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 in Turkey

TRAINING ON **Ex-Ante Carbon Balance Tool (EX-ACT)**

22 January 2019, Mövenpick Hotel, Ankara

Day 1, Training part I - Opening, Context of low carbon agriculture, Introduction to practical use of EX-ACT, architecture the tool		
AGENDA		**Presenters**
09:00-09:30	*Registration (coffee/tea, refreshments)*	
09:30-10:00	Welcome	MoEU, Project Beneficiary - (TBD), LCDTR
10:00-10:30	• *Presentation of the Training Objectives and Agenda* • *Introduction of the Trainers and Participants*	LCDTR, EX-ACT
10:30-11:15	• *GHG Assessments and Low Carbon Agriculture* • *Background, Why to Use EX-ACT Tool*	EX-ACT
11:15-11:30	Coffee Break	
11:30-13:00	• *Presentation of the EX-ACT Tool* • *Concepts, Structure of the Software* • *Q&A, Discussion*	EX-ACT
13:00-14:00	Lunch Break	
14:00-16:00	• *Introduction to practical use of EX-ACT Tool* • *Entering data in EX-ACT* • *Practical exercise in EX-ACT – presentation by participants and discussion: Practical Exercise 1-2* • *[Land use change module] Forestry Reserve & Agroforestry Development*	EX-ACT
16:00-16:15	Coffee Break	

16:15-18:00	• *Guidance to Build a Baseline "Without Project Scenario" in EX-ACT* • *Practical Exercise in EX-ACT – Presentation by Participants and Discussion (Land use change & cropland & agricultural inputs modules)* • *Practical exercise 3 Agricultural Diversification* • *Definition of Tier 1 and Tier 2* • *Q&A, discussion*	EX-ACT

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 in Turkey

TRAINING ON **Ex-Ante Carbon Balance Tool (EX-ACT)**

23 January 2019, Mövenpick Hotel, Ankara

DAY 2, Training Part I & II: Operational Use of EX-ACT, MACC analysis and LCD M&E		
AGENDA		**Presenters**
09:00-09:30	*Registration (coffee/tea, refreshments)*	
09:30-11:15	• *Day 1 Recap* • *Practical Exercise in EX-ACT - presentation by participants and discussion [Livestock & grasslands & energy inputs modules]* • *Livestock & grassland management project* • *Group formation of participants to do exercises* • *Practical exercise: Development of bioenergy*	EX-ACT
11:15-11:30	Coffee Break	
11:30-13:00	• *Practical exercise on milk and/or rice production (TBC)*	EX-ACT
13:00-14:00	Lunch Break	
14:00-15:15	• *Introduction to MACC analysis*	EX-ACT
15:15-15:30	Coffee Break	
15:30-18:00	• *Roundtable: Discussion on the approach to GHG analysis, monitoring and evaluation in agriculture sector under the LCD project* • *Closing remarks*	EX-ACT LCDTR

CFCU

human dynamics public sector consulting

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

Info Sheet on
Ex-Ante Carbon Balance Tool (EX-ACT)

The synergetic achievement of food security, economic development and climate change targets is a high-level policy goal within the **UN Sustainable Development Goals** and the **Paris Agreement within the UNFCCC.** Avoiding greenhouse gas (GHG) emission-intensive investments through economically viable low-emission development options is an essential requirement in achieving these policy goals.

This training will focus on the Agriculture, Forestry and Other Land Use sector (AFOLU). The EX-ACT tool can also capture emissions from other sectors, e.g. energy. The usefulness of having a cross-sectoral tool to produce standardized values for the LCD project is one discussing point during the training.

GREENHOUSE GAS (GHG) IMPACT: A CRITERION FOR AGRICULTURAL INVESTMENT DECISIONS

The AFOLU sector is a major source of GHG, contributing 24 percent of global emissions. The climate change mitigation potential for the sector is high and many technical options are readily available for immediate deployment. Since 74 percent of the mitigation potential of agriculture is in developing countries, many AFOLU investment projects can play an important role in climate change mitigation, either by reducing emissions and/or by sequestrating carbon. Mitigation options can also contribute to increased food security and reduce rural poverty.

A harmonized approach to GHG accounting of agricultural investments projects

The quantification of the GHG mitigation benefits of sustainable food and agriculture projects implemented by international climate finance mechanisms (e.g., GEF, GCF), multilateral development banks, bilateral climate finance and national governments has become **a requirement and engagement** from these parties.

The identification of investments that are climate smart while leading to equally high socio-economic outcomes requires an **accepted methodology and practical tools** for project-level GHG accounting. International Financial Institutions (IFIs) and other investors in the AFOLU sector have to operationalize the capacity to **systematically appraise their investment projects in terms of GHG impacts**. Appropriate GHG accounting tools such as EX-ACT support this development. Some IFIs have already adopted the EX-ACT tool to assess the mitigation impact of their project, for example the Global Environment Facility, the World Bank, the International Fund for Agricultural Development and the Nederlandse Financieringsmaatschappij voor Ontwikkelingslanden (FMO).

THE FAO EX-ACT CARBON-BALANCE TOOL: STRENGTHENING INVESTMENT DESIGN – QUANTIFYING EXPECTED AND ACHIEVED BENEFITS

To help investment designers integrate climate mitigation effects in projects, the Food and Agriculture Organization of the United Nations (FAO) has developed, in partnership with the World Bank and Institut de Recherche pour le Développement (IRD), the EX-ACT appraisal system to estimate the impact of AFOLU projects on the carbon balance. The tool allows estimating the net impact from GHG emissions and carbon sequestration as compared to a without-investment scenario. EX-ACT can be used **ex-ante** to quantify expected benefits, as well as for mid-term evaluation and **ex-post** assessments, in order to estimate the actually achieved mitigation benefits.

The tool helps investment planners to **identify activities with high economic and climate change mitigation benefits that are in line with the project's development objectives**. The amount of GHG mitigation supplied by the investment could then be priced, valued and incorporated in the economic and financial analysis of proposed investments.

EX-ACT can be applied on a wide range of agricultural investments in all **AFOLU sub-sectors,** including - besides others - **cropland agriculture, forestry, livestock, fisheries, and bio-energy**. EX-ACT uses methods and data from the International Panel on Climate Change (IPCC) guidelines - the same methods used by national governments to report their GHG emissions. The EX-ACT-based appraisal requires a limited amount of data and time, and therefore can be used under tight project preparation and implementation schedules.

EX-ACT Capacity-building training

EX-ACT training workshops are a central element to enable a wide range of partnering institutions to mainstream climate change mitigation within their operations. Between January 2010 and December 2018, the EX-ACT team has carried out training events with partners in over 80 countries, with a total of 1700 trained participants.

Since 2015, the World Bank has jointly offered the EX-ACT e-learning as an important low-cost and continually available tool for capacity development. A total of 1200 individuals have been certified through this EX-ACT's e-course.

LCD Training objectives, expected outcomes and participants

Based on the requests made by the experts working at the "Low Carbon Development in Turkey" (refered hereafter as LCD), the EX-ACT team has designed a specific curriculum based on a coaching for the agriculture part of the project. This training has been organised for several reasons: (i) the importance of current and future development of agricultural sector in Turkey, (ii) cost and time efficiency, and (iii) to strengthen the capacity of LCD experts in EX-ACT.

This highly interactive EX-ACT training tailored to LCD experts aims to provide participants full autonomy on the use of EX-ACT to appraise the carbon balance and mitigation impact of agricultural strategies to be adopted by the project. The overall objectives of the training are to build the capacity of participants to estimate GHG mitigation and provide an introduction to marginal abatement cost curves (MACC) analysis.

More specifically, the EX-ACT training will enhance the capacity of key LCD experts to: (i) understand the role of AFOLU sectors in the GHG emissions; (ii) understand the functionalities of the EX-ACT tool, and (iii) understand the approach for M&E of LCD project.

Expected outcomes:

1) *ensure autonomy of the participants in using EX-ACT, including the understanding of the technical aspects and logic of the tool, and its application to the LCD project;*
2) *prepare or review the low carbon strategies options using EX-ACT (ex-ante) and linked it with MACC analysis; and*
3) *monitor and/or report the GHG status during the implementation of the LCD project (MRV).*

Methodology: various EX-ACT modules (deforestation and degradation, afforestation and reforestation, perennial systems, annual crops, grassland and livestock etc.) will be used to progressively upgrade the skills of participants for appraising and monitoring the LCD project.

Training materials

Documentation: the EX-ACT Training Package, as well as the EX-ACT guidelines constitute most of the training materials. Additional handouts and materials will be distributed to participants, in English, including:

- ***EX-ACT brief***

The EX-ACT brief provides the user a general overview of the tool, its background, its objectives, and its basic contents and main outputs

http://www.fao.org/fileadmin/templates/ex_act/pdf/Flyer/Ex-act_flyer-EN_apr2014.pdf

- ***EX-ACT Quick Guidance***

This guidance targets two audiences: the decision makers and the tool users. While decision makers are first introduced to the potential of climate mitigation in the agriculture and forestry sectors, and the importance of GHG accounting tools in agriculture, the basic structure of the EX-ACT tool (modules forestry, land use, managements practices and associated activities), how to build the scenarios, to interpret the results and the added value of such analysis are concisely presented in the next sections. The section dedicated to EX-ACT users lists all activities used in the tool and guide the users on how to scenario building and data entry into the tool.

http://www.fao.org/3/a-i8075e.pdf

- ***Elaboration of a baseline scenario***

This guideline provides information on the necessity to elaborate a baseline scenario for GHG appraisal, and the different type of scenario to reflect its uncertainty

http://www.fao.org/fileadmin/templates/ex_act/pdf/Policy_briefs/Building_the_baseline_draft.pdf

Requirements for participation

- *Participants should have a background or at least good knowledge in agronomy, environmental and natural resources economics, biology, climate sciences…*
- *The participants must (i) complete the World Bank online EX-ACT course 1 ; (ii) read the quick EX-ACT guidance materials; and*
- *Participants must bring a laptop. For those who would like to have softcopies of the PPTs should bring a USB drive.*

Training programme

The series of practical exercises allow participants to gradually train on more complex exercises using the different, but intertwined, modules of the EX-ACT tool while understanding its logic and methodology.