





## National Objectives and Targets of GHG Emissions and Removals in the Sectors of Land-use Change and Forestry-Albania

Bourazani Wild Life Resort 12 - 13 November 2021 Prof.Dr.-Ing. Andonaq Londo Lamani Polytechnic University of Tirana Albania

### General Objectives of Albania for Climate Change.

- Albania is a signatory Party of the UN Framework Convention on Climate Change. The UNFCCC (United Nations Framework Convention on Climate Change) was ratified by the Albanian Parliament in 1994.
- Albania has also signed the Kyoto Protocol and ratified it, as stated in law no. 9334, dated 16.12.2004, and has actively participated in the Conferences of Parties organized under the UNFCCC.
- The Albanian Parliament ratified the Paris Agreement through law no. 75/2016 dated 14.07.2016, as a major step towards its implementation.
- On the other side, Albania is working on the adoption of the EU "acquis Communautaire" in the environment and climate change sector. Though Albania is a country with a low-carbon economy, it is committed to reduce the carbon dioxide emissions by 11.5 % as compared to the baseline scenario for the period 2016 - 2030.

### General Objectives of Albania for Climate Change.

• The EU objective of removal GHG is divided into two units, of which the first includes large sources of greenhouse gas emissions that are obligated parties of the European Emissions Trading System (ETS sector), and the second for non-ETS sectors, including other relatively smaller emission sources, such as: road and off-road transport (excluding air transport included in the ETS sector), small energy and industrial facilities not included in the ETS sector, households, services, agriculture, waste management, changes in land use and forestry.

• In Albania this reduction is equivalent to a CO2 emission reduction of 708 Gg by 2030. The emission trajectory of Albania allows a smooth trend for achieving 2 tons of GHG emissions per capita by 2050, which can be taken as a target for global contraction and convergence of greenhouse gas emissions.

### Greenhouse Gas Emissions in the Sectors of Land-use change and forestry. Policy and Measurements P&M

- The Albanian Energy Strategy for Land- use Change and Forestry (LUCF) is fully in line and in harmony with EU "Low-carbon Economy Roadmap" that promote a stable business climate which will encourage low-carbon investments for the period 2017-2030.
- Analysis of the "Land Use Change and Forestry" (LUCF) sector includes emissions and removals of greenhouse gases from six land uses: forests, cropland (CO2), grasslands (CO2), wetlands, settlements and other lands. LUCF GHG net emissions/removals refers to changes in atmospheric levels of all greenhouse gases attributable to forest and land-use change activities, including but not limited to
- (1) emissions and removals of CO2 from decreases or increases in biomass stocks due to forest management, logging, fuel wood collection, etc.;
- (2) conversion of existing forests and natural grasslands to other land uses;
- (3) removal of CO2 from the abandonment of formerly managed lands (e.g. croplands and pastures); and
- (4) emissions and removals of CO2 from soil associated with land-use change and management.

### P&M for LUCF in Albania

#### I. Friendly Forest Management

- a) legal act: DCM No. 709 of 29.10.2014 "on the Approval of the Intersectoral Strategy for Agriculture and Rural Development for the period 2014–2020 (ISARD)"; Law No. 57/2020 "on Forests" is after 31.12.20219; Draft law "On Climate Change "2019; DCM 814 date 31.12.2018 ON THE APPROVAL OF FOREST POLICY POLICY IN ALBANIA, 2019–2030
- b) Policy context: The main objective of the Cross-sectoral strategy of rural and agricultural development is to define the strategic framework for addressing the challenges faced by the agriculture and agro-processing sector, as well as the development of rural areas in a sustainable economic, environmental and social. The purpose of the law "On Forests" is the protection of forests as assets of special importance, for the great values in the protection of climate, land, preservation and improvement of productive potentials, balances of the natural environment, biodiversity, genetic resources and the hydric regime, as obligations of national and international interest.

c) Objectives, targets, commitment addressed

• Main Objective : Reforestation of areas within the forest fund, focusing on areas with fire damage and mass deforestation, expansion with new areas oriented mainly on agroforestry, urban and road greenery, that will lead to a regeneration of forests and the increase of their carbon sink capacity.

The others objectives

- Maintenance and improvement of forest resources and their contribution to global carbon cycles;
- Maintenance of vitality and health of forest ecosystems;
- Maintenance and promotion of productive forest functions (timber and non-timber);
- Proper maintenance, conservation and improvement of biological diversity in forest ecosystems;
- Maintenance and improvement of protective functions in forest management (especially land and water);
- Development and implementation of an information system related to wood biomass resources
- Creation of forest cadaster

#### d) Problem addressee

Sustainable and multifunctional development of forests and pastures, ensuring the increase of forest area and their yield

#### e) Contribution to reaching the objective, incl units and timeframe

- Good forest management. The target for 2030 is the increase of the forest fund by 11 million m3 or 20% more than in 2020. This constitutes 7000 ha of revitalized forests or 550 million euros more in the contribution of this sector to GDP.
- 7000 Ha of revitalized forests are equivalent to 1 Mega Ton CO<sub>2</sub> stocks in forest ecosystems.

#### f) Target groups (citizens, companies, etc

- Governmental institutions and agencies, MTE;MARD;MIE; The Regional Councils;Regional Commission on Land Protection;Regional Inspectorate of Land Protection;The Municipal Council
- Land users
- Private Service .
- Civil society organizations (NGO) .
  The multilateral and bilateral stakeholders .
- Academic and Research Institutions .

In which way is it implemented

• Good forest management. The target for 2030 is the increase of the forest fund by 11 million m3 or 20% more than in 2020. This constitutes 7000 ha of revitalized forests or 550 million euros more in the contribution of this sector to GDP

- Approval of the status of forests as national assets; target of 2030
- Drafting an integrated development plan for forests ;target of 2030
- Drafting plans for breeding and development of forest economies, providing financial support for their implementation; target of 2020
- Completion of the initial registration of ownership over the forest fund for municipal forests (funded by SIDA (Swedish International Development Agency) and WB) ;target of 2019
- Increase funding from the budget on the basis of the contribution that forests make to the budget and the economy. Formalization of the forest economy (logging, secondary forest products, certificate of origin, environmental services) ;target of 2030

• Increasing the afforestation fund through payments from pests as well as other revenues from the forest fund (revenues from land rent, for antennas, mines, businesses, etc.) ;target of 2030

- Withdrawal of funds from donors and contribution to climate change, including the establishment of a mechanism / instrument with a Balkan reach to maximize funding; target of 2030
- Establishment of the national forest council and the national forest agency; target of 2019
- Training of central and local administration of the forest system; target of 2030
- Establishment of an integrated information system financed by WB and SIDA; target of 2019
- Completion of national inventory ;target of 2030
- Energy and industry use of forests ; target of 2020
- Use for tourism and entertainment in projects such as ALtour, Nature 2000; program 100 tourist villages and creation of a register of lease contracts that municipalities have for tourism with tour operators; target of 2030
- Strengthening measures for forest fire protection 2021
- Advanced technician for rapid timber growth and forest regeneration target of 2030

#### • Annual expenditure

- 2022 is foreseen 614.600 Milion ALL
- Responsibilities. Entities responsible for Setting the regulation(s): Governmental institutions and agencies, MTE;MARD;MIE;The Regional Councils;Regional Commission on Land Protection;Regional Inspectorate of Land Protection;The Municipal Council
- Entities responsible for providing the funding
- Planning; Monitoring ; Evaluation and Implementation : MARD

- Legal Act :
- DCM No. 709 of 29.10.2014 "on the Approval of the Intersectoral Strategy for Agriculture and Rural Development for the period 2014–2020 (ISARD)" (WEM)
- Law No. 57/2020 "on Forests" is after 31.12.20219 (WAM)
- Draft law " On Climate Change " 2019 ( WEM)
- DCM 814 date 31.12.2018 ON THE APPROVAL OF FOREST POLICY IN ALBANIA, 2019–2030 (WAM)

#### Objectives, targets, commitment addressed

The law No. 57/2020 "on Forests" includes the following measures:

a) Agro-forestry: The intentional growing of trees along with crops, pasture, and/or animals is an alternative to standard agricultural practices.

b) Improving forest exploitation technology

c) Improving the efficiency of wood combustion

d) Secured long-term access to fuelwood by traditional forest users

e) Secured long-term access to wood biomass by forest/ pellet companies

f) Promotion of import and ban on export of wood biomass: the government could negotiate agreements with neighbouring countries on affordable wood / sawdust imports.

g) Replacement of inefficient wood stoves by more efficient heating systems: the government could give financial incentives or fiscal benefits to promote the installation of improved wood or pellet stoves, central heating systems and/ or thermal insulation.

h) Support to Municipalities and the Forest Inspectorate: Municipalities and the Forest Inspectorate need to have sufficient funds and infrastructure to carry out their new roles and mandates in

i) Reinvestment of fees/ tariffs into forestry

j) Different models on increased fuelwood production

### II. Sustainable forest-based biomass production and addressed

#### • Problem addressed

In the last twenty years, the national forest fund has decreased by 30 million m3 (about 1.5 million m3 / year), or 40% of it, and the area with virgin forests has decreased by 85%, or from 70 thousand ha that was in in 1997, today we have only about 11 thousand ha. Deforestation for firewood is about 2-2.5 times more than their annual growth. About 2/3 of the cut forests (for firewood) are burned inefficiently, contributing significantly to their degradation ( Source : On Forest sector policies in Albania ) WB Study ; 2018 ; page 19

#### • Objective of the PaM

In 2020 the wood consumption as fuel will equal the annual forest growth for Albania . Scenario needed to be followed increasing forestation with planning to approx. 2200 ha per year (including fruit frees) to reach stable growth of forests.

Contribution to reaching the objective, incl units and timeframe

**1.** Reduction of firewood consumption in 2030 will be up to 10%. Source : DCM No 709 date 1.12.2017 "On the approval of the second and third national energy efficiency action plan for Albania 2017-2020"

2. Strengthen funding through grants for heating and cooling projects using forest biomass.

**3.** Direct supply with wood biomass from the forests and the other forestated lands as the assessed energy contribution from biomass in 2020 is projected 923,112 m<sup>3</sup>

**4.** Indirect supply with wood biomass for energy production as the assessed energy contribution from biomass in 2020 is projected 173,307 m<sup>3</sup> Source : National Action Plan for Renewable Energy Resources in Albania 2015-2020.page 19

**5.** In order to attain forest sustainable development, due account should be taken of the use of biomass as fuel to reduce consumption from 2011,50 ktoe (in 2013) to 167,79 ktoe (in 2020), and reafforestation at the minimum threshold of at least 2200 Ha/ annually.

#### Actions taken to date

- 1. Law No. 5/2016 "On the Forest Moratorium in Albania "- 10 years. The object of this law is the prohibition of exercising the activity of use of timber in the public / private forest fund in the entire territory of the Republic of Albania, the trade of its products, the prohibition of the export of raw timber, the timber of construction, firewood, as well as charcoal.
- The full national forest re-inventory cycle is 8 years, with an inventory of 25% every 2 years of the 2. forest fund.
- Revenues generated from possible activities in the forest fund, are used 100% by the structures responsible for forests in the municipality, mainly for investments in the forest fund.
   Carbon quotas, in the process of its seizure, belong to the owners, according to the ownership
- they have over the forest fund
- Breeding of wild flora and fauna 5.
- Cultivation and collection of various plants, 6.

### II. Sustainable forest-based biomass production and utilization Actions taken to date

7. Development of agroforestry, aquaculture, livestock grazing, grass mowing and hunting development 8. Utilization of the forest fund, use of standards for annual allowable felling, felling cycles, exploitation techniques and infrastructure are mandatory.

9. The volume of timber to be used each year is planned within the annual utilization opportunity, based on breeding plans.

10.Fire prevention in the national, public or private forest fund 11. For the protection of the national forest fund, grazing in protected areas is prohibited, except in cases when the law on protected areas allows grazing and the passage of animals in these areas; in young afforestation's and in areas with low reforested forests; in forest stands that have reached maturity, where natural regeneration is expected to be achieved; in exploited or in-use forests until their natural regeneration has taken place.

12. Increasing the productivity of the national forest fund through the renewal of exploited forests; improvement of existing forests; implementation of sanitary works and maintenance in accordance with the function of forests and economic needs, as well as the increase of surface of the national forest fund through afforestation of agricultural lands, abandoned and indivisible, bare and eroded, burnt, sandy and gravelly lands

13. Logging due to silvicultural interventions and treatments in forest life or harvesting of timber and other products is allowed only at the age of usability and when the forest has reached the stage of maturity.

14. Regeneration of the national forest fund

15. Strengthening the control of activities in the national forest fund

#### • In which way is it implemented

Initiation of the 2020 program, for the planting of over 20 million forest trees and fruit trees by 2020

#### • Budget (in net present value terms)

The budget for the Forests management for the 2020 was 445,437 Thousand ALL. (Budget Program Medium term 2018-2020)

#### • Responsibilities. Entities responsible for Setting the regulation(s): Governmental institutions and agencies, MTE;MARD;MIE; The Regional Councils;Regional Commission on Land Protection;Regional Inspectorate of Land Protection;The Municipal Council; National Forest Agency.(NFA)

### • Providing the funding

Albanian government ; donors; EU

- Planning : MTE, NFA
- Entities responsible for Planning; Monitoring ; Evaluation and Implementation : MARD

#### • In which way is it implemented

Initiation of the 2020 program, for the planting of over 20 million forest trees and fruit trees by 2020

#### • Budget (in net present value terms)

The budget for the Forests management for the 2020 was 445,437 Thousand ALL. (Budget Program Medium term 2018- 2020)

#### • Responsibilities. Entities responsible for Setting the regulation(s):

Governmental institutions and agencies, MTE;MARD;MIE;The Regional Councils;Regional Commission on Land Protection;Regional Inspectorate of Land Protection;The Municipal Council; National Forest Agency.( NFA)

#### • Providing the funding

Albanian government ; donors; EU

- Planning : MTE, NFA
- Entities responsible for Planning; Monitoring ; Evaluation and Implementation : MARD

• Legal act: DCM No. 709 of 29.10.2014 "on the Approval of the Intersectoral Strategy for Agriculture and Rural Development for the period 2014–2020 (ISARD)"

• Objectives, targets, commitment addressed:

a) Reduction of deforestation and degradation of forest ecosystems, to restore them to their previous state, to expand land areas with vegetation and organic carbon content, by implementing sustainable management practices in agricultural areas;

b) conservation, sustainable development of forests and increase of carbon reserves in forests;

c) development of programs for sustainable management and restoration of forest, wetland and coastal-marine ecosystems;

d) inclusion of as many ecosystems in conservation plans;

e) strengthening the fight against forest fires;

f) design and provision of economic initiatives for carbon sequestration and protection of protected areas.

#### Problem addressed:

- The main soil degradation processes occurring in Albanian are:
- 1. Soil erosion
- 2. Sealing
- 3. Loss of organic material4. Pollution & contamination
- 5. Salinization
- 6. Slides and floods

Soil erosion is identified as a big problem in Albania. The data show that soil losses in Albania due to the erosion are very high and they vary from 20 to 30 t/ha/year, but in some areas this value reaches 150 ton/ha/year, when the acceptable value is only 1 t/ha/year. These values are also higher than

soil losses values by erosion in Mediterranean area, which are up to 15 t/ha/year. A considerable amount of pasture was converted to crops and the pasture area has decreased from 700,000 ha in the 1996 to about 400,000 ha today.

From the evaluation of the potential erosion risk in Albania has resulted that 24% of land is under high risk of erosion, 59% is moderate and 17% is under low risk of erosion. The report shows that about 100,000 ha of agricultural land are currently

in the process of desertification caused by poor vegetation cover.

#### Objective of the PaM:

• Loss of soil organic carbon is one of the principal signs of land degradation, and land degradation is one of the leading challenges for sustainable development, biodiversity conservation, and mitigating and adapting to climate change. This PaM aims to outline policies and measures to prevent land degradation and restoration. The Ministry of Tourism and Environment partially provides the information to UN on 15.3 target "by 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world"

• The area of cropland with rehabilitated and improved infrastructure compared to the total (360 000 ha) will be 80% in 2020.

#### Contribution to reaching the objective, inclunits and timeframe:

- The National Environmental Agency (NEA) is the responsible institution for environmental monitoring the environment in Albania.
  There are in Albania:

- 26 monitoring point for soil99 monitoring point for forest

76 monitoring point for biodiversity
Several indicators of soil quality (pH, N, P, K, Ca, Mg, organic matter, and heavy metals (Cd, Cr, Co, Ni, Pb, Zn) are monitored at 30 fixed sites as described by the Consolidation of the Environmental

Monitoring System in Albania (CEMSA) monitoring network.
(Source :Final Report "Land Degradation Neutrality Target for Albania and Soil Measurement Norms and Standards "2019 UNDP Tirana ; GEF; MTE) " EPORT Erosion

#### Actions taken to date

- To perform a countrywide assessment on erosion and sediment transport a GIS database was compiled according to the model demands.
- Growth of forest area and reduction of degraded land
- Reduction of degraded area 1500 ha
- Correction of drainage and flood protection systems (dams and waterworks) with expected climate parameters
- Improvement of anti erosion measure .
- Reduce the use of fertilizers and pesticides on agricultural land
- Supporting the organic farming
- Waste collection and recycling

Target groups (citizens, companies, etc

• Governmental institutions and agencies , MTE;MARD;MIE;The Regional Councils;Regional Commission on Land Protection;Regional Inspectorate of Land Protection;The Municipal Council

- Land users
- Private Service .
- Civil society organizations (NGO) .
- The multilateral and bilateral stakeholders .
- Academic and Research Institutions .

#### In which way is it implemented

- ٠

- Improve productivity and SOC (Soil Organic Carbon) stocks in cropland Rehabilitate of degraded and abandoned land Rehabilitate of degraded forests and increase green land cover. Reduce the rate of soil erosion. The target of 2030 is 15 t/ha/year. Afforestation of 500 ha/year, with the application of technological improvement measures, would
- lead to the forest sector reaching zero CO2 balance by 2040; without technological improvements, it would reach zero CO2 balance by 2047. Afforestation of 1,000 ha/year, with the application of technological improvement measures, would lead to the forest sector reaching zero CO2 balance level by 2033; without technological improvements, it would reach zero CO2 balance by 2038.
- Agronomic measures: measures that improve soil cover, measures that enhance soil organic matter or soil surface treatment
- Vegetative measures: plantation/reseeding of tree and shrub species or grasses and perennial species.
- S<sup>t</sup>ructural measures: terraces, bunds, banks), dams, pans, walls barriers etc. Management measures: change of land use type, change of management/intensity level, major change in the timing of activities, control/change of species composition.

#### • **Budget** (in net present value terms)

The budget for sustainable managment of cropoland only for 2020 **25.Milion All (250.000,00 EURO)**, from State budget. **Source** :DCM No. 709 of 29.10.2014 "on the Approval of the Intersectoral Strategy for Agriculture and Rural Development for the period 2014–2020 (ISARD)"

• 0 from Donors

• Responsibilities. Entities responsible for Setting the regulation(s): Governmental institutions and agencies , MTE;MARD;MIE;The Regional Councils;Regional Commission on Land Protection;Regional Inspectorate of Land Protection;The Municipal Council; National Forest Agency. (NFA)

#### Providing the funding

Albanian government ; donors; EU

- Planning : MTE, NFA
- Entities responsible for Planning; Monitoring; Evaluation and Implementation : MARD

Thank you for your attention

<u>alondo@fim.edu.al</u> Mob: 00355686011885 www.seeiesd.org