



International
Labour
Organization

▶ Green recovery with jobs through employment policies

Guidelines for shaping employment policies
that support a green recovery and a just
transition

Kees van der Ree



International
Labour
Organization

▶ Green jobs recovery through employment policies

Guidelines for shaping employment policies
that support a green recovery and a just
transition

Kees van der Ree

The guidelines were drafted by Kees van der Ree, Independent Consultant. Sher Verick and Drew Gardiner from ILO's Employment Policy Department coordinated the production of the guidelines. Camilla Roman from ILO's Green Jobs Programme provided technical support. The report has been funded by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Sector Project "Employment Promotion in Development Cooperation", on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ). The analysis, results and recommendations in this paper represent the opinion of the author(s) and are not necessarily representative of the position of the ILO, GIZ or BMZ.

Copyright © International Labour Organization 2022
First published 2022

Publications of the International Labour Office enjoy copyright under Protocol 2 of the Universal Copyright Convention. Nevertheless, short excerpts from them may be reproduced without authorization, on condition that the source is indicated. For rights of reproduction or translation, application should be made to ILO Publishing (Rights and Licensing), International Labour Office, CH-1211 Geneva 22, Switzerland, or by email: rights@ilo.org. The International Labour Office welcomes such applications.

Libraries, institutions and other users registered with a reproduction rights organization may make copies in accordance with the licences issued to them for this purpose. Visit www.ifrro.org to find the reproduction rights organization in your country.

ISBN 978-92-2-037492-4 (web .pdf)

The designations employed in ILO publications, which are in conformity with United Nations practice, and the presentation of material therein do not imply the expression of any opinion whatsoever on the part of the International Labour Office concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its frontiers.

The responsibility for opinions expressed in signed articles, studies and other contributions rests solely with their authors, and publication does not constitute an endorsement by the International Labour Office of the opinions expressed in them.

Reference to names of firms and commercial products and processes does not imply their endorsement by the International Labour Office, and any failure to mention a particular firm, commercial product or process is not a sign of disapproval.

Information on ILO publications and digital products can be found at: www.ilo.org/publns.

Contents

▶ I. Introduction	1
Background	1
Objectives	1
▶ II. Why a green recovery	3
Job-rich recovery and addressing climate change.....	3
Support by the UN system	6
Improving policy coherence and synergies between climate action and employment policies	7
Climate perspective	8
Employment perspective.....	8
▶ III. Integrating employment objectives in climate policies and strategies	11
Nationally Determined Contributions incorporating Just Transition	13
Green recovery and a Just Transition.....	16
▶ IV. Supporting a green recovery and a just transition through national employment policies	19
Options for climate-relevant employment policies and a green recovery.....	20
A. Macroeconomic policies	20
B. Sector policies	23
C. Public investment and employment policies	27
D. Private sector development: support to public and private enterprises (including cooperatives) and micro-entrepreneurs.....	30
E. Active labour market policies including vocational and technical skills and employment services for climate action and green jobs.....	33
▶ V. Steps towards a better alignment and stronger coherence between climate action and employment policies	37
▶ Annex I. Guiding questions to support building a green recovery strategy	43
▶ Annex II. Possible strategic framework for a green recovery and just transition country programme	45

▶ I. Introduction

Background

The Covid-19 pandemic has had significant consequences for labour markets around the world. Governments and social partners responded to increasing levels of unemployment and social exclusion by implementing massive responses packages including furlough schemes and relaxed criteria to access social protection. At the same time, the threat of unabated climate change requires even more ambitious and far-reaching policy measures. Certainly, the political will and financial resources allocated to address the Covid-19 pandemic provide a historic opportunity to step up climate action. Referred to as “green recovery”, there is a growing awareness of the need to “build back – or forward - better” and design response measures that shift the business-as-usual economic models towards low-carbon, climate resilient development trajectories.

Despite the advocacy and emerging good practices for a mutually reinforcing approach to achieve both climate change objectives and employment goals, staff of Ministries of Labour and Social Partners are often ill-prepared for the sometime technical nature of the deliberations around climate change and response policies. Moreover, Governments tend to task environmental experts and related Departments with devising strategies for adaptation, mitigation and sustainable natural resource management, often without sufficient involvement of line Ministries such as those of Industry, Labour and others. Yet from a labour market perspective addressing climate change and environmental sustainability is critical for ensuring the broader economic development of a country and the jobs that it sustains.

As the effects of climate change and environmental degradation are increasingly affecting the world of work, the involvement of ILO constituents in devising pro-active strategies is critical. Inversely, employment policies that ignore climate change and environmental risks may not achieve their objectives. This is the case with strategies and investments in sectors and enterprises that are not sustainable in the medium to long term given their exposure to climate risks (e.g., droughts, floods, increased heat) or due to practices that contaminate or deteriorate the natural capital upon which they depend (e.g., agriculture without soil conservation, over-fishing or excessive deforestation). In the past decade, a growing number of National Employment Policies (NEPs) have reflected on the need to safeguard national resources and enhance environmentally sustainability as a prerequisite for achieving employment targets. In more and more countries, staff of Ministries of Labour and Social Partners wish to improve their technical capacity around climate change and just transitions and related policy responses.

In recent years, the design of national policies for the adaptation to the physical effects of climate change and the mitigation (i.e., reduction or prevention) of further rise in greenhouse gas (GHG) emissions is becoming a cross-cutting effort across different Ministries. In the shaping of Nationally Determined Commitment (NDC) strategy in the framework of the United Nation Framework Convention on Climate Change (UNFCCC) broad-based consultations are more frequently held, associating Ministries of Labour in the formulation process. As the realization takes root that sustainable enterprises and jobs depend on the continued availability of natural resources and a healthy natural environment, ILO constituents should be well equipped to contribute to climate action – in the recovery from Covid-19 pandemic and beyond.

Objectives

The aim of the Guidelines is to assist ILO constituents and supporting technical specialists to design and implement employment policies that enhance a green recovery from the Covid-19 crisis and also contribute to a just transition over the long term. They are intended to help shape NEPs to strive towards decent and productive employment with particular focus on “green jobs” that simultaneously contribute to achieving the targets of emission reductions consistent with the 2015 Paris Climate Agreement and other sustainability objectives.

The approach, building on existing guidance,¹ shoulders a new generation of NEPs which treat a policy not as a standalone effort but as part of a broader public policy agenda, along with addressing relevant commitments made at the ILO's Governing Body and International Labour Conference. In particular, it offers practical orientation for giving effect to the Global call to action for a human-centred recovery that is inclusive, sustainable and resilient, and contributes to the implementation of the Global Accelerator on Jobs and Social Protection for Just Transition.

The Guidelines are structured as follows: first, the relationship between climate change, environmental sustainability and employment is explained, building the rationale for an interlinked, mutually reinforcing policy approach. Subsequently, two entry points, or perspectives, are presented: i) how climate policies can integrate employment objectives and a just transition; ii) how employment policies can address challenges and opportunities linked to climate change and environmental sustainability. Finally, suggestions are made for a pro-active approach towards stronger coherence in policy formulation and implementation.

¹ Wang, Y. (2021) From policy to results: Guidelines for implementation of national employment policies. Available at: http://www.ilo.org/global/topics/youth-employment/publications/WCMS_831186/lang--en/index.htm.

▶ II. Why a green recovery

The imperative for a green recovery with a Just Transition

The policy responses to the Covid-19 pandemic have been of a scale and size unheard of. Although national measures have been designed separately, together they represent a historically unprecedented collective effort to address a single global threat to the health and well-being of the world's citizens.

The effects of the economic downturn have resulted in lower levels of energy use and related reductions in the emission of GHG and other pollutants. Air quality improved significantly, resulting in much improved living and working conditions particularly in cities.² Yet as economies rebound, helped by massive recovery measures, emission levels have risen to pre-pandemic levels.³

Despite the temporary slow-down of emissions, the effects of climate change continue to materialize in more countries, more frequently and more severely.⁴ In spite of the growing efforts to reduce emissions as evidenced in the most recent NDC plans and strategies, the gap with the required investment levels towards net zero remains massive and is still widening.

The immediate and long-term threat of climate change on economies and societies requires global action of the same calibre as the Covid-19 response. Moreover, the possibility to direct response measures to sectors and enterprises with the potential to curb emissions and safeguard natural resources represents the opportunity for a “green recovery” that sets the world on a path to achieve the objectives of the 2015 Paris Climate Agreement.

Job-rich recovery and addressing climate change

The employment gains from decisive climate action have been analysed by a growing number of academics, think-tanks, and international organisations. The ILO's World Economic and Social Outlook 2018: Greening with Jobs report established that about 1.2 billion jobs rely directly on the effective management and sustainability of a healthy environment, in particular jobs in farming, fishing and forestry that are dependent on functioning ecosystems. Climate change and environmental degradation affect the world of work in many ways, hitting vulnerable workers most.

Recent analysis shows that employment and productivity growth are compromised if no action is taken. Rising global temperatures imply a growing risk of heat, especially for outdoors workers. ILO projections show that more than 2 per cent of total working hours worldwide could be lost in 2030 due to heat stress, triggering a productivity loss equivalent to 80 million full-time jobs.⁵ This mostly affects unprotected workers in low-income countries⁶ underlining the need for building and strengthening adequate social protection systems.

At the same time, the analysis also indicates that, with the right policies and incentives in place, many additional jobs can be created. The ILO estimates a net increase of 18 million jobs by 2030 is possible.⁷ To ensure that those gains will be shared equally and that enterprises, workers - both women and men - and

² ILO (2020). Covid-19 and the world of work. Jump-starting a green recovery with more and better jobs, healthy and resilient societies.

³ Quéré, C.L. et al. (4 November 2021) Global emissions almost back to pre-pandemic levels after unprecedented drop in 2020, new analysis shows, The Conversation. Available at: <http://theconversation.com/global-emissions-almost-back-to-pre-pandemic-levels-after-unprecedented-drop-in-2020-new-analysis-shows-170866> (Accessed: 15 August 2022).

⁴ Inter-governmental Panel on Climate Change (2022). Climate Change 2022 Impacts, Adaptation and Vulnerability.

⁵ ILO (2018). World Economic and Social Outlook, Greening with Jobs.

⁶ Ibid.

⁷ ILO (2018) World Employment and Social Outlook: Trends 2018. Report. Available at: http://www.ilo.org/global/research/global-reports/weso/2018/WCMS_615594/lang-en/index.htm

communities negatively affected by response measures will be supported, just transition policies should be implemented.

The political will and financial resources required to address the Covid-19 pandemic provide a historic opportunity to invest in low-carbon, climate resilient development trajectories. The momentum for a combined and catalytic response to address both crises with a single policy package has been advanced by many policy makers and international organisation, generally termed as “Building Back Better and Greener”.⁸ A green recovery is aimed at achieving social, economic and environmental objectives through an integrated policy response.

Analysis by the Global Recovery Observatory of the Oxford University Economic Recovery Project indicate that green recovery plans would provide an immediate boost to output and employment greater than traditional stimulus approaches.⁹ The call for of achieving economic recovery alongside a green focus has been echoed by many international public and private sector actors.¹⁰

Yet, despite the evidence and advocacy, globally only a small part of recovery packages includes a dedicated attempt to address climate change and spur green growth and many of these measures include specific employment objectives.¹¹

As of early 2022, measures and investment in green sectors represent only a minor part of overall spending on response and recovery. According to the Global Recovery Observatory, of the US\$3.11 trillion worth of recovery spending globally a mere 2.5 per cent has gone towards ‘green spending’. Countries with significant green recovery objectives are mostly industrialized economies in Europe including the UK, France and Spain. Most middle- and low-income countries simply lack upfront funding or access to credit for large stimulus packages, green or otherwise.¹²

⁸ UN Press (2020) Secretary-General Says COVID-19 ‘Wake-Up Call’ Demands Recovery Built on Green Economy, Marking Earth Day 2020. Available at: <https://press.un.org/en/2020/sgsm20051.doc.htm> (Accessed: 15 August 2022).

⁹ O’Callaghan, B., Yau, N., Murdock, E., Tritsch, D., Janz, A., Blackwood, A., Purroy Sanchez, L., Sadler, A., Wen, E., Kope, H., Flodell, H., Tillman-Morris, L., Ostrovsky, N., Kitsberg, A., Lee, T., Hristov, D., Didarali, Z., Chowdhry, K., Karlubik, M., Shewry, A., Bialek, F., Wang, M., Rosenbaum, N., Gupta, S., Hazell, T., Angell, Z., Grey, G., Bulut, H., Bentley, K., Erder, O., Polkinghorne, K., Hepburn, C., Beal, E., and Heeney, L. (2021). Global Recovery Observatory. Oxford University Economic Recovery Project.

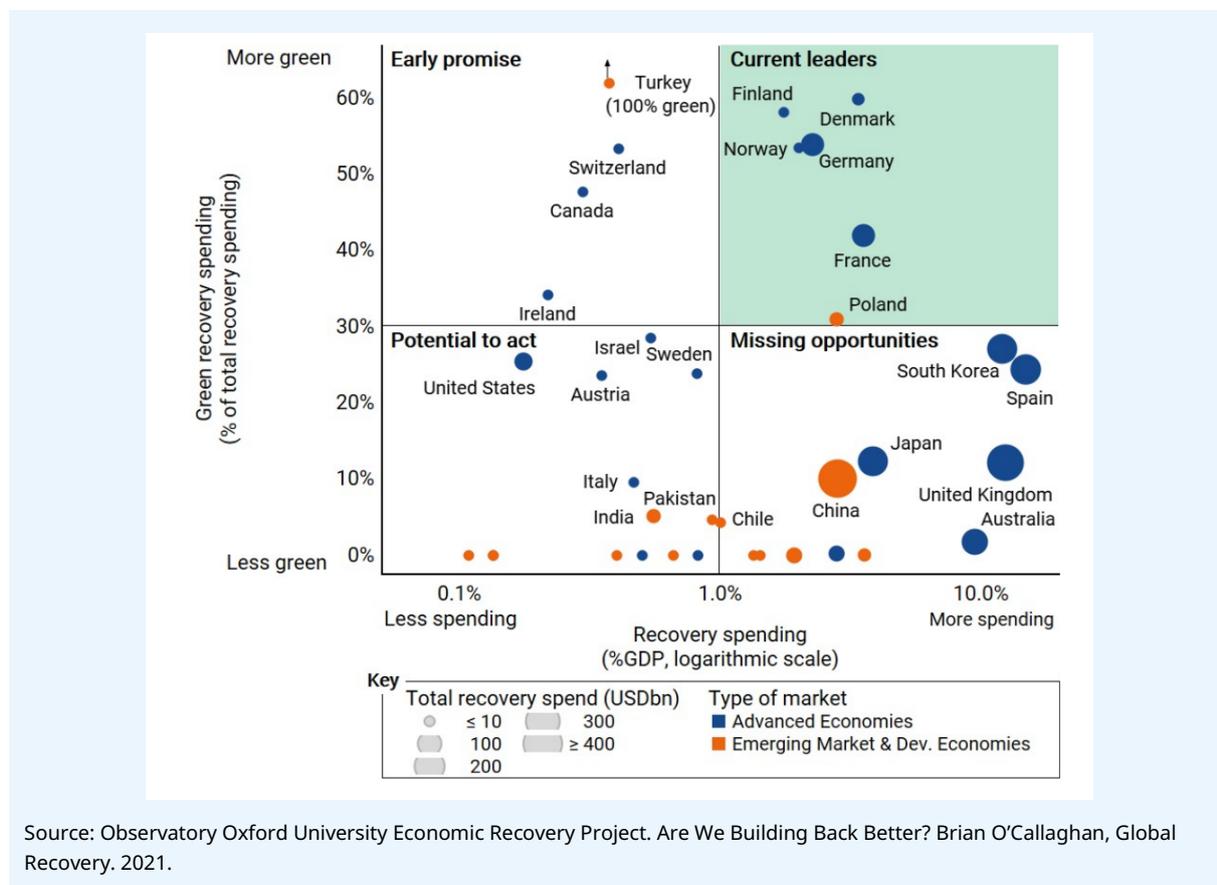
¹⁰ For example:

- Green Economy Coalition (GEC). COVID-19: Ten Priority Options for a Just, Green & Transformative Recovery. 2020.
- Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV). Global green recovery and the International Climate Initiative. 2020.
- Organisation for Economic Cooperation and Development (OECD). Focus on a Green Recovery. 2020 - current.
- International Monetary Fund (IMF). Climate Change and a Green Recovery. 2020 - current.
- United Nation Committee for Trade and Development (UNCTAD). UN Trade Forum 2021: Towards a green and inclusive recovery. 2021.
- We Mean Business Coalition. Green Recovery plans boost income, employment and GDP. 2020.

¹¹ Several green trackers are available to analyze the size and scope of recovery packages, for example the Platform for Redesign 2020 (<https://platform2020redesign.org>)

¹² Green Economy Coalition (2022). Building Back Greener: International Environmental Protection and Achieving the Sustainable Development Goals in the Context of COVID-19. Available at : <https://www.greeneconomycoalition.org/assets/reports/GEC-Reports/UNEP-Building-Back-Greener-Report-Jan22-greyscale-v1.4.pdf>

► Figure 1. Mapping recovery packages with a green dimension



Source: Observatory Oxford University Economic Recovery Project. Are We Building Back Better? Brian O’Callaghan, Global Recovery. 2021.

Defining a green recovery

What many policy makers have termed as a “green recovery” strategy is in essence a call for creating economic pathways, in each sector, for a more climate-resilient, resource efficient and social inclusive society. The “new normal” should be more consistent with the commitment for low carbon development, the preservation of biodiversity and the safeguarding of natural resources. According to a GIZ/EuroClima brief of 2021,¹³ a green recovery must be built on a transformative package of policies, investments and reforms that will ensure the recovery from the Covid-19 crisis has wide-ranging benefits for the climate, nature, communities, economies and workers. A green recovery builds upon the principle of an inclusive green economy, which is low-carbon, resilient, resource-efficient and socially inclusive.

The Oxford University Economic Recovery Project¹⁴ makes a useful distinction between different types of Covid-19 measures for the transition towards a greener society: i) Response (or Rescue), ii) Recovery, and iii) Redesign. For example, responsive support to waste management systems helps keeping up recycling rates and contributes to a cleaner living environment, whilst rescuing vulnerable workers at the risk of losing their income. Recovering agro-processing value chains after a market disruption can be a vehicle of support to small farmers moving to organic crops and fruits. Yet the biggest potential for accelerating the transition is through redesign measures. For example, switching public investment from fossil fuel to renewable energy-based sources, or rethinking urban mobility plans to give priority to mass transportation, bicycles and footpaths.

¹³ Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), E3G, Euroclima+ (2020). Green Recovery for Practitioners: Setting the Course Towards a Sustainable, Inclusive and Resilient Transformation | NDC Partnership. Available at: <https://ndcpartnership.org/toolbox/green-recovery-practitioners-setting-course-towards-sustainable-inclusive-and-resilient> (Accessed: 15 August 2022).

¹⁴ Observatory Oxford University Economic Recovery Project (2021). Are We Building Back Better? Brian O’Callaghan, Global Recovery.

A recent assessment by the Global Economy Coalition¹⁵ found that green recovery investments have centered on low carbon-intensity projects and infrastructure, while ecosystem protection and the stimulation of sustainable consumption and production patterns have largely been ignored. Recovery packages also have failed to target small green enterprises, which are a driving force for an inclusive green recovery. At the same time, macro-economic and fiscal support for fossil fuel based economic activities has continued, delaying much-needed structural changes towards inclusive green growth. Policy makers should seize the opportunity to accelerate the transition to low-carbon development scenarios and make true progress in safeguarding biodiversity and ecosystem services rather than “green-washing” existing initiatives.

Support by the UN system

The ILO has advocated for a green recovery together with other UN agencies, such as UN-PAGE. It leads the implementation of the UN Climate Action for Jobs Initiative bringing together global efforts on the environment and decent work in support of an inclusive and sustainable recovery from the Covid-19 crisis. The Initiative offer countries tools for devising and assessing investment and policy options to maximize wins from ambitious climate actions in the recovery from the Covid-19 crisis. It represents the significant knowledge base that underpins a growing advisory capacity to guide the design and implementation of country initiatives.¹⁶

In support of an inclusive, sustainable and resilient recovery, the ILO constituents, at the occasion of the 2021 International Labour Conference, launched the Global call for action for a human-centred recovery from the Covid-19 crisis. Among other recommendations, it emphasized to “advance research and improve data to... help focus financing for development strategies on ... a just transition to environmental sustainability, including in the circular economy, as an integral part of the recovery process”. A dedicated high-level Forum, held at the ILO in February 2022, reinforced the call and proposed concrete actions for a stronger international response to the Covid-19 crisis. With respect to climate action, OECD and ILO agreed to collaborate more on just transition and productivity growth, whilst on-going UNFCCC-ILO support to countries planning just transition strategies was reinforced.

In September 2021, the UN Secretary General renewed the call for job-rich recovery and a just transition to a sustainable and inclusive economy.¹⁷ He launched the Global Accelerator on Jobs and Social Protection for a Just Transition¹⁸ with the aspiration to create at least 400 million jobs and extend social protection to 4 billion women, men and children currently without coverage. It calls upon member states to, inter alia, develop integrated national and inclusive recovery strategies for decent job creation, especially in the care and green sectors, universal social protection, and a just transition. This should be facilitated by active labour market policies to help workers upskill and re-skill to keep or change their job and adapt to the green and digital transitions. Strategies should be deployed to support enterprises and workers, while also ensuring that vulnerable populations are not left behind in the transition to net-zero carbon emissions economies in line with the Paris Climate agreement. At the ILO 2022 High-level Forum, a wide range of countries and institutions reiterated their support for the Global Accelerator on Jobs and Social Protection for a Just Transition.

¹⁵ Green Economy Coalition (2022). Building Back Greener. International Environmental Protection and Achieving the Sustainable Development Goals in the Context of COVID-19.

¹⁶ A useful analysis of national recovery plans as documented by the [Platform2020](#) is provided in IGES and WRI, “[From Covid-19 Response to Sustainable Redesign](#)”. 2021. It includes recommendations and good practice examples of policies that governments have implemented to contribute to a sustainable and resilient recovery from Covid-19.

¹⁷ Guterres calls for accelerated action on jobs, poverty eradication (2021). UN News. Available at: <https://news.un.org/en/story/2021/09/1101502> (Accessed: 15 August 2022).

¹⁸ United Nations (no date) UNSDG | Secretary-General's Policy Brief: Investing in Jobs and Social Protection for Poverty Eradication and a Sustainable Recovery. Available at: <https://unsdg.un.org/resources/secretary-generals-policy-brief-investing-jobs-and-social-protection-poverty-eradication> (Accessed: 15 August 2022).

Improving policy coherence and synergies between climate action and employment policies

There is a growing offer of guidance on how to enhance a combined focus on climate action and green jobs in recovery policies.¹⁹ GIZ, for example, argues for seeking coherence with sector-specific strategies for climate, energy, and rural development.²⁰ For this to take root on the ground, more coordinated international action is needed in the framework of larger multilateral initiatives. Policy coherence in the context of adaptation, for example, would ensure adequate compensation and/or alternative employment opportunities for those who are hurt by the direct effects of climate change and environmental degradation. Mitigation strategies, too, should include social protection and active labour market measures for those negatively affected by transformation processes such as downsizing or relocation of fossil fuel-based industries. Public investment and procurement can provide important stimuli for economic recovery and simultaneously support green economic development, reflecting stronger policy coherence. GIZ further argues for supporting local innovations and promoting Micro, Small and Medium-Sized Enterprises (MSMEs).²¹ Given the existing guidance, there is a need to expand the evidence base and improve the practical orientation for countries in aligning employment policies and strategies with national determined contributions and their stated climate policy goals.

¹⁹ Among them are: UN-PAGE, the Green Growth Knowledge Platform, OECD, ILO Green Jobs programme, the Green Economy Coalition and GIZ.

²⁰ GIZ (2021). Green Recovery. Position paper of the sectoral department. Available at: https://www.giz.de/expertise/downloads/GIZ_Position%20Paper_ENG_Green%20Recovery_2020.pdf

²¹ This note refers to MSMEs as micro-, small- and medium-sized enterprises with up to 100 people employed. It includes formal and informal enterprises. The focus is on operations in developing and emerging economies.

► **Table 1. Suggested framework for coherence and synergies between climate and employment policies**

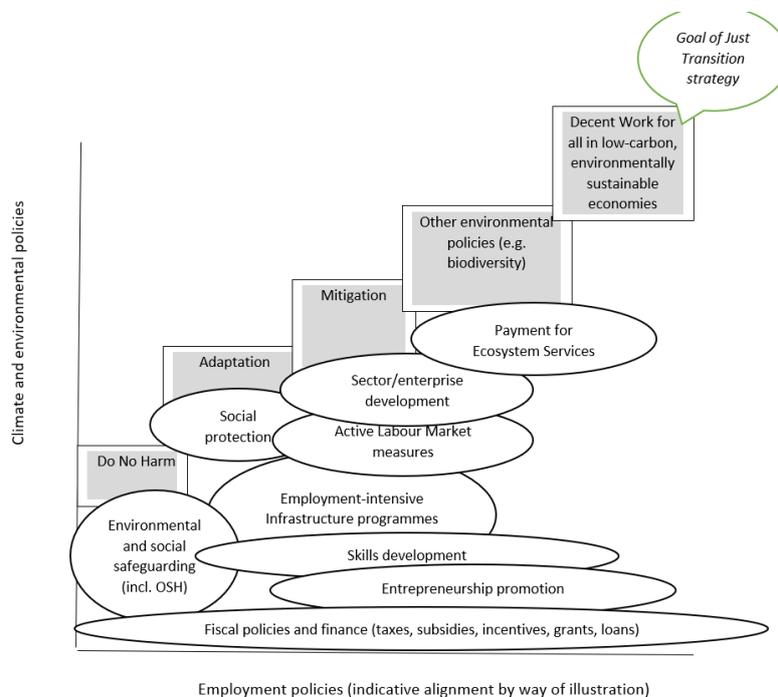
Climate perspective	Employment perspective
<p>Result: Low-carbon, climate resilient and resource efficient economies with full and productive employment leaving no one behind</p>	<p>Result: Decent work for all in a low-carbon, climate resilient and resource efficient economies</p>
<p>Strategic Outcome: Just Transition strategies are implemented for achieving emission reduction and environmental targets whilst ensuring decent and productive employment for all.</p>	
<p>Policy Outcome Climate: Climate and environmental policies reflect, incorporate, promote and ensure measures to promote employment and decent work in enterprises, for workers and communities (in adaptation, mitigation and other environmental contexts)</p>	<p>Policy Outcome Employment: Employment policies respond to, anticipate and proactively address the challenges and opportunities for decent work related to climate change and responsive policies for adaptation and mitigation</p>
<p>Illustrative outputs:</p> <ul style="list-style-type: none"> • Strategies for emission reduction and environmental sustainability also aiming to optimize employment effects (based on ex-ante impact assessments) • Adaptation, mitigation and environmental strategies that include relocation support, reskilling and redeployment of workers affected (i.e., active labour market measures) • Low-emission, climate-resilient development strategies that include local economic diversification support • Reforestation and ecosystem management schemes adopting employment-intensive employment approach (adaptation and mitigation) • Energy transition policies with fiscal measures and incentives to protect vulnerable groups, enterprises and workers • Mobilisation of appropriate and accessible climate finance that benefit the poor (de-risking, insurance, etc.) • Environmental measures and regulations that are accompanied by enabling skills development programmes (for cleaner production, adoption of resource-efficient technologies, circular business models, climate-smart agriculture, etc.) • Waste reduction, re-use and recycling strategies that include occupational safety and health protection among workers 	<p>Illustrative outputs:</p> <ul style="list-style-type: none"> • Appropriate and accessible social protection systems for climate-vulnerable groups (adaptation) and those affected by the transition (mitigation) • Employment-intensive public investment for (re)building sustainable infrastructure as part of adaptation • Enterprise development support that includes climate-resilience approaches • Innovation and enterprise promotion with a focus on green economy • Sector investment and value chain development with a focus on green market opportunities (organic food systems, green buildings, low-emission transport systems, etc.) • Skills development for green occupations and jobs • Supporting measures to enhance gender equality and the economic participation of women in the green economy • Formalization strategies of workers and enterprises providing environmental services (e.g., waste management)

Note: certain outputs or approaches can serve both policy outcomes (e.g. skills development is needed for workers in sectors under adaptation stress, as well as for job seekers in emerging green sectors. They may not always be the same persons, though).

Beyond green recovery, employment policies can be a vehicle to support climate action in the long term. Employment in any economy is the outcome of the interplay of many factors, including efforts by the State to channel market forces to alter the demand for, and supply of, labour. In this context, employment is not seen as a residual outcome of economic growth, but also a consequence of coherent integrated public policies. A NEP provides an overall vision for all interventions and actors concerned with employment in a given country by promoting coherence between a vast range of instruments, mechanisms and policies – macroeconomic, trade, financial, industry, agriculture, social protection and environment – in order to mutually strengthen their impact on employment.²² Over time the recognition of the relationship between climate change, environmental sustainability and employment has increased, leading to both more NEPs, as well as other national development frameworks, addressing specifically climate issues.²³

From a policy coherence perspective, it can be helpful to visualize the linkages and convergence between different types of climate policy and the scope and ambition of NEPs.

► **Figure 2. Indicative alignment and synergies between climate and environmental action and employment policies to enable a Just Transition**



Addressing gender equality

Women and men have different economic and social positions and roles. Due to differences in workloads, in access to and control over productive assets and resources, and in participation in household decision-making and access to information and technology, women tend to be more vulnerable to climate change. Sectors under pressure such as agriculture have a higher share of women workers. In rural areas, mostly women and girls ensure the availability of resources such as water and fuelwood, making them more affected to climate change and scarcities.

There is growing recognition of the importance of the role of women in economic sectors that are critical for responsive climate action, including agriculture, livestock management, energy, disaster risk reduction,

²² D'Achon, E. (2021) Two decades of national employment policies 2000-2020. Available at: http://www.ilo.org/global/topics/youth-employment/publications/WCMS_817748/lang--en/index.htm (Accessed: 31 March 2022).

²³ Ree, K. van der (2017) Mainstreaming green job issues into national employment policies and implementation plans: A review. Working paper. Available at: http://www.ilo.org/employment/Whatwedo/Publications/working-papers/WCMS_618884/lang--en/index.htm (Accessed: 31 March 2022).

forestry, water management, and health. Women play a key role in adaptation in agriculture, for example, although tend to have lower access to climate-smart technology, market information and finance. In rural areas where migration has increased triggered by the effects of climate change, women stay behind more often than men, therefore getting more responsibilities and heavier workloads.

The unequal access to new green employment opportunities is compounding women's higher vulnerability to climate change. A review by UN-Women and the African Development Bank²⁴ identified green jobs opportunities in the most relevant sectors, such as agriculture, construction, energy, tourism and waste management. Aside from agriculture, most of these are dominated by male workers. Therefore, dedicated policies and measures are required to access new green jobs whilst overcoming prevailing disadvantages for women in the labour market (see below, Chapter V).

Clearly, the situation and role of women in both climate action and employment promotion should be addressed throughout the policy process. It could be visualized as a third dimension in Figure 1 of policy alignment, intersecting with all distinct policy components.

The following two Chapters present guidance on i) how to integrate an employment focus into national climate change policies as part of a green recovery, and ii) how to shape National Employment Policies in ways to contribute to achieving climate goals and environmental sustainability.

²⁴ UN Women and the African Development Bank (2021). Green jobs for women in Africa. Available at: https://africa.unwomen.org/sites/default/files/Field%20Office%20Africa/Attachments/Publications/2021/11/20211206_UN%20Women_Green%20Jobs_report_ENG%20webpages.pdf

▶ III. Integrating employment objectives in climate policies and strategies

The increasing frequency and significance of climate change effects on enterprises, jobs and livelihoods is driving actors in the world of work to take action. As the ILO notes, “uncontrolled climate impacts will cause damage to infrastructure, disrupt business activity, and destroy jobs and livelihoods on an unprecedented scale. On the other hand, the transition to low-carbon, environmentally sustainable economies and societies could become a strong driver of employment creation, skills upgrading, social justice and poverty eradication, allowing climate-resilient economic growth and sustainable development”.²⁵

Policies and strategies addressing climate change are being formulated across the world. The United Nations Framework Convention on Climate Change (UNFCCC) sets the framework and provides guidance to national responses to climate change. Countries which have ratified the Paris Climate Agreement of 2015 and subscribed to the global goal of keeping temperature rise below 2° C are expected to report their actions in combating climate change through the Nationally Determined Contributions (NDCs)²⁶ reports submitted every five years to the UN climate change secretariat, the latest ones having been submitted in 2020 in preparation of the annual Conference of Parties (COP) meeting.

Policies to address climate change are typically presented under two distinct headings: adaptation and mitigation.

▶ Box 1: Understanding adaptation and mitigation policies

- ▶ *Adaptation* refers to reducing exposure and vulnerability to climate change. Adaptation in ecological systems includes autonomous adjustments through ecological and evolutionary processes. In human systems adaptation can be anticipatory or reactive, as well as incremental and/or transformational (IPCC report 2022).
 - Examples are adopting climate-smart technologies in agriculture; building more resilient housing; adjusting business models to changing weather patterns and resource scarcity; providing social protection to those losing income or assets.
- ▶ *Mitigation* refers to efforts to reduce or prevent emission of greenhouse gases.
 - Examples are the adoption of technologies to improve energy efficiency or shifting to renewable energy sources; reducing the carbon footprint of buildings by substituting cement for natural materials; making business practices more resource efficient and less polluting; or changing consumer behaviour – for example towards using mass-transportation or non-motorized mobility.

Both adaptation and mitigation policies have employment implications. Workers and communities exposed to climate risks may need to be relocated and supported to find new jobs. Rebuilding damaged infrastructure and protecting existing roads, waterways, dikes and drainage systems, for example, can have significant employment creation effects. Adaptative agricultural practices require new skills and business models. Mitigation measures often focus on energy transition, with the objective to decarbonize energy systems and reshape – or close – energy-intensive industries. Jobs may be lost in areas with a high concentration of such enterprises, requiring reskilling and other active labour market policies. On the other hand, the “greening” of sectors like construction or transport hold the potential of new jobs, for which enterprises and workers need to be up-skilled. As employment in those green sectors are typically dominated by men, climate policies may have an adverse effect on gender equality if no accompanying measures are taken.

²⁵ The role of the ILO in addressing climate change and a just transition for all. GB.338/POL/1. ILO, March 2020.

²⁶ The NDC represents the (non-binding) national plans for climate change mitigation, including climate-related targets for greenhouse gas emission reductions, policies and measures governments aim to implement in response to climate change. See <https://ndcpartnership.org/>

There is a steadily increasing body of useful tools and guidance on adaptation and mitigation. The Global Center on Adaptation 2021 Africa Report on the State and Trends in Adaptation²⁷ contains a dedicated section on jobs, pointing out the intricate linkages between climate change and the labour market. It emphasizes the employment potential in resilient infrastructure, climate-smart natural resources management and Nature-based Solutions, new adaptation technologies and climate information services. For these to materialize, skills development and social protection measures are required. The Donor Committee on Enterprise Development (DCEd) produced a synthesis note on Private Sector Adaptation to Climate Change and Development Agency Support.²⁸ It reviews the impact of climate change on enterprises and how business resilience can be strengthened. It also recommends more private sector involvement in adaptation investments, such as infrastructure.

An approach to assess the broader linkages between climate action and the economy of a country has been developed by the International Institute for Sustainable Development for the International Climate Initiative and GIZ.²⁹ It aims a better integration of climate adaptation in economic development policies. By applying modelling techniques, policy makers can obtain a better understanding of the costs, benefits and potential trade-offs of climate risks and climate change adaptation on the economy. The tool designed for practitioners, explores three key questions: i) what are the economic impacts of climate change on the economy? ii) what are the impacts of climate change adaptation measures on the economy? and iii) what is the right set of economic instruments to support climate-resilient economic development?

A similar methodology is applied by Governments undertaking a more focused, ex-ante impact assessments of the labour market implications of different climate policy scenarios. Capacity building initiatives have helped not just creating the understanding of the relevance of employment and equality for climate policies but have also strengthened expertise for the use of models and other quantitative assessment tools to measure the social and employment-related impacts of climate change policies.³⁰ The resulting analysis is meant to inform policy making, as illustrated in Chapter IV.

It is important to apply a gender lens in analysing and prioritising climate policy scenarios in terms of their employment effects. The share of women among vulnerable groups is generally higher and their capacity to cope and adapt to climate change tends to be lower. Moreover, women are under-represented in sectors with potential for green jobs, such as transport and construction. If not addressed intentionally by climate response and employment policies, gender inequalities may actually worsen.

The realization that climate policies can have decisive distributional impact among different groups of workers as well as between women and men, has generated support for the concept of a “Just Transition”. Originating from earlier efforts by Trade Unions to protect and support workers in coal mining and fossil fuel industries that came under pressure in countries like Canada, USA, Germany and Poland in the 1970’s, the concept has broadened as a result of the growing recognition how climate change itself is affecting vulnerable groups most. Since the inclusion of the notion of a Just Transition of the workforce in the preamble of the Paris Climate Agreement in 2015, the concept has gained tracking among Governments, social partners and civil society. Increasingly, it is referred to more broadly to enhance equity and greater inclusiveness through the implementation of climate policies.³¹ The principal means to achieve this is by limiting job losses and optimizing employment gains and equity across the labour force, whilst ensuring social protection for those affected.

²⁷ Global Centre for Adaptation (2021) State and Trends in Adaptation Report 2021. Available at: <https://gca.org/reports/state-and-trends-in-adaptation-report-2021/> (Accessed: 15 August 2022).

²⁸ Private Sector Adaptation to Climate Change and Development Agency Support: DCEd Synthesis Note, Dec. 2016

Links updated July 2021 <https://www.enterprise-development.org/wp-content/uploads/Private-Sector-Adaptation-Synthesis.pdf>

²⁹ IKI/GIZ (2021). Using Climate Economic Modelling for Sustainable Economic Development: A Practitioner’s Guide. IKI Global Programme on Policy Advice for Climate Resilient Economic Development.

³⁰ ILO (2017). GAIN Training Guidebook: How to Measure and Model Social and Employment Outcomes of Climate and Sustainable Development Policies,

³¹ The G7 Development Ministers, for example, announced their support for Just Energy Transition Partnerships in their May, 2022 meeting in Berlin.

▶ **Box 2. Understanding “Just Transition” towards low-carbon, climate-resilient societies**

- ▶ Just Transition signals to need to ensure fairness and inclusiveness in climate change and environmental policies and strategies. It builds on the SDG principal to “leave no one behind” and calls for the creation of decent work opportunities and social protection for all.
- ▶ The ILO’s Guidelines for a Just Transition further prioritize social dialogue, institutional collaboration and policy coherence as prerequisites for realizing effective Just Transition Strategies and Plans at national level.
- ▶ The Guidelines offer a reference policy framework for the formulation and implementation of wider employment policies including active labour market measures, industrial, spatial, social protection and regional economic development policies. The resulting policy towards a just transition will differ from country to country, given national circumstances and conditions.

Source: ILO (2016) Guidelines for a just transition towards environmentally sustainable economies and societies for all.

Available at: http://www.ilo.org/global/topics/green-jobs/publications/WCMS_432859/lang--en/index.htm

The employment impacts of climate action and green investments across multiple sectors have been modelled in a variety of countries, some with support of the World Resource Institute (WRI), ILO and UN-PAGE.³²

- Brazil: the transition to a more efficient and resilient economy could deliver a net increase of more than 2 million jobs compared with a business-as-usual scenario. This is accomplished by investing in quality infrastructure, promoting new low-carbon technologies, and transitioning to sustainable agriculture. Restoration of degraded pasturelands would allow deforestation-free expansion of agriculture while contributing to reductions in greenhouse gas emissions, depending on how the restored land is used.
- China: In the Yangtze River Delta region alone, compared with business as usual, a green economic strategy could create nearly 3.8 million additional jobs by 2025. The modelling shows that this could be achieved by increasing incorporation of renewables and moving away from coal, improving energy efficiency within the industrial sector, electrifying transportation, and removing carbon from the atmosphere
- Indonesia: A low-carbon development path in Indonesia could deliver 15.3 million additional greener and better-paid jobs by 2045 compared with business as usual. Such a strategy would also decrease poverty rates and close regional and gender opportunity gaps. This could be achieved by increasing energy efficiency and the use of renewables, protecting and restoring forests and wetlands, and increasing agricultural productivity.
- South Africa: Implementing green policies - including subsidies for clean energy, early decommissioning of coal plants, and financing for the power sector - would return gross domestic product to what it would have been without the pandemic as well as generate positive net effects on employment greater than conventional policies alone. Job losses in the coal sector would be offset by new jobs in the renewables supply chain, but support is needed for coal workers and their communities for a just transition.

Nationally Determined Contributions incorporating Just Transition

Within the framework of the UNFCCC and as a follow up to the commitments made at the COP21 in Paris in 2015, countries have reviewed, updated and submitted their NDCs in 2020-2022. In several countries, the NDCs have incorporated the concept and importance of a just transition (see box 3). Through workshops, social dialogue and the engagement of civil society, stronger links between climate action and employment policies have been made.

³² WRI, New Climate Economy, ITUC. Green Jobs Advantage: How Climate Friendly Investments Are Better Job Creators. Oct. 2021.

Based on the experience with the recent updating of NDCs, good practices for guidance include:

- ✓ Identify policy areas and themes where green jobs and a Just Transition appeal to governments, especially climate change adaptation but also, for example, circular economy promotion and energy transition.
- ✓ Integrate just transition policies at the NDC formulation stage in order to maximize social inclusion, pro-poor growth and job creation.
- ✓ Remain in contact with and offer timely support to the ministry in charge of NDCs formulation and implementation.
- ✓ Mobilize social partners to support an employment-focus in NDCs.
- ✓ Identify entry points for leveraging through other policy agenda's, e.g., youth employment, enterprise formalization, rural development.
- ✓ Promote institutional coordination, gender balanced participation and involvement or relevant ministries in charge of gender equality.
- ✓ Provide information, customized capacity building and links with knowledge partners at the right time in the process.
- ✓ Establish partnerships with like-minded agencies and support programmes and projects to mobilize interest, expand networks and identify resources (ILO, UN, Development Partners, etc.).

► **Box 3: Good practices in integrating an employment-focus and Just Transition in climate policies³³**

Costa Rica

Costa Rica has embraced the just transition framework as a way for enhancing prosperity of the country, maximizing decarbonisation and increasing resilience. Anchored in the 2019 National Plan for Decarbonization, it recognizes that the transition to environmentally and socially sustainable economies can be an important driver for job creation, conservation and regeneration of ecosystems, and reducing social inequality.

The updated NDC (2020) devotes special attention to gender issues. It also explicitly addresses the vulnerability of Indigenous Peoples and Afro-descendant communities needs, whilst building on their knowledge, traditions and way of dealing with nature.

Through inter-ministerial collaboration between the Directorate for Climate Change, the Ministry of Labour and the Ministry of Environment and Energy and in dialogue with Workers' and Employers' Organizations, just transition elements have been integrated in a cross-cutting manner throughout the 2020 NDC. This includes: an assessment of the current and potential green and blue jobs; a Just Transition Governance Scheme, led by the Ministry of Environment and Energy (MINAE) and which includes the Ministry of Human Development and Social Inclusion (MDHS) and the Ministry of Labour and Social Security (MTSS); and a Commission to foster broad-based and tripartite social dialogue. Eventually, a Just Transition Strategy will be developed, accompanied by a National Green Jobs Policy with provisions for the National Climate Change Metrics System (SINAMECC) to estimate green jobs, for the evolution of just transition and for the impact of climate action on employment and vulnerable groups, as well as to forecast and anticipate the resulting changes in occupational demand.

³³ Sources: NDC partnership and Platform2020Redesign.

Nigeria

The Federal Ministry of Environment adopted a whole-of-society approach for the updating of its NDC. With support from development partners and the NDC partnership, a series of technical reviews were undertaken. These included: mitigation in the electricity sector, access to off-grid clean electricity, emissions projection of the forestry sector, analysis of nature-based solutions, review of circular economy and waste management.

An assessment of the employment impact of the most relevant climate policy areas found that increased investment in power generation had could create 12 million net additional jobs between 2020 and 2035. In terms of cost-effectiveness of sector policies (“biggest bang for the buck”), the assessment showed that investments in agriculture, forestry and fisheries had the highest employment results. Agriculture could increase by 3 million jobs if climate-smart agricultural production systems would be adopted.

The assessment highlights the large number of often informal workers in the firewood and small-scale charcoal industry. Biomass represent 75 percent of Nigeria’s total primary energy supply, specifically for daily food preparation. Policies to reduce deforestation and emissions should be accompanied by measures to identify alternative employment opportunities and provide social protection for affected livelihoods. The NDC includes specific recommendations for just transition policies and a commitment to social dialogue, skills development and retraining.

Chile: promotion of the circular economy

A just transition approach will be applied in the promotion of the circular economy in Chile. It seeks to establish a shared path towards a circular economy over the next 20 years through a participatory process, the Chile Roadmap to the circular economy for a waste-free Chile 2020 – 2040. The target is that by 2040, the circular economy will have generated 180,000 new jobs in circular economy activities, and that by 2030 these will have reached 100,000.

Technological innovation will be key, but equally important will be innovation in business models, as well as the development of new capacities that allow companies to be more circular, generating positive impacts for the environment and the communities where they operate. Specific actions that have been identified are, among others, the Circular Enterprise accreditation; Local and Circular Supplier Programmes in Tractor Sectors, Promotion of Industrial Symbiosis, Circular Public Procurement, etc. It also proposes concrete measures to promote circular innovation, such as a programme to encourage the articulation of actors from different value chains to work on joint solutions for the circular economy; encouraging large companies in the country's main sectors to give preference to more local and circular suppliers, etc.

The promotion of the circular economy is also a policy instrument for the revitalisation of territories and local development. The Roadmap proposes channelling funds towards regional circular economy projects with high employment generation potential. It also calls for recognising the work of waste pickers and waste pickers throughout the country and ensuring their inclusion in the transition to the circular economy through the broad provision of training and formal employment opportunities, with support for the self-organisation of waste pickers in order to facilitate their dialogue with key actors, such as municipalities and industry.

These three examples illustrate how countries take a green recovery serious. The experience with such policy actions is still young, and therefore the results in term of green employment are yet to be assessed. Several organizations are identifying and documenting successful initiatives, in order to guide others. A key resource is GIZ’s Green Recovery for Practitioners: Examples from around the World for Building Forward Better.³⁴ It provides “green recovery snapshots” in distinct outcome areas, one of them being “Social justice, just transition and peace”. Examples are presented of reduced poverty and improved living conditions, reduced inequalities, including along race and gender dimensions, sustained green employment, reskilling and decent working conditions. Another outcome area is “Economic systems and business models compatible with ecological boundaries”, with examples of circular economy and reduced waste, more diversified

³⁴ GIZ/IKI, Euroclima+ and NDC Partnership (2021). Green Recovery for Practitioners Examples from around the World for Building Forward Better.

economies that do not depend on a few economic sectors, environmentally and socially sustainable supply chains, green innovation and entrepreneurship, and others. The snapshots are highly informative with specific guidance drawn from each of them.

Green recovery and a Just Transition

Given the very modest share of green measures in recovery and redesign packages, as shown in Chapter II, other policy frameworks should be utilized to accelerate a green recovery with just transition. NDCs and the ensuing climate action by National Governments presents a significant opportunity to align financial rescue and post-Covid 19 investments with climate change goals and targets. Such recovery measures should be underpinned by NDC targets and strategies and utilize existing partnerships as well as validated assessment tools. Most NDCs contain ready-to-go plans and action if more funding would be available.³⁵ The pledges for supporting the Covid-19 recovery could be allocated to exactly those already formulated proposals, for example for promoting renewable energy, energy efficiency or ecosystem services, all having significant employment multipliers.³⁶

Merging policy initiatives and blending public and private funding streams hold the potential for significant win-win outcomes and lower institutional transaction costs in the process. Building on the available employment assessments and deploying the technical expertise that is becoming available to plot a course for a recovery with a just transition, national climate action goals and employment objectives can be achieved simultaneously.

At the COP-26 in November 2021 in Glasgow, a number of high-level policy initiatives were announced relevant for labour markets, including the phasing out of coal. Additionally, a “Just Transition Declaration” was adopted, reflecting ILO’s guidance. The Declaration calls for economic strategies for a just transition to a net zero future that not only involves support for clean energy to strengthen the ecological foundations of the economy, but also requires enabling frameworks and wider economic and industrial support for workers, enterprises, communities and countries to create sustainable, competitive economies that foster resource-efficient economic growth, create income and decent jobs, and reduce poverty and inequality. The Declaration reflects the objectives of the ILO policy guidelines for a Just Transition. Building on the ILO Guidelines, a recent review by the Just Transition Initiative³⁷ of recovery policies distilled the following employment-focused policy recommendations for Governments to integrate just transition principles into existing climate and development plans.

³⁵ NDCs from developing countries typically provided two types of targets: an unconditional mitigation target as well as a deeper mitigation target that is conditional on international support. Source: NDC conditionality and article 6. [Climate Finance Innovators, 2021](#)

³⁶ See also: [Aligning NDCs with Green Recovery. A Guidance Framework. UNDP, Feb. 2022](#)

³⁷ The Just Transition Initiative, Center for Strategic and International Studies (CSIS) and Climate Investment Funds (May 2021). A Just Green Recovery from Covid-19. Available at : <https://www.csis.org/analysis/just-green-recovery-covid-19>

▶ Box 4: Recommendations for a Just and Green Recovery

1. Avoid investments and incentives that lock in fossil fuel dependency, thereby creating transition challenges for communities down the road.
2. Structure responses that address ecological, social, and economic issues as integrated opportunities that have multiple benefits, rather than as separate priorities. Measures should address structural inequality and support workers and communities, especially those who are vulnerable to climate change and any adverse effects of green transitions. Particular attention should be paid to the situation of women, ensuring response measures reduce gender inequalities.
3. Support sustainable infrastructure projects along with reskilling efforts to support their implementation. Align reskilling programs with investment and innovation plans for longer-term employment in a sustainable economy.
4. Strengthen social protection systems through inclusive, consultative processes to support those most vulnerable to future shocks, including ones related to climate change.
5. Invest in developing a future-oriented workforce to recover from the social and economic impacts of the pandemic and better prepare for structural changes and economic shocks related to climate change and the actions taken to respond to it.
6. Acknowledge that green transitions are likely to create distributional impacts on jobs, gender equality and communities; develop programs that proactively engage communities likely to be affected and help displaced workers access advisory services, formal training, or additional education as they seek to acquire skills and qualifications to enter new sectors and industries; ensure equal access to training for women
7. Ensure job quality, labour standards, and rights for workers (women and men) in the green recovery. Social dialogue between unions, employers, and government, as well as collective bargaining rights are some of the key guiding principles for a just transition.
8. Prioritize stakeholder engagement to make stimulus decision making more equitable and transparent. Governments should organize expert roundtables, citizen dialogues, and networks about green recovery plans. This could garner valuable support from workers and communities in vulnerable areas for ambitious climate actions that are to be accelerated through green recovery measures.

Source: Summarized from Center for Strategic and International Studies (CSIS) and Climate Investment Funds (CIF). The Just Transition Initiative. A Just Green Recovery from Covid-19. May 2021.

▶ IV. Supporting a green recovery and a just transition through national employment policies

The previous Chapter showed how climate action and recovery policies can also enhance employment outcomes and support a just transition. The growing evidence of the repercussions of unabated climate change on jobs, livelihoods and equality, as well as the labour market impact of response policies in adaptation and mitigation is underpinning a shift towards more integrated policies. The relationship between climate change, employment and the changing labour markets have been amply documented by the ILO and others.³⁸ There is a growing recognition that social justice can be enhanced through climate action and the promotion of an inclusive green economy. This facilitates the connection and synergies between different policy agendas.

This Chapter takes an inverse perspective and suggests ways in which NEPs contribute to achieving the targets of emission reductions coherent with the Paris Climate Agreement.

The 2021 ILO Guide for the Implementation of National Employment Policies points to the relevance of a range of economic, social, environmental and labour market policies that affect both the supply and demand sides of the labour market, as well as the intermediation between them.³⁹ NEPs reflect a comprehensive approach to design and implement a set of policies for achieving a country's employment goals. A national employment policy goes beyond a job creation programme or skills development initiative for young job seekers. It ideally considers and addresses all related social and economic issues that influence the labour market. The Guide lists 15 key elements of a comprehensive employment policy framework of a given country, including ways to tackle the challenge of environmental sustainability.⁴⁰ In reality, though, most national employment policies do not address the entire spectrum of the determining factors, including climate change, given national circumstances and priorities.

NEPs are typically formulated in a multistakeholder process between Ministries of Labour and Employment and other key Ministries – such as Finance and Planning - along with representatives of workers and employers and other relevant stakeholders. This opens up the possibility to engage Ministries of Environment and dedicated bodies tasked with a country's climate change policies.

Over the past decade, an increasing number of NEPs reflect how climate change and the transition to a low carbon economy will affect labour markets. In 2017, an ILO assessment was carried out of the mainstreaming of environmental issues in 13 NEPs and implementation plans in developing and emerging economies.⁴¹ Among these policies, the integration of environmental sustainability and concerns for climate change varied considerably in scope and level of ambition. Yet, in spite of their diversity and different genesis, they have a number of features in common:

- an ex-ante assessment of the anticipated employment effects of climate change and/or related policies
- the involvement of the social partners in dialogue and joint planning throughout the process
- the articulation of a clear business perspective as well as a dimension of job security and/or creation
- sustained, customized capacity building on the concepts, strategies and tools for green jobs policies
- support (and direction) from favourable high-level political leadership.

³⁸ See for example ILO. World Employment and Social Outlook 2018: Greening with jobs and OECD (2018). Employment Implications of Green Growth: Linking jobs, growth, and green policies.

³⁹ Yadong Wang (2021). ILO. From policy to results Guidelines for implementation of national employment policies. P.5

⁴⁰ The 2015 ILO Guidelines for a Just Transition are built on those elements too, thus representing a framework for an employment policy supportive of low-carbon, sustainable development trajectory with decent work.

⁴¹ ILO (2017). Mainstreaming environmental sustainability in employment policies. A review.

The 2017 review recommended a set of measures that could be considered in demand-side policies, supply-side policies and labour market intermediation, to articulate the environmental dimension and, in so doing, support the advance of a greener economy with jobs. The present Guidelines reconsider and expand the recommendations given the context of Covid-19 recovery.

Employment policies and its related instruments provide powerful entry points for leveraging a green recovery. Examples include supporting a policy shift towards renewable energy with updated skills development programmes targeting rural youth and women, enhancing their employability. The International Renewable Energy Association (IRENA) has tracked employment generation in renewables for ten years, with annual reports showing continued growth. The RES4Africa Foundation, together with IRENA and UNECA, dedicated their 2022 flagship publication⁴² to maximizing the socio-economic benefits of the energy transition in Africa, with country evidence of the double dividend on renewable energy and jobs. Other entry points for a green recovery include public investment programmes for short-term employment. They can be directed to infrastructure improvement to prevent flooding or boost reforestation initiatives as part of National Adaptation Plans. The previous Chapter makes the case for long-term climate policies to consider the significant employment gains that could be made from investing in climate adaptation through building resilient infrastructure, climate-smart natural resources management and the use of Nature-based-Solutions.⁴³ This approach also represents a powerful means to accelerate a green recovery.⁴⁴

The following Section presents key components of employment policies and their relevance for climate change, environmental sustainability and a green recovery. The purpose is to illustrate what can be done to help realize a just transition towards environmentally and socially sustainable societies. It includes examples of intended and implemented employment and other policies and strategies during the Covid-19 pandemic. It is broadly structured along the main policy options of a NEP which include macroeconomic, sectoral, public investment, private sector, active labour market policies, among others.⁴⁵

Options for climate-relevant employment policies and a green recovery

A. Macroeconomic policies

Macroeconomic policies set the overall environment for economies to thrive. A pro-employment policy for green growth and recovery aims at promoting the necessary demand (domestic and from abroad, through trade) to support the creation of decent green jobs. It should facilitate a financial sector that mobilizes and allocates resources for recovery and inclusive green development. Instruments typically include monetary and fiscal policies, such as the stimulus packages in the form of finance provided to enterprises and workers in the wake of the Covid-19 pandemic. It further includes public investment, including investing in green infrastructure, improving access to and the quality of public services, supporting the private sector in the transition process and investing in R&D.

A key function of macroeconomic policy is assuring a favourable investment climate for private sector development. If businesses cannot invest and grow, no new jobs will be established. Investing in climate action therefore needs to go in tandem with an enabling business environment to foster green growth with jobs.

⁴² RES4A, IRENA, and UNECA, 2022. Towards a prosperous and sustainable Africa: Maximising the socio-economic gains of Africa's energy transition. RES4Africa Foundation, Rome. Available at: https://irena.org/-/media/Files/IRENA/Agency/Publication/2022/Apr/IRENA_RES4Africa_UNECA_Prosporous_Sustainable_Africa_2022_.pdf

⁴³ See: Global Center on Adaptation. State and trends report 2021, Section on Jobs.

⁴⁴ V. Pérez-Cirera and Maikel Lieuw-Kie-Song (2020) NATURE HIRE: How Nature-based Solutions can power a green jobs recovery. Available at: http://www.ilo.org/employment/units/emp-invest/rural-urban-job-creation/WCMS_757823/lang-en/index.htm (Accessed: 15 August 2022).

⁴⁵ ILO (2012) Guide for the formulation of national employment policies. Available at: http://www.ilo.org/emppolicy/pubs/WCMS_188048/lang-en/index.htm (Accessed: 15 August 2022).

Recent guidance has been developed to better understand the nexus between environmental policies and the business environment. This can be instrumental to overcome the frequent resistance among policy makers on either side, induce better coordination and create synergies among them.

► **Table 2. The rationale of green business environment reform**

<i>Green Growth is relevant for Business Environment Reform because:</i>	<i>Business Environment Reform (BER) can support Green Growth because:</i>
<ul style="list-style-type: none"> • Green Growth programs often help to create and unlock new markets, such as clean technology, renewable energy 	<ul style="list-style-type: none"> • BER brings a focus on structural change through regulatory and policy reform, greatly enhancing the sustainability and scalability of a green growth initiative
<ul style="list-style-type: none"> • A focus on long-term sustainability and access to resources helps to provide medium-term security for firms. 	<ul style="list-style-type: none"> • BER focuses on unlocking the resources, creativity and innovation power of the private sector needed for green growth, which can provide leverage for public goals
<ul style="list-style-type: none"> • Efforts towards resource efficiency lower costs and improve profitability for firms 	<ul style="list-style-type: none"> • BER has a strong perspective on real alignment of incentives and understanding of the pitfalls of badly designed regulation
<ul style="list-style-type: none"> • A stronger perspective on the political economy of a country, bringing in externalities and potential new economic activity on the table, not just incumbent actors 	<ul style="list-style-type: none"> • BER can contribute to reallocating subsidies and adjusting taxes to reflect real costs to the environment, spurring green growth

Source: Ploeg, M., Miedzinski, M. and Hinojosa, C. (2017) The search for synergy: Business Environment Reform and Green Growth: A practical guide for policy practitioners.

Detailed guidance including checklists has been developed by Investment Climate Reform Facility (ICRF) in 2021 entitled Green Reform of the Enabling Environment (GREEN), as part of a broader investment climate toolbox.⁴⁶ The guidance is offered at two levels:

- i. Green integration, aiming at sensitizing policymakers on the potential trade-offs and areas for synergy between environmental and growth goals. The toolbox includes an environmental risk assessment and due diligence to ensure that the (intended and unintended) outcomes of the reform do not lead to greater pollution and environmental degradation; and
- ii. Green investment strategy, supporting a targeted strategy to accelerate investment in green sectors and enterprise development. This approach is meant to create positive spill-overs or win-win scenarios between economic growth and environmental goals. The toolbox contains hands-on, step-by-step guidance at the various stages of greening the business environment.

Design

It is important to integrate climate change challenges and solutions at the design stage of employment policies. In particular, modeling studies should be carried out to anticipate the employment impact of the effects of climate change (e.g., increased floods in low-lying areas or islands, heat stress, persistent droughts affecting agriculture and nutrition, environmental pollution in urban areas, etc.). The modelling should also be done for different adaptation and mitigation scenarios as mentioned in Chapter III. The expected direct and indirect employment levels in each sector should, together with other policy priorities, guide which macroeconomic policies to adopt and where to prioritize (for example investing in climate-smart agriculture and training of farmers, subsidizing renewable energy investment and taxing fossil-fuel based transport, stimulating green construction using local raw materials and making buildings more energy-efficient, etc.).

⁴⁶ Investment Climate Reform Facility (2021). Investment Climate Reform Toolbox – Tools for Reforming the Business Environment. <https://www.icr-facility.eu/toolbox>

Suggested measures

- Budget support for safeguarding ecosystem services benefitting rural poor.
- Public funding backing green economy investments with jobs (green stimulus).
- Greening the investment climate through environmental impact assessments and green business promotion with jobs.
- Fiscal incentives for greening housing, business practices, waste management fees, etc., with consideration of how green tax policies impact on gender equality and other distributional dimensions.
- Public investments in decentralized renewable energies and better water and sewage management especially in urban areas.
- Integration of sex-disaggregated and gender indicators into employment monitoring and impact assessments.

Good practices

- Offer well-timed, robust technical analysis of the labour market impact of climate change and response measures, using national, respected knowledge institutions.
- Transform and communicate technical analysis in customized policy advice.
- Foster partnerships and alliances with key (inter-) national actors in climate policy support (UNFCCC, UN-PAGE, World Bank, Development Banks, etc.).
- Document and communicate national cases of green business, market opportunities and green jobs for advocacy and promotion.
- Documenting good practices of investment climate reform for a green enabling environment (GREEN)
- Support social dialogue on the national and local level and inter-ministerial cooperation towards more integrate and coherent policies.
- Advise partners to gender-sensitize national green growth policies and implementation strategies
- Maintain a pro-active attitude, seizing opportunities and responding efficiently to requests from Governments and social partners.
- Propose just transition principles and strategies at the policy design stage in order to maximize social inclusion, pro-poor growth and creation of decent jobs for both women and men.

▶ **Examples****Colombia**

In 2020, the Colombian government spent 43.9 trillion Colombian pesos, equivalent to US \$ 12.5 billion, to support health care and reactivate the economy. This initial, quick response did not apply any green criteria. But in early 2021, the National Economic and Social and Policy Commission published a mid- and long-term recovery strategy which puts forward new investments to support the green recovery.

One of the priorities is linking infrastructure development to the recovery package for the post-COVID economy. The goal is to enable the greening of a traditionally brown economic sector that comprises infrastructure, construction, and energy, while simultaneously generating greater economic activity and jobs for the population. Another aim is boosting the sustainable use of natural capital to create business and generate jobs. Nature-based-Solutions (NbS), which tend to have high local employment multipliers, are promoted to address social and economic problems improving the natural environment, with special attention to ecosystem services such as water provision, clean air, and food security. The policy package includes the planting of around 180 million trees, promoting bio economy, incorporating disaster risk analysis in public investments in water access and water treatment projects and encouraging circular economy initiatives.

The inclusion of a green focus in the recovery package has been induced by the Pact for Green Jobs and Just Transition adopted in 2019 and the adopted National Green Growth Policy, in 2018. Through social dialogue to engage workers' and employers' organizations as well as other relevant Government agencies, the updated NDC includes just transition of the workforce as a cross-cutting element and commits to the elaboration by 2023 of a strategy for just transition of the workforce towards a resilient and low-carbon economy.

Argentina

The Ministry of Labour of Argentina formulated and adopted a Green Jobs strategy in 2021 and launched the Promote Green Jobs initiative, with the aim to support initiatives towards productive activities in the green economy. The strategy was underpinned by an inventory and review of the most relevant policy areas for a low carbon emission, resource-efficiently and socially inclusive development strategy. The assessment provided options and scenarios about the steps that should be taken in the transition towards a greener economy.

Sectoral assessments were also made of employment in the circular economy, bioeconomy, jobs in dealing with electronic waste and a review of vocational skills for green jobs. Together the studies provided the orientations for an integrated policy approach, with all the sectors and relevant actors involved.

Social dialogue was instrumental to raise the profile of Just Transition, including through capacity building and a break-through exchange with other countries facing similar challenges, like South Africa.

B. Sector policies

Given the macroeconomic framework, specific sector policies can be powerful instruments for Governments to undertake targeted investment and employment promotion measures. They cover any economic sector in a country and also pertain to industrial policies. Importantly, they are often applied to stimulate regional or local economic development, which is relevant given the often-localized effects of climate change and mitigation policies.

Design

The Covid-19 pandemic has hit most economies but affected certain sectors more than others. This is the case, inter alia, for transport (especially aviation and the automobile industry), hotel and tourism, and sectors with global value chains producing in developing and emerging economies (such as garments in countries like Cambodia, Bangladesh and Indonesia). As a result, unemployment in those sectors reached dramatically high levels.

Recovery measures offer a particular good opportunity to stimulate the “greening” of economic sectors. In industrialized countries like France and Germany, for example, support to the transport sector has been accompanied with stricter measures and targets to adopt clean energy technologies and production

methods. However, as has been documented in Chapter II, the overall “greenness” of stimulus packages has remained disappointingly low.

Suggested measures

- Promotion of green sectors with high-employment multipliers (renewable energy, buildings, waste management, etc.).
- Climate-resilient strategies for adaptative regional and local development (which can be a useful component of a Just Transition approach as well).
- Low-emission strategies for regional and local development with jobs (for example green buildings in urbanizing areas, afforestation/reforestation for the forest industry in expanding agricultural regions as an alternative to farming, decentralised approaches for production of renewable energies in rural and urban areas, municipal waste management strategies).
- Investing in value chains with a potential for green development and jobs, notably in agriculture.

Good practices

- Foster dialogue and collaboration. National and regional governments need to trust and work closely with local authorities, workers, unions, employers, chambers of commerce and other stakeholders.
- Adapt to local circumstance (“place-based approaches”), given the diverse economic and social barriers to overcome and enable a just transition.
- Mobilize finance, based on a sound and transparent estimation of the cost of transition. This helps manage and overcome the often-heard resistance against change

► Examples

Indonesia: Strategic planning in green employment-rich sectors

Indonesia has adopted a Green Recovery Roadmap which focuses on the waste, energy, and plantation crop sectors, which: i) provides stimulus for 7,500 waste MSMEs to develop waste management performance improvements, ii) installs rooftop solar panels on 70 government buildings, and iii) invests in plantation rejuvenation to increase crop productivity and farmer incomes while reducing emissions through avoided deforestation. In total, these initiatives are projected to sustain and create more than 300,000 jobs in the next three years, avoid more than 400 million tons of CO₂ emissions over 25 years, and strengthen climate resilience. Beyond these immediate actions, the Roadmap foresees reviewing medium-term development plans of relevant line ministries to better integrate green economy principles within and between organizational units. It also will mobilize “change drivers” for a green marketing network to advocate and increase support for green economy initiatives among other government units, the private sector, and consumers.

Source: [Building back better. Background paper. Feb 2022. Green Economy Coalition](#)

Pakistan: Public investment for tree planting

Pakistan’s Billion Tree Tsunami campaign, which was originally launched in 2014 to develop sustainable forestry, generate green jobs, and advance gender empowerment, was expanded as the 10 Billion Tree Tsunami in 2018, with a total outlay of Rs125 billion (approximately \$760 million). In 2020, the programme was used as a short-term employment response to the pandemic. Given the large rural migration of unemployed workers from locked-down cities, many of the new jobs are being created in rural areas, with a focus on hiring women and migrant daily workers. The program is expected to create at least 63,000 jobs, including for setting up nurseries, planting saplings, and serving as forest protection guards or forest firefighters.

The program effectively absorbs a short-term labour surplus in settings with relatively limited disease transmission, addresses migration caused by urban job losses, and should enhance climate resilience. Over time, Pakistan’s protected areas initiative will create almost 7000 long term jobs.

Source: [How Pakistan is aiming for green recovery from the pandemic | World Economic Forum \(weforum.org\)](#)

Nigeria: Investment in renewable energy

Nigeria, where an estimated 85 million people lack electricity access and 176 million do not have access to clean cooking fuels or technologies, is increasing equitable access as part of its recovery plan. In July 2020, Nigeria approved the 23 trillion Naira (\$5.9 billion) Nigerian Economic Sustainability Plan, which includes one of the largest renewable energy components in stimulus packages from middle- or low-income countries. This involves support to its Solar Homes Systems (SHS) Project to connect up to five million households and 25 million Nigerians who lack access to the national electricity grid. The production, installation and maintenance of SHSs boosts a projected 250,000 local jobs.

Africa: Promoting jobs and rights for women in agriculture

The Women's Empowerment through Climate-Resilient Agriculture Value Chains programme to improve African women's participation in green jobs in the agricultural sector is implemented in 15 countries across Africa, with the support of UN Women. The programme combines programmatic action and policy advocacy and reform to address the structural barriers limiting women's participation in agriculture value chains. It focuses on improving women's access to land, finance, skills and technology for climate resilience as well as women's access to markets. More than 17,000 women have adopted climate-resilient agricultural production techniques. Women's right to own land is now recognized in law in some number of the countries, and land officials and community leaders have been trained in gender-responsive land governance systems. Women are introducing energy-efficient technologies in a range of agriculture value chains, from solar-powered irrigation systems to processing machinery to drip irrigation. The programme applies an integrated, scalable approach addressing the multiple bottlenecks that women farmers face to full participation in rural value chains.

Source: Green Jobs for Women in Africa. UN-Woment and AfdD. 2021.

Mexico: local and regional initiatives

Mexico has positioned the Just Transition agenda as part of employment recovery policies in response to the Covid-19 pandemic. The Mexico City State Government, in concert with the main trade union and employers' organizations, developed a series of proposals for a recovery with green jobs and more environmentally sustainable enterprises using the Policy Guidelines for a Just Transition as a framework. The City State Government undertook sector studies assessing the potential of green jobs through investments in climate-smart, green investment. They cover sustainable food production, waste management, green housing, solar photo-voltaic panels, and rainwater harvesting and storage. One of the merits of the studies lies in making the case, through well-designed infographics, of the potential for green jobs in the context of the recovery and a series of concrete steps towards their realization, in each sector. The city launched a dedicated green jobs programme in 2022.

Also, a multi-stakeholder dialogue for a Just Transition was undertaken in 2020 in Coahuila, the Mexican's third-largest State with three million inhabitants. The State relies heavily on coal mining and related industries, which are all in decline. As a result of the initiative, proposals were made for alternative local economic development strategies with a focus on Just Transition.

Source: ILO Mexico

A Just Transition in the textile and garment supply chain in Asia and Jordan⁴⁷

The textile and garment sector in Asian countries was severely hit by the impact of the Covid-19 pandemic. A more sustainable business model is needed. A sector-wide approach has been developed partly based on support programmes initiated before 2020. Based on the ILO's Just Transition framework, a toolkit has been produced consisting of knowledge products including assessment methodologies and best practices of environmental policy and regulation, sources and support for eco-innovation and greener production processes in the sector.

Together, they offer the essential ingredients to build context-specific strategies for a sustainable recovery at sector level. By convening multiple stakeholder meetings applying social dialogue principles in areas with clustered industry actors ("hotspots"), a step-by-step "just transition plan" was developed.

This is particularly relevant given that there are a multitude of initiatives in the garments sector but only a few that address social and environmental issues at the same time. A perceived gap in the outreach of these support programmes is MSMEs in the sector, which require dedicated support for recovery through innovation and collaboration.

The toolkit also contains support material for addressing gender-based violence and harassment faced by (mostly female) workers in the sector. The multistakeholder platforms provide an entry point for proposing improvements in working conditions as part of the transition plan, especially given that environmental challenges (including heat stress) increasingly threaten productivity and decent work opportunities.

Source: ILO Regional Office for Asia and the Pacific, Bangkok.

Two small-scale response measures illustrating a green recovery with potential for scaling-up:

1) Cocoa and coffee in Africa

Smallholder farmers and co-operatives suffered from local and regional lockdowns which delayed the purchase of cocoa and coffee beans and reduced farmer mobility. Global disruptions in logistics and increased operating costs exacerbated their situation. The impact of the Covid-19 pandemic has driven farmers to expand farmland at the expense of forests, to sustain or increase income.

To support affected farmers in East and West Africa, the Rebuild Facility offers returnables grant (essentially interest-free working capital) to environmentally sustainable producers. The returnable grant from the Rebuild Facility enables local partners to continue purchasing coffee from the farmers, thereby supporting their livelihoods. It thus supports investments in sustainable production and providing an economic incentive to protect and restore forests.

In the period 2020-2022, the facility targets to ensure 100,000 ha of land is under sustainable land use management, protect 10,000 smallholder farmer livelihoods, and mobilise EUR 14,000,000 of private finance toward investment in sustainable coffee and cocoa production. The Facility works with a wide variety of organisations including multi-national commodity traders, international specialty coffee and cocoa traders and national exporters based in the country of origin. Local partners must have the highest environmental and social standards including controls on child labour. Eligibility criteria include evidence of regenerative or zero-deforestation practices.

Source: [Rebuild Facility](#)

⁴⁷ ILO (2021) A 'Just Transition Toolkit' for textile and garment supply chain in Asia. Available at: http://www.ilo.org/asia/media-centre/news/WCMS_806222/lang--en/index.htm (Accessed: 15 August 2022).

2) Green recovery for traditional fishers: The example of Indonesia

Traditional small-scale fishing in Indonesia is hampered by lack of cooling facilities. Break-through technologies in solar-powered ice makers will allow local fishers to preserve and sell more fish. A GIZ project in Indonesia facilitated the development and subsequent transfer of the technology for local production and market development. The installation and operation of the ice-making plant offers new direct employment opportunities for young people. Possibly, the plant and sales points will attract other input providers for boats and fishing, so that a larger service hub develops.

The pilot project will be used to publicize the solar ice maker widely as one way to support Indonesia's push to drive a green economy. The initiative is anchored in the BMU-backed ExploRE project (Strategic Exploration of Economic Mitigation Potential through Renewables) and supported by Germany's Covid-19 recovery stimulus packages.

Source: [Frozen sunlight. Article in Akzente, 2021](#)

C. Public investment and employment policies

In response to the Covid-19 pandemic, many countries have adopted stimulus packages that include public investment, much of that infrastructure development. This covers a very broad range of sectors, from sustainable transport, land rehabilitation, reforestation and afforestation, wetlands management, coastal protection including mangrove rehabilitation, to infrastructure for renewable energy and post-harvest storage of agricultural produce. The initiatives are shouldering both climate adaptation and mitigation objectives.⁴⁸

In addition, countries with well-functioning ecosystem services and resulting rich biodiversity such as Costa Rica, Indonesia, Bhutan and Colombia, have made the protection and responsible use of natural capital a linchpin of national development strategies. Realizing the potential threats and benefits of well-functioning ecosystem services, some have made them part of social protection and employment creation programmes for communities and families that depend on them for their livelihood.

Different approaches have been adopted over time, yet what they have in common is their potential to create jobs and generate income. Infrastructure investments, when carefully designed and implemented, can be an effective policy tool for addressing both employment and environmental challenges. They can contribute to a range of other longer-term development agendas such as the Sustainable Development Goals (SDGs), including local economic development, inclusive societies, and environmental rehabilitation.

Caution should be taken, however, about the conditions under which people are engaged, operate and remunerated. Public employment schemes are often characterized by precarious labour conditions and lack provisions for social protections. In certain countries, women do not have equal access to the created employment opportunities, and/or are not receiving the same pay for the same job. This underlines the importance to recall that green jobs must be decent jobs and to ensure public employment schemes are consistent with international labour standards.

At the global level, UNEP has documented how sustainable, and climate resilient infrastructure should be an integral part of green growth to deliver energy, water, and transportation solutions. A guiding framework for governments is provided to plan and implement sustainable infrastructure governments to integrate sustainability into their decision making on infrastructure.⁴⁹

⁴⁸ The Platform2020 facility tracks, organizes and shares country policies and measures in the context of Covid-19 pandemic responses. See [Platform for REDESIGN 2020 \(platform2020redesign.org\)](https://platform2020redesign.org). Some of the country examples are drawn from the Platform.

⁴⁹ UNEP (2021) International Good Practice Principles for Sustainable Infrastructure, UNEP - UN Environment Programme. Available at: <http://www.unep.org/resources/publication/international-good-practice-principles-sustainable-infrastructure> (Accessed: 15 August 2022).

Measures

- Public employment programmes (PEP) or Employment Guarantee Schemes (EGS), acting as an employer of last resort and offering work at a fair wage to those affected by climate change and the green transition.⁵⁰
- Implementing Payment for Ecosystem Services Schemes targeting the poor and vulnerable.

Good practices

- Steering investments towards existing sustainable natural resource management sectors, such as community-based forestry and ecotourism, particularly in critical ecosystems.
- Supporting the design of large-scale ecosystem restoration projects that increase the sustainability and climate resilience of the forestry and agricultural sectors, while at the same time generating employment opportunities for rural workers and low-income communities.
- Promoting green public employment programmes that integrate Nature-based Solutions in rural as well as in urban areas, creating jobs for vulnerable members of society while at the same time investing in a cleaner environment, restoring ecosystems and enhancing resilience.
- Supporting initiatives to contribute to disaster risk reduction in vulnerable and disaster-prone areas through, amongst others, Nature-based Solutions to control flooding, reduce water runoff, increase groundwater recharge and reduce soil erosion and instability.
- Promoting low-emission transport systems in urban areas and investing in resource-efficient, climate-proof buildings (for example in social housing).

▶ Examples

Infrastructure investment

The Indonesian government is implementing a programme to combat habitat loss and land degradation by afforestation and restoration of degraded and critical lands. Given its high labour-intensity, the programme will create jobs for communities to support economic recovery after the pandemic. The government has further committed to protect remaining primary forest areas and peat lands by issuing permanent ban on new licences. This measure supports Indonesia's resiliency in addressing climate crisis impacts, natural disasters and pandemics. Forest ecosystems provide services and play important roles in the livelihoods of local communities that are beneficial for economic recovery and human health. Moreover, it has also been known that healthy forest ecosystem may contribute to reducing risks for future pandemics due to zoonotic disease infection.

Jamaica seeks to restore over 1,000 hectares of degraded mangrove forest and promote ecosystem-based livelihood opportunities. It will enhance the sequestration capacity of restored areas to store blue carbon, strengthen the resilience of ecosystems to climate variability and adaptation to climate change, together with developing alternative job opportunities in the biomass value chain.

⁵⁰ See also: ILO DEVINVEST (2020) The role of public employment programmes and employment guarantee schemes in COVID-19 policy responses. Available at: http://www.ilo.org/employment/units/emp-invest/WCMS_746368/lang--en/index.htm (Accessed: 15 August 2022).

Nature-based solutions

Infrastructure investments that protect, manage and restore ecosystems are also referred to as “Nature-based solutions”. They can be designed in ways that address societal challenges effectively and adaptively, in order to provide benefits for human well-being, including through employment creation, and benefits to eco-systems and biodiversity. They can generate significant numbers of jobs and contribute to food security, disaster risk reduction and urban regeneration, and can help tackle the climate crisis. The ILO and WWF have documented international evidence on how nature-based solutions can drive a more sustainable, job-rich recovery.⁵¹ The Great Green Wall Project in Africa, for instance, aims to restore 100 million hectares of land and halt the advance of the Sahara Desert. This joint initiative aims to provide food security for 20 million people, create 350,000 jobs and remove 250 million tons of carbon from the atmosphere. There are many more examples of how jobs can be created through investments in green works, ecosystem restoration and sustainable natural infrastructure, such as forests and coastal wetlands.

Investments in economic and social Covid-19 recovery should be directed to Nature-based Solutions in areas where they generate immediate employment and income opportunities. This includes, inter alia:

Payment for Ecosystem Services⁵²

The concept of Payment for Ecosystem Services has become an increasingly popular instrument to either compensate people for preventing (over-) use of scarce natural capital.

The basic principle behind all Payment for Ecosystem Services is that resource users and communities who are in a position to provide environmental services should be compensated for the cost of their provision, and that those who benefit from these services (private, public or a combination of both) should pay for them.

Examples of Payment for Ecosystem Services are: i) carbon sequestration and storage through afforestation - usually linked to climate change mitigation objectives; ii) biodiversity protection. For example, farmers are paid to set aside their land for conservation or to reduce their agricultural activity on such lands; environmental service buyers of this type are often conservation organizations, ecotourism or wildlife companies, or governments; iii) watershed protection, to reduce the negative impact of upstream water users on water quantity and quality; iv) landscape beauty, to maintain biodiversity and ecosystem qualities that contribute to natural beauty. The National Payment for Environmental Services programme in Costa Rica rewards forest owners for all four types of services.⁵³

Most of the environmental services tend to be provided by the poorer part of the population. Policy-makers are increasingly adapting Payment for Ecosystem Services schemes to achieve both environmental sustainability and poverty reduction. In some countries, social dimensions have been included in existing Payment for Ecosystem Services schemes from the outset, such as the Social Forest programme in Ecuador and the Bolsa Verde in Brazil, which link an existing social protection programme with a Payment for Ecosystem Services approach. Although Payment for Ecosystem Services schemes are more common in Latin America than in other regions, those in Asia and the Pacific and Africa tend to have a pro-poor focus more often.

Some Governments have made nature conservation and rehabilitation part of the response and recovery measures. In Peru, for example, public resources are directed towards actions for the recovery and conservation of ecosystem functions and services. It is targeting 4.1 million degraded hectares of ecosystems, natural spaces made up of high Andean forests, mountain forests, wetlands, grasslands, etc. which have lost the ability to generate sufficient economic, social and environmental benefits to the population that depend directly on them.

Governments should integrate more ambitious policies to halt and reverse biodiversity loss and restore ecosystem services, including through nature-based solutions. Investments targeted through recovery and stimulus packages need to better assess and value biodiversity and ecosystem services and integrate these values into decision-making. In addition, government support that is potentially harmful to biodiversity must be identified and reformed.

⁵¹ V. Pérez-Cirera and Maikel Lieuw-Kie-Song (2020) NATURE HIRE: How Nature-based Solutions can power a green jobs recovery. Available at: http://www.ilo.org/employment/units/emp-invest/rural-urban-job-creation/WCMS_757823/lang-en/index.htm (Accessed: 15 August 2022).

⁵² This section builds on Chapter 4, Greening with Jobs, World Economic and Social Outlook, ILO 2018.

Urban transitions⁵⁴

Findings from analysis supported by the C40 network, an alliance of more than 100 major cities, found that a green and just recovery could create 50 million jobs by 2025 – a third more than if a business-as-usual recovery scenario would be followed.⁵⁵ In Brazil, for example, investing in the shift to electric vehicles could support an estimated 128,000 jobs in 2030. São Paulo, Rio de Janeiro and other cities are already adopting electric buses and even garbage trucks, whilst electric vehicle production is growing. Residential and commercial buildings hold significant potential for emission reduction for Brazil as well. In 2030, building retrofits and energy-efficient construction in the residential and commercial sectors combined could support over 577,000 new jobs. At a time when so many low-income Brazilians are unemployed, this offers a prime opportunity for economic stimulus, with lasting benefits.

D. Private sector development: support to public and private enterprises (including cooperatives) and micro-entrepreneurs

Effective climate action and environmental sustainability requires a healthy economy and active support from the private sector. Businesses of all size and type adapt to unpredictable weather patterns and cope with catastrophic events, safeguard working practices from pollution and other hazards, and manage increasing scarcities of vital resources, esp. energy. At the same time, they are the key actors to achieve mitigation of climate change, reduction of waste and toxic emissions and higher resource efficiency. The private sector can spur green growth through innovation, sustainable value chain development and new market strategies.

Businesses have their own environmental footprint: use of natural resources, generate GHG emissions and pollution. Evidently this varies greatly from region to region. For Europe, it is estimated that SMEs⁵⁶ contribute 60-70 per cent of industrial pollution in Europe.⁵⁷ SMEs in Africa, by contrast, only represent a fraction of emissions and pollution, given that the continent as a whole only account for about 4 per cent of global emissions. Yet the local impact of contamination and over-use of scarce natural resources may be significant.

There is growing pressure on enterprises to adopt clean and green business practices, be it through environmental laws and regulations or market pressures. Examples are: stricter anti-pollution rules, packaging requirements, business site restrictions, business re-location, compliance with global supply chain requirements. On the other hand, enterprises can benefit from green subsidies, favourable import/export policies, support for the adoption of climate-smart technologies, among others.

The growing public support for green growth and the rise in consumer demand is offering new business opportunities. Through innovation and an enabling environment with the right investments, competitive enterprises, esp. SMEs, can be a driving force in advancing decent work and prosperity in the context of green growth. They can develop and sell products and services for emerging “green markets”, e.g. renewable energy, green housing, organic food, eco-tourism, etc. They can participate in and benefit from the growing efforts towards climate adaptation and environmental regeneration. Examples are: re-building damaged infrastructure, reforestation, climate-smart agriculture services, crop insurance services, ventilation and cooling systems services. As financial and technical support for going green becomes more available for MSMEs too, the case for adopting new technologies and entering new markets becomes more compelling.

⁵³ The integration of the value of ecosystems and mutually beneficial services by nature has led to the concept and promotion of agro-ecology, regenerative agriculture, agroforestry and sustainable aquaculture.

⁵⁴ Coalition for Urban Transitions (2021). Seizing the urban opportunity. How National Governments can recover from COVID-19, tackle the climate crisis and ensure shared prosperity through cities. Coalition of Urban Transitions. https://urbantransitions.global/wp-content/uploads/2021/03/Seizing_the_Urban_Opportunity_WEB-1.pdf

⁵⁵ C40 Cities (2021). [The case for a green and just recovery](#).

⁵⁶ This note refers to MSMEs as micro-, small- and medium-sized enterprises with up to 100 people employed. It includes formal and informal enterprises. The focus of the review is on SMEs in developing and emerging economies.

⁵⁷ GGKP/OECD. SMEs: Key Drivers of Green and Inclusive Growth. Issue Paper, 2018.

However, for many enterprises, particularly the MSMEs, embracing green business models may be a challenge in terms of knowledge, capacity and costs. On the other hand, improved resource efficiency can reduce operating costs, whilst expanding green sectors such as renewable energy to provide new markets.

For Governments, private sector development and enterprise policies are an important tool to create and improve an enabling environment for sustainable enterprises and dialogue structures that achieve economic, social and environmental goals. At the same time, enterprises are the main drivers for employment creation. Reducing the risks associated with climate change and greener business models and augmenting the market opportunities for green growth should therefore be the prime objectives of enterprise policies for a green recovery and a just transition.

Measures

- Enabling enterprise policies for green markets development (e.g., incentives, certification, standards, tax-exemptions, green procurement to stimulate the greening of enterprises and formalization).
- Support for making businesses models and practices more climate-resilience (de-risking for floods, droughts, storms, heat, fire).
- Support to PPPs to induce private sector involvement in infrastructure upgrading, and reforestation.
- Green procurement by (local) Government, accompanied by environmental standards training.
- Subsidies for inputs towards green(ing) enterprises.
- Eco-innovation and youth entrepreneurship.
- Green women entrepreneurship and women-led green enterprise development.
- Productivity improvement through resource-efficiency.
- Promoting SME representation and voice in national/local Just Transition Strategies and Plans.

Good practices

- Using business organizations and networks including through Public-Private Dialogues or Forums, to stay tuned with current trends and challenges, informing targeted advice and support.
- Linking project-based lessons with policy reform processes.
- Building and communicating the evidence base for gains in productivity and competitiveness through clean and resource-efficient technologies and business practices.
- Analyzing the skills needs of green MSMEs and promoting responsive technical and vocational programmes.
- Support SMEs to improve their competitiveness and innovation capacity. Many such initiatives indirectly support green jobs and skills or help MSMEs developing a particular innovative technology. The effort should be on enhancing the indirect effects of MSME support on green jobs and skills.

Greening industry and enterprises

There are a range of policies and tools available to support the manufacturing sector becoming more resource-efficient, cleaner and adopt low-emission technologies and workplace practices. Among the UN agencies, UNIDO has been actively supporting developing and emerging countries through the cleaner production centres.⁵⁸ Since 2015, the Green Industry Platform has a dedicated website for the collection and dissemination of practical guidance experience and tools in the context of the Covid-19 pandemic.

Among the different green industry strategies that can be adopted, three main approaches can be distinguished: 1) Incentives/penalties, 2) Awareness raising/motivation, 3) Technical and financial support. Examples of the first category include eco-labelling, extended producer responsibility, green procurement, subsidies and taxes. Examples of incentives include voluntary agreements, greening supply chain, Industry standards and environmental monitoring systems. Technical and financial support includes education and

⁵⁸ See: Resource Efficient and Cleaner Production (RECP) | UNIDO (2021). Available at: <https://www.unido.org/our-focus/safeguarding-environment-resource-efficient-and-low-carbon-industrial-production/resource-efficient-and-cleaner-production-recp> (Accessed: 15 August 2022).

training, information, technology diffusion, building eco-parks and supporting cluster networks, and financial support.

Importantly, whilst promoting greener business models and markets, Government should end all counterproductive measures, notably end subsidises to harmful products or activities, do not deregulate or make exemptions to environmental standards and regulations, end investing in harmful infrastructure and avoid locking in emissions in new investments, and stop bailing out polluting industries without green conditions. This implies a thorough revision of the enabling business environment and the incentive structure and mechanism for doing business, which should in turn inform policy reform for inclusive green growth.⁵⁹

▶ Examples⁶⁰

Strategies and measures for green enterprise promotion

Halting business models and practices that accelerate climate change should go hand in hand with green enterprise promotion. As part of their recovery strategy many countries have adopted measures to encourage innovation. The United Kingdom launched an ambitious Green Industrial Revolution in November 2020 to accelerate the recovery post Covid-19. If implemented, the plan would create 100,000's of jobs, including in depressed industrial areas with high unemployment.

More modest efforts include Lithuania, which has set up a Green Innovation Fund of EUR. 5 million. to provide subsidies to a maximum of EUR. 5,000 in order to encourage MSMEs to implement non-technological eco-innovations. Lithuania also introduced preferential tax rates for recyclable products and packaging, promoting circular business models.

An example of eco-labelling is the South African campaign called LABELWISE. It promotes eco- and social labels, thereby stimulating the demand for products that are environmentally sustainable and produced, using best labour practices in the farming, tourism, forestry, and marine sectors. South Africa intends to actively support a just transition in and with small businesses. Among others, this will include i) a multi-criteria approach for small business support (i.e. social, economy and environmental), ii) increased collaboration through social dialogue, networks and partnerships, iii) reframing the regulatory framework for MSMEs in the green economy, iv) supporting development of skills for a green economy, and v) enhancing knowledge and data for small businesses.

Peru, as part of its National Competitiveness and Productivity Plan, also drives the transition to a circular, green economy. Roadmaps are developed with representatives of the business sector for various sectors and clean production agreements have been made with beverage, plastic, construction and cosmetic and textile industry.

The role of Micro-, Small and Medium-sized Enterprises

The rapidly expanding knowledge base (at OECD, EU, ILO WESO 2018, World Bank, Donor Committee for Enterprise Development, DCED, We Mean Business Coalition, etc.) provides ample insights in the challenges and opportunities for MSMEs to strengthen climate resilience and enhance their role in moving to a more resource-efficient, low-emissions economy. As MSMEs often represent the largest share in employment in any given country, their capacity to cope with the direct consequences of climate change and to act upon the implications of environmental policies is crucial in ensuring decent work opportunities continue to be provided now and in the future. Moreover, as MSMEs tend to harbour many youths, women, and disadvantaged groups in society, they also have the potential to become a catalyst for a green and just transition that leaves no one behind.

Yet the potential benefits for inclusive and suitable development from small businesses remain largely unharnessed, despite their significant role in the economy and society. In many countries growth

⁵⁹ The Global Green Growth Institute (GGGI) and UN-PAGE are actively supporting countries for a more conducive business environment for green business, as do bilateral agencies like DANIDA and GIZ. See also the GREEN Investment Climate Reform Toolbox referred to in footnote 49.

⁶⁰ Source: Platform2020Redesign.

perspectives have worsened due to the impacts of Covid-19. Therefore, special attention needs to be given to designing green incentive and support programmes for MSMEs.

▶ Examples

UN support initiatives

The International Trade Centre's (ITC) annual SME competitiveness report 2021 has been dedicated to "Empowering the Green Recovery". It advocates for a Green Recovery Plan with specific recommendations for business support organizations, governments, lead firms in international value chains and international organizations to help SMEs embark on a green transition. This includes, inter alia, strengthening SME capacity through training for green, innovative approaches; innovation with skills and technologies; providing incentives for green finance; and increasing appropriate business services for SMEs.

ITC also runs a resource-full Youth Entrepreneurship forum that includes an annual Ecopreneur contest with awards for innovative green businesses. Successful initiatives of business contest for green entrepreneurship have also been held at country level, with support from ILO and UN-PAGE, such as Green Enterprise in Zimbabwe and the 2021 Driving Force for Youth Change in South Africa.

Similar support for green recovery in MSMEs is offered by the UN-SEED programme. Drawing on direct insights from micro, small and medium enterprises as well as eco-system support organizations, the Green Recovery Snapshot 2021 highlights the existing support gaps, concrete examples and new opportunities for catalysing a green, inclusive recovery from Covid-19. SEED offer hands-on support to MSMEs struggling to overcome the impact of the pandemic through a Green Recovery Enterprise Clinic as part of the Green Recovery Forum.

The Donor Committee for Enterprise Development (DCED) through its Green Growth Working Group, has developed the Green PSD Navigator, listing the approaches and tools of a range of supporting organizations in three categories: i) Policies and regulations, ii) Supporting functions and iii) Company support. It will be launched as an interactive platform, enabling users to navigate across tools and key references.

E. Active labour market policies including vocational and technical skills and employment services for climate action and green jobs

Active labour market policies play an important role in facilitating a green economic recovery. They can shoulder the on-going reallocation of labour from declining sectors and firms to expanding ones. Therefore, they should go hand-in-hand with green sector and enterprise policies. There are opportunities in recovery packages to accelerate the transition by accompanying employment services with skills development programmes for green jobs.

Improving skills and retraining need to be key policy targets to tackle the advancing reallocation in the labour market due to climate change and response policies, thus avoiding a scenario where workers become trapped, on a large scale, in climate-stressed agriculture and declining industries and failing firms. The risk is that many workers will remain in firms that are failing to innovate and adapt, and do not invest in training. At the same time, the availability of skilled workers could further make the investments of transformative firms with high growth potential succeed. Improving skills and retraining are essential policy goals to accelerate the transition and make sure no one is left behind. It also represents an opportunity to redress gender imbalances in green sectors where male employment prevails. Facilitating access to training and green job opportunities for women is an important element of a Just Transition strategy.

Measures

- Job and training placement schemes, including apprenticeships in green enterprises.
- Unemployment insurance or grants for workers and families affected by climate change and the green transition.
- Retrenchment packages for workers in declining industries and enterprises due to climate change and the green transition.
- Skills development systems for green sectors and enterprises with growth potential, e.g., sustainable agriculture and food processing, green construction, transport, work in renewable energy, recycling.

- Target women and promote their participation in skills training and apprenticeships.
- Green entrepreneurial skills development esp. for youth, as well as for greening business practices.
- Career guidance for green jobs as part of Public and Private Employment Services and capacity building of its staff.
- Develop leadership programmes for women and support networking.
- Data bases, outreach and matching fairs of available green jobs and learning opportunities.

Good practices

- Review and anticipate skills need, applying a focus on gender equality.
- Where necessary adjust skills development systems for green industries that are growing or could expand, for instance formal agriculture and food processing, construction, transport, work in renewable energy, recycling.
- (Re-)training for occupations in growing industries.
- (Re-)training of workers who lost their jobs due to the transition.
- Enhancing access to training for women, youth, ethnic minorities, migrants.
- Strengthen organization building among women for collaboration and collective action, which in turn can facilitate formalization of informal workers, for example in waste management.

▶ Examples

Skills development initiatives across countries

Since more than a decade, international organizations and national governments have analysed the skills needs for the transition to a low-carbon, climate resilient economy (e.g., ILO, CEDEFOP, OECD, IRENA). There have been multiple initiatives towards closing the perceived gaps among workers and job seekers between their competencies and the demand from the private sector. As is the case with digitalization, the anticipation of emerging new skills and the timely adjustment of vocational training and higher education systems is critical for the uptake and operation of green business models. Investing in the green economy implies investing in human capacity development.

Life-long learning and retraining is particular important for workers in stagnant and declining industries and regions. Many countries have deployed skills reorientation and training programmes for those employed in coal-mining and fossil fuel industries – often within a Just Transition framework. Economies that heavily rely on the use of natural resource exploitation, like forestry, fisheries and mineral mining, have also applied retraining and re-deployment as part of measures to avert the unsustainable use of such resources.

In the context of Covid-19 recovery, skills development has frequently been recommended as part of green recovery and just transition measures. Yet there is little evidence that this call has been followed, except for industrialized countries with very significant stimulus packages, like France, Spain the UK and Scotland.

Scotland: A long-term vision with short-term action on skills

Scotland has adopted a Climate Emergency Skills Action Plan 2020-2025 (CESAP). Areas of economic activity were identified with high potential for achieve a transition to net zero by 2050. These reflect national priorities and investment within the Government's Programme to reduce energy demand and greenhouse gas emissions and adapt to climate change. Key sectors are energy, construction, transport, manufacturing and agriculture incl. forestry. Building on the analysis of the evidence base and the skills implications for each of these, the following priority areas for action were agreed, each with a skills focus:

- Supporting a green labour market recovery from Covid-19.
- Building better understanding and evidence of future skills needs to support a transition to net zero.
- Developing the future workforce for the transition.
- Driving awareness and action to support reskilling and upskilling for the transition.
- Ensuring fairness and inclusion in the skills system as part of a just transition.
- Taking a collaborative approach to ensure a skills system responsive to changing demands.

Among other measures a dedicated Green Jobs Workforce Academy has been established. The Academy will support existing employees, and those who are facing redundancy, to assess their existing skills and undertake the necessary upskilling and reskilling they need to secure green job opportunities as they emerge. Also, a Green Jobs Skills Hub will help feed data and steer the skills system on the numbers and types of green jobs that will be needed. The Hub will play a central role in raising awareness amongst employers and individuals of the need for behaviour change and support them to take action to drive behaviour change and develop the required leadership and management skills. Key to our transition to net zero is a 'Just Transition' that ensures that everyone benefits from new opportunities. The scale and pace of change needed across all sectors will demand a significant realignment of investments in education, training and work-based learning towards green jobs.

South Africa: Assessing skills gaps and improving skills systems

A recent Government-led analysis in South Africa called "Perspectives on Advancing an Inclusive and Sustainable Green Economy" includes a call for reframing skills development for a Green Economy. Overcoming skills and education barriers will require targeted education and training programmes and significant finance for different aspects of the green economy. This includes skills related to resource-use efficiency, low-carbon industry, climate adaptation and resilience, and natural resource management. In each area, a set of key skills are identified. As a follow up, an assessment is required for the actual provision and quality of skills training and certification, to inform a possible reform of the skills development systems. An earlier review of the learning systems in the country have been useful as a first step for such a detailed assessment.

The ILO has undertaken similar analysis in more than 20 countries, the result of which have been brought together as a global outlook. For practitioners, a useful, detailed Guide for Anticipating skill needs for green jobs has been applied in many countries.

As part of its Employment and Labour Market Analysis (ELMA) work, GIZ offers a comprehensive handbook for the design of employment policies for poverty reduction, improved living standards, productivity, economic development and social cohesion. The handbook includes guidance for skills assessment as well as for green jobs, among others.

Greening Technical and Vocational Education and Training (TVET) and skills development

There is growing support to respond to the demand for adopting a green economy focus in higher education and skills development. ILO is pilot testing an approach for a range of relevant tools in six countries (Cambodia, Ghana, Zimbabwe, Zambia, Thailand and the Philippines). The pilots range from specific support measures to coaching programmes with the aim of using the tool to support developments in greening TVET whilst collecting further information and feedback to revise, strengthen and update the tool. The multi-stakeholder approach is illustrated with the work in Cambodia, where a sector focus on the construction and tourism sectors is adopted. The pilot is carried out in partnership with the Ministry of Labour and Vocational Training, Directorate General of Technical Vocational Education and Training (DGTVE), National Trade Union Confederation (NTUC), TVET institutes, Cambodia Tourism Federation (CTF) and MOT/National Committee for Tourism Professionals (NTCP).

Public Employment Services (PES) for green jobs

Employment Services, be they public or private, should embed the promotion of green jobs in the overall offer, rather than developing separate functions. Nevertheless, given the many untapped opportunities for green growth in developing countries, a proactive role for PES is important. To be effective, PES offices need to consult and work with sector institutions who deal with environmental issues more regularly, such as agricultural extension workers promoting sustainable farming practices, or energy efficiency auditors visiting companies. This is a key aspect of better coherence for effective implementation of green policies.

The State of Mexico City developed a relevant training manual for the City's Public Employment Service on Green Jobs and Just Transition. The manual offers practical recommendations and best experiences of intermediation towards greener jobs.

Supporting women's participation in the green labour market⁶¹

To help women overcome the barriers of jobs in the energy sector in sub-Saharan Africa, training and apprenticeships for young women should be organized, as well as mentoring and networking to support current female professionals. The following examples illustrate how this can be done.

- The Women in Renewable Energy Association Uganda aims at increasing women awareness and involvement in the renewable energy sector. The Association creates space where women can be mentored and gain access to opportunities in the sector.
- The Women in Renewable Energy Sector in Africa initiative, Uganda, (W-REA) intends to build a strong network of women in the growing green energy sector in sub-Saharan Africa. The network seeks to develop a pipeline of women leaders and enable them to become board members in renewable energy companies and to assume other leadership roles. It also aims to support women's access to high-paying technical jobs in the sector by increasing access to career information, building leadership skills for women, and scaling up mentorship opportunities in the sector.
- Green Girls in Cameroon is educating young women from rural communities on the use of renewable energy and raising awareness about nature conservation. Since its creation in 2015, Green Girls has trained nearly 800 women from 23 communities across Cameroon to generate solar energy and biogas from human waste, championing the inclusion of women and girls in the renewable energy sector.
- The Young Women in African Power Leadership training programme is an initiative of Power Africa in collaboration with the Young African Leaders Initiative (YALI) to improve women's work in the energy sector. In 2021, the programme expanded to East and West Africa, including 40 young women from 17 West African countries in the first francophone training, in Dakar, Senegal. In East Africa, 45 women from six countries graduated from the programme. The programme enhances leadership skills and builds energy sector knowledge. Power Africa also launched several apprenticeship programmes to help women gain skills and build their professional networks as they forge careers in the sector. In Rwanda, 62 graduates benefited from three-month apprenticeships at 11 energy companies. In Kenya, 15 interns took on roles in Kenya's electricity transmission company, electric utilities and the Geothermal Development Company.

⁶¹ This section draws on Green Jobs for Women in Africa, page 44. AfDB and UN-Women, 2021.

▶ V. Steps towards a better alignment and stronger coherence between climate action and employment policies

The previous two sections have offered guidance about how to establish and reinforce the linkages between policies for climate action and employment policies. The examples are meant to orient and motivate practitioners to take up the task to interact with policy makers and advisors with aim to accelerate a green recovery and a Just Transition towards low-carbon, climate-resilient and resource-efficient economies and societies.

This section offers preliminary guidance how to engage with policy makers and promote an interconnected approach. The experience with promoting a green recovery is still young and partial, given the small number of countries that have adopted a decidedly green focus in their response measures. Besides, country illustrations and good practices alone are not sufficient to obtain greener employment policies.⁶² Much depend on the process, timing and willingness of policy makers.

Evidence-based advocacy

Experience over the past decade has shown that an effective first step is demonstrating that linking climate action with employment promotion can be highly productive and create win-win outcomes. Awareness-raising workshops and communication campaigns have proven useful in this regard.⁶³ Once the concept begins to become accepted, a more analytical approach should be followed, with sound diagnostics to understand both the current situation regarding green jobs and the anticipated employment gains and losses stemming from adopting a green policy approach. Evidence should be documented about job-rich outcomes of green recovery strategies, so that policy makers can make informed choices and set priorities.

Some of the lessons on advocating for integrating a focus on climate change and green growth in employment policies from before the Covid-19 pandemic are also relevant for a green recovery today.⁶⁴ A useful synthesis of recommended action for Governments and social partners in the current context is presented in the ILO's Policy Brief Covid-19 and the world of work: *Jump-starting a green recovery with more and better jobs, healthy and resilient societies*.⁶⁵ It addresses national policy initiatives for a green recovery and avoiding support to harmful industries; support to enterprises, jobs and incomes; measures by enterprises for business continuity and a green recovery; and the protection of workers in the workplace through initiatives by workers' organizations for greater safety and sustainability in the workplace.

Identifying policy entry points

The ILO review of the integration of green jobs in national employment policies found that in some countries green jobs are being promoted without a related employment policy in place.⁶⁶ Green jobs outcomes may

⁶² The [Green Growth Knowledge Platform](#) (GGKP) and [UN-PAGE](#) offer valuable insights and guidance how to design and implement integrated policies for an inclusive green economy.

⁶³ The [NDC partnership](#) is a useful mechanism in this regard. UN-PAGE and [ILO/ITC](#) have hosted numerous events and capacity building courses.

⁶⁴ The OECD has undertaken an [evaluation](#) of green stimulus packages that were introduced in response to the global financial crisis (GFC) of 2007-08 and draws lessons relevant for greening the recovery from Covid-19 crisis.

⁶⁵ ILO (2020) *Jump-starting a green recovery with more and better jobs, healthy and resilient societies*. Report. Available at: http://www.ilo.org/global/topics/green-jobs/publications/WCMS_751217/lang-en/index.htm (Accessed: 15 August 2022).

⁶⁶ Ree, K. van der (2017) *Mainstreaming green job issues into national employment policies and implementation plans: A review*. Working paper. Available at: http://www.ilo.org/employment/Whatwedo/Publications/working-papers/WCMS_618884/lang-en/index.htm (Accessed: 15 August 2022).

be the co-benefits of climate change policies, for example the promotion of sustainable agriculture or a policy to green the housing stock. Here the entry point is environmental sustainability strategies. Countries also adopt green economy strategies with a component on labour markets but do not necessarily develop a comprehensive, green employment policy. These approaches often focus on sectors or themes with particular green development potential, such as renewable energy, energy efficiency, construction, agriculture or waste management. Similarly, climate adaptation strategies that include rebuilding damaged infrastructure or preventing future losses by constructing more sustainably often have a high employment multiplier. This shows that employment promotion can be undertaken by engaging with stakeholders other than Ministries of Labour or Employment, equipped with the right advocacy elements and tools. For example, more jobs can be created through rural development policies if a Ministry channels investment towards climate-smart agriculture, land use management and green rural infrastructure, accompanied by skills development and entrepreneurship training

Towards stronger policy alignment

Taking a systemic view, a more holistic approach may be adopted in which the facilitation of the labour market is viewed from different policy angles. Dedicated employment policies and related labour market instruments can greatly facilitate the positive employment outcome of climate change and environmental policies. Actually, without addressing prevailing skills levels or the (un)availability of labour in specific regions, rural development may fail to succeed. Similarly, renewable energy strategies require sufficient local MSME capacity and skills in order to meet their indicators on the proliferation of off-grid energy devices such as solar panels, thermal power stations and wind energy generators.

This goes to show the importance of explicitly making the linkage between those two sets of policies: i) climate change strategies as contained in NDCs and other environmental policies (e.g., on biodiversity, blue economy, air pollution) and ii) national and local employment and labour policies.

Addressing gender equality and vulnerability

Achieving greater gender equality and increased labour market participation of women is not an automatic outcome of green economy policies. Some studies (mainly for industrialized countries) suggest that green occupations are more often held by men (in renewable energy, green construction, waste management). Even if in developing countries this may be different, special measures should be included in green recovery and climate action to enhance access for women to skills development, employment services and green finance for start-ups, inter alia.

Besides, more comprehensive vulnerability assessments as realized in South Africa represent a useful approach to better understand and then target measures to ensure a just transition through green recovery policies.⁶⁷

Relevant guidance is offered by the African Development Bank and UN-Women for improving women participation in the greening of the labour market.⁶⁸ Three types of policies are recommended, with increasing level of ambition and complexity:

- i. *Support for women to access green jobs on equal terms.* This would include promoting women's participation in STEM fields at all levels of the education system, re-skilling and up-skilling of women in particular where greening of jobs will require new skills, supporting women to organize into women-led cooperatives and networks, and aggregating these organizations into national federations, for example waste-pickers or farm workers.
- ii. *Leveling the playing field for a gender-responsive green economy.* This implies addressing social norms and improving the enabling environment for women's participation in the green economy, in

⁶⁷ See: Department of Forestry, Fisheries and the Environment (DFFE) (2021) Perspectives on Advancing an Inclusive and Sustainable Green Economy in South Africa. Available at: <https://www.ukesa.info/library/view/perspectives-on-advancing-an-inclusive-and-sustainable-green-economy-in-south-africa> (Accessed: 15 August 2022).

⁶⁸ UN Women and AfDB (2021). Green Jobs for Women in Africa.

particular through removing legal barriers (on land titles, finance) and address gender discrimination in legislation.

- iii. *Accelerating action for a driving a gender-responsive green economy.* As countries review and redesign the climate strategies and employment policies, opportunities should be seized to integrate gender targets and objectives into existing and new policy instruments. For example, employment targets for women-led businesses in public procurement and green finance schemes could be introduced.

Good practices for guidance

For the users of these Guidelines, the main entry point is the country's employment policy. The suggested measures in the previous Chapter provide a suite of options for advocating for the integration of climate change concerns and a just transition in the policy (re-)design and implementation. As shown, a growing number of dedicated Green Jobs strategies and plans have been formulated to this effect, articulating the links with other policies. The case of Ghana (below) illustrates this trend.

Beyond the suggestions provided in the above section, some general lessons for a supportive approach are emerging from recent practices of promoting a green transition:⁶⁹

- articulating and advocating for making the link between recovery strategies, the green economy and the Just Transition framework
- seizing and political opportunities and identify “change agents” when new governments come on board, nurturing partnerships
- undertaking evidence-based analysis of green jobs in key sectors, and making the results reach policy makers in clear, actionable recommendations
- upholding a responsive attitude, acting as soundboard and network broker for broadening the policy agenda and partnerships
- mobilizing and addressing the interests of the social partners with hands-on tools and practical advice; and engaging in social dialogue with them.

Sustaining social dialogue throughout the policy process is of critical importance to enhance ownership and ensure “real economy”, pragmatic policy measures. Countries have also set up inter-ministerial committees and task forces with the inclusion of staff of the Ministry of Labour or Employment. In some cases, support by programmes such as the UN Partnership for Action on Green Economy (PAGE) have facilitated creating the policy space in which stakeholders with varying interests can review and design of inclusive green economy and recovery strategies.

⁶⁹ Examples and resources can be found in [Argentina](#), [Mexico](#) and for the [Asia Region](#).

▶ **Example****Ghana's green jobs strategy 2011-2025**

Ghana has made remarkable strides in terms of economic development while continuing to face persistent challenges in terms of unemployment, especially among the youth, and environmental changes, particularly in relation climate change and land degradation. Ghana has developed a range of policies in the economic, social and environmental fields but policy coordination remains a challenge, thereby constraining their impact.

To improve policy coherence, a National Strategy for Green Jobs for 2021–2025 has been designed under the leadership of the Ministry of Employment and Labour Relations through extensive consultations with stakeholders, including employers' and workers' organizations, multiple ministries, the private sector, civil society and academia. The overall objective is to support the creation of green jobs for women and men through coherent and effective policy coordination and a multisectoral approach.

Developed with technical assistance of the ILO, the strategy was grounded in an analysis of key challenges and opportunities in the environmental sustainability-decent work nexus, a sectoral overview and a mapping of current policies and programmes, their relevance and potential gaps, to identify key areas and action points for promoting green jobs.

The four components are: i) policy coordination and capacity building, ii) skills for green jobs, iii) green enterprises, and iv) sustainable financing. State and non-state actors would continue to play their respective roles towards enterprise development within the context of green jobs promotion. For example, the Council for Technical, Vocational Education and Training (COTVET) would lead the development of curricula and delivery of critical skills required by the green and circular economy. The Ministry of Education would also ensure mainstreaming of green and sustainable development principles into the national education system. The National Board for Small Scale Industries is expected to lead green entrepreneurial development initiatives. The Ministry of Trade and Industry would ensure promotion of green products and services in the local and international markets. The Ministry of Finance in collaboration with Financial Institutions, business owners and cooperatives would institute a framework for the effective mobilisation of financial resources to support green enterprises. The Ghana Investment Promotion Centre also would undertake investment promotion campaign to attract green investments into the green economy.

The strategy identifies women as a priority group, particularly for skills development. It sets quotas for women's participation in green skills trainings and support women's participation in green entrepreneurship development through business development services and finance. Collection and analysis of sex-disaggregated data on green skills-training programmes is envisioned throughout the strategy.

The implementation of the strategy has started in 2022, including on a Monitoring and Evaluation Framework and green jobs assessments.

Sources: ILO and Ministry of Employment and Labour Relations of Ghana. 2021. National Green Jobs Strategy. Ghana. 22 March. https://www.ilo.org/africa/WCMS_776631/lang--en/index.htm

Getting started

A practical approach can start with consulting a check-list of questions about the articulation of employment concerns in green recovery and climate change measures. Annex I provides such a sample, non-exhaustive list of questions along the policy cycle.

A second step could be offering technical advice on the anticipated employment effects of different policy scenarios, possibly through modelling. This could include the distributional impact on different groups in the labour market, in particular women and youth, as well as regional variations.

A preliminary “to-do” list for beginners

Given the many claims on work plans of advising specialists, as well as other pressing policy priorities, a number of small steps could be undertaken that do not necessarily take much time:

- linking up with platforms and local networks to get up to speed with the country's climate policies and objectives (not just NDCs, but also cleaner production, circular economy, adaptation, green finance, decarbonization, energy policies, etc.)

- engaging with the Ministry of Labour on the green jobs agenda. Find a willing ear, or link up with a current initiative. Do the same with academic and higher learning institutions, and NGOs. There is always something happening in the country. Look around in the UN family, investment banks and development partners;
- getting in touch with [NDC focal point](#) (or designated authority) and start an exchange on policy linkages; same with accredited [national entities](#) to the Green Climate Fund (GCF);
- developing proposals for collaboration to explore the employment dimension of climate policies, or pick any subject/entry point that is of interest (e.g. skills development, gender equality, waste management, circular economy, green entrepreneurship);
- organizing capacity building resources and/or awareness raising events (with local partners, ITC Turin, development agencies), for example during organized green week or World Environment Day on 5th June every year.

Developing multi-year support programmes, projects and platforms

The ILO's [Climate Action for Jobs initiative](#) could be a vehicle for stepping up action for designing and implementing interlinked policy measures. In a broader policy context, the [Global Accelerator](#) for Investing in Jobs and Social Protection for Poverty Eradication and a Sustainable Recovery may provide suitable opportunities to undertaken scalable initiatives jointly with UN partners.

In case there are opportunities for designing national project proposals for support from development partners and financial institutions (e.g., through the Green Climate Fund), the template included in Annex II may be useful.

The International Climate Initiative (IKI) is supporting countries to link economic recovery goals with climate and biodiversity targets. A dedicated [Economic Advisory Initiative](#) was launched in June 2020, covering eight countries: Colombia, Costa Rica, Ethiopia, Indonesia, Mexico, Nigeria, Rwanda and Uganda. The overall aim of the Initiative is to use the Covid-19 crisis as a chance to harmonize current economic measures with climate change mitigation, adaptation to the impacts of climate change and biodiversity conservation, so as to create a long-term and sustainable transformation. Examples are advice on nature-based solution strategies for climate change mitigation and adaptation in Colombia, the support provided to Indonesia targets the sectors of greening agriculture, waste and energy in Indonesia, and expanding the participation of the private sector in measures for the green recovery in Ethiopia. IKI is also promoting the exchange among all advisors who are part of the initiative and maintains a valuable [knowledge management site](#).

▶ Annex I. Guiding questions to support building a green recovery strategy

The experience from working with national Governments on promoting employment policies that integrate environmental sustainability and aspects of climate change has generated a set of questions that can guide the establishment of green recovery strategies.⁷⁰

I. Observatory and analytical stage

- Are green sectors and green jobs made specific in national data collection on the impact of Covid-19? For example, are (informal) workers in waste management accounted for?
- Are affected communities depending on natural resources (forestry, fishing, farming) fully covered?⁷¹
- Do Government agencies include environment and climate change in their communication about the impact of Covid-19? Do they refer to a “green recovery” one way or the other?

II. Design stage

- Are green economy interest groups included in consultations on design measures?
- Has social dialogue been used as a consensus-building tool to ensure that workers and enterprises have the workers and enterprises have the opportunities to fully benefit from recovery measures?
- Is the environmental dimension and action on climate change taken into account?
- Are certain environmental regulations suspended or even cancelled?
- Is a Just Transition to a low-carbon society part of the strategy?
- Are the respective employment gains among sectors considered in targeting measures?
- Are equity considerations (concerning youth, women, migrant workers, ethnic communities) reflected in the measures?
- Have countries designed public employment programmes to protect or restore the environment?
- Has the development of an industrial sector related to the circular economy been encouraged, e.g. eco-industrial parks or recycling industries? - Are green economy interest groups included in consultations on design measures?
- Has social dialogue been used as a consensus-building tool to ensure that workers and enterprises have the workers and enterprises have the opportunities to fully benefit from recovery measures?
- Is the environmental dimension and action on climate change taken into account?
- Are certain environmental regulations suspended or even cancelled?
- Is a Just Transition to a low-carbon society part of the strategy?
- Are the respective employment gains among sectors considered in targeting measures?
- Are equity considerations (concerning youth, women, migrant workers, ethnic communities) reflected in the measures?
- Have countries designed public employment programmes to protect or restore the environment?
- Has the development of an industrial sector related to the circular economy been encouraged, e.g. eco-industrial parks or recycling industries?

⁷⁰ This section draws largely on ILO, Panorama Laboral en tiempos de la Covid-19. Nov. 2020.

⁷¹ In [Costa Rica](#), for example, Payments for Environmental Services to farmers have been stalled due to budget shortages as a result of lower tax income.

III. Prioritization

- Are sectors with a high green job potential considered?
- Have business support, loans and measures been targeted with particular attention to key Just Transition sectors, such as renewable energy, sustainable agriculture, eco-tourism, green building construction or sustainable forest management enterprises?
- Has support been targeted with attention to those communities, businesses and workers in sectors that will be losers during the process of decarbonising the economy?

IV. Implementation

- Have countries implemented public employment programmes to protect or restore the environment?
- Has the development of an industrial sector related to the circular economy, e.g. eco-industrial parks or recycling industries, been encouraged?
- Are small and medium sized enterprises given due attention so that they can fully benefit from supportive measures and new market opportunities?
- Have worker formalisation schemes been implemented in key sectors for just transition?
- Are the responsive measures accompanied by training, skills development and reskilling of redundant workers in high-carbon sectors like coal, aviation or the petrol vehicles industry?
- Have social protection measures been taken to cushion the impact of the transition (temporary unemployment benefits, early retirement, support for relocation)?
- Has a monitoring and evaluation framework been developed with indicators on employment in green sectors and a just transition?

► Annex II. Possible strategic framework for a green recovery and just transition country programme

Overall strategic outcome:	Women and men benefit from improved social protection in the context of climate change and have better access to productive employment/ decent work that contributes to reduce emissions and improve resource efficiency	
Outcome I. Adaptation	Minimizing and managing livelihood risks (jobs, income, well-being) deriving from climate change	
Example Outputs:	Protection: improving social protection	Tools/practices/references
	Prevention: building climate-proof infrastructure	Tools/practices/references
	Promotion: strengthening economic resilience through transformation and diversification	Tools/practices/references
Outcome II: Mitigation	Mobilizing investment, undertaking gender-sensitive employment promotion, enabling enterprise development and enhancing skills in support of climate action.	
Example Outputs:	Employment-focused approaches for climate-smart agriculture and competitive green value chains	Tools/practices/references
	Investment promotion for employment promotion and skills development in green infrastructure (or any other sector)	Tools/practices/references
	Entrepreneurship promotion and SME development in the renewable energy market (or any other green sector)	Tools/practices/references
	Support for resource-efficiency, cleaner production and higher productivity in green enterprises	Tools/practices/references
	Skills for green development in TVET and higher education systems	Tools/practices/references
Outcome III. Social dialogue and participation	Strengthening social dialogue and stakeholder involvement in climate change relevant and employment policy processes (or: in design and implementation strategies)	
Example Outputs:	Capacity building for constituents to manage a Just Transition	Tools/practices
	Partnership building/strategic alliances	Tools/practices

**Advancing social justice,
Promoting decent work**

The International Labour Organization is the United Nations agency for the world of work. We bring together governments, employers and workers to drive a human-centred approach to the future of work through employment creation, rights at work, social protection and social dialogue.

Contact details

International Labour Organization
Route des Morillons 4
CH-1211 Geneva 22
Switzerland

**Employment, Labour Market and
Youth Branch**

E: emplab@ilo.org