

# Capacity Development for the Implementation of a Monitoring, Reporting and Verification (MRV) System for Greenhouse Gas Emissions Project

## PROJECT DESCRIPTION

**Commissioned by:** German Federal Ministry for Economic Affairs and Climate Action (BMWK), within the context of the International Climate Initiative (IKI)

**Partner Ministry:** Republic of Türkiye Ministry of Environment, Urbanization and Climate Change (MoEUCC)

**Implemented by:** Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (GIZ) and Directorate of Climate Change (DoCC)

**Overall term:** 2013 to 2024

## PROJECT CONTEXT

“Bylaw on Monitoring of Greenhouse Gas Emissions” has entered into force in 2014. This bylaw was supported with the “Communique on Monitoring and Reporting of GHG Emissions” (July 2014) and “Communiqué on Verification of Greenhouse Gas Emissions Reports and Accreditation of Verification Bodies” (December 2017). Within this scope greenhouse gas (GHG) emissions from approximately 750 installations in electricity production, cement, aluminium, fertilizer, iron-steel, refinery, ceramics, lime, paper, chemicals, and glass sectors are monitored since 2015. Based on this regulation, a monitoring, reporting and verification (MRV) system has been established.

“Capacity Development for the Implementation of a Monitoring, Reporting and Verification (MRV) System for Greenhouse Gas Emissions Project” is being implemented for the development and enhancement of the application of legislation in force. The overall objective of the project is to establish the whole infrastructure of the MRV system for the implementation of an emissions trading system (ETS) in Türkiye on a basis of a regulatory framework, largely based on EU regulation.

The MRV system delivers verified GHG emission data which is planned to be used for the implementation of an ETS.

With the previous extension of the project, three new components have been added (2018-2021):

- Aviation has been included as a new sector in the MRV system, with the establishment of technical requirements, and capacities of relevant actors.
- Data quality of the existing industrial emission data has been further improved with technical guidelines and trainings.
- MoEUCC has been supported to develop benchmark options for cement and glass sectors as potential ETS sectors.

With the latest extension of the project, a new component has been added (2022-2023): MRV system will be further developed for the implementation of an ETS based on grandparenting with measures for capacity development.

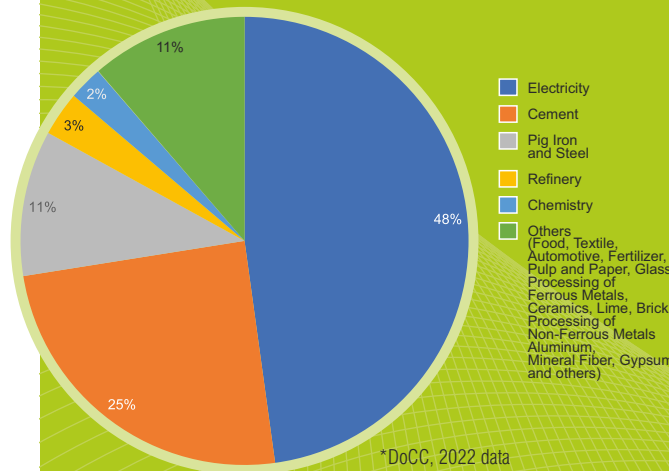


## OUTCOMES

### MRV in numbers

More than half of the national GHG emissions are covered by the current MRV scope, with the submission of emissions data to DoCC by approximately 750 Turkish industrial installations from the energy and industry sectors. These emissions data is verified by third party verifiers before submission.

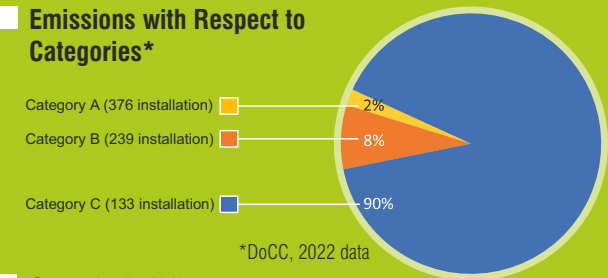
### Sectoral Distribution of Emissions within the Scope of MRV\*



### Innovative Data Management System

A tailor-made web based MRV data management system has been developed from scratch to fulfil the specific requirements. DoCC, installations, verification bodies, and lead verifiers can herein communicate online. The MRV system involves a range of different actors, consists of multiple components, and is based on a number of legal requirements. It has a selection of queries to analyse the MRV data and user-friendly interface. The core features of this state-of-art system allow flexibility in the design based on the actors' needs.

### Emissions with Respect to Categories\*



### Capacity building

Sector-specific training seminars for over 1,000 participants, including civil servants, installation operators, verifiers, and associations, have been conducted within the scope of the project. These stakeholders gained the competency to implement MRV processes.

### Turkey-specific MRV guidelines

Monitoring Plan Guideline, Annual Emissions Reporting Guideline, Verification Guideline, Sectoral Calculation Examples and System Manual on Electronic Monitoring Plan and System Manual on Electronic Annual Emissions Report have been published to provide guidance to the operators. These guidelines are supported by the publication of 4 new EU-based technical guidance documents on Uncertainty Assessment, Biomass Issues, Sampling and Analysis, Data Flow Activities and Control System.

### Establishment of an MRV system for the aviation sector

With the cooperation of the Turkish Directorate General of Civil Aviation (DGCA) under the Ministry of Transport and Infrastructure, an MRV system has been established covering emissions from both domestic flights and international flights, subject to CORSIA, with a newly developed data management system as its centrepiece.

### Development of benchmarks for the cement sector and glass sector

Benchmarking options have been developed by using the actual emission and production data for the cement and glass sectors to provide MoEUCC international experience. Studies provided insights into how different benchmarking options would affect the Turkish cement and glass industries and created a link with the future GHG emission policies such as the Green Deal and ETS, and the specific needs of the sector.

### Informative website

The website [www.carbon-turkey.org](http://www.carbon-turkey.org) has been launched to increase awareness and share knowledge. It provides easy access to guidelines and implemented project activities. Upcoming events and activities are also announced.

## OBJECTIVES OF THE PROJECT

Eight out of the nine project objectives have been met:

1. Establishment of a data management system to collect information and monitor the GHG emissions ✓
2. Preparation of sector-specific guidelines for implementation of the legislation ✓
3. Training and capacity building activities for stakeholders ✓
4. Development of legislative proposals for implementation of the MRV system ✓
5. Dissemination of experience on developing an MRV system to other countries ✓
6. Establishment of MRV prerequisites for aviation in a technical sense as well as with regard to the capacities of involved actors ✓
7. Enhancement of data quality in the current system ✓
8. Development of benchmarks for potential ETS sectors ✓
9. Expansion of the MRV system for the implementation of an ETS based on grandparenting with measures for capacity development

Republic of Türkiye Ministry of Environment, Urbanization and Climate Change  
Directorate of Climate Change

[www.iklim.gov.tr](http://www.iklim.gov.tr)  
[www.csb.gov.tr](http://www.csb.gov.tr)  
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