



Social and Employment Impacts of Climate Change and Green Economy Policies in Türkiye

Application of the Green Jobs Assessment Model for Türkiye



ABOUT UNDP

UNDP's work on climate change spans more than 140 countries and involves US\$3.7 billion in investments in climate change adaptation and mitigation measures since 2008. With the goal to foster ambitious progress towards resilient, zero-carbon development, UNDP has also supported implementation of the Paris Agreement on Climate Change by working with countries on achieving their climate commitments, or Nationally Determined Contributions (NDCs).

ILO

ILO is spearheading a global Just Transition agenda through the Climate Action for Jobs Initiative. The Paris Agreement on Climate Change, adopted in 2015, acknowledges the imperatives of a just transition and the creation of decent jobs in a response to climate change. In the same year, ILO constituents adopted Guidelines for a just transition towards environmentally sustainable economies and societies for all.

ILO GREEN JOBS PROGRAMME

The Green Jobs Programme signals ILO's commitment to act on climate change and promote resource efficient and low-carbon societies. Decent work is a cornerstone for effective policies to green economies for achieving sustainable development. The Green Jobs Programme has, over time, assisted over 30 countries by building relevant ILO expertise and tools.

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Placeholder: Foreword

Climate change is accelerating to the point of no return despite all joint efforts of the global community. Coupled with other environmental problems such as the loss of biodiversity, water pollution and land degradation, global warming has pushed our planet to the brink. Urgent action is long overdue, and we have already run out of time to avoid serious harm. As United Nations Secretary General Antonio Guterres said in June 2022 in addressing the Stockholm+50 conference, "We need to change course – now – and end our senseless and suicidal war against nature."

Responsibility for this shift lies with every individual. But while individual decisions to adopt a more nature-friendly lifestyle can help, a radical policy shift by governments and corporations at all levels is vital to give us any hope of success in protecting humanity from the ravages of climate change.

The appetite for the bold policies that will be needed to achieve sustainability varies from country to country. In this respect, Türkiye took a big step forward at the end of 2022, ratifying the Paris Agreement and committing to the achievement of a net-zero emissions target by 2053. A first measure of the country's ambition will emerge in the Nationally Determined Contribution that is currently under revision for submission during the climate summit in Egypt at the end of this year.

Like other industrialized nations, Türkiye is grappling with the economic and social consequences of the policy changes needed for effective climate action. "Decarbonization" will mean expansion for some sectors, with renewable energy at the forefront, but it also spells trouble for highly polluting industries such as coal and plastics. Concerns about the impact on the labor force of a shift away from fossil fuels are high on the political agenda and can sometimes discourage bold action.

In this context, credible analysis is needed to answer tough questions:

- Are "green jobs" a credible economic option or merely a political slogan?
- > Can the renewable energy sector replace the job losses caused by phasing out fossil fuels?
- Will redundant workers be able to transfer to new jobs in more sustainable industries?
- Can the social protection system bear the burden of redundancies and retraining?
- > What scale of investment is necessary to ensure a "just transition" in Türkiye?

This report draws on a globally tested model to try to answer these questions. Our research team made a side-by-side comparison of investments of the same size in renewable energy and energy efficiency, on the one hand, and coal-powered electricity, on the other. The results are promising. In pursuing the sustainable option, the model showed, Türkiye could increase GDP by up to TRY45 billion per year; create more than 300,000 new jobs by 2030; and reduce greenhouse gas emissions by 12 percent compared to the 2019 level. This is a win-win-win scenario for the country, showing that environmental protection can go hand in hand with economic growth and social progress.

The International Labour Organization (ILO) and the United Nations Development Programme (UNDP) have joined forces to develop this report to provide a fresh perspective on the idea of "green jobs." Building on the analysis conducted by SINTEF, an independent research organization, we hope to help shift discussion in Türkiye from the question of "whether" ambitious climate action is urgently needed to the "which" of specific policies that are sufficiently bold and timely to address the dire nature of the challenge we face. We look forward to working with government, the private sector, trade unions and civil society to build a strong consensus behind "peace with our planet," and to continue to provide policy advice and practical solutions to make this vision a reality.

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List of acronyms

CO ₂	Carbon dioxide
CO ₂ -eq	Carbon dioxide equivalents
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GJAM	Green Job Assessment Models
ILO	International Labour Organization
IMF	International Monetary Fund
INDC	Intended Nationally Determined Contribution
IO	Input-Output
IOT	Input-Output Table
IPCC	Intergovernmental Panel on Climate Change
LULUCF	Land Use, Land-Use Change and Forestry
MEIO	Macro-Econometric Input-Output
NDCs	Nationally Determined Contributions
OECD	Organisation for Economic Co-operation and Development
SDG	Sustainable Development Goal
SNA	System of National Accounts
SUT	Supply and Use Table
UNFCCC	United Nations Framework Convention on Climate Change
VA	Value Added
YEKA	Renewable Energy Resource Areas
YEKDEM	Renewable Energy Support Mechanism

Executive Summary

Türkiye's economy is at a crossroad. To become a higher-income country in the long run and achieve faster economic growth and lower unemployment in the medium term, as set out by the New Economic Program, several structural challenges must be overcome.

Key structural challenges include signs of a middle-income trap which is hindering the move to higher value-added service industries, a widening current account deficit and a negative trade balance, which stood at around USD 50 billion - some 5-6 % of GDP - in the past decade. In addition, Türkiye's current economic structure relies on energy hungry industries for exports, as compared to higher value-added services, and displays a high import dependency, notably on energy and fossil fuels, which further create growing national security and geopolitical risks. The economy's energy dependency makes Türkiye particularly vulnerable as it is reliant on imports for 60% of coal, 93% of oil, and 99% of natural gas.

Similarly, key labour market indicators point to structural challenges in the utilisation of Türkiye's growing population. Labour force participation stands at around 55%, the lowest in OECD countries, with low female participation. Unemployment hovers around 11% and is high for youth while labour under-utilisation is a major phenomenon and concern for more than 40% of those employed, similarly to the high levels of informal employment.

Compounding these structural challenges are increasingly costly climate change disasters and environmental hazards, such as country wide forest fires, flooding or sea-snot, impacting not only the tourism industry but the economy at large including agriculture and manufacturing industries and employment.

Among the policy choices to address the structural challenges, low-carbon and green economy policies have featured importantly in the wake of the Covid recovery. They have been advocated for by the IMF, OECD, G20, EU, ILO and the UN System under the name of 'Building Back Better'. Proponents claim green and low-carbon policies can fast-track a new era of economic development with higher growth rates, increased employment levels, lower environmental risks and augmented energy and national security.

While Türkiye has engaged in green and low-carbon policies in the past, ratified the Paris Agreement on Climate Change and put forward some green and low-carbon policies, a key question is whether fast tracking and augmenting such green policies could further address above structural challenges in an integrated and coherent way, and contribute to Türkiye's vision of a high-income country.

This report sets out to assess Türkiye's structural challenges in terms of its economic, social and environmental outcomes of a swift and comprehensive implementation of green low-carbon policies. First, a macro-economic structural simulation model, named the Green Jobs Assessment Model, was built for this purpose. And second, a green development scenario was applied and compared to a business-as-usual development scenario.

In both scenarios Türkiye's economy grows by around 3-4% per year as projected by the OECD. To satisfy industries' needs, Türkiye's energy and electricity demand need to grow rapidly at 20% by 2025 with a linear trend up to 2030. In the business-

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