



## Governing Body

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**Policy Development Section**  
*Employment and Social Protection Segment*

**POL**

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### THIRD ITEM ON THE AGENDA

## Addressing the impact of climate change on labour

#### **Purpose of the document**

This document provides information on the implications of climate change for decent work. It contains an update concerning global action on climate change since the adoption of the ILO *Guidelines for a just transition*. It reports on Office action to support the implementation of the Paris Agreement on Climate Change, with a focus on decent work and a just transition for all, and looks ahead to the potential role of the ILO within the relevant international processes dealing with climate change. The Governing Body is invited to take note of the information and provide guidance on further action by the Office (see the draft decision in paragraph 33).

**Relevant strategic objective:** All.

**Main relevant outcome/cross-cutting policy driver:** Outcome 4: Promoting sustainable enterprises.

**Policy implications:** Yes. Work across the policy outcomes on issues relevant to decent work and climate change.

**Legal implications:** No.

**Financial implications:** No.

**Follow-up action required:** Yes.

**Author unit:** Enterprises Department (ENTERPRISES).

**Related documents:** GB.325/POL/3, GB.326/POL/INF/1, GB.328/INS/17/2.



## I. Climate change and decent work

1. Climate change presents significant challenges for sustainable development, with major implications for economic growth, jobs, health and livelihoods. Uncontrolled climate impacts will cause damage to infrastructure, disrupt business activity, and destroy jobs and livelihoods on an unprecedented scale. However, transitions to low-carbon, environmentally sustainable economies and societies can also become a strong driver of job creation, job upgrading, social justice and poverty eradication, allowing climate-resilient economic growth and sustainable development. There is growing evidence that the job creation potential outweighs the risks of job losses. However, positive labour market outcomes require the active engagement of the world of work and the definition and implementation of specific policies for job creation, skills development and upgrading, sustainable enterprise development, social protection, rights at work and social dialogue to enable decent work and a just transition for all, leaving no one behind.
2. The ILO discussed issues related to climate change at the 102nd Session (2013) of the International Labour Conference. The Director-General's Green Initiative highlights the importance of a transition to a low-carbon world of work and will distinguish the ILO's future responsibilities and activities from those of the past. Action against climate change is central to the United Nations 2030 Agenda for Sustainable Development, and is addressed specifically under Goal 13. Furthermore, climate change is relevant to virtually all other Sustainable Development Goals, including Goal 8 on decent work and economic growth.

### Climate impacts: Risks for decent work

3. The main risks arising from climate change range from economic and welfare losses, damage to health and labour productivity, and forced labour migration. The interrelationship of these and other various types of risks translates into significant challenges for decent work and social justice. In many instances, jobs in sectors characterized by informality and decent work deficits are further undermined by climate impacts. Risks tend to be higher for indigenous and tribal peoples, residents in rural and coastal areas, women and youth.
4. In a business-as-usual scenario, long-term climate change could reduce well-being by an amount equivalent to a reduction in per capita consumption of between 5 and 20 per cent globally.<sup>1</sup> The economic sectors most affected by climate change include agriculture, forestry, energy, transport, manufacturing, and building and construction. Together, they employ more than half of the global workforce. Agriculture alone provides jobs to 1.3 billion people – close to 40 per cent of global employment – most of them working poor.
5. When it comes to occupational safety and health, climate change will have a direct effect through, for instance, temperature change. Excessive workplace heat is an example of a well-known occupational health hazard. High body temperature or dehydration causes heat exhaustion, heatstroke and, in extreme cases, death. Heat extremes also increase the risk of workplace accidents, and a body temperature above 40.6 degrees Celsius is life-threatening. More than 1 billion workers already grapple with dozens of additional extremely hot days each year due to climate change alone. Impacts on workers' health are dominated by malnutrition, diarrhoea, malaria and heat-related cardiorespiratory disease. The Fifth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) confirmed

<sup>1</sup> N. Stern: *The Economics of Climate Change: The Stern Review* (Cambridge University Press, 2007), available at: [http://webarchive.nationalarchives.gov.uk/20100407172811/http://www.hm-treasury.gov.uk/stern\\_review\\_report.htm](http://webarchive.nationalarchives.gov.uk/20100407172811/http://www.hm-treasury.gov.uk/stern_review_report.htm).

that labour productivity impacts could result in output reductions in affected sectors exceeding 20 per cent during the second half of the century. Overall, the global economic cost of reduced productivity may be more than US\$2 trillion by 2030.<sup>2</sup> Action to adapt and mitigate climate change will also have an indirect effect on occupational safety and health. Workers may be exposed to hazards and risks associated with new “green” technologies and related jobs that may not have been previously identified.

6. In 2014, 19.3 million people were forced to flee their homes due to natural hazards, the majority of whom were located in the global South. Over the coming decades, climate change is expected to increase the incidence of acute disasters, livelihood loss and social disorder, all of which will increase displacement and migration. Migration has become an important safety valve for communities coping with extreme weather events, in that migration, and in particular labour migration, can help communities adapt to and mitigate the effects of climate change events. However, unregulated mobility exposes migrant workers to costly recruitment fees, forced labour and other forms of exploitation, potentially displacing native workers and exerting excess pressure on the labour market. Where migration is already occurring from climate-affected areas, high costs of movement may undermine the life and well-being of migrant workers and their families as well as cause the inevitable decline of their countries of origin.

### **Changes in labour markets arising from climate action: Opportunities and challenges for decent work**

7. A global transition towards a low-carbon and sustainable economy entails both positive and negative consequences on employment. Generally, output and employment in low-carbon industries and services will grow, while energy- and resource-intensive sectors are likely to stagnate or contract. Yet, evidence suggests possible overall job growth. A number of studies point to net employment gains in the order of 0.5 to 2 per cent, or 15 to 60 million additional jobs globally by 2030.<sup>3</sup>
8. From a conceptual perspective, employment can be affected in four different ways. First, the expansion of greener products, services and infrastructure will translate into higher labour demand across many sectors of the economy, thereby leading to the creation of new jobs. The renewable energy sector is a case in point: employment has grown substantially in recent years, reaching an estimated 8.1 million jobs globally in 2015.<sup>4</sup> Importantly, this growth has, to date, supplemented, rather than replaced, jobs in the fossil fuel sector, due to the additional energy needs of emerging economies.<sup>5</sup> This may well change with more

<sup>2</sup> UNDP et al.: *Climate change and labour: Impacts of heat in the workplace*, 28 Apr. 2016, p. 3, [http://www.ilo.org/wcmsp5/groups/public/---ed\\_emp/---gjp/documents/publication/wcms\\_476194.pdf](http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---gjp/documents/publication/wcms_476194.pdf).

<sup>3</sup> ILO and the International Institute for Labour Studies (IILS): *Working towards sustainable development: Opportunities for decent work and social inclusion in a green economy* (Geneva, ILO, 2012), [http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_181836.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_181836.pdf).

<sup>4</sup> International Renewable Energy Agency (IRENA): *Renewable Energy and Jobs: Annual Review 2016*, [http://www.se4all.org/sites/default/files/IRENA\\_RE\\_Jobs\\_Annual\\_Review\\_2016.pdf](http://www.se4all.org/sites/default/files/IRENA_RE_Jobs_Annual_Review_2016.pdf).

<sup>5</sup> P. Poschen: *Decent work, green jobs and the sustainable economy* (Sheffield, Greenleaf Publishing, 2015), [http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_373209.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_373209.pdf).

ambitious goals for emissions reduction, such as a comprehensive transition from fossil fuels to renewables (and to energy efficiency).

9. Second, some of the existing jobs will be substituted as a result of shifts in the economy from less efficient to more efficient, from high-carbon to low-carbon, and from more to less polluting technologies, processes and products. Examples include a shift from truck-based transportation to rail, from internal combustion engine manufacturing to electric vehicle production, and from landfilling to recycling and refurbishing. These shifts may be gradual or sudden, and will likely take place both within and across different industries. They have implications for occupational profiles and skill needs as well as for workers' ability to retain employment.
10. Third, certain jobs may be eliminated – either phased out or massively reduced – without being directly replaced. This may happen where polluting and energy- and materials-intensive economic activities are reduced or phased out entirely. For example, in China, it is estimated that plans to close thousands of coalmines to reduce overcapacity and address climate change will lead to the loss of around 1.3 million jobs in the coal industry, along with 500,000 jobs in the steel industry – equivalent to about 20 per cent and 11 per cent, respectively, of China's workforce in these two sectors.<sup>6</sup> In general, greater energy, material and water efficiency (along with increased recycling of materials and reuse of products) could lead to substantial job losses in the primary sector. As is the case with job creation, there are indirect and induced effects.
11. Changes resulting from policies on climate and the environment are only one of several factors leading to job losses. In fact, greening has, to date, been a minor factor.<sup>7</sup> The principal causes of declining employment in industries such as mining, fossil energy, and iron and steel have been relative and absolute price changes, increasing automation and rising labour productivity, which have been occurring over several decades.
12. Fourth, many, and perhaps most, existing jobs will simply be transformed and redefined in the process of greening day-to-day workplace practices, skill sets, work methods and job profiles. For instance, automobile manufacturers will produce more fuel-efficient (or electric) cars. Farmers will apply more climate-resilient growing methods. Construction designers and workers will employ more energy-efficient techniques.
13. Finally, predictions of net job gains are often based on assumptions of perfect labour market dynamics where workers are mobile between jobs and locations and where there is sufficient supply of labour with the necessary skills. In reality, workers are not always able to change jobs easily without sufficient relocation support and necessary further skills development. Without policies to address these issues, the net employment effects of the transition to a low-carbon economy may be negative.

## Need for a framework for a just transition

14. Policy responses to climate change are framed under what are known as intended nationally determined contributions (INDCs), which most parties to the United Nations Framework Convention on Climate Change (UNFCCC) have submitted. The INDCs, now considered to be firm nationally determined contributions (NDCs) following the adoption of the Paris Agreement on Climate Change, represent the level of ambition and form the basis of national

<sup>6</sup> S. Yan: "China plans to cut 1.8 million coal and steel jobs", in *CNN Money*, 29 Feb. 2016, <http://money.cnn.com/2016/02/29/news/economy/china-steel-coal-jobs/>.

<sup>7</sup> ILO and ILS, op. cit.

action on climate change. As of January 2017, 162 NDCs representing 190 parties to the UNFCCC have been submitted.

15. Such policy responses to climate change imply important structural transformations that will affect national economies, enterprises, workers and their communities. The success of climate policies therefore depends on the development and implementation of enabling policies through social dialogue to ensure that the transition towards inclusive green economies is just and fair, maximizes opportunities for economic prosperity, sustainable enterprise development, social justice, rights, and social protection for all, and leaves no one behind.
16. The Paris Agreement acknowledges the need for a response that takes into account “the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities”. Concretely, this means that responses to climate change should maximize opportunities for decent work creation and ensure social protection for all. Climate change negotiators are considering this challenge within the “improved forum on response measures”, which examines the effects that climate-change policies could have on issues such as employment.
17. In the context of the ILO, governments and employers’ and workers’ organizations drafted the *Guidelines for a just transition towards environmentally sustainable economies and societies for all*, which were adopted by the Governing Body at its 325th Session (October–November 2015). These Guidelines offer a comprehensive framework of policies that countries can draw on to implement their climate-change commitments while putting in place macroeconomic and growth policies, labour market policies, industrial and sectoral policies, enterprise policies, skills development, rights, social protection, and occupational safety and health, all of which are underpinned by policy coherence and effective social dialogue and tripartism.

## II. Global policy developments

### Entry into force of the Paris Agreement on Climate Change

18. The Paris Agreement was adopted on 12 December 2015 at the twenty-first session of the Conference of the Parties to the UNFCCC (COP 21), held in Paris from 30 November to 13 December 2015, and came into effect on 4 November 2016. The early entry into force of the Agreement is a clear political signal that all nations are dedicated to decisive global action on climate change. The Agreement commits countries to holding the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels and to pursuing efforts to limit the temperature increase to 1.5 degrees Celsius.

### Outcomes of the 22nd Conference of the Parties to the UNFCCC

19. The twenty-second session of the annual Conference of Parties to the UNFCCC (COP 22) was held in Marrakech, Morocco from 7 to 18 November 2016, and focused on the implementation of the Paris Agreement. The almost 500 participating Heads of State and ministers reaffirmed a global commitment to tackle climate change and its impacts on the economy and society. The main outcome document – the Marrakech Action Proclamation

for Our Climate and Sustainable Development<sup>8</sup> – sends a strong message of engagement for action on climate change and sustainable development. Governments set the deadline of 2018 for the completion of the rule book for implementing the Paris Agreement.

20. Several countries, including Canada, Germany, Mexico and the United States, announced ambitious climate strategies up to 2050 as long-term goals to achieve climate neutrality and a low-emission economy in the second half of the century. The Climate Vulnerable Forum, a group of more than 40 countries particularly vulnerable to climate change, issued the Climate Vulnerable Forum Vision, which calls for efforts to limit global temperature rise to below 1.5 degrees Celsius and commits member countries to strive to achieve 100 per cent renewable energy as rapidly as possible.
21. Businesses, investors, cities and local governments issued several new climate change commitments, such as the Under2 Coalition, a club of subnational governments who have committed to reduce their emissions by at least 80 per cent by 2020. The business coalition We Mean Business announced that 471 companies with a total market value of over \$8 trillion have undertaken well over a thousand ambitious commitments to climate action.
22. The International Trade Union Confederation (ITUC) presented its three top priorities for trade unions on international climate governance for COP 22: (1) raise ambition and realize the job potential of climate action; (2) deliver on climate finance and support the most vulnerable; and (3) commit to securing a just transition for workers and their communities.<sup>9</sup> The ITUC stated that unions demand of their governments and employers the dialogue that will see a national plan for decarbonization, clean energy and jobs – a plan that includes commitments to ensure a just transition for all.<sup>10</sup>
23. The International Organisation of Employers (IOE) stressed that without growth and productive employment, there is less room for the successful protection of the environment and the promotion of decent work. As enterprises are the primary source of job creation, a business-friendly environment is a priority. Enterprises are at the forefront of delivering products, processes, innovative technologies, services and solutions that are necessary for a greener economy. Enterprises need support to better engage in national sustainable development strategies as well as to take part through the representative employer organizations in shaping the NDCs.
24. Adaptation to climate change was re-emphasized with new initiatives such as the Adaptation of African Agriculture initiative, and new pledges of more than \$81 million were made to the Adaptation Fund, surpassing its target for the year. Parties adopted a new five-year framework under the Warsaw International Mechanism for Loss and Damage Associated with Climate Change Impacts to deal with those impacts that are not addressed through planned adaptation, including displacement, migration and human mobility and comprehensive risk management.
25. The work stream on gender and climate change revealed support by many climate negotiators and greater engagement on labour issues was expressed. The conclusions contained explicit references to traditional knowledge. Parties agreed on the operationalization of the Paris Committee on Capacity-Building by electing its members and deciding that the Committee would take up its work in May 2017, with a mandate to help

<sup>8</sup> [https://unfccc.int/files/meetings/marrakech\\_nov\\_2016/application/pdf/marrakech\\_action\\_proclamation.pdf](https://unfccc.int/files/meetings/marrakech_nov_2016/application/pdf/marrakech_action_proclamation.pdf).

<sup>9</sup> <https://www.ituc-csi.org/ituc-contribution-to-unfccc-cop22>.

<sup>10</sup> <https://www.ituc-csi.org/ituc-response-to-paris-climate>.

build capacity for climate action in developing countries. Regarding local communities and indigenous people, the first steps were taken towards operationalizing the local communities and indigenous peoples' platform established in 2015. This marks a new era of addressing the concerns and needs of indigenous peoples in the climate process and confirms the use of the Indigenous and Tribal Peoples Convention, 1989 (No. 169), as an important tool.

26. Of particular relevance to the ILO, the discussions on the Improved Forum on Response Measures resulted in the establishment of a Technical Expert Group to guide and inform the negotiations. Parties requested their chairpersons to invite relevant intergovernmental and international organizations, including the United Nations Conference on Trade and Development (UNCTAD), the United Nations Development Programme (UNDP), the ILO, the ITUC and others, to nominate two experts to contribute to the group. This outcome provides an important opportunity for the ILO to engage further in the work of the Technical Expert Group and advance matters of interest to the Organization.

### III. Action by the Office

#### Engagement and contribution to climate change negotiations

27. As a UN observer organization under the UNFCCC, the ILO took part in COP 22 with a delegation of officials from several policy departments and field offices. The Office participated in the proceedings of a contact group discussing a just transition and the creation of decent work, and was invited by UNFCCC Parties to deliver a presentation to inform the negotiations. In addition, officials participated in negotiations concerning national adaptation plans, the Warsaw International Mechanism for Loss and Damage – in particular the development of a task force on displacement – capacity building in developing countries, and gender and climate change.
28. The ILO hosted several side events on the topics related to Goal 8 of the 2030 Agenda, a just transition to a low-carbon economy, and social protection and climate change, with the participation of high-profile speakers representing governments, the IOE and the ITUC. ILO delegates joined a High-Level Event on Sustainable Economic Transition and Economic Diversification, with the participation of representatives of the UN Secretary-General, the President of the General Assembly, several ministers, parliamentarians, and representatives of the ITUC and business organizations.<sup>11</sup>

#### Collaboration with the UNFCCC and the IPCC

29. The Office actively collaborated with the UNFCCC Secretariat in the elaboration of a technical paper on a just transition of the workforce and the creation of decent work and quality jobs.<sup>12</sup> In addition, the Office participated in a workshop on sharing views and experiences on “Economic diversification and transformation” and “Just transition of the workforce, and the creation of decent work and quality jobs”, 2–4 October 2016 in Doha,

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<sup>11</sup> An overview of events hosted by the ILO at COP22 is available at: [http://www.ilo.org/global/topics/green-jobs/news/WCMS\\_534200/lang--en/index.htm](http://www.ilo.org/global/topics/green-jobs/news/WCMS_534200/lang--en/index.htm).

<sup>12</sup> UNFCCC Secretariat: *Just transition of the workforce, and the creation of decent work and quality jobs*, 26 Oct. 2016, <http://unfccc.int/resource/docs/2016/tp/07.pdf>.



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Qatar.<sup>13</sup> The Office and the UNFCCC Secretariat are in the process of establishing a memorandum of understanding to enhance collaboration between the two organizations.

30. The IPCC is the international body responsible for assessing the science related to climate change. It was set up in 1988 by the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) to provide policy-makers with regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation. The Panel is currently in its sixth assessment cycle, during which it will produce three special reports, a methodology report on national greenhouse gas inventories, and its Sixth Assessment Report. In this context, the Office is contributing to a scoping exercise to define the issues and topics that the IPCC will consider in its Sixth Assessment Report.

### **Implementation of the pilot project on a just transition**

31. Initiatives supporting the implementation of the ILO *Guidelines for a just transition* are under way in the Philippines and Uruguay, and are about to start in Ghana and other countries having expressed interest. Thus far, a process of social dialogue has started allowing governments and employers' and workers' organizations to consider national priorities in responding to climate change, with a view to advancing decent work, social protection, skills building and measures for adapting to the effects of climate change on businesses, workers and communities.

### **Training and capacity building of ILO officials and constituents**

32. In collaboration with the ILO International Training Centre in Turin, a number of training programmes and courses have been organized to enhance the knowledge, understanding and capacity of ILO constituents on matters relevant to decent work and climate change. A new training course on climate change, a just transition and decent work has been delivered at the Turin Centre since June 2016. During 2016, the Office provided support to ITUC-Africa in a series of regional and subregional training workshops on climate change and decent work. ILO officials also participated in sessions of the European Economic and Social Committee to provide views and perspectives on climate change implications for labour markets, experience with policies in Europe and lessons learned. In October 2016, an Academy on the Green Economy brought together around 150 representatives from 35 countries with a High-Level Policy Dialogue dedicated to the theme of The Future of Work in the Transition to Inclusive Green Economies, recognizing the significance of employment and distributional impacts in the shift to low-carbon economies, and the need to ensure a just transition for enterprises, workers and communities. In addition to a technical workshop and ministerial dialogue organized in April and June 2016 under the auspices of the Climate Vulnerable Forum, in December 2016 the ILO hosted a learning workshop on heatwaves and their impact on the workplace. Lastly, in January 2017, the Office contributed to the Southern Africa Business Forum in Pretoria, on the subject of business engagement in the context of climate change and decent work.

<sup>13</sup> Documents from the workshop are available at: [http://unfccc.int/cooperation\\_support/response\\_measures/items/9973.php](http://unfccc.int/cooperation_support/response_measures/items/9973.php).

## Draft decision

33. *The Governing Body takes note of the information provided by the Office and requests the Director-General to:*
- (a) *promote further discussion, knowledge and understanding of the implications of climate change for the world of work, through the Green Initiative;*
  - (b) *continue with the pilot country application of the Guidelines for a just transition towards environmentally sustainable economies and societies for all with a focus on assisting governments and employers' and workers' organizations in developing policies, through social dialogue, to implement their climate change commitments;*
  - (c) *promote the ratification and implementation of those international labour standards most relevant to the just transition framework towards environmentally sustainable economies and societies for all (as listed in the appendix to the ILO Guidelines), and identify and address gaps related to the policy areas in the Guidelines, including by making use of the Standards Review Mechanism process;*
  - (d) *promote collaboration among the ILO and relevant international institutions addressing climate change, with a view to advancing decent work and a just transition for all.*