Industrial Production Policies and Climate Change Adaptation in Development Plans

Eighth Five-Year Development Plan (2001-2005): While it was stated that the process of becoming a party to the United Nations Framework Convention on Climate Change (UNFCCC) would be carried out, it was also stated that regulations on energy efficiency would be made for greenhouse gas reduction.

Ninth Development Plan (2007-2013): As foreseen in the plan, the "National Climate Change Action Plan", which sets out greenhouse gas reduction policies and measures in accordance with Turkey's own conditions, was prepared by taking one more step towards combating climate change.

Tenth Development Plan (2014-2018): It is an important document as the concept of "Green Growth" was introduced to government policies for the first time in various fields such as energy, industry, agriculture, transportation, construction, services and urbanization. The National Climate Change Strategy, the National Climate Change Action Plan and the 10th Development Plan form a basis for all common and sectoral climate change policies and measures.

Eleventh Development Plan (2019-2023): When analyzed within the framework of the 11th Development Plan, it is expressed as the main objective to transform the manufacturing industry to a high value-added structure and to increase the share of high technology sectors. Within the framework of this objective, the main focuses of transformation in the manufacturing industry are; innovation and company skills, effective participation of regions in production, inter-sectoral integration, green technology and production and foreign market diversity. In line with these objectives and targets, the following policies, which are thought to have an impact on climate change adaptation, are explained in the plan.

Ministry of Industry and Technology 2023 Industry and Technology Strategy: the strategies of industry for climate change adaptation:

- Green production approach, technology-intensive modernization of infrastructure and enterprises in OIZs, and new investments based on cleaner production will continue to be supported.
- Industry Registry Information System will be developed to establish an "Waste with Economic Value Monitoring System" within the scope of the Circular Economy.
- Efforts to expand industrial symbiosis areas will continue to be carried out in cooperation with relevant stakeholders such as the Ministry of Environment and Urbanization, OIZs and Industrial Zones.
- For vertical integration of companies in industrial zones, a mechanism will be developed for central planning and structuring of fast data communication, industrial cloud, industrial data center, efficient energy use and cyber security needs.

- With the growth of the industry and global competition, the need for energy and energy efficiency will continue to increase. Reducing energy costs and ensuring supply security are critical for the National Technology Move.
- Studies to develop products and services that will provide energy efficiency in the industry and to increase technological competence.will be carried out.
- Joint studies which is for the dissemination of renewable energy sources and alternative materials in order to reduce foreign dependency in energy, and for the development of new generation technologies domestically and nationally will be carried out. .
- Natural gas infrastructure will be delivered to OIZs where priority sectors are concentrated, transmission investments will be made for the safe supply of energy, and access to energy will be facilitated with various support mechanisms.
- In addition to land, air and sea transportation that will reduce the cost of the industry, solutions and supports, such as railways, will be determined to improve the logistics sector.

This project is co-funded by
the European Union and Republic of Turkey.

TURKEY'S INDUSTRIAL POLICY AND CLIMATE ADAPTATION

REPUBLIC OF TURKEY
MINISTRY OF ENVIRONMENT
AND URBANISATION

Environment and Climate Action
Sector Operational Programme

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The fact that most of the gases that cause climate change are associated with industrial production and the pressure of changing climatic conditions on production processes has put industrial facilities into a major transformation process within the scope of climate change.

Climate change is an issue that brings many threats and opportunities for businesses, which concerns almost all processes of businesses, especially production and resource supply, and it is impossible to think it independently of technology. Technology needs inevitably come to the fore both to control, reduce and contain greenhouse gas emissions, and to combat the effects of climate events, to provide benefits and to adapt. It is also seen that the use of environmental technologies, which is seen as the most important method for the industry in the management of the effects of climate change, can provide a significant competitive advantage for the enterprise. Due to the increasing environmental pollution caused by industrial activities and the beginning of depletion of natural resources, the responsibilities of enterprises towards the environment are also increasing. Due to international agreements, legal requirements and increasing sensitivity of people, businesses have started to adopt environmentally friendly production and service techniques in terms of climate change in service and production processes.

CURRENT AND POSSIBLE EFFECTS OF CLIMATE CHANGE ON THE INDUSTRIAL SECTOR

- Possible changes in the availability of raw materials and intermediate products due to changes in temperature and precipitation
- Potential increase in extreme events and extreme weather conditions may lead to damage in operational infrastructure and production.
- Impacts on intra-company logistics due to increased adverse effects of the increased extreme weather conditions on transport and warehousing infrastructure.
- Increase in demand for cooling in storage and transport of various products, due to higher temperatures and heat waves
- Changes in consumer behavior due to rising temperatures and longer warm periods at these temperatures
- Reduction on cooling water availability during heat waves and droughts inhibits cooling-intensive production
- Decreased water availability due to changes in precipitation and its seasonal distribution
- The negative effects of heat waves on working conditions in terms of productivity, occupational health, and safety

INDUSTRIAL SECTOR IN TURKEY CLIMATE CHANGE ACTION PLAN (2011-2023)

OBJECTIVE No1. INCREASING ENERGY EFFICIENCY IN THE INDUSTRY SECTOR

- TARGET No1.1. Making legal arrangements for energy efficiency and limitation of greenhouse gas emissions
- TARGET No1.2. Limiting GHG emissions from energy usage (including electrical energy share) in the industry sector

TARGET Q2. DECREASE THE CO_2 EQUIVALENT INTENSITY PER GDP PRODUCED IN INDUSTRY SECTOR UNTIL 2023

- TARGET S2.1. Developing the financial and technical infrastructure FOR limitation of GHG emissions

TARGET Q3. STRENGTHEN THE CAPACITY OF INDUSTRY SECTOR FOR COMBATING CLIMATE CHANGE

- TARGET S3.1. Construction of the information infrastructure for limitation of GHG emissions in the industry sector

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This publication was prepared with the financial support of the European Union. The content is totally under the responsibility of the consortium lead by WEglobal Consultancy Inc. and does not necessarily reflect the opinions of the European Union.

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