrangements. Submission to the UNFCCC Transitional Committee, July 2023.

⁹ Sengupta, S. & Sivanu, S. 2023. Climate funds and social protection: What is the progress to date? Red Cross Red Crescent Climate Centre.

¹⁰ Hopper, R., Hurworth, M., Lowndes-Bull, Z (2024) The Realities of Climate Finance for Social

Protection, Social Protection Technical Assistance, Advice and Resources (STAAR) Facility, DAI Global UK Ltd, United Kingdom.

humanitarian assistance to rapidly channel funds through existing social protection delivery mechanisms, potentially also transforming short-term humanitarian interventions into development processes in the spirit of the humanitarian-development nexus.¹¹

Insurance alliances, such as the Caribbean Catastrophic Risk Insurance Facility or the African Risk Capacity, are multi-country climate risk-pooling systems that aim to limit the financial impact of natural hazards. They offer parametric insurance policies for tropical cyclones, earthquakes, excess rainfall, etc. While these funds have not been primarily designed to work with national social protection systems, funds may be channeled through existing social protection systems. Islamic finance is another funding source that can be channeled directly to people in need or could also utilize existing social protection infrastructure for payments and thus create synergies with existing schemes and programs (e.g. using social registries for the distribution of funds).

The framework described above requires social protection systems to be functional, adequate in coverage, and inclusive, building on contributory and non-contributory schemes and programs that can respond to life cycle contingencies (see also ILO Social Security (Minimum Standards) Convention, 1952 (No. 102) and Social Protection Floors Recommendation, 2012 (No. 202)) that are likely to be exacerbated by climate change. On the other hand, social protection systems will increasingly also have to support the impacts of both climate mitigation and adaptation policies to enable the transformative changes we need and to ensure a just transition. This will require harnessing synergies and strengthening coordination with climate change, as well as social, economic and environmental policies and related measures and funding mechanisms. It is important to note that a fragmented and uncoordinated approach will likely diminish the impact of measures addressing the social consequences of climate change.

This chapter makes an attempt to bridge this gap by advancing some practical evidence from the Maldives and elsewhere as to how social protection helps address and manage climate change risks. In doing so, the first section presents climate risk profiles and their impacts in the Maldives, which is followed with a discussion on the interlinkages between climate policy and social protection policy. This is followed by social protection programme examples contributing to the reduction of climate risks. Drawing on this, some entry points are also presented to show how social protection can be integrated into climate policy agenda in the areas of climate mitigation and adaptation, shock responsiveness, loss and damage, and climate finance.

⁻

¹¹ European Commission DG DEVCO, ECHO, NEAR. 2019. Tools and Methods Series Reference Document No 26 – Social Protection across the Humanitarian-Development Nexus: A Game Changer in Supporting People through Crises.

2. Climate change hazards and impacts on people

2.1 Climate change hazards

The climate of Maldives is warm and humid throughout the year influenced by its tropical monsoon weather. The country has relatively high rates of precipitation. The historical mean annual temperature was 27.6°C with little inter-seasonal variability of about 1°C throughout the year.¹¹

33 ŰC 31.5 ŰC 250 mm 30 ŰC 200 mm 150 mm 27 °C 100 mm 50 mm 25.5 ŰC 24 ŰC 71/1 PUD OCY May M POI Average Minimum Surface Air Temperature Average Mean Surface Air Temperature Average Maximum Surface Air Temperature Precipitation

Figure 3.3 Climatology of Maldives 1991–2020

Source: The World Bank Group¹²

Climate models (RCP2.6 and RCP8.5) show trends of consistent warming and the likelihood of more frequent and intense extreme weather events. The seasonal cycle is strongest in the northern atolls subjecting these islands to higher variations in surface temperatures and rainfall compared to equatorial and southern atolls placing northern atolls at greater risk. Associated to increased temperatures are sea level rise (SLR), ocean acidification and coral bleaching. Modelling of both temperature and ocean acidification effects under future climate scenarios (RCP4.5 and RCP8.5) suggest that some small islands will experience severe coral bleaching on an annual basis before 2040. Over the period 1992-2015, SLR in Maldives averaged about 4 mm and projections suggest the rate could increase to between 6 and 12

¹² WBG Climate Change Knowledge Portal (CCKP). 2021. <u>Maldives Climate Data: Historical</u>.

¹³ The World Bank Group and the Asian Development Bank. 2021. Climate Risk Country Profile: Maldives

¹⁴ Asian Development Bank and Ministry of Environment. 2020. <u>The Multihazard Risk Atlas of Maldives</u>

¹⁵ IPCC (Intergovernmental Panel on Climate Change). 2023. Climate Change 2022 – Impacts, Adaptation and Vulnerability: Working Group II, Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Chapter 15.

mm per year.¹⁶ Past marine heating events in Maldives led to significant coral loss, a critical element for the geophysical survival of the islands and marine ecosystem. A reduction of coral coverage in the Maldives has been reported between 10 and 70 percent in different parts of the country.¹⁷

The main climate change related hazards that pose risks to people include heatwaves, drought, flood, cyclones, storm surges and tsunamis.

2.1.1 Heat waves and droughts

Recent climate change assessments have shown that ensemble-based median annual temperature is likely to push temperatures above 30°C, and it is projected ensemble median change in the maxima of daily maximum temperature of 3.24°C, compared to the historical mean. The projected change in heat wave probability (compared to 1986–2005), for Maldives is close to 1 by 2100 which pose significant risk to health and survival. Salination of ground waters and precipitation change increase the risk of droughts. Projections on drought in Maldives have low certainty and the standardized precipitation evapo-transpiration index (SPEI)²⁰ is close to zero. Heat waves and drought represent significant hazards for human health and survival. At the time of this research, there is no direct data impact of heat waves on productivity, however, it is expected that this will impact outdoor workers in the tourism, fisheries, agriculture and public works. Further women are likely to have significant risk as they take the burden of domestic work due to gender roles in the society as well as taking children to and from school, and engage in informal work such as fish processing, food production and small scale agriculture.

Marine heatwaves are another crucial hazard for Maldives and research shows a 54% increase in annual marine heatwave days globally.²⁵ Increase in marine heat wave frequency and duration presents serious consequences for the marine ecosystem of Maldives posing significant risks to the livelihoods and food security.²⁶ Some of these risks related to tourism, agriculture and fisheries are elaborated in the respective sections below.

2.1.2 Flood, cyclones, storm surges and tsunamis

Flooding is the most common climate hazard in the Maldives caused mainly from more frequent and volume of rainfall followed by coastal storms and swell waves.^{27,28} It is estimated

¹⁶ The World Bank Group. 2024. <u>Maldives Country Climate and Development Report (CCDR)</u>.

¹⁷ The World Bank Group. 2024. Maldives Country Climate and Development Report (CCDR).

¹⁸ The World Bank Group and the Asian Development Bank. 2021. Climate Risk Country Profile: Maldives

¹⁹ Heat waves are defined as a period of 3 or more days when the daily temperature remains above the 95th percentile.

²⁰ SPEI is widely used today as a global measure for drought monitoring over various cumulative time intervals. is computed over 12-month periods and captures the cumulative balance between gain and loss of water across the inter-annual time scale by incorporating both precipitation input variations as well as changes in the loss of water through evapotranspiration.

²¹ The World Bank Group. 2024. Maldives Country Climate and Development Report (CCDR).

²² World Health Organization. 2024. Heatwaves.

 $^{^{23}}$ UN women. 2018. Research papers in situation of women in the Maldives.

²⁴ Asian Development Bank. 2014. <u>Maldives Gender Equality Diagnostic of Selected Sectors</u>.

²⁵ Oliver EC, Donat MG, Burrows MT, et al. 2018. <u>Longer and more frequent marine heatwaves over the past century.</u> Nature communications, 9(1), 1324.

²⁶ The World Bank Group. 2024. Maldives Country Climate and Development Report (CCDR).

²⁷ Maldives Ministry of Environment and Energy. 2016. <u>Second National Communication of Maldives to the United Nations Framework Convention on Climate Change</u>.

²⁸ UNDP.2007. <u>Detailed Island Risk Assessment in Maldives</u>.

that the return period of a daily rainfall of 150 mm for the northern region expected to be reduced to 23 years at the end of this century, ten times from historic figures.²⁹ The cyclone hazard for Maldives is classified as low, however, in 2017 and 2019 Maldives was affected by severe cyclones, particularly in the norther atolls, resulting in loss and damage to property.³⁰

Storm surges and swell waves have become frequent in the Maldives,³¹ more commonly affecting the islands in the southern and western atolls, causing coastal erosion, damaging critical infrastructure.³² Tsunamis though less common is the most significant hazard in terms of loss and damage and the eastern borders of atolls have a higher probability of experiencing tsunamis at 320–450 centimeters.³³ The economic and human impacts of flooding, from surges and swells are likely to grow in significance in the coming years threatening the livelihoods on many islands, particularly local tourism, fisheries and agriculture, as discussed below.

2.2 Impacts on people

In determining impacts, vulnerability of the people is the key determinant. The Intergovernmental Panel on Climate Change (IPCC) defines vulnerability as the residual impacts of climate change after adaptation measures have been implemented.³⁴ Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.³⁵ Hence, the vulnerable populations in the society,³⁶ that are the focus of social protection, is of central significance in examining the impact of climate change on the people.

2.2.1 Health

Population health is directly and indirectly influenced by weather and climate extremes arising from human induced climate change.^{37,38,39} Increased temperatures and intensity of heat extreme has been shown to induce heat-related stress and increase ground level ozone and air pollutants that increases risk of Non-Communicable Diseases (NCDs),⁴⁰ and adverse reproductive pregnancy outcomes.^{41,42} Climate impacts on nutrition is associated not only with food security, but its effect are observed on availability of nutrient-rich-food.⁴³ The

²⁹ The World Bank Group and the Asian Development Bank. 2021. <u>Climate Risk Country Profile: Maldives</u>

³⁰ The World Bank Group and the Asian Development Bank. 2021. <u>Climate Risk Country Profile: Maldives</u>

³¹ Kapoor et al. 2021. Climate change impacts on health and livelihoods. <u>Maldives Assessment</u>

³² The World Bank Group and the Asian Development Bank. 2021. Climate Risk Country Profile: Maldives

³³ Asian Development Bank and Ministry of Environment. 2020. The Multihazard Risk Atlas of Maldives. Summary

 $^{^{\}rm 34}$ Downing at al. 2005. Assessing vulnerability for climate adaptation.

³⁵ Glossary of the Third Assessment Report of the IPCC.

³⁶ Vulnerable groups in the Maldives include disadvantaged children, elderly, people with disabilities and chronic diseases, and migrants (domestic and international), intersecting with inequalities in gender

³⁷ World Health Organization. 2014. Quantitative risk assessment of the effects of climate change on selected causes of death, 2030s and 2050s.

³⁸ World Health Organization. 2021. Quality criteria for health national adaptation plans.

³⁹ The Intergovernmental Panel on Climate Change. 2023. Synthesis report of the IPCC sixth assessment report (ar6).

⁴⁰ Nugent et al. 2019. Non-communicable diseases and climate change: linked global emergencies. Lancet 394, no. 10199: 622-623.

⁴¹ Roos et al. 2021. Maternal and newborn health risks of climate change: a call for awareness and global action. Acta obstetricia et gynecologica Scandinavica,100(4):566-70.

⁴² Agay-Shay K. 2023. Invited Perspective: Air Pollution and Congenital Heart Defects (CHDs)—a Summary of Two Decades and Future Direction in Research. Environmental Health Perspectives,131(6):061305.

⁴³ Semba RD, et al. 2022. The potential impact of climate change on the micronutrient-rich food supply. Advances in Nutrition,13(1):80-100.

Maldives has eliminated several communicable diseases. However, with urbanization and climate change effects, vector-borne diseases such as dengue fever remain a major cause of morbidity⁴⁴. Maldives health data shows dengue, is among the top five causes of child mortality in 2020 among children 5-9 years.⁴⁵

With climate change the Maldives monsoon pattern is becoming inconsistent with traditional two monsoons periodicity, ⁴⁶ and is reflected in the pattern of dengue. Furthermore, analysis of the Niño 3.4 region of El Niño–Southern Oscillation (ENSO) year's climate variables shows a clear relationship with the weather parameters in the Maldives.⁴⁷ The 2019 was a EL Niño ENSO period⁴⁸ and the dengue outbreak in 2019 posed significant public health concern and the incidence remained high throughout the year. The relationship between ENSO periods and dengue outbreaks have been established in other countries as well.^{49,50}

Other health conditions associated with climate change, observed in the Maldives include conditions of newborn infants, NCDs), mental health, cancers, and nutrition disorders among the top causes of Disability adjusted Life Years in the country.⁵¹ While there is no local research on the contribution of climate factors on NCDs, increased frequency and intensity of heat and dry weather contributes to the NCD burden in the Maldives. 52 For instance, air quality in the Maldives is affected by the seasonality of the monsoon cycle, including precipitation patterns and air-mass transport pathways. 53 PM2.5 has been proposed to drive the main NCD effects which is twice the WHO recommended levels of $>= 5 \mu g/m^3$. PM2.5 fluctuated around 10.9 micrograms per cubic meter over the 2010 - 2019 period with 10.9 µg/m³ in 2019.⁵⁴ Maldives data shows in 2022, the air quality of northern atolls worsen towards the end of the year with transboundary effects. 55 Earlier studies showed that the annual-average PM2.5 levels in Malé area was observed to be higher (avg. 19 μg/m3) than in Hanimaadhoo in the north (avg. 13 µg/m3) with the difference being the largest during the rainy monsoon, when local emissions play a larger role. 56 High temperatures and heat waves, have been associated with heat stress, mood and behavioural disorders⁵⁷ and post-traumatic stress is identified as a mental health risk from flooding in the longer term.⁵⁸ People with existing mental health conditions are

⁴⁴ Ministry of Health. 2017. Health Master Plan 2016-2025.

⁴⁵ Ministry of Health. 2021.Maldives Health Statistics 2020.

⁴⁶ Chaudhuri S, et al. 2021. Analysis of precise climate pattern of Maldives. A complex island structure. Regional Studies in Marine Science,44:101789.

⁴⁷ Zahid. The Influence of Asian Monsoon Variability on Precipitation Patterns Over the Maldives: (Doctoral dissertation, University of Canterbury).

⁴⁸ Golden Gate Weather Services. 2024. <u>El Niño and La Niña Years and Intensities</u>

⁴⁹ Pramanik, M., Singh, P., Kumar, G. et al. 2020. El Niño Southern Oscillation as an early warning tool for dengue outbreak in India. BMC Public Health 20, 1498.

⁵⁰ Vincenti-Gonzalez, M.F., Tami, A., Lizarazo, E.F. et al. 2018. ENSO-driven climate variability promotes periodic major outbreaks of dengue in Venezuela. Sci Rep 8, 5727

⁵¹ Institute of Health Metrics evaluation. 2023. Maldives.

⁵² Nugent et al. 2019. Non-communicable diseases and climate change: linked global emergencies. Lancet 394, no. 10199: 622-623.

⁵³ Budhavant et al. 2015. Apportioned contributions of PM2. 5 fine aerosol particles over the Maldives (northern Indian Ocean) from local sources vs long-range transport. Science of the Total Environment, 1;536:72-8.

⁵⁴ World Development indicators. PM2.5 air pollution, mean annual exposure (micrograms per cubic meter). Maldives.

⁵⁵ IQAIR. Data obtained from Ministry of environment climate change and technology. https://www.iqair.com/maldives

⁵⁶ Budhavant K et al, 2015. Apportioned contributions of PM2. 5 fine aerosol particles over the Maldives (northern Indian Ocean) from local sources vs long-range transport. Science of the Total Environment, 1;536:72-8.

⁵⁷ Thompson, R., et al. 2018. Associations between high ambient temperatures and heat waves with mental health outcomes: a systematic review. Public health, 161, 171-191.

⁵⁸ World Health organization. 2015. Climate and Health Country Profile. Maldives.

particularly vulnerable to the effects of extreme hot temperatures worsening their mental health.⁵⁹

An increase in sea surface temperatures acidifies the ocean, resulting in coral bleaching, which deteriorates the marine ecosystem and affects the availability of fish for consumption. Flooding also affects crop production and nutrient run off. Studies in some of the Pacific islands have showed that communities are becoming more dependent on off the shelf food which is less nutritious than local food from fishing and agricultural produce. At the time of writing this analysis, local data was not available on the linkages between nutrition status of the population and fishing and/or agriculture in the country. It is however, recognized that, climate change hazards trigger wide-ranging interactions between livelihoods and health.

Quantifiable information of direct impacts of climate change on health of local population is scarce. Although primary care is available on all administrative islands of Maldives, secondary care is frequently accessed by the residents relying on sea transport. While a tax-funded universal healthcare financing scheme, *Aasandha*, facilitate access to health care for all Maldivians, ⁶² covering all services at government health facilities and services at enlisted private health facilities in the country and abroad with some amount of out-of-pocket payment depending on the service providers price and prescribed pharmaceuticals from enlisted pharmacies. Transport cost of emergency referrals and medical evacuations, costs of transport for non-emergency referrals are not covered under the *Aasandha* policy. During extreme weather events, particularly storms disrupt transport within and between islands and access to healthcare is disrupted and during prolonged rough weather, provision of medical supplies becomes a challenge. ⁶³ Persons with disability become more vulnerable in the face of climate change events as they already have limited physical and financial access to health and disability services. ⁶⁴

2.2.3 Income and livelihoods

The main industries in the Maldives such as tourism, fisheries and ancillary services such as sea transport and food supply chain⁶⁵ are heavily reliant on coastal and marine environment and vulnerable to climate change impacts. Furthermore, the sectors that are most affected are the main employers (after public administration) in the country. In 2021, Maldives labour force participation rate was 56.2% with 20.9% women and total employment-to-population ratio of 52.8 per cent⁶⁶. As per ILO, by broad sector group, agriculture⁶⁷ accounted for 8.3% of total employment and industry a further 19.1% the country. The service sector accounted for the majority (72.6%) of total employment. Tourism (accommodation and food services

⁵⁹ Palinkas, L. A., and Wong, M. 2020. Global climate change and mental health. Current opinion in psychology, 32, 12-16.

⁶⁰ Schubert L et al. 2017. Small Island Developing States, climate change, and food and nutrition security. Advanced Science Letters. 1;23(4):3389-92.

⁶¹ Medina Hidalgo D, et al. 2020. Sustaining healthy diets in times of change: linking climate hazards, food systems and nutrition security in rural communities of the Fiji Islands. Regional Environmental Change. 20:1-3.

⁶² UNESCAP. 2023. Readiness to implement the action plan to strengthen regional cooperation on social protection: Maldives

 $^{^{63}}$ Ministry of Health. 2018. Health Emergency Operations Plan.

 $^{^{64} \} Banks, L. \ M., et al. \ 2022. \ Disability \ and \ the \ achievement \ of \ Universal \ Health \ Coverage \ in \ the \ Maldives. \ Plos \ one, \ 17(12), \ e0278292.$

⁶⁵ Red Cross Red Crescent Climate Centre. 2021. Climate change impacts on health and livelihoods. Maldives assessment.

⁶⁶ International Labour Office, 2022. The Employment - Environment - Climate Nexus. Maldives. Employment and environmental sustainability factsheet

⁶⁷ Includes fisheries. The GDP share of agriculture is 1.1% and fisheries 4% (<u>Statistical Year Book of Maldives 2024. Table 16.6</u>).

industry) was the second largest employer in 2022, after public administration, providing 14.7% of the jobs and has a dominant male workforce, accounting for 89%.⁶⁸ Major economic sectors that employ a majority of Maldivians face severe disruptions from climate change.

Informal employment account for 19% of total employment in the Maldives, of which 43% are self-employed women.⁶⁹ The informal sector is inherently vulnerable to economic shocks and disruptions brought about by climate change put them at risk of falling into poverty. Fisheries and agriculture sectors have the highest rate of informal employment (76%),⁷⁰ and represent 13 per cent of total informal employment and 8 per cent of total employment for men and 5 per cent for females.

The vast majority of tourism and fisheries infrastructure, and other critical infrastructure such as airports and harbors, are located in regions that are within 100m of the coastline.⁷¹ In addition, the agriculture sector is estimated to be severely affected from rain and coastal flooding.⁷² The expected significant increase in the next 25 years of the frequency, extent, duration and consequences of coastal flooding in small islands⁷³ directly threatens the sustenance of these industries. These have a direct impact on employment and livelihoods, labour productivity, displacement and poverty eradication are already becoming evident in several countries.⁷⁴ Several adaptation measures are being implemented in the tourism sector such as moveable groynes, coastal revegetation, open-structured jetties, beach nourishment, wave-breakers, seawalls, elevated structures, coral gardens, beach and lagoon clean-up campaigns,⁷⁵ however, current investments in these are likely to be inadequate to cope with future climate risks.⁷⁶ Similarly mitigation interventions for a net-zero transition is implementing several renewable energy initiatives such as solar energy and waste to energy projects supported by development partners.

While there are social protection initiatives targeting vulnerable groups such as pensions, and disability benefits, there are no unemployment benefit schemes in the Maldives and no mechanisms targeting informal sector workers. During the COVID-19 pandemic, informal and own account workers were provided with cash transfers and the need for an unemployment insurance scheme for income security against shocks was recognized by the government. The plans to establish an unemployment insurance scheme is being supported by World Bank, along with an employment service that provide counseling, job search assistance, targeted training and coaching to assist jobseekers to find suitable jobs.⁷⁷ As climate related

⁶⁸ Maldives Burau of Statistics. n.d. Mapping the Employment Landscape: A Comprehensive Analysis of the situation in the Maldives Census 2022.

 $^{^{69}}$ Maldives Burau of Statistics. Informal Sector Survey 2021. Rapid assessment of the impact of COVID-19 on Informal Sector

⁷⁰ Maldives Burau of Statistics. n.d. Informal employment: Household income and expenditure survey 2019.

⁷¹ The World Bank Group and the Asian Development Bank. 2021. <u>Climate Risk Country Profile: Maldives</u>

⁷² Ministry of Environment. 2020. Update of Nationally Determined Contribution of Maldives.

⁷³ IPCC (Intergovernmental Panel on Climate Change). 2023. Climate Change 2022 – Impacts, Adaptation and Vulnerability: Working Group II, Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Chapter 15.

⁷⁴ International Labour Office, 2024. World Social Protection Report 2024-2026: Universal Social Protection for Climate Action and a Just Transition.

⁷⁵ Hay et al. 2008. Integrating Tourism into Adaptation to Climate Change in the Maldives. Ministry of Environment Energy and Water.

⁷⁶ Shakeela A, Becken S. 2015. Understanding tourism leaders' perceptions of risks from climate change: An assessment of policy-making processes in the Maldives using the social amplification of risk framework (SARF). Journal of Sustainable Tourism;23(1):65-84.

⁷⁷ The world Bank Group. 2022. Sustainable and integrated labour services (SAILS) project.

vulnerabilities are increasing, it is important these initiatives are coordinated with climate change policies and projects for more effective protection of workers.

2.2.4 Food Security

The Maldives heavily depends on imports for most of its food needs, and except for coconut and fresh tuna, 90% of all food items are imported including rice, the staple grain with domestic production through fisheries and agriculture contributing less than 10% of the national food requirement.⁷⁸ As the food prices are dependent on global markets, to ensure affordability government of Maldives provides indirect subsidies⁷⁹ on imported rice, flour and sugar provided at source through cost price. Indirect subsidies are however not a form of contributory or non-contributory social protection.⁸⁰ Furthermore, the limited food products covered by this subsidy policy is also not adequate for basic nutrition requirement, that reduce the potential impact of this subsidy on the most vulnerable.

The agricultural production is restricted by land availability as Maldives has only 28 sqkm of land suitable for agriculture and consists mainly of 'agriculture islands' leased for agricultural purposes where men dominate, whereas subsistence farming by women is in their homes.⁸¹ Sustainable fisheries is the norm in the Maldives and rely on pole and line which makes the sector labor intensive. About 30% of the country's workforce is engaged in the fisheries sector directly or indirectly.⁸² Inadequate air cargo and sea transportation in the country already limits production and flow of crop and fish products across the country.⁸³

Climate change hazards pose significant risks to food security in Maldives, by affecting crops and fish stocks. Agriculture produce is affected due to further reduction in ground water availability and the salinization of aquifers, loss of (already limited) land through coastal erosion, heat stress on plants via higher temperatures, and flooding from rain, storm surges and swell waves. Fish stocks and catch are affected due to warming and acidification of oceans that shifts biogeographical ranges of whole stocks, and influencing species abundance and composition, food chain linkages and interaction dynamics. The Maldives' northern exclusive economic zone (EEZ) is identified to be at high risk of local species extinction due to accelerated warming, whereas the southern EEZ is expected to witness increased species invasion rates alongside more intense marine heatwaves, that will reduce the available fish stock. It has been reported that skipjack tuna catches in the Indian Ocean have decreased by about 20% over the past decade as a result of combined effects of overfishing and climate change. Further, extreme weather events are disrupting fishing

 $^{^{78}}$ Food and Agriculture Organization. 2011. Maldives and FAO Achievements and success stories

⁷⁹ Indirect subsidies are subsidies that do not have a target person or business and of which the benefit is enjoyed by everyone who use or buy the subsidised product or service

⁸⁰ World Bank, 2022. Social protection framework. Comprehensive social protection diagnostic. Unpublished.

⁸¹ Red Cross Red Crescent Climate Centre. 2021. Climate change impacts on health and livelihoods. Maldives assessment.

 $^{^{82}}$ Food and Agriculture Organization. 2011. Maldives and FAO Achievements and success stories

⁸³ Ministry of Fisheries Marien Resources and Agriculture 2019. National Fisheries and Agricultural Policy 2019-2029

⁸⁴ Red Cross Red Crescent Climate Centre. 2021. Climate change impacts on health and livelihoods. Maldives assessment.

⁸⁵Intergovernmental Panel on Climate Change (IPCC). 2016. Brief on fisheries, aquaculture and climate change in the Intergovernmental Panel on Climate Change Fifth Assessment Report (IPCC AR5)

⁸⁶ The World Bank Group. 2024. Maldives Country Climate and Development Report (CCDR).

⁸⁷ Atoll Insights. 2024. The Decline of the Maldivian Fisheries Industry and Strategies for Recovery

operations and prevent fishermen to be at sea for pole and line fishing for safety concerns.⁸⁸ As the crop production and fish catch declines due to climate change, and the cost of operations increase, the economic vulnerability of agricultural and fishing communities rise, increasing the risk of poverty. Further the compounding effects of food insecurity raises concerns over malnutrition in the Maldives, where women and children are already at high risk of anaemia and undernutrition.⁸⁹

Heavy import dependency, limited storage facilities and ad hoc distribution pose severe food security risks. The disruption of global supply chains triggered by the COVID-19, and interruption of production affecting source countries due to climate change has dwindled the supply of essential food items to the Maldives. This and the inability to produce food locally to meet the needs of the population in the country has led to an increase in food prices. The existing food subsidy programme needs to be revised to ensure the vulnerable are protected in the face of food security risks.

2.2.4 Displacement and mobility

Migration in the Maldives is high with almost 50 per cent of Maldivians being migrants from their registered place of residence, of whom 88 per cent are internal migrants and 12 per cent from abroad.91 Existing data suggest climate change-induced migration has been limited in the Maldives and needs further exploration. The 2022 Census data shows climate change events has not been a driving factor for migration, 92 and it is the social and economic factors that drive decision-making about migration. 93 In many settings, migration is driven by multiple factors, including the availability of resources, gender dynamics and place attachment.91 Island communities in the Maldives have been experiencing mobility restriction due to climate hazards such as storm and wave surges that cause flooding and damage to property by temporary adaptive actions. Study of the relocated community of the island Kandhohlhuoo, indicated flooding events disrupted everyday mobility and residents become accustomed to retreating inland and moving furniture and equipment to higher levels, barricade the doorways with sacks to prevent water from entering their homes during storms and surges.94 Internal migration within the Maldives to urban areas is primarily for employment and education.⁹¹ Hence, the anticipated impact on the industries and thereby livelihoods, could drive migration, both internal and possibly abroad in future years which needs to be further studied. At present, apart from shock response humanitarian assistance, and social services through state care institutions, there are no social protection mechanisms in the Maldives to safeguard displaced populations. Further, in the events of decisions are made to relocate displaced people and families abroad, there are no mechanism to transfer existing social insurance entitlements.

⁸⁸ Corporate Maldives. 2024 September 12. Report: The Economic Impacts of Climate Change on the Maldives' Fisheries Industry.

⁸⁹ Ministry of Health & ICF. 2018. Maldives Demographic and Health Survey.

⁹⁰ Maldives Financial Review. 2022 April 7. Food insecurity

⁹¹ Maldives Bureau of Statistics. 2023. Human Mobility and Migration Dynamics An analysis from Census 2022

⁹² Sakamoto A, et al. 2020. Mitigating impacts of climate change induced sea level rise by infrastructure development: Case of the Maldives. Journal of Disaster Research;17(3):327-34.

⁹³ Stojanov R, Duží B, Kelman I, Němec D, Procházka D. Local perceptions of climate change impacts and migration patterns in Malé, Maldives. The geographical journal. 2017 Dec;183(4):370-85.

⁹⁴ Kothari U et al. 2023. Disaster mobilities, temporalities, and recovery: experiences of the tsunami in the Maldives. Disasters;47(4):1069-89.

The largest population displacement was observed with the 2004 Tsunami, displacing over 12,000 people, forcing them to be relocated to different atolls, 95 many of whom were internally displaced over a decade later. 96 In the recovery and reconstruction efforts a lack of community engagement were observed in the decision making process concerning relocation, the design of the new houses, and the infrastructure, which challenged the compatibility of the existing and migrating communities. 97 This aspect needs critical attention in disaster response and recovery efforts as well as in building adaptive capacity of communities.

One of the key challenges for Maldives in adapting to climate change is maintaining transport connectivity, particularly sea and air transport. In the last couple of years, there has been an increase in frequency of adverse weather alerts form Maldives Meteorology Service⁹⁸ that has disrupted scheduled sea transport by ferry and private boats, and small airplanes, affecting mobility and supply chain of essential commodities. While it is noted that existing social protection cash transfer schemes are not impacted in such situations,⁹⁹ there is little information on the specific impact of these mobility restrictions on the livelihoods, food security, health and survival of people.

-

⁹⁵ The World Bank Group, the Asian Development Bank and the United Nations. 2005. Maldives Tsunami: Impact and Recovery. Joint Needs

⁹⁶ Red Cross Red Crescent Climate Centre. 2021. Climate change impacts on health and livelihoods. Maldives assessment

⁹⁷ OHCHR. 2009. Lessons of the Post Tsunami reconstruction in Maldives are crucial to design international strategies for climate change adaptation.

⁹⁸ Maldives Meteorology Service. https://www.meteorology.gov.mv

⁹⁹ International Organization for Migration. 2020.World Migration Report. Human mobility and adaptation to environmental change

3. Interlinkages between climate policy and social protection policy

3.1 The Climate Emergency Act of Maldives

The Climate Emergency Act of Maldives (9/2021) provides the overarching framework for climate change mitigation and adaption policies. On mitigation, achieving net-zero carbon emissions by 2030 is the national goal. This goal is complemented by the Energy Act (18/2021) that governs the production, distribution and consumption of energy in the country with a focus on renewable energy. This Act lays down the policies for granting energy service provider licenses and the regulation of petroleum products. It provides impetus to the carbonneutral commitment of the Maldives to increase the share of national renewable energy to 15%, and reduce carbon emissions by 26%, as outlined in the national determined contributions (NDC), by setting goals on transitioning to net zero emissions by 2030. 100

3.2 Projects to promote renewable energy

Power generation and waste are the main sources of Green House Gases (GHG) emissions in the Maldives. ¹⁰¹ Several projects are being implemented in the energy sector, consistent with the Energy Act, with the support of development partners, with a target of replacing a third of electricity production with renewable energy. ¹⁰² Emission reduction through renewable energy is also being implemented at a smaller scale in the waste (waste-to-energy), ¹⁰³ fisheries (renewable energy powered ice plants) ¹⁰⁴ and agriculture sectors (renewable energy) powered irrigation systems). ¹⁰⁵ Transport is another sector that contributes significantly to carbons emissions in the Maldives and the government is planning interventions to enable transition towards low-emission transport by conducting relevant research and feasibility studies ¹⁰⁶.

A just transition is a key aspect that is being integrated in the update of the energy roadmap and is mainly driven by the development partners in the implementation of the renewable energy projects, with particular focus on gender equality. The energy sector is traditionally male dominated and only about 15% of the employees of state-owned Enterprises who provide electricity services are women; of technical staff in public companies providing electricity, only 0.24% are women.¹⁰⁷ More attention is, thus, needed with active dialogue at all stages of the planning cycles of projects and programmes for gender equality and social inclusion (GESI) of vulnerable population groups and engagement of local partners to ensure just transitions.

¹⁰⁰ Ministry of Environment. 2020. Update of Nationally Determine Contributions

 $^{^{101}}$ Ministry of Environment. 2020. Maldives. Biennial update report (BUR). $\underline{\text{BUR 1}}$.

¹⁰² The World Bank. 2023, March 15. Powered by the Sunshine: Achieving Cheaper, Cleaner and Sustainable Energy in Maldives

¹⁰³ Asian Development Bank. 2024 May. Greater Male Waste-to-Energy Project: Environmental Monitoring Report (January-March 2024)

Asian Development Bank. 2024 Preparing Outer Islands for Sustainable Energy Development Project: Environmental and Social Monitoring Report (January-June 2022)

¹⁰⁵ International Fund for Agricultural Development, 2024. Maldives Agribusiness Programme Mid Term Review Report, May, 2024.

¹⁰⁶ UNEP. 2023. Integrated Sustainable and Low Emission Transport in the Maldives - GEF 10301_Maldvies PIR 2023.

¹⁰⁷ ADB (2020). Pathways to Power. Findings from the WePower baseline assessment.

Enabling public employment programmes, active labor market programmes for skilling and reskilling, and worker-retention schemes ensure social protection and support employment rights of vulnerable populations as the energy sector transitions to renewable energy. With the policy for transition to renewable energy, there is room for reforming the current fuel and electricity subsidy that is applied at the source, to cash transfers to households and Small and Medium Enterprises (SMEs) that adopt power generated from renewable energy sources at households, farms and fishing vessels.¹⁰⁸

3.3 Adaptation policies and programmes

Based on the climate change vulnerabilities of the country addressed in the National Communications and the national priorities articulated in the Nationally Determined Contributions (NDC) 2020 submitted to the UNFCCC, eight sectors have been identified as crucial for adaptation in the Maldives¹⁰⁹ These are: Coastal Adaptation and Disaster Management, Water, Agriculture and Food Security, Fisheries, Coral Reef and Biodiversity, Tourism, Health, and Infrastructure Resilience.

Several adaptation policies and programs implemented in these sectors have just-transition components, however, are not directly linked to social protection policies. Adaptation policies for protection of natural assets of the country, such as coral reefs, mangroves and coastal areas are implemented in partnership with local communities, indirectly providing opportunities for local livelihood activities while building islands resilience to climate change and their ability to respond to shocks. Many of these are currently linked to the climate policies of the tourism sector and to some extent fisheries and agriculture. For instance, several tourism businesses are partnering with local communities of islands with mangroves to develop tours or visitor experiences in mangrove areas (kayak tours), to expand guest experiences. 110 Such initiatives have intersecting wins such as income opportunities for small and med-size enterprises (SMEs) on the islands and guest experiences for tourism operators while sustaining natural ecosystem of the islands. Other examples include nature-based solutions (NbS) such as restoration of coral, seagrass and mangroves, representing a promising area of climate adaptation action in many of the islands in the Maldives, with multiple benefits that will reduce coastal risks and increase NbS effectiveness in the future. At present there are no policies for payment for ecosystem services (PES) in the Maldives.

3.4 Climate resilient policies for food security

Climate resilient policies for food security are limited in scope, given the high dependence on imports for food supply. Agriculture projects are being implemented by the agriculture Ministry with the aim to sustainably increase the incomes, food security and nutrition status of small farmer households by creating enabling environment for sustainable and climate-resilient agriculture. These programmes are aligned with climate change policy framework and Climate Emergency Act for coordinated action and integrate skill development for climate resilient technologies of local farmers and Gender Action Learning System (GALS) that contributes to just transitions and improved livelihoods.

¹⁰⁸ UNFCC. 2024. Impacts of the implementation of domestic and international response measures – A case study on Maldives

¹⁰⁹ Ministry of Environment Climate Change and Technology. 2022. Technology needs assessment, Maldives.

 $^{^{110}}$ Ministry of Tourism. n.d. Climate Adaptation Action Plan for the Tourism Sector in the Maldives

¹¹¹ International Fund for Agricultural Development. 2024. Maldives Agribusiness Programme. Mid-term Review

¹¹² Ministry of Environment and Energy 2015. <u>Maldives Climate Change Policy Framework</u>

3.5 Climate resilient urban planning and management policies

Urban planning and management Act ratified (16/2024) recently (will be enacted in December 2024) governs the requirements and responsibilities of land and physical development of territories of the Maldives, including protection of the natural resources. Specific climate resilient regulations related to urban planning will be developed under this Act and stakeholders note the need for establishing green and climate smart housing and critical infrastructure including waste, water and sanitation as well as roads to improve the resilience and coping capacity of the residents in these areas to climate hazards such as flooding and heatwaves. The "Making Cities Resilient" policy is being advocated by the National Disaster Management Authority and has been piloted in the Kulhudhuffushi city in the north and Fuvahmulah city in the South of Maldives.¹¹³ It is expected that such climate smart infrastructure would also increase the resilience to disaster and reduce the impact of disasters on people.

-

¹¹³ National Disaster Management Authority. 2024. <u>Making Cities Resilient (MCR)</u>

4. Social protection policies that can address climate change impact

In the Maldives, a national framework for social protection was developed in 2022 that identified reforms in order to meet the ILO minimum standards and options for institutional arrangements for governing and implementing social protection system and programmes. Although there is no explicit link with climate change policies in the national social protection framework, with the change in the government in 2023, the framework is being re-examined. This provides an opportunity to enhance the national framework with a climate resilience-building focus and just transition lens and integrate relevant social protection policy reforms to meet climate goals and reduce the impact of climate hazards and shocks. The draft social protection framework includes key social protection policies including

- (i) means tested social assistance such as single parent and foster parent allowance, disability allowance, financial aid for assistive devices, and medical welfare, food assistance, COVID-19 income support allowance
- (ii) universal financing schemes provided at source includes health care financing, old-age basic pension, and subsidies on fuel, electricity, food and water, and,
- (iii) social insurance schemes such as the Maldives Retirement Pension Scheme. 114

With the exception of old-age basic pensions, many social protection schemes do not meet the ILO minimum standards and have several limitations in terms of coverage, adequacy, comprehensiveness, and sustainability, with leakages that leave the most vulnerable behind. As a result of the COVID-19 pandemic, the government is examining options to introduce an unemployment insurance scheme, which is a key element of the ILO social protection floor. The pandemic also highlighted the need to have an income security mechanism, particularly for the informal and own-account workers, as the lack of a register of informal and own account workers was a significant hindrance to providing cash transfers, particularly to the most vulnerable. Based on this, the Ministry of Fisheries and Ocean Resources has initiated compiling a register of fishermen who are own-account workers, that will provide the basis for any cash transfers related to climate change shocks, an initiative that will allow targeted social assistance in times of climate shocks.

¹¹⁴ National Social protection framework. Draft. Unpublished. Accessed through personal communication.

¹¹⁵ The World bank Group. 2023. Maldives - Sustainable Integrated Labor Services (SAILS) Project

¹¹⁶ Ministry of Fisheries and Ocean Resources. 2024. Guidelines for Signing Up for the National Fishermen's Registry

¹¹⁷ Maldives Pensions Office.2024. Retirement Pension Scheme

¹¹⁸ National Disaster Management Authority. 2024. Regulation on provision of humanitarian assistance in disasters. 2024/R-43.

¹¹⁹ Personal communication, Ministry of Social and Family Development and Local Government Authority.

¹²⁰ International Labour Organization. 2018. The Employment Impact of Climate Change Adaptation: Input Document for the G20 Climate Sustainability Working Group.

¹²¹ United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2023). The role of social protection to address climate change in the Maldives. Social Development Policy Paper 2023/2

4.1 Synergies between adaptation and social protection initiatives

There is a strong basis for combining social protection interventions with programmes that will contribute to the reduction of climate risks. In the Maldives, although such direct examples are limited, one initiatives that promote climate change adaptation with potential to link with social protection is provided below. Whilst not implemented by NSPA or under the social protection framework, this example highlights how economic inclusion approaches can contribute to building local adaptation behaviors which in turn can contribute to the reduction of climate risks and have the potential to develop synergies with social protection initiatives, for instance through public works.

4.1.1 Grants to support 'climate smart agriculture'

The Maldives Agribusiness Program (MAP) is a five-year project with the objective of developing the agribusiness sector in the Maldives¹²². The Government of Maldives (GoM) through the Ministry of Agriculture and Animal Welfare (MoAAW) is implementing the project with financing from the International Fund for Agriculture Development (IFAD). The programme is aimed at introducing and training farmers to adopt climate smart and sustainable farming practices using modern agricultural technologies. This program is targeted to 26 islands of three Northern most atolls. One of the main objectives of the programme is to install greenhouses, train farmers and further facilitate the adoption of this technique of farming by providing financial assistance to farmers through a matching grant mechanism. This example has opportunities for NSPA to develop synergies through reskilling and providing the grant as social protection cash transfers for farmers adopting sustainable farming practices and also providing electricity subsidy for farmers adopting RE technology to power farming activities.

-

¹²² International Fund for Agricultural Development, 2024. Maldives Agribusiness Programme Mid Term Review Report, May, 2024.

5. Climate Finance

The Maldives has a well-established resource of public climate trust funds with significant potential for increasing its use of proceeds. These include the Fund for Renewable Energy Systems Application (FRESA) (2008), Renewable Energy Development Fund (RED Fund) (2011), Bank of Maldives Limited Green Loan Facility (2016) and Maldives Green Fund (2018).

Social protection schemes, except for the Retirement Pensions Scheme are mainly non-contributory, funded by tax. Other sources of social protection funds include social funds such as Zakaat Fund, ¹²³ financed by contributions from the community, which provide cash transfers annually to the poor, and occasionally to people affected by extreme climate events.

At present there are no linkages between social protection financing and climate change financing. There is an opportunity to link local climate trust funds and social protection finance for synergies towards just transition in adaptation and mitigation. The Maldives Integrated National Financing Framework (INFF)¹²⁴ adopts an inclusivity approach that is gender responsive and identifies all forms of development financing as essentially climate finance. The Maldives Integrated National Financing Framework outlines 16 financial objectives over three pillars; (a) Better aligning finance flows towards a sustainable agenda, (b) Mainstreaming sustainability into risk management and transparent, (c) Mobilizing new sources of sustainable finance, and the establishment of a Maldives Climate Finance Hub (MCFH) to ensure multi-stakeholder integration. To effectively utilize the climate finance, capacity of policy and decision makers in the social protection sector and at local councils needs to develop a common understanding of the benefits of integrating climate change and social protection and develop project proposals and effective implementation and monitoring for sustained results.

⁻

¹²³ The Zakat fund is based on donations, based on Zakat's role as one of the five pillars of Islam, and involves a donation of 2.5 per cent of total income when the per capita income of an individual is above a given threshold, equivalent to the value of 595 grams of silver in that given year. The Maldives Inland Revenue Authority (MIRA) collects and the Ministry of Islamic Affairs of the Maldives government administers the Zakat scheme for the poor, based on existing social registries.

¹²⁴ Ministry of Finance. 2023. Maldives Integrated National Financing Framework (INFF). Gender-Responsive Climate Financing Strategy

6. Entry points and recommendations to integrate social protection into climate policy agenda

As noted in the ESCAP framework on climate change and social protection, some social protection functions directly support climate change policies, fostering just transition to netzero or by supporting transformative actions (e.g. through PES), while others support people when affected by climate change events (e.g. providing health care and income security, improving resilience, etc.). Furthermore, a key recommendation relevant to social protection is ILO recommendation 202 of 2012, reinforcing the calls for basic income and health security across life stages during childhood, working age, and in old age. In the Maldives, there is a unique window of opportunity as the government is in preparation of its NDC 2025 and is in the process of adopting the proposed social protection framework. Specific opportunities are already present in the Maldives to integrate social protection policies with climate mitigation and adaptation policies:

6.1 Extend more universal coverage to ensure social protection floor for all

It is widely accepted that achieving the overall social protection floor and universal coverage will enable people to build their general resilience and are able to cope better with the disruptions to their life resulting from climate change events or policies. Rather than struggling to fulfil basic needs, a high coverage of social protection floor allows households to invest in better health, food, water and nutrition, and climate resilient housing and ecosystem, upskilling them to green climate resilient technologies thereby reduce their vulnerabilities. In addition to improving efficiency of current social protection policies, investing in the following special protection mechanisms is recommended.

Unemployment insurance: Accelerate the implementation of the unemployment insurance scheme. Implementing unemployment schemes bridge market misalignments, enabling labor market engagement, reducing exclusion risks, and promoting productivity and environmental sustainability. Beyond individual social protection, they facilitate macroeconomic adjustments by aiding labor market changes and transitions. It is important that the planned unemployment insurance policy and implementation are linked to climate change policies, along with active labour market policies to re-skill unemployed workers towards green climate resilient technologies and ecosystem services in view of impact of climate policies and events on the labour market.

¹²⁵ ESCAP. 2023. The role of social protection to address climate change in the Maldives. Social Development Policy Paper 2023/2.

Universal child benefit: In the Maldives, the single parent and foster parent allowance schemes are developed as a social protection for the child. However, evaluation of these schemes has shown several leakages leaving behind children in vulnerable conditions. The social protection framework that is currently being considered proposes a universal child benefit, the mechanism of which is yet to be adopted. The climate crisis carries an extremely high poverty risk for children, and that investments in universal child benefit allow for not only just transition in building household resilience and reducing vulnerabilities for the poorest household. By designing the benefit that allows public contributions also establish intergenerational solidarity and restorative and redistributive social justice, giving future generations of children a fighting chance of coping with the profound existential challenges ahead. Second Sec

Pensions: As elderly are particularly vulnerable to climate hazards, providing regular and predictable income security in old age at an adequate benefit level is necessary through transitions to early retirement from climate shocks and to build their resilience to climate change. While the current pension scheme has good coverage, there is an opportunity to explore linkages between climate resilient housing policies and the old age pensions that could allow older persons to invest in climate resilience activities such as climate proofing their residences from heat and humidity that safeguard their health.

Universal health insurance: The healthcare financing mechanism *Aasandha* needs to be reformed to function as a social insurance mechanism that also act to provide security to access healthcare in climate change related extreme weather events. Revisions are needed of *Aasandha* policy towards to enable cover costs of transport in extreme weather events. Reforms may consider covering technology-based medical consultations to allow for access to health services in time of extreme weather events. Such revisions need to be complemented with investments in delivery of healthcare through telemedicine technologies and its regulation, that also provide opportunities to improve access to care for persons with disabilities, also in times of crisis.

6.2 Redirect investments towards just transition to enhance resilience of climate vulnerable populations

Subsidy reforms to support adoption of sustainable technologies: The net-zero transition provides the opportunity to reform the current subsidy policies to accelerate adoption of green climate smart technologies. These can be implemented in a similar mechanism in the form of PES. For instance, the subsidies on fuel and electricity can be redirected as cash transfers to renewable adoption¹²⁹ for vulnerable persons and households engaged in nature-based

¹²⁶ Development Pathways. 2021. Evaluation of the Single Parent and Foster Care Social Protection Schemes in the Maldives. UNICEF

¹²⁷ OHCHR. 2023. Convention on the Rights of the Child: General Comment No. 26 (2023) on Children's Rights and the Environment, with a Special Focus on Climate Change.

¹²⁸ International Labour Organization. 2024. The promise of universal child benefits: The foundational policy for economic and social development

¹²⁹ UNFCC. 2024. Impacts of the implementation of domestic and international response measures – A case study on Maldives

livelihoods such as fisheries and agriculture and local tourism in their households, farms, fishing vessels and tourism-related services.

Similarly, food and water subsidies need to be revised to ensure the vulnerable are protected in the face of food and water security risks. They can be redirected to develop resilience of local communities to become self-sufficient in a defined food basket and drinking water by making cash transfers to local Small and Medium-Sized Enterprises or community entities promoting the agricultural production of defined food basket and drinking water and their maintenance at community level.

Supporting livelihoods through ecosystem services: Lessons from adaption interventions related to ecosystem services in the tourism sector such as mangrove, coral and sea grass restoration that partner resorts and local communities implemented by the private sector, 130 can be adopted by the local councils as well as fisheries and agriculture sectors. They can facilitate opportunities for households, SMEs and community improve the resilience of island communities to climate shocks to implement island level nature-based solutions as ecosystem services. Public Environmental Service initiatives in the Maldives can take the form of cash transfers or interest-free loans for informal and own-account workers, SMEs and community cooperatives that provide sustainable ecosystem services. Another option is to provide social protection through public works by the local councils and national institutions for ecosystem services enhancing the resilience and climate proofing of critical infrastructure.

While the current climate change policies outline needs to protect the ecosystem and climate proof critical infrastructure, ¹³¹ policy decisions need to be made on the type of public works, or PES that could be made available to best support the protection of the ecosystem and critical infrastructure, while at the same time providing income security to people. These decisions need to integrate just transition principles at its core, build in detailed protocols and procedures, training for staff at local councils and national institutions and community engagement for effective implementation.

6.3 Emergency cash transfers

As humanitarian assistance is the only support available to those displaced by climate shocks, there is a need for a social protection mechanism that allows support to all affected (including informal and foreign migrant workers) to meet the basic needs and relocation, if displaced, for events that fall short of declaring a disaster by the national disaster management council. The current mechanism of providing social assistance to those displaced by adverse climate events needs to be linked to the disaster response and options to a deliver assistance through national contingency fund for disasters or other existing social protection schemes can be explored.

Synergies between the social protection and climate risk insurance mechanisms need to be explored to reduce duplication of efforts and ensure that resources are used in the most efficient and cost-effective way when responding to climate change events and disasters displacing people. Any policy reform to this effect will require effective coordination protocols

¹³⁰ Ministry of Tourism. n.d. Climate Adaptation Action Plan for the Tourism Sector in the Maldives

¹³¹ Ministry of Environment. 2020. Update of Nationally Determine Contributions.

among institutions responsible for social protection, disaster management, climate change, and those providing cash for income support, to ensure social justice that recognizes existing inequalities by gender, disability and nationality. Coordination is also important to make best use of existing social protection infrastructure (e.g. payment, registries, etc.) and improve the overall efficiency and effectiveness of the social protection system. Further, policies also need to consider options to provide social protection or transfer of existing social insurance entitlements in the events displaced people and families are relocated abroad.

6.4 Social protection for informal and own account workers

The introduction of unemployment insurance can protect the most vulnerable workers effectively by designing a scheme that allows for coverage of informal and own account workers and loss of their livelihoods due to climate hazards. Establishing synergies with existing pensions infrastructure for payments, and upstream activities are needed to establish registries of informal and own account workers that will allow for distribution of unemployment payouts. This can be done taking the lessons from the fisheries sector, particularly the experience of the Ministry of Fisheries and Ocean Resources that has initiated compiling a register of fishermen who are own-account workers, that will provide the basis for any targeted social assistance or cash transfers related to climate change shocks and transition to alternative income earning activities.¹³³ Establishing such infrastructure will strengthen social protection interventions such as cash transfers to persons affected in response to climate shocks and disasters.

6.5 Education and training towards reskilling prospective workers to green climate resilient technology

Reskilling the working population most likely to be affected by climate change can facilitate a just transition and protect people during climate change related adaptation events. The experiences from the renewable energy projects show the need to conduct awareness and training programs on principles of just transition for policy makers and managers at national institutions and local councils and State-owned Enterprises. Training and re-skilling the opportunities need to be offered for communities and employees to provide social protection as well as accelerate the adoption of sustainable technologies.

This requires upstream actions a such as the institutional capacity development of Maldives Skill Development Authority for standardization and accreditation of such programs; building capacities of local polytechnics and vocational training institutions to deliver re-skilling programmes on climate resilient technologies and implementing renewable technology and Nature-based-Solutions in ecosystem management; and community engagement to create

¹³² ESCAP. 2023. The role of social protection to address climate change in the Maldives. Social Development Policy Paper 2023/2.

¹³³ Ministry of Fisheries and Ocean Resources. 2024. Guidelines for Signing Up for the National Fishermen's Registry

awareness and participation in such reskilling programs. Downstream actions include developing the local council's capacity to monitor the implementation and provide supportive supervision of ecosystem services.

6.6 Improve access to climate finance for programmes with social protection components

Several financing examples exist that can be adapted to the Maldives context. These include establishing local and multilateral funds and climate insurance facilities that integrate social protection. Existing social funds such as local climate trust funds (see section 3.5), allocations from Zakaat fund, and other government allocations for social assistance can be pooled to develop such a facility. National resource mobilization efforts can be further linked with global and regional investment frameworks (e.g. disaster risk financing) aligned with the Paris agreement. An innovative financial instrument such as a local integrated conservation and development fund could be set up to partner with local stakeholders and support payment for ecosystem services including a revolving loan fund for piloting commercial activities that includes the adoption of sustainable technology and ecosystem conservation components. The Maldives Integrated National Financing Framework identifies actions to maximize the Green Fund's impact through the redesign and integration of sustainability-linked trust funds and vesting it with autonomy and more flexibility to design projects and partner with external investors, with the potential to turn it into a Green National Development Bank. 134 Potential synergies between social protection and Paris aligned investments should be explored and ensure allocation from the Green Fund not only be for mitigation and adaptation measures, but also for social protection and just transition measures complementing these.

Noting that insurance plays a different role to social protection, the insurance landscape in the Maldives needs several improvements from regulation to standardization and inclusiveness. ¹³⁵ Climate Insurance schemes may include insurance of natural assets, including ecosystem elements, agriculture and fishers. Such insurances allow for social protection from loss of natural assets in both fast and slow onset climate change hazards. Similar insurance mechanisms in other small island developing states include the Caribbean Catastrophic Risk Insurance Facility.

The proposed MCFH in the Maldives Integrated National Financing Framework is critical to establish and coordinate such climate financing mechanisms with social protection.

¹³⁴ Ministry of Finance. 2023. Maldives Integrated National Financing Framework (INFF). Gender-Responsive Climate Financing Strategy

¹³⁵ UNDP, Maldives Monetary Authority and Insurance and Risk Finance Facility. 2023. Development of Inclusive Insurance and Risk Financing. Diagnostic Study.

6.7 Generating evidence and knowledge management on synergies of social protection and climate resilient policies

Bridging knowledge gaps: Several knowledge gaps exist in the country to inform evidence-based decision making to synergize social protection and climate change policies, indicating the need for research in this area. While there are challenges in more accurate climate modelling for Maldives, several data points for computing social protection indices are also not available in the country. To date there is no comprehensive register of the vulnerable, though efforts are underway by the local councils, 136 covering different categories of vulnerable population that need targeted social protection. Furthermore, there is no estimate of how these groups of people may change in the coming years and with different climate, social and economic scenarios. The existing population projections, population-based employment data and social protection registries provide the opportunity to model estimates and scenarios. Other areas with data gaps include climate induced migration, food security, information on effects of extreme weather events on health, food, water, access to critical services and impacts of livelihoods and critical infrastructure that require primary research in the Maldives.

At the same time, there is limited information on institutional capacities for delivering social protection programs across the country and fit-for purpose options for effective and adequate coverage of social protection linked to climate resilience initiatives. There is a need to map capacities, existing networks and lessons from different local communities in reaching the vulnerable with social protection assistance, identify training needs and developing project proposals for accessing climate finance for social protection. Such research is needed to inform capacity development plans, design implementation modalities and community engagement and communication plans to improve the performance of the social protection system in the country.

Knowledge management: Where there is a strong basis for reducing vulnerabilities by combining social protection interventions with climate change mitigation and adaptation interventions, there is little understanding in the Maldives of the synergies. To accelerate integrated action there is a need to create awareness among political leaders, decision makers as well as technical staff in public institutions. This can take the form of high-level forums bringing together decision makers across sectors, for seminars and workshops aimed at capacity building to develop integrated projects and implementing public works and PES policies and programmes. Knowledge products should be more widely disseminated and informed by audience market research to identify specific target groups, appropriate materials, messages and platforms.

31

¹³⁶ Local Government Authority: Madhadhu Training of Trainers programme.

7. Conclusion and recommendations

Climate change and rising socioeconomic inequalities are inextricably linked, with severe negative effects on the lives and livelihoods of people who lack the capacity and resources to cope with complex shocks related to health, income, food security and displacement. Lack of access to social protection will hamper resilience to these intensifying risks from climate change. The role of social protection in the context of climate change has been repeatedly acknowledged and is gaining traction to ensure sustainable development and a just transition in the wake of a changing climate. Integrating social protection into policies addressing environmental impacts and transition challenges is essential for achieving cumulative and transformative outcomes that are required in the context of climate policies.

Some social protection functions directly support climate change policies, fostering the acceptability of mitigation policies and just transition to net zero or by supporting transformative actions (e.g. through payment for ecosystem services), while others support people when affected by climate change events (e.g. providing health and income security). For social protection to play a stronger role in addressing the impacts of climate change, building synergies and coordinating with related policy measures and funding mechanisms, such as the loss and damage fund, multilateral climate funds, disaster risk reduction frameworks, will be imperative. A fragmented and uncoordinated approach will not only result in duplication of efforts but also diminish the impact of measures addressing the social consequences of climate change.

Although the Maldives is moving towards net-zero emissions, it continues to be highly vulnerable to climate risks, driven by the limited institutional and community capacity for adaption. Furthermore, excluding old age pensions and universal health coverage, social protection coverage of vulnerable populations is low. This situation increases the vulnerability of the island communities in the Maldives to impacts of climate change, with negative effects on their health, food and nutrition. livelihoods and displacement. However, the policy commitments to Paris Agreement and existence of several climate financing opportunities, government expenditure on social protection, provide the environment to synergize and coordinate social protection policies and climate change adaptation and mitigation policies. To accelerate progress towards integrated action on climate change and social protection goals, with the principles of just transition and leaving no one behind, the following recommendations are made as discussed earlier in this chapter.

Extend more universal coverage to ensure social protection floor for all. Achieving the
overall social protection floor and universal coverage will enable people to build their
general resilience and allow them to cope better with the disruptions to their life
resulting from climate change by investing in climate resilient housing and upskilling
themselves to green climate resilient technologies and income generation activities.

- Establishing unemployment insurance with opportunities for informal and ownaccount workers, integrated with existing social protection administration systems.
- b. Establishing universal child benefit that not only facilitates a just transition and reduces household vulnerability to climate change, but also establishes intergenerational solidarity and redistributive social justice, equipping future generations of children to cope with the profound existential challenges from climate change.
- c. Explore opportunities in the old age pensions schemes to establish linkages between climate resilient housing policies that allow older persons to invest in climate resilience activities such as climate proofing their residences from heat and humidity that safeguard their health.
- d. Reforms to social health insurance *Aasandha* policy to align with insurance principles and extend coverage to access health and disability services during extreme weather events and climate emergencies through technology such as telemedicine.
- 2. Redirect investments to support just transition through green technologies that will enhance climate resilience of vulnerable populations. Adaptation measures such as the establishment of climate proof infrastructure and protection of the ecosystem could be supported through public works programs as well as payment for environmental services (PES), along with active labour market policies such as reskilling to green climate smart technologies that complement social protection. Public works programs as well as PES have the potential to support sustainable development as well as reduce poverty and inequality across the population.
 - a. Subsidy reforms that promote adoption of sustainable technologies: For instance, subsidies on fuel and electricity can be redirected as cash transfers to encourage renewable energy adoption in nature-based livelihoods such as fisheries and agriculture and local tourism. Similarly, food and water subsidies can be redirected through cash transfers to local SMEs or community corporation while promoting the harvesting of defined food basket and drinking water and their maintenance at community level.
 - b. Supporting livelihoods through ecosystem services: Lessons from ecosystem services in the tourism sector can be adopted by the local councils as well as fisheries and agriculture sectors. They can facilitate opportunities for households, SMEs and communities to improve the resilience of island communities to climate shocks to implement island level nature-based solutions as ecosystem services. Social protection can take the form of cash transfers or interest-free loans from financial institutions in coordination with social protection structures for informal and own-account workers, SMEs and community cooperatives that provide sustainable ecosystem services or adopt public works approach by the local councils and national institutions for ecosystem services enhancing the resilience and climate proofing of critical infrastructure.
 - c. Make evidence-based policy decisions on the type of public works, or PES that could be made available to best support the protection of the ecosystem and

critical infrastructure, while at the same time providing income security to people. These decisions should be accompanied by detailed protocols and procedures, training for staff at local councils and national institutions and community engagement for effective implementation.

- 3. Establish emergency cash transfers as social protection for those affected by climate change events that fall short of a national disaster. A social protection mechanism that allows support to all affected (including informal and foreign migrant workers) to meet the basic needs and relocation, if displaced, is needed. Synergies between the social protection and climate risk insurance mechanisms are also needed. Coordination between the national disaster management agency, social protection entities and other relevant actors is also important to make best use of existing social protection infrastructure (e.g. payment, registries, etc.) and improve the overall efficiency and effectiveness of the social protection system in climate change events.
- 4. Upstream processes and policies. Upstream activities are needed to establish registries of informal and own account workers, that will allow for distribution of unemployment payouts. Establishing such registries will strengthen social protection interventions such as cash transfers to persons affected in response to climate shocks and disasters.
- 5. Education and training towards reskilling existing prospective workers to green climate resilient technology. Active labour market policies such as reskilling the working population most likely to be affected by climate change can facilitate a just transition and protect people during climate change related adaptation events. Training and reskilling opportunities need to be offered for communities and employees to provide social protection as well as accelerating the adoption of sustainable technologies. This includes institutional capacity development of regulatory bodies and vocational training institutions to deliver re-skilling programmes, community engagement and downstream actions include developing local council's capacity to monitor the implementation and provide supportive supervision of ecosystem services.
- 6. Improve access to climate finance for programmes with social protection components. The Maldives Integrated National Financing Framework identifies actions to maximize the Green Fund's impact by redesign and integration of sustainability-linked trust funds and vesting it with autonomy and more flexibility to design projects and partner with external investors, with the potential to turn it into a Green National Development Bank. Potential synergies between social protection and Paris aligned investments should be explored and ensure allocation from the Green Fund not only be for mitigation and adaptation measures, but also for social protection and just transition measures complementing these. Climate Insurance schemes include insurance of natural assets and allow for social protection from loss of natural assets in both fast and slow onset climate change hazards need to be explored. The proposed MCFH in the Maldives Integrated National Financing Framework is critical to establish and coordinate such financing mechanisms.
- 7. Generating evidence and knowledge management on synergies of social protection and climate policies.
 - a. Bridging knowledge gaps: Several knowledge gaps exist in the country to inform evidence-based decision making to synergize social protection and

climate change policies, indicating the need for research in this area. This includes using existing data sources to forecast and model coverage and impact of social protection mechanisms in changing scenarios and primary research to collect data and evidence for impact of climate change on climate induced migration, food security, information on effects of extreme weather events on health, food, water, access to critical services and impacts of livelihoods and critical infrastructure. Organizational research is also required looking at institutional capacities for delivering social protection programs across the country and fit-for purpose options for effective and adequate coverage of social protection linked to climate resilience initiatives.

b. Knowledge management: To accelerate integrated action there is a need to create and build a common understanding among political leaders, decision makers as well as technical staff in the public institutions on the synergies of climate change and social protection policies. This includes forums, workshops and customized knowledge products to reach selected target audiences.



Follow us:











o unitednationsescap



united-nations-escap



unescap.org