



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

Technical Assistance for Developed Analytical Basis for
Formulating Strategies and Actions towards
Low Carbon Development



LCD Turkey - introduction to the Project and update on its Components and Activities

Dr. Mykola Raptsun
Team Leader

March 27-28, 2018, HM Commerce Hotel, Ankara



REPUBLIC OF TURKEY
MINISTRY OF ENVIRONMENT
AND URBANISATION

Project's Overall Objective and Purpose

Project title: *Technical Assistance for Developed Analytical Basis for Formulating Strategies and Actions towards Low Carbon Development*

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

Overall objective: To reduce anthropogenic GHG emissions to contribute to the global efforts to mitigate climate change in line with the scientific evidence

Purpose: To increase national and local capacity to prepare for medium and long term climate action towards climate resilient low-carbon development, which will gradually align with EU climate policy and legislation by providing an analytical basis to support realisation of low carbon in the long-term, specifically focusing on cost-effective climate change mitigation actions related to building, waste, transportation and agriculture sectors of the National Climate Change Action Plan (NCCAP)

Period of implementation: 36 months (June 2017 – May 2020)

Project Stakeholders and Target Groups

- **Ministry of Environment and Urbanisation –Beneficiary**
 - Central Finance and Contracts Unit (CFCU) - Contracting Authority
 - Ministry of Energy and Natural Resources
 - Ministry of Agriculture and Forestry
 - Ministry of Transportation and Infrastructure
 - Ministry of Foreign Affairs
 - Coordination Board on Climate Change and Air Management
 - Turkish Statistical Institute
 - Local level governmental institutions
 - NGOs and private sector - with focus on the key sectors of buildings, transport, waste and agriculture
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Project Consortium



Consortium Leader - Human Dynamics, is a leading provider of premium public sector consulting services



The Regional Environmental Centre for Central and Eastern Europe (REC) is an international organisation with a mission to assist in addressing environmental issues



Agriconsulting Europe S.A. (AESAs), is a leading international development consulting firm that has been in operation since 1994.

Component 1: Stock Taking and Assessment of Existing Climate Change Strategies – *completed in May 2018*

Status Report: Review and analyse the status of the relevant national climate related policies, and strategies

Demand Status Report: Identify sectoral development policies that can meet the GHG emissions reduction targets

Gap Analysis Report: Conduct Gap Analysis with assessment of the institutional performance and set-up against the desired low carbon development and climate change mitigation performance

Barriers and Opportunities Report: Analyse barriers and opportunities for increased climate change mitigation performance at policy, finance and implementation levels.

Consolidated Baseline Report: combination of above mentioned reports

* All the above reports can be seen and downloaded at <http://www.lowcarbonturkey.org/technical-reports-c1/>

Component 2: Regulatory and sectoral impact assessments for EU climate acquis - *ongoing*

2.1 Four Regulatory Impact Assessment Reports (RIAs) for the EU climate acquis (Emission Trading, Effort Sharing Decision, Carbon Capture and Storage, and Fuel Quality Directives) to be transposed into the national legislation. Assessments will identify and describe the problems to be addressed, establish objectives, formulate policy options and assess the impacts of this options

2.2 Sectoral Impact Assessment Reports (Building, Transport, Waste and Agriculture) – to analyse positive and negative impacts of the EU climate acquis on sectoral competitiveness, access to markets, public procurement, etc.

Component 3: Determination of the costs and emission mitigation potentials of the actions specified within the buildings, waste, transport and agriculture sectors of the NCCAP and other policy documents – *to be completed in May 2019*

3.1 Assess the GHG emission mitigation potentials of at least ten actions in the focus sectors (buildings, waste, transport and agriculture) of the project

3.2 Assess the financial costs and benefits of the actions analysed in activity 3.1

3.3 Identify and analyse other potential positive and negative non-financial societal gains and losses of the analysed mitigation actions

Component 4: Developing GHG scenarios and carbon mitigation actions and supporting development of key stakeholders – *will start in second half of 2019*

4.1 Carry out GHG scenario modelling for focus sectors of the project

4.2 Identify carbon mitigation activities entailing significant benefits to Turkey with a perspective to reconcile climate, growth, and energy security in the selected sectors

4.3 Capacity building for key stakeholders (training, coaching and mentoring services, study visits)

How cities contribute to the global GHG emissions?

Indicator	2018	2050
Share of global urban population, %	55	68 (estim.)
Share of global urban energy consumption, %	67	??
Share of global GHG emissions, %	70	??

Source: UN

Sectoral GHG emissions in Turkey (1990 and 2016)

Sector	GHG emissions (kt CO ₂ -eq)		GHG emissions as share of total emissions (%)	
	1990	2016	1990	2016
Transport Sector	26968.90	81841.20	12.8	16.5
Buildings Sector	36767.24	113877.99	17.5	22.9
Agriculture Sector	42402.30	56485.70	20.1	11.4
Waste Sector	11090.59	16181.19	5.3	3.3
Total for 4 Sectors	117229.03	268386.08	55.6	54.1

Source: National GHG Inventories

Criteria for GHG mitigation actions selection

- Belong to four project target sectors - transport, buildings, agriculture and waste
- Included in NCCAP and/or other governmental strategic documents
- Cost effectiveness
- High potential for GHG emission reduction
- Other non-financial societal criteria – social, economic, environmental, etc.

GHG mitigation actions selected for potentials and costs assessment



Buildings Sector

- Increasing usage rate of energy efficient appliances in buildings (higher than A+)
- Improving energy performance of existing buildings (improved insulation and energy-efficient windows)
- Energy efficient buildings - heating and cooling system



Transport Sector

- Combining intercity passenger transport
- Increasing share of the electric vehicles in public transport
- Increasing the share of public transport
- Increasing the share of biking in intra city transport
- Improving vehicle fuel efficiency (including increasing rates of the Hybrid, LPG and electrical vehicles)
- Increasing the use of alternative fuels (bioethanol, biogasoline, biodiesel)
- Shifting intercity freight transport from road to other transport modes through intermodal / combined transport



Agriculture Sector

- Using fat supplement in the animal diet
- Implementing centralised (big farms) level anaerobic digestion (biogas)
- Implementing crop rotation with legumes
- Adjusting fertiliser application rates to realistic yield targets



Waste Sector

- Methane utilization for energy production at waste disposal and treatment facilities
- Improving recycling rate

The GHG emission mitigation actions directly related to municipalities

Buildings Sector

- Improving energy performance of existing buildings (improved insulation and energy-efficient windows)
- Improving energy efficiency of heating and cooling systems
- Increasing usage rate of energy efficient appliances in buildings (higher than A+)

Transport Sector

- Increasing the share of public transport
- Increasing share of the electric vehicles in public transport
- Increasing the share of biking in intra city transport

Waste Sector

- Methane utilization for energy production at waste disposal and treatment facilities
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Leadership in Energy and Environmental Design (LEED) certification program

- Goal is to facilitate the framework for healthy, highly energy/resources efficient and cost-saving green buildings
- Over 25 years of activity all over the world
- About 100,000 registered and certified projects in more than 160 countries
- Turkey is among Top 10 Countries and Regions in terms of cumulative LEED-certified gross square meters (number 6 with 337 green building projects and 10.9 millions gross square meters)

Topics of training on green buildings certification (LEED)

- What makes buildings “green”?
- Green buildings role in the mitigation of climate change
- Examples of residential, public and commercial green buildings implementation in Turkey and worldwide
- Green building certification – how it works?
- Benefits of green building certification for government, municipalities and private sector, including reduction of carbon emissions
- Possible ways and approaches to facilitate and support the wide implementation of green building certification in Turkey



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Thank you for your attention!

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