



# Technical Assistance for Developed Analytical Basis for Land Use, Land Use Change and Forestry (LULUCF) Sector

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#### LULUCFTR - GHG Monitoring and Reporting System

#### PRESENTATION OUTLINE

- LULUCF Inventory Arrangements in Turkey
- Methodology for TANA Analysis
- Results and Conclusions

### SUNUM İÇERİĞİ

- Envanter sistemimiz
- TANA Analizi Metodolojisi
- Sonuçlar

### LULUCF INVENTORY ARRANGEMENTS IN TURKEY

- TurkStat is the national authority
- The CRF tables are filled online via CRF Reporter by the experts at GDF and GDAR and the NIR is prepared as a joint effort.
- Under MoFWA, the GDF is the key data supplier of the Forest land related data. The General Directorate for Nature Conservation and National Parks (GDNCNP) and the General Directorate of State Hydraulic Works (SHW) also contribute to activity data.

#### AKAKDO ENVANTER SISTEMIMIZ

- Sera Gazı Envanteri Ulusal Ajansı TUIK
- CRF tabloları OGM ve TRGM uzmanlarınca online doldurulmakta ve NIR raporu hazırlanmakta
- Orman ve Su İşleri Bakanlığı içinde Orman Alanları kategorisine ana veri sağlayıcı OGM. Bunun yanında Doğa Koruma Milli Parklar ve Devlet Su İşleri de envantere Sulak Alanlar Kategorisi kapsamında veri sağlamakta.

## LULUCF INVENTORY ARRANGEMENTS IN TURKEY

The General Directorate of Agriculture Reform (GDAR) under MoFAL provides relevant data, analysis and calculations for the remaining key land categories, i.e. Grassland (5B), Cropland (5C), Wetland (5D), Settlements (5E), and Other land (5F). GDAR is generally supported for specific data on these categories by General Directorate of Agricultural Research and Policy (TAGEM), General Directorate of Plant Production (BUGEM), and the Soil, Fertiliser and Water Resources Central Research Institute.

#### AKAKDO ENVANTER SISTEMIMIZ

- Geriye kalan 5 arazi kullanma tipi için ise TRGM veri sağlama, analiz ve hesaplama görevini üstlenmiştir.
- BUGEM ve TAGEM de TRGM'yi veri ve analiz yönünden desteklemektedir.

### LULUCF INVENTORY ARRANGEMENTS IN TURKEY

- The Department of Climate Change (DCC), residing under the Ministry of Environment and Urbanisation (MoEU) is the beneficiary for this project. As representative of MoEU, which has responsibility for overall coordination of the project, DCC has a managerial role in the project, and again is not a data supplier for LULUCF.
- The current organisational set-up for reporting on GHG emissions and removals in Turkey works efficiently and allows for a imely reporting mechanism. The LULUCF Core Group is the target group for enhanced capacity building in GHG reporting under this project

- Çevre ve Şehircilik Bakanlığı içerisindeki İklim Değişikliği Dairesi projenin faydalanıcı olup koordinasyon ve yönetim rolü söz konusudur. Herhangi bir veri sağlama rolü bulunmamaktadır.
- Mevcut AKAKDO
   raporlama yapısı
   envanterin zamanında ve
   tüm süreçleri ile beraber
   etkin bir biçimde
   yürütülmesini
   sağlamaktadır. AKAKDO
   Çekirdek Grubu ise
   kapasite geliştirmeye konu
   olan raporlama sisteminin
   temelini oluşturmaktadır.

#### LULUCFTR - GHG Monitoring and Reporting System

#### AKAKDO Envanter sisteminin temel sorunları;

- Hesaplamalarda eksik alt kategorilerin bulunması (NE)
- Hesaplama sisteminin karmaşıklığı ve dağınıklığı (Şeffaflık)
- Birçok kategori ve alt kategorilerde verinin yetersizliği, uygun veya güvenilir olmaması (MRV)
- Envanter uzmanı sayısının yetersiz oluşu ve organizasyonunun olmaması (Kapasite ve koordinasyon). Ekipte CBS uzmanı olmaması. Yabancı dil sorunu.
- Anahtar kategorilerde güvenilir Seviye 2 hesaplamalarının yapılmıyor olması
- Envanter sisteminin Qa/Qc sürecinin eksik olması
- Envanter sisteminin zaman içinde beklenen düzeyde gelişmiyor olması

## TANA CONTEXT and METHODOLOGY

- i. Organisational Analysis
- ii. A training and needs analysis addressing: the methodologies and data sources used, QA/QC procedures used, the uncertainty assessments and key category analysis addressed, the ability to address the requirements for NCs and BRs to produce projections, the data gaps identified under Result 1.
- iii. Personal Analysis;
  - Interviews with the relevant staff on the training needs and gaps
  - Work analysis / Task Analysis

#### TANA ANALİZİ METOT

- i. Kurumsal analiz
- ii. Eğitim ihtiyaç analizi;
  kullanılan metotlar, Qa/Qc
  prosedürleri, belirsizlik
  analizi, kilit kategori
  analizi, NC ve BR için
  projeksiyon üretme
  kapasitesi, veri boşlukları.
- iii. Personel analizi.Görüşmeler ve iş analizleri.

Despite the smooth structure in reporting, the country needs to improve overall quality of the calculations and the report. In particular, it should improve TACCC of the report. Especially completeness, accuracy, and transparency.

#### **GENEL BULGULAR**

Raporlamada ciddi bir sorun görülmese de hesaplamaların iyileştirilmesi ve genel bir geliştirme ihtiyacı söz konusu.

Özellikle bütünsellik, doğruluk ve şeffaflık yönlerinden.

- Particular emphasis should be on analysis and understanding of GHG sources and sinks, and of their anthropogenic and natural components, which must be based on improved, robust, process orientated modelling approaches and assessment methods.
- Within the ministries (personal communication from MoEU) there is an overall concern that a high quality and robust GHG inventory may support a positive image for Turkey.

#### **GENEL BULGULAR**

Sera gazı kaynak ve yutaklarının anlaşılması, gelişmiş modelleme ve değerlendirme metotlarının kullanımına ağırlık verilmeli.

Daha kaliteli ve tutarlı bir envanterin ülkenin imajına katkı sağlayacağı görüşü ifade edilmiş.

Besides the need to advance overall competence in the sector, there is an equal need to increase the number of people with relevant capacity and knowledge. Overall increase in (numbers of) capacity across the directorates and responsible departments, including Turkstat, will counter the universal problem of staff leaving due to better opportunities outside of the Public Sector (i.e. to the private sector) and putting unwanted stress on annual reporting on LULUCF.

#### **GENEL BULGULAR**

Sera gazı envanter hazırlama ekibi genişletilmeli. Ayrılan personelin yeri hızla doldurulabilmeli.

- Lack of appropriate integration of spatial data sets with land-based information seems to be a crucial barrier to LULUCF reporting, as it obstructs reliable identification of land use categories and sub-categories, prevents producing the required historical time-series, and causes the current gap in assessed land and land area LULUCF is reporting on.
- Skewed integration of available data sets, often merging poorly aligned data (e.g. different scales of data collection, different and non-matching classification standards, etc.) cause a further loss of valuable data to LULUCF reporting.

GENEL BULGULAR

Mekansal veri tabankarının uyumsuzluğu sorunu çözülmeli.

- Current inventory reports have too many categories and sub-categories for which no calculations on emissions or removals are made. In many cases greenhouse gases are "not occurring" or "not estimated". It appears that the underlying data is not available and/or adequate capacity to use the algorithms is lacking. Particularly the lack of (knowledge of) national activity data and updated emission factors and emission coefficients are the underlying cause. Fitting scientific studies to update these will adequately ease this shortcoming.

#### **GENEL BULGULAR**

Bütünsellik sorunun nedeni daha çok veri sıkıntısı veya bilimsel çalışma eksikliği

- Ministries report a lack of proper use of (technical) English. This language problem is obstructing proper understanding of official documents prepared in English, such as the original IPCC Guidelines. However, despite the need for a technical language course, this is considered an in-house institutional problem within the directorates and ministries and should be solved by adequate selecting/recruiting of staff and providing inhouse courses

#### **GENEL BULGULAR**

Yabancı dil sorunu. Ya dil bilen personel ya da kurum içi dil kursları.



# **LULUCF – TR**GHG Monitoring and Reporting System

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