

A Just Transition in Jordan

The Role of Trade Unions

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In order to achieve a just transition, trade unions in Jordan must assess the risks and potential fallout of anticipated shifts in energy systems and labor market sectors that rely on energy production or consumption.



Trade unions must endeavor to identify political entry points that will enable them to mainstream just transition in Jordan's climate policies and strategies.



Global climate change action will not be successful or just unless steps are taken to mitigate the risks of the energy transition for the workforce.

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CONTENTS

Introduction	7
Global Climate Change Policy	9
The Energy Transition	12
A Just Transition	15
Managing Climate Change in Jordan	18
Effects of Climate Change in Jordan	21
A) Water	21
B) Agriculture	21
C) Biodiversity and Ecosystems	22
D) Urban Areas	22
E) Public Health	22
The Role of Trade Unions in Supporting a Just Transition in Jordan	23
A) Capacity Building	23
B) Socioeconomic Impacts	24
C) Building Political Support	26
D) Fostering Alliances with Civil Society Organizations with Similar Goals	26
E) Integrating a Just Transition into Jordan's Climate Action	27

1

Introduction

There is widespread global consensus that the Earth's climate is changing and that human activities are responsible for rising surface temperatures, according to the Intergovernmental Panel on Climate Change (IPCC).⁽¹⁾ The risks of climate change are not distant possibilities; they have begun to impact natural and human systems. Countries around the world agree that it is necessary to take bold steps to combat climate change. This includes committing to reducing greenhouse gas emissions worldwide in accordance with the Paris Agreement.⁽²⁾ The Glasgow Climate Pact, the product of a summit held in 2021, also called upon states to keep their promises through rapidly scaling up technologies and policies for the transition to low-emission energy systems using clean power generation, energy efficiency, and gradually “phasing

down” coal use.⁽³⁾ Policy makers are concerned that energy transition efforts could have unintended negative consequences arising from technological and financial shocks to global energy markets, which are the lifeblood of the global economy. Labor markets will not be spared this upheaval, and one of the most important repercussions for policy makers is the potential job losses in sectors that depend upon fossil fuels. They are concerned that these sectors will not be able to cope with the fallout of the transition. Global climate change action will only be successful and just if steps are taken to mitigate the risks of the energy transition for the workforce. Governmental agencies, trade unions, and employers are all responsible for ensuring a just energy transition.

This paper seeks to examine the role of trade unions in Jordan in protecting workers and developing mechanisms to deal with upheaval in the local labor market that might occur as part of national climate action. The paper

1 This is a UN body focused on assessing the effects of climate change, and was formed through the combined efforts of the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO) in 1988. The IPCC's website is <https://www.ipcc.ch>.

2 United Nations Climate Change, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

3 United Nations Climate Change. Glasgow Climate Pact. <https://unfccc.int/documents/310475>.

contains seven sections. The second section, following the introduction, examines the UN's efforts to address climate change, including climate treaties and policies adopted. The third section considers the emergence of the idea of an energy transition stemming from global commitments to reducing greenhouse gas emissions. The fourth section examines the components of a just energy transition, including steps that must be taken to mitigate unintended shocks resulting from the transition. The fifth section provides a brief historical overview of Jordan's efforts in managing climate change during the last three decades and sheds light on the government's current climate framework and strategic plans for further climate action. The sixth section discusses the effects of climate change on several sectors in Jordan by focusing on the impacts on vulnerable populations. The seventh section describes the strategies that trade unions in Jordan could adopt to promote a just energy transition.

2

Global Climate Change Policy

The Secretariat of the United Nations Framework Convention on Climate Change (UNFCCC)⁽⁴⁾ is a UN body established in 1992 by states party to the convention to support the global response to the risks of climate change. During its early years, the secretariat was primarily focused on intergovernmental negotiations on climate change following the adoption of the Framework Convention in 1992,⁽⁵⁾ the Kyoto Protocol⁽⁶⁾ in 1997, and the Paris Agreement⁽⁷⁾ in 2015. According to the Secretariat, the objective of these three agreements is to “stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system, in a time frame which allows ecosystems to adapt naturally

and enables sustainable development.”⁽⁸⁾

The Secretariat also supports the efforts of a set of subsidiary bodies that work on implementing these agreements through providing technical expertise and helping to analyze climate change data provided by states. The Secretariat also organizes and supports various annual negotiations, most importantly the Conference of the Parties (COP),⁽⁹⁾ which has been held every year since 1995. The Secretariat works hard throughout the year to keep all stakeholders informed about negotiations and climate action.

The Paris Agreement, which was signed at the end of the 2015 UN Climate Change Conference of the Parties (COP21), provided a global institutional framework for working together to address climate change. States

4 United Nations Climate Change, About the Secretariat, <https://unfccc.int/about-us/about-the-secretariat>.

5 United Nations Climate Change, The Convention, <https://unfccc.int/process-and-meetings#:d8f74df9-0dbd-4932-bf3c-d8a37f8de70e>.

6 United Nations Climate Change, The Kyoto Protocol, <https://unfccc.int/process-and-meetings#:2cf7f3b9-5c044-d8a-95e2-f91ee4e4e85d>.

7 United Nations Climate Change, The Paris Agreement, <https://unfccc.int/process-and-meetings#:a0659cbd-3b304-c05-a4f9268-f16e5dd6b>.

8 United Nations Climate Change, About the Secretariat, <https://unfccc.int/about-us/about-the-secretariat>.

9 The Conference of Parties (COP) or UN Climate Change Conference is one of the most important global forums for multilateral discussions on climate change issues. The UN convenes the COP annually to discuss implementation of climate agreements that have been ratified by state parties and to adopt resolutions to ensure that these tools continue to be developed and implemented.

party to the agreement have committed to hold global temperature rise at no more than two degrees Celsius (compared to pre-industrial levels) and to continue efforts to limit global warming to 1.5 degrees Celsius, since this would significantly reduce the risks of climate change.⁽¹⁰⁾ Beyond this threshold, scientists predict that climate change is much more likely to have catastrophic effects.

Negotiations at the global level, such the Conference of the Parties, other summits and annual sessions of subsidiary bodies, and workshops have helped develop consensus around a global commitment to mitigation and adaptation as two complementary strategies for addressing climate change. Mitigation focuses on reducing or stopping greenhouse gas emissions and strengthening the capacity of natural systems to absorb these gases. Adaptation focuses on proactively reducing the effects of climate change by systematically assessing potential risks and vulnerabilities.

The Paris Agreement requires countries that have ratified the agreement to communicate their “Nationally Determined Contributions” (NDCs) towards mitigation and adaptation to the Secretariat of the UNFCCC.⁽¹¹⁾ Each

country must update its NDCs every five years in order to enhance their respective ambitions with regard to mitigation efforts.⁽¹²⁾ The annual Conference of the Parties of the UNFCCC has become a key event for all states to evaluate whether their mitigation efforts within the context of the NDCs have set the world on the right course to achieve the primary objective of the Paris Agreement.

Last fall, prior to COP26 in Glasgow, Scotland, which was held from 1-12 November 2021, most media attention was focused on whether the current NDCs would enable the world to achieve the main objective of the Paris Agreement, namely, limiting temperature rise to two degrees Celsius during this century, or 1.5 degrees if possible. This included the updated NDCs that had been communicated by some high-emissions countries, such as the European Union, the US, Canada, the UK, and Japan as well as NDCs that had not yet been updated by other key parties such as Australia, China, Russia, and Brazil. COP26 in Glasgow was particularly important because it coincided with the first implementation of the ratcheting up mechanism that requires parties to increase their emissions reduction ambition, every five years, beyond current NDC pledges.

10 United Nations Climate Change, <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

11 The NDCs involve climate action plans for each country, including reporting the steps that they are taking to reduce greenhouse gas emissions and to adapt to the effects of climate change.

The importance of developing more ambitious

12 United Nations Climate Change. The Paris Agreement. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

goals for reducing emissions is further backed by the third section of the Sixth Assessment Report of the IPCC, which was published on 4 April 2022. The report argues that it will be almost impossible to keep global temperature rise to 1.5 degrees Celsius or even two degrees Celsius without implementing immediate and far-reaching reductions in greenhouse gas emissions.⁽¹³⁾ During COP26, the Glasgow Climate Pact was adopted, which called for collective action in closing the gap between current emissions plans and the level of emissions reduction necessary to keep global temperature rise to 1.5 degrees Celsius. The Pact also focused for the first time on ramping up efforts to gradually eliminate coal-based power and to stop subsidizing fossil fuels. It also emphasized the need to support a just transition.⁽¹⁴⁾

In addition to NDCs, many countries around the world have committed since early 2021 to long-term goals to reduce greenhouse gas emissions, reaching net zero by mid-century or later. Net zero emissions, or carbon neutrality, aims to reduce greenhouse gas emissions from all sources as much as possible and to work to achieve overall balance between emissions from sources that are difficult to cut and those

which can be removed from the atmosphere. This means that it is permissible to emit low levels of greenhouse gases as long as they are offset by removing the same quantity of gases from the atmosphere during the same period of time, while recognizing that the priority is to reduce new emissions as much as possible. In other words, we need to try to get as close as possible to “absolute zero” and to use offsets when absolutely necessary and only as a temporary solution.

Globally, 90 percent of greenhouse gas emissions are now covered by net zero targets.⁽¹⁵⁾ These targets are not part of the NDCs, but rather were established by countries that laid out long-term plans to reduce emissions. Many countries will have achieved net zero emissions by 2050 (the European Union, the US, Japan, Australia, Canada, and South Korea, among others), by 2060 (China), or by 2070 (India). Although these targets are important and could help expedite climate action by governments, it is hard to say whether these countries will succeed in meeting these net zero targets. Many of these countries are still developing legislation and other political and legal strategies to enable them to achieve these goals.

¹³ Intergovernmental Panel on Climate Change (2022). “Climate Change 2022: Mitigation of Climate Change.” Summary for Policymakers. https://report.ipcc.ch/ar6wg3/pdf/IPCC_AR6_WGIII_SummaryForPolicymakers.pdf.

¹⁴ United Nations Climate Change. Glasgow Climate Pact. <https://unfccc.int/documents/310475>.

¹⁵ Climate Action Tracker. Glasgow’s 2030 Credibility Gap. <https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zero-lip-service-to-climate-action/>.

3

The Energy Transition

Some countries have communicated their interim targets as part of their efforts towards carbon neutrality, which shed light on the kinds of shifts taking place and how they are carried out. The energy sector is responsible for almost 75 percent of global greenhouse gas emissions today, which means that the global economy will witness a significant shift in the means of energy production, storage, and consumption across several sectors. For example, the EU announced that several of its member countries intend to reduce greenhouse gas emissions by at least 55 percent by 2030 as compared with 1990 levels.⁽¹⁶⁾ This will require a higher percentage of renewable energy within the energy mix as well as greater efficiency in energy consumption. According to the European Commission, the EU has committed to increasing renewables in its energy mix to 32 percent by 2030⁽¹⁷⁾ and raising energy efficiency targets and making

these mandatory in order to achieve a 36 percent reduction in final energy consumption and a 39 percent reduction in primary energy consumption.⁽¹⁸⁾ The current US administration has pledged to become carbon neutral by 2050 through reducing greenhouse gas emissions by at least 50-52 percent by 2030 compared to 2005 levels.⁽¹⁹⁾ It will also seek to generate electricity from net zero carbon sources by 2035.⁽²⁰⁾

Moving away from fossil fuels in the transportation, manufacturing, and building sectors (in the latter case, fuel used for heating purposes) will accelerate the electrification of these sectors, particularly in light of the ongoing cost reduction of wind and solar power generation. It is expected that the electrification of transportation will lead to a gradual phase-out of the use of petroleum derivatives as sources of fuel for

16 European Commission. Climate Action and the Green Deal. https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/climate-action-and-green-deal_en.

17 European Commission. Renewable Energy Targets. https://energy.ec.europa.eu/topics/renewable-energy/renewable-energy-directive-targets-and-rules/renewable-energy-targets_en.

18 European Commission. Energy Efficiency Directive. https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-directive_en.

19 The White House. National Climate Task Force. <https://www.whitehouse.gov/climate/>.

20 Ibid.

vehicles, especially given the growth of new electric car companies and investments by existing car manufacturing companies in new electric vehicle production lines that will gradually replace internal combustion engine lines. These changes will also involve developing charging and storage systems and modernizing electricity transmission, distribution, and control networks, making it possible to utilize smart grid and microgrid technologies. These technologies will also allow for the development of new industries that will attract more workers.

Furthermore, industrialized nations are currently investing in producing green hydrogen to replace fossil fuels in sectors that rely heavily upon thermal energy, such as steel, iron, and aluminum plants, as well as petrochemical, cement, and fertilizer industries. Technologies for producing green hydrogen rely on the electrolysis of water using electricity from renewable energy sources. The largest developers of these technologies plan to launch an initiative that will aim to achieve a 50-fold increase in green hydrogen production in the next six years.⁽²¹⁾ This rapid expansion aims to reduce production costs.

These shifts are not limited to forms of energy production and consumption. Many

observers have also stated that limiting global temperature rise to 1.5 degrees Celsius as per the Paris Agreement will inevitably require developing new technologies. This will involve increasing spending to fund research, development, and innovation in order to commercialize technologies to directly capture CO₂ from the atmosphere for storage and others to capture and sequester CO₂ from carbon-intensive sources.

It appears that the global energy transition will continue to progress and gain momentum across different sectors in order to achieve carbon neutrality. The NDCs will help encourage renewable electricity generation to meet the projected growth in global demand for the electrification of manufacturing, transportation, and construction sectors. This unprecedented global transition will require enormous investments in pursuing alternative energy and transportation systems, developing new technologies, modernizing infrastructure, and improving the efficiency of energy consumption across all sectors. Governmental incentives and emerging technologies will help drive this shift. Markets will see changes in consumer interests and in business models for companies and their products. Observers have noted that these developments will impact the labor market as a result of shifts in qualification and training requirements.

21 RMI. World's Green Hydrogen Leaders Unite to Drive 50-fold Scale-up in Six Years. <https://rmi.org/press-release/worlds-green-hydrogen-leaders-unite-to-drive-50-fold-scale-up-in-six-years/>.

This unprecedented change in the types of energy supply and use is generally referred to in the literature as the “energy transition.” Not all countries are pursuing the same steps in managing the energy transition and in working towards net zero emissions. Countries with high levels of emissions will need to start early to achieve these targets (i.e., before lower- or middle-income countries). The roadmap for each country will depend upon their developmental status, the availability of funding, their capacity to design incentive policies, their ability to assimilate new technologies, and the quality of infrastructure for energy and transportation systems. Observers hope that the energy transition, which could last until 2050, will promote just economic development and the provision of stable and reliable energy to all sectors of society at a reasonable cost, while also reducing greenhouse gas emissions.

4

A Just Transition

The energy transition will create major ripples in global energy markets and in the transportation, manufacturing, and construction sectors, which rely on energy. These shocks will certainly include local energy and transportation markets in Jordan given their reliance on foreign investments² and global supply chains. There will be unintended negative ramifications for those local labor markets that are associated with the affected supply chains and affected sectors. According to international reports, labor markets will experience upheaval as a result of replacing fossil fuels with renewable energy sources, market penetration by new technologies, and the emergence of new supply chains.

Sectors and supply chains that rely on fossil fuels are projected to experience job losses. However, investments in renewable energy, energy efficiency, electric transport systems and infrastructure, green hydrogen production technologies, and removal of carbon from the atmosphere during the transition will lead to new job opportunities. The labor market will also experience shifts in the kinds of work,

salaries, education, and qualifications and training required in order to fill openings. Although international reports on the impacts of the energy transition on the workforce indicate that there will be a net increase in the number of jobs available in the energy sector, new work opportunities will not necessarily be the same as those that were available in declining sectors. These new opportunities are also likely to be located in different places and many will depend upon sectors and technologies that are still being developed, and will require different qualifications and practical skills compared with those required for positions that will be lost with the decline of the current fossil energy sector and related industries. It is possible that these structural changes will cause upheaval for workers in the declining labor markets during the energy transition, which could last decades.

The risks of the energy transition require serious strategic attention from Jordan's Ministry of Labor as well as from trade unions and employers, in order to develop a deep understanding of potential outcomes and

to mitigate hardships stemming from this upheaval. The concept of a “just transition” thus has come to refer to efforts to put in place measures to address the unintended labor market disruptions caused by the energy transition. This will entail institutionalizing procedures to provide transitional assistance to those who may be negatively affected by the expected disruptions in the declining sectors, especially in the electricity generation and transportation sectors. Appropriate opportunities for integrating these measures within governmental climate action strategies and plans must be identified. In this regard, it will be essential for governments to adopt policies that can mitigate job losses.

Among the most important parts of a just transition is ensuring stable livelihoods for those who have been negatively affected by the transition. This could include financial support for families and ensuring continued access to social welfare such as pensions, unemployment assistance, and healthcare.⁽²²⁾ Many new work opportunities will be different than those jobs which have been lost, so it will be crucial to design vocational training services to retrain workers from declining sectors and to train the future workforce with the new skill sets required. Professional development programs should take several factors into

account. First, training programs must be diverse in nature, given the heterogeneity of the current workforce and the variety of sectors and industries that will expand into new areas and communities. Sustainable programs should also be adopted to expand the workforce according to the projected demand for labor during the transitional period, i.e., during the next several decades. This will require careful planning to determine the minimum amount of time needed to prepare workers for new positions and to avoid labor supply bottlenecks. All involved parties must try to ensure that the new positions in emerging sectors are appropriate and of high quality and that they comply with professional health and safety standards.

The government should try to locate renewable energy and climate action facilities in places that have lost other jobs when possible. In lieu of that, it could also provide financial assistance for moving to new work sites if it is unlikely that new opportunities can be created in the same locations. In some cases, it might be best to create incentives for energy, construction, and infrastructural companies to keep the same employees and to retrain them and provide new income sources rather than paying unemployment assistance.

It is evident that a just transition will require extensive cooperation between trade unions, employers, and the Ministry of Labor in order

²² Resources for the Future (2021). Policy Options to Enable an Equitable Energy Transition. https://media.rff.org/documents/RFF_Report_21-09_Policy_Options_to_Enable_an_Equitable_Energy_Transition.pdf

to meet the needs of workers and employers alike. The government must therefore endeavor to coordinate with all parties by establishing genuine and ongoing dialogue shaped by the priorities of all stakeholders.

It will not be possible to predict all potential impacts of the energy transition for various workers and communities in the decades to come. Therefore, policy efforts towards a just transition must be open to ongoing experimentation and learning and to adapting measures as new information becomes available that can provide critical guidance on policy changes over time.⁽²³⁾ The government will need to adopt a framework for a just transition that takes into account the need for effective coordination, serious dialogue, the participation of all stakeholders, and adaptive management of policies.

Given the importance of a just transition, the Paris Agreement held that countries around the world must “tak[e] into account a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities.”⁽²⁴⁾ The Glasgow Climate Pact also recognized “the need to ensure just transitions

that promote sustainable development and eradication of poverty, and the creation of decent work and quality jobs.”⁽²⁵⁾

These quotes from the Paris Agreement and Glasgow Climate Pact indicate that decision-makers must take into account the socioeconomic upheaval that could affect the job market and workforce as a result of climate mitigation and adaptation measures. The government must endeavor to prevent these disruptions by adopting a governance framework that includes stakeholders in decision-making processes and provides clear mechanisms for strengthening participation, transparency, and accountability.

23 Resources for the Future (2021). Policy Options to Enable an Equitable Energy Transition. https://media.rff.org/documents/RFF_Report_21-09_Policy_Options_to_Enable_an_Equitable_Energy_Transition.pdf

24 United Nations Climate Change. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

25 United Nations Climate Change. Glasgow Climate Pact. <https://unfccc.int/documents/310475>.

5

Managing Climate Change in Jordan

Jordan has been managing climate change efforts for three decades, since the government ratified the UN Framework Convention on Climate Change in 1993. These efforts have included strategic policies, legislation, technical studies, and other climate mitigation and adaptation plans in different sectors. It has issued periodic reports and prioritized institutional cooperation. Some sectors have recently implemented initiatives to strengthen adaptive mechanisms in particular. It is projected that the pace of implementation for adaptation procedures will increase as funding for climate action grows.

The Ministry of Environment has been responsible for managing climate change at the national level, as per Environmental Protection Law No. 6 of 2017, which places the Ministry of Environment in charge of efforts to “coordinate national efforts to forecast climate change, identify sectors involved in its impacts, limit and mitigate greenhouse gas emissions, such as financing, technology transfer, [and] reallocation and distribution of available funding to climate change activities.” Clause

(d) of Article (4) states that the ministry will “monitor the implementation of the provisions of any environmental convention to which the Kingdom [of Jordan] is a party, including the United Nations Framework Convention on Climate Change or any relevant conventions or any protocols ratified by the Kingdom.”⁽²⁶⁾ The Ministry of Environment serves as the national point of contact for the UN Framework Convention on Climate Change. In 2015, the Ministry of Environment established Jordan’s Climate Change Directorate.

With regard to climate change governance, the prime minister formed the National Climate Change Committee in 2001 with the goal of monitoring implementation of the UN Framework Convention on Climate Change as well as the Kyoto Protocol. However, the committee struggled to institutionalize coordination efforts. There were several attempts to reorganize its structural and devolution systems. The lack of clarity about

²⁶ Ministry of Environment. Environmental Protection Law No. 6 of 2017. http://www.moenv.gov.jo/ebv4.0/root_storage/ar/eb_pdf.0-2017_قانون_6_للسنة_حماية_البيئة_رقم_6_لسنة/list_page.

the underlying framework and purpose of the committee was resolved with the passage of Climate Change Bylaw No. 79 of 2019. Clause (a) of Article (4) of this bylaw stipulated that a national climate change committee headed by the Minister of Environment would be formed with representatives from sixteen governmental bodies.⁽²⁷⁾ The head of the Climate Change Directorate at the Ministry of Environment was to serve as Secretary of the National Climate Change Committee. The committee's most important duties included approving climate change plans, institutionalizing coordination between different sectors, and implementing mechanisms for sharing information among different stakeholders.

In November 2021, Jordan submitted updates to its first NDCs to the Secretariat of the UNFCCC. In the updated NDCs, Jordan committed to reducing greenhouse gas emissions at the macroeconomic level by 31 percent by 2030 rather than the baseline/business-as-usual scenario from 2012.⁽²⁸⁾ This commitment includes an unconditional reduction target of 5 percent and a conditional target—which depends upon international aid and support

for implementation mechanisms—of at least 26 percent.

The updates to the first NDCs include a clear roadmap for the future with regard to combating climate change in Jordan through laying out comprehensive mitigation and adaptation actions that will be implemented by 2030. This includes 32 measures to reduce greenhouse gas emissions by targeting the energy, transportation, waste, manufacturing, and agricultural sectors. The most important mitigation steps include increasing renewable energy sources for electricity generation to 35 percent and improving the efficiency of energy consumption across several sectors by 9 percent by 2030.⁽²⁹⁾ The adaptation measures in the update to the first NDC are directly linked to the National Climate Change Adaptation Plan adopted by the Ministry of Environment in February 2021. The National Climate Change Adaptation Plan included a Vulnerability Assessment that fully incorporated all potential impacts of climate change on sectors including water, agriculture, biodiversity, coastal areas, urban areas, healthcare, and socioeconomic development. It linked these risks with the capacity of each sector to adapt while taking into account gender considerations and the needs of the most vulnerable strata of society. Jordan is expected to finish updating its Vulnerability Assessment during 2022.

27 Ministry of Environment. Climate Change Bylaw No. 79 of 2019. http://www.moenv.gov.jo/ebv4.0/root_storage/ar/eb_pdf.2019_نظام_تغيير_المناخ_رقم_79_لسنة/list_page.

28 Hashemite Kingdom of Jordan. Ministry of Environment. Updated Submission of Jordan's 1st Nationally Determined Contribution (NDC). October 2021. <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Jordan%20First/UPDATED%20SUBMISSION%20OF%20JORDANS.pdf>.

29 Ibid.

The Ministry of Environment is currently working on updating its National Climate Change Policy for 2022-2050 in order to develop a long-term strategy and vision for climate action that would allow Jordan to achieve carbon neutrality within the next few decades. This policy will serve as a very flexible point of reference that incorporates national climate change priorities and will assist in preparing strategies and sector-specific policies. It also provides international stakeholders and partners with sector-based guidance for developing targets and policies to further climate mitigation and adaptation efforts.

6

Effects of Climate Change in Jordan

The vulnerability of various development sectors in Jordan to climate change risks can be summarized as follows, as per the Third National Communication⁽³⁰⁾ and National Climate Change Adaptation Plan⁽³¹⁾:

A) Water

- Vulnerability to risks of rising temperatures, decreased rainfall, and increased evaporation.
- Reduced capacity to recharge groundwater basins that have been drained far beyond their capacity to restore themselves.
- Reduced water quantity of surface water such as reservoirs, rivers, streams, and springs.
- Deteriorating soil quality and increased desertification in the long term.

³⁰ Hashemite Kingdom of Jordan (2014). Ministry of Environment. Jordan's Third National Communication on Climate Change. http://www.moenv.gov.jo/ebv4.0/root_storage/ar/eb_list_page/jordans_third_national_communication_report-0.pdf.

³¹ Hashemite Kingdom of Jordan. Ministry of Environment. The National Climate Change Adaptation Plan of Jordan 2021. http://www.moenv.gov.jo/ebv4.0/root_storage/ar/eb_list_page/final_draft_nap-2021.pdf.

- Reduced surface water quality, increased water salinity, decreased oxygen content, and increased pollution.

B) Agriculture

- Vulnerability to risks of rising temperatures, reduced rainfall, changes in rainfall patterns, and drought.
- Reduced rain-fed and irrigated crop productivity and livestock productivity.
- Reduced soil fertility, a shift towards using irrigated rather than rain-fed agricultural systems, and reduced areas allocated for field crops.
- Olive production reduced by 5-10 percent along with reduced quality of olive oil.
- Threats to livelihood for many rural communities that depend upon agricultural and natural resources.
- Reduced food security at the national level and greater reliance on food imports.
- Erosion of progress achieved in poverty eradication in vulnerable rural areas.

C) Biodiversity and Ecosystems

- Vulnerability of natural systems to drought, reduced forest growth, loss of plant cover, changes in ecological communities, habitat deterioration, and loss of biodiversity.
- Reduced forest area as a result of increased temperatures and fires.
- Disruptions for many species forced to leave their natural habitats.
- Opportunities for invasive species to spread in areas they had not previously been able to reach.
- exhaustion, which could lead to a rise in deaths and incidence of chronic illness.
- Increased spread of respiratory illnesses and exacerbation of chronic illnesses such as asthma.
- Exposure of workers in outdoor work sites to UV radiation, which could have negative health effects.
- Exposure of workers in outdoor work sites to higher rates of air pollution due to rising temperatures.

D) Urban Areas

- Vulnerability to floods resulting from heavy rainfall in overcrowded areas.
- Increased vulnerability when multiple shocks occur at the same time, especially in precarious areas, given their rundown infrastructure.
- Disruption of social and economic service provision in large urban areas, since infrastructural systems are connected, i.e., if one urban system shuts down, others will also be affected.

E) Public Health

- Increased incidence of illness as a result of increased spread of water and foodborne illnesses.
- Increased vulnerability to heatstroke and adverse health effects caused by heat

7

The Role of Trade Unions in Supporting a Just Transition in Jordan

The Ministry of Environment, in its capacity as Jordan's national point of contact with the UNFCCC, is responsible for ensuring a just climate transition. This paper seeks to shed light on the role of trade unions in the framework of a just transition. There are several aspects of this approach including developing trade unions' capacities to incorporate the principles of a just transition within the framework of promoting decent work and gathering support for making this transition part of the government's climate agenda.

This section outlines the steps that trade unions can take to establish and strengthen their role in supporting a just transition.

A) Capacity Building

In order for trade unions to support a just transition, they must first develop their institutional knowledge capacities on climate change and just transitions, and the connections between these two sets of principles. The first step in developing institutional capacities is training trade union

staff members from various organizational levels to become conversant in policies and strategies adopted as part of a just transition at the local and international level. The purpose of these institutionalizing efforts is to develop the necessary political and technical expertise to enable trade unions to engage in upcoming social dialogues and to contribute to policy-making efforts towards a just transition.

Training trade union staff will require designing knowledge-based and awareness-raising training programs that target trade union leaders, committee heads, and members. These efforts aim to improve understanding of the impacts of climate change on the workforce and to foster planning skills for a just transition. The training should also aim to raise members' awareness of key upcoming structural changes and the importance of active political engagement with relevant governmental bodies and other agencies to develop practical and effective approaches for a just transition. These capacity-building processes will ultimately result in preparing trade union leaders to internally and externally

manage the transition and to prepare and monitor implementation of relevant trade union strategies.

B) Socioeconomic Impacts

In order to engage in social dialogue and formulate policy for a just transition, trade unions must first undertake detailed analytical studies that they can draw upon in developing their approach to supporting the transition. It would be helpful for these studies to investigate the following two topics: The first topic involves a detailed study of the likely impacts of climate change on the workforce across different work environments. The second topic will examine the implications of climate responses to anticipated shifts in employment and labor markets.

Impacts of Climate Change on the Workforce: The Fourth Communication Report, which was prepared by the Ministry of Environment, is a comprehensive report on the likely impacts of climate change on various sectors in Jordan and provides a clear account of the Vulnerability Assessment for each sector. The organizational structure of the report centers around providing a detailed risk analysis on climate disruptions and how vulnerable each sector is to these risks. The report does not go into detail in identifying vulnerable groups of workers. This makes it hard to assess the effects of climate change on labor and the workforce at the micro level in a cross-

sectoral context. It will be necessary to launch detailed studies on the extent to which the workforce will be impacted by climate change across sectors. The Vulnerability Assessment is a useful starting point for embarking on more specialized reports about labor and the workforce. The responsibility for these future studies should be distributed among the Climate Change Directorate at the Ministry of Environment, the Ministry of Labor, and trade unions, while the National Climate Change Committee can coordinate these efforts.

A report by the International Labor Organization entitled "The Employment Impact of Climate Change Adaptation"⁽³²⁾ recommends examining three main points in dealing with climate change and the workforce, including:

1. Shedding light on the anticipated adverse effects of climate change risks on workers whose livelihood depends upon natural resources and ecosystem services that are directly threatened by climate change.
2. Assessing growing or new professional health and safety risks that have arisen as a result of the effects of climate change and determining appropriate steps towards protection and prevention.
3. Examining the unequal distribution of

³² The Employment Impact of Climate Change Adaptation. Input Document for the G20 Climate Sustainability Working Group International Labour Office - Geneva, ILO, 2018. https://www.ilo.org/wcmsp5/groups/public/-ed_emp/documents/publication/wcms_645572.pdf.

climate change risks either by gender or among different sectors of the workforce with different income levels.

Investigating these factors can help provide a logical framework that can be used to formulate plans for mitigating and addressing inequality and ensuring occupational safety.

Effects of the Energy Transition on Workers:
The energy transition means that we are headed into a transitional period which will involve gradually reducing production and consumption of fossil fuel energy sources and expanding production and consumption of renewable energy sources. This will be the result of incorporating climate policies (which are part of the NDC and the long-term plans for carbon neutrality) within global economies. Researchers agree that this immense change in global energy systems will have unintended socioeconomic consequences, including disruptions to labor markets resulting from shifts in production and consumption across all sectors that rely on energy. Identifying the risks of this transitional period has become a priority for taking steps to address potential disruptions to labor markets.

Two aspects of Jordan's energy transition should be given particular consideration. The first pertains to impacts stemming from the implementation of Jordan's national climate change policies. The second involves

the ramifications of the transition pertaining to climate policies in large economies and the disruptions they could cause in global transportation and energy markets in addition to technological shocks, which will in turn affect local markets. In order for trade unions in Jordan to work towards a just transition, they will need to assess the risks related to anticipated shifts in energy systems and labor markets in sectors that rely on energy production or consumption.

Filling this knowledge gap regarding the risks of the energy transition will require an analysis of climate action steps in Jordan's NDC to identify projected shifts in energy systems, energy production, and different forms of energy across economic sectors in Jordan. This will also require determining the timeframe for implementing these measures. The next step requires examining repercussions for labor markets and the workforce: What are the changes that these shifts will cause in the future regarding the number and type of positions, locations, salary levels, desired qualifications, and training requirements? What will the demand for new jobs be like? What kinds of roles and positions will be available in the field of climate work? Elucidating the effects of these changes on the workforce will help decision-makers establish a sound basis for developing policies and procedures for a just transition.

C) Building Political Support

In order to support a just transition at the national level, trade unions in Jordan must mobilize political support for this endeavor. The most important elements of gathering political support are as follows:

1. Holding community dialogues with the Ministry of Environment and Ministry of Labor in their capacity as the two main bodies responsible for incorporating the framework for a just transition within the climate agenda. Other governmental institutions and NGOs should also be invited to engage in this dialogue depending on the issues under discussion. It will be helpful if these interactions with the Ministry of Environment and Ministry of Labor lead to agreements on the mechanism that will be used by the three parties in question in preparing studies to closely examine the effects of climate change on the world of work and the risks of the energy transition for labor markets across various sectors.
2. Calling for Clause (a) of Article (4) of the Climate Change Bylaw No. 79 of 2019 to be amended to make the secretary-general of the Ministry of Labor a member of the National Climate Change Committee.
3. Calling for the National Climate Change Committee to form a new technical team, as per Clause (a) of Article (6) in the Climate Change Bylaw No. 79 on

2019, that would be responsible for addressing just transition. This team would include members from the Ministry of Labor, trade unions, employers, and stakeholders and would be responsible for making recommendations to the National Climate Change Committee on formulating, implementing, and monitoring national efforts to support a just transition.

4. Coordinating with the Ministry of Environment and the Ministry of Planning and International Cooperation to raise funding from climate finance sources for the just transition agenda.

D) Fostering Alliances with Civil Society Organizations with Similar Goals

The discussion above has focused only on the importance of trade union engagement with the relevant governmental bodies as part of a just transition process. However, we cannot overlook engagement with civil society organizations. This includes researching institutions whose interests and goals intersect with the agenda for a just transition. A key approach to building coalitions with these institutions is finding common ground and fostering understanding to achieve common goals. This approach will help avoid inconsistent and contradictory goals that often mar coalition-building work. Furthermore, one of the advantages of building coalitions with diverse organizations is learning from various

conceptual approaches that can reinforce each other. For example, one can imagine a coalition of labor-oriented, environmental, and human rights organizations coming together to support a just transition, climate action, and human rights. The political and moral clout of these coalitions will help them achieve more than any single organization could do on its own.

E) Integrating a Just Transition into Jordan's Climate Action

Trade unions must endeavor to find political entry points that will allow them to incorporate the framework for a just transition into climate strategies and policies in Jordan. The Paris Agreement, which Jordan ratified, could be an obvious starting point since the agreement states that countries around the world should “tak[e] into account a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities.”⁽³³⁾ The Glasgow Climate Pact following the COP in 2021 also recognized “the need to ensure just transitions that promote sustainable development and eradication of poverty, and the creation of decent work and quality jobs.”⁽³⁴⁾ However, it will be helpful for trade unions to take stock of the local climate landscape and

to try to understand the points of reference for the government's climate action in Jordan in order to determine appropriate political entry points.

Regarding domestic climate change policy, the NDCs are a key part of incorporating a just transition into climate action. Jordan's updated first NDC states that “NDC implementation could provide an adequate framework for the integration of vulnerable groups in climate mitigation and adaptation projects that also respond to key socioeconomic developments in Jordan.”⁽³⁵⁾ Vulnerable groups mentioned in the NDC include women, children, refugees, unemployed persons, and persons with disabilities. However, this does not preclude the inclusion of other groups such as workers who are vulnerable to the risks of the energy transition and related financial or technological shocks. The NDC is a document focused on human rights and states that “human rights-based climate planning should take into priority the needs and rights of the most vulnerable groups in Jordan.”⁽³⁶⁾ Among the most important of these needs are addressing the effects of unintended job losses in declining sectors. This aligns with the NDC's focus on examining the effects of climate change on

³³ United Nations Climate Change. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.

³⁴ United Nations Climate Change. Glasgow Climate Pact. <https://unfccc.int/documents/310475>.

³⁵ Hashemite Kingdom of Jordan. Ministry of Environment. Updated Submission of Jordan's 1st Nationally Determined Contribution (NDC). October 2021. <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Jordan%20First/UPDATED%20SUBMISSION%20OF%20JORDANS.pdf>.

³⁶ Ibid.

“human and societal systems including social welfare and economic prosperity . . . [and] on challenges faced by humans as individuals and communities in accessing key resources and rights for improved livelihoods.”⁽³⁷⁾

The National Climate Change Adaptation Plan also emphasized the need for “active and sustained engagement of a variety of stakeholders including local actors, civil society, private sector, academic and research institutions and international development partners” and specified a focus on “societal groups, organizations and networks which are able to mobilize all societal groups.”⁽³⁸⁾ We can infer from this that governmental climate action strategies in Jordan are sufficiently flexible to hold ongoing and serious dialogue with trade unions, incorporate their priorities into climate change plans, and pursue institutional coordination.

The opportunity to create new green jobs is another point where the objectives and principles of a just transition and climate action converge. The NDCs have provided proposals regarding the potential to explore the “establishment of a green jobs council or similar body, with a strong representation of private sector and key public sector

stakeholders.”⁽³⁹⁾ We must first emphasize that there should be trade union representation in the proposed council alongside relevant bodies from the public and private sectors. Regardless of whether or not the proposal for this council can be implemented, the inclusion of this point indicates the importance of having stakeholders coordinate efforts to expand the workforce during the transitional period, which could last for many years. The success of creating new green jobs depends on professional development programs. Diverse programs must be prepared to retrain workers from declining sectors and to train the future workforce. The diverse sectors and industries that will absorb this job growth should also be taken into consideration in order to meet the needs of workers and employers alike and to avoid labor supply bottlenecks. The agenda must include provisions for decent work and gender equality and should endeavor to develop high-quality jobs in emerging sectors.

Looking ahead, it is clear that meeting the needs of workers who are vulnerable to market disruptions resulting from climate action will require explicitly integrating principles for a just transition into the NDCs when they are updated a second time. Jordan will submit its updated NDCs to the UNFCCC in 2025. This

37 Ibid.

38 Hashemite Kingdom of Jordan. Ministry of Environment. The National Climate Change Adaptation Plan of Jordan 2021. http://www.moenv.gov.jo/ebv4.0/root_storage/ar/eb_list_draft/final_draft_nap-2021.pdf.

39 Hashemite Kingdom of Jordan. Ministry of Environment. Updated Submission of Jordan’s 1st Nationally Determined Contribution (NDC). October 2021. <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Jordan%20First/UPDATED%20SUBMISSION%20OF%20JORDANS.pdf>.

does not mean it should delay formulating and implementing a just energy transition until that point in the future. National climate change policies, as set forth in the current NDCs and the National Climate Change Adaptation Plan, can incorporate elements of a just transition as described above. The Ministry of Environment is currently engaged in preparing a national climate change policy for 2022-2050 with the aim of developing long-term strategies and a climate vision that will set Jordan on a path to achieving carbon neutrality by 2050. The time has come to incorporate the principles for a just transition into the national climate change policy for 2022-2050 so that it can become part of Jordan's long-term climate strategy.

About the Friedrich-Ebert-Stiftung, Amman

The Friedrich Ebert Stiftung is a non-profit foundation committed to advancing social democratic values. It is the oldest German political foundation and was established in 1925 as the political legacy of the first democratically-elected German president, Friedrich Ebert.

The Friedrich Ebert Stiftung - Jordan aims to strengthen and support democracy and political participation and to further progress towards social justice and gender equality, as well as environmental sustainability, peace, and security in the region.

About the author

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A Just Transition in Jordan The Role of Trade Unions



The Paris Agreement, which was ratified in 2015, provides a global institutional framework for countries to work together to address climate change. The agreement requires that countries take steps to combat climate change, including reducing greenhouse gas emissions by adopting new technologies and policies for the transition to a net-zero energy economy, or at a minimum, a low-carbon economy. This involves expanding renewable energy sources, energy efficiency, and gradually phasing out fossil fuels by 2050.



Policy makers are concerned that energy transition efforts could lead to unintended disruptions in the labor markets. One of these consequences could be the loss of jobs in sectors that rely on fossil fuels. This requires decision makers in Jordan to adopt actions that support a just transition and to endeavor to pursue policies that address labor market disruptions through a governance framework that involves stakeholders in the decision-making process and offers clear mechanisms for strengthening participation.



The success of these efforts depends upon the capacity of trade unions in Jordan to establish a strategic approach to supporting a just energy transition. This will require deliberate efforts to mobilize political support and to hold community dialogues with governmental bodies, as well as to incorporate a just transition into Jordan's climate agenda and to build alliances with civil society organizations.

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