



Climate change and sustainable forest management

(Expected impacts of climate change on forests in the Region)

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Introduction

- **Forests** – one of the biggest wealth on the Planet and one of the highest contributor in fighting Climate change
- **The only sector** that actually absorb GHG – CO2 in the State
- **Not appreciated as it should**, ignored by almost everyone and taken for granted:
 - No investments;
 - No training of personnel;
 - No accurate data about the area, growing stock, annual cuts,
 - Last country in Europe without forest inventory

Introduction

- Great number of **benefits**:
 - Direct
 - Indirect
- According to FAO – **Forest products** are divided into:
 - Wood products
 - NWFP
 - From plant origin
 - From animal origin
 - Forest services
- **Complex bio-geocenosis** that require complex knowledge of all components in order to choose adequate and appropriate type of management.

Forest management

- First sector that introduced sustainability as basic principle in forest management in 18th century – **трајно стопанисување**
- This concept recognize forests significant **economic, environmental, social and cultural value**, and there balance should be preserved and reflects specific needs and goals of the State.
- According to UN Resolution from 2007, sustainable forest management is “**dynamic and evolutive concept that should preserve and enhance economic, environmental, social and cultural values on all forest types for better wealth of present and future generations**”

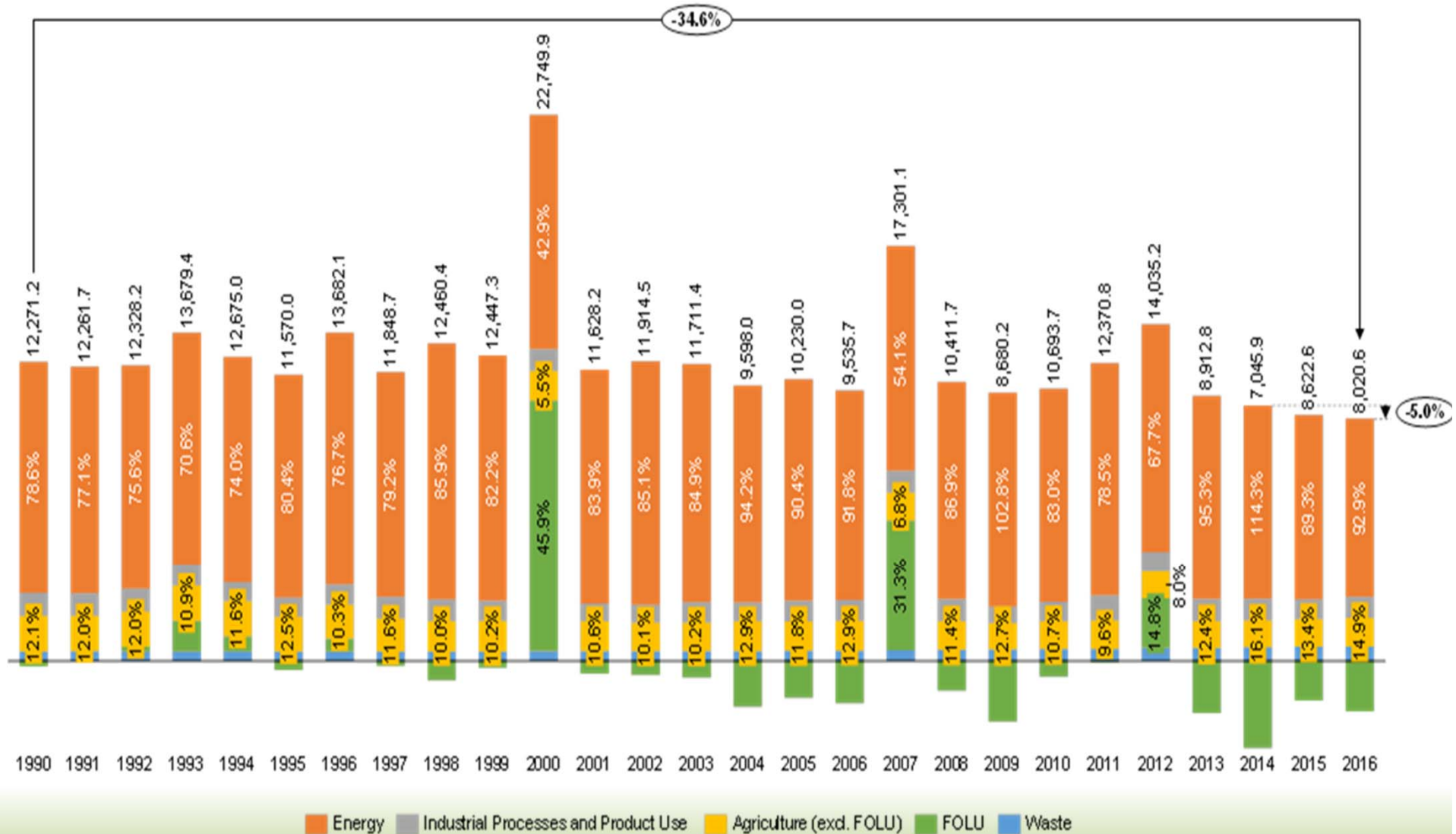
Forest management

- In accordance with this Resolution, States should develop or improve and implement national programs for forestry, that should consist 7 thematic elements, such as:
 - Enlarge the resource (P, V and quality),
 - Improve and maintain biodiversity,
 - Improve the health condition and vitality,
 - Improve the productivity,
 - Enlarge the protection functions of forests on surrounding habitats,
 - Improve the socio-economic functions,
 - Improve institutional and Law capacities

Forests and climate

- Great tie-up between forests and climate (especially microclimate)
- Change in climate affects forests and vice versa
- **Positive effects** of climate change on forest:
 - Increased CO₂ , Temperature and precipitation pattern- longer vegetation period and increased production (carbon fertilization effect)
- **Negative effects:**
 - Shift the forest north and on higher altitude,
 - Deforestation of lower mountain parts and decrease in biodiversity,
 - Modified frequency and intensity of insect and diseases, extreme events, and forest fires, production and demand

Forests and climate



Forests and climate

- Phenomenon's that can influence forest in Drin basin
 - Increased illegal cutting in Struga and Debar region;
 - Increased forest fire appearances;
 - Increased human pressure on forests (buildings, wood and NWFP), changed biodiversity
 - Increased human pressure on springs, rivers for water and energy production

Forests and climate

- Expected effects of climate changes on forests of the region due to unappropriated management:
 - Loss of one of the southeast natural spruce habitat in Europe (relict from the last ice age);
 - Increased drought and change of natural species (change of biodiversity);
 - Increased number of flooding incidents and land slides due to the illegal cuts and unappropriated building;
 - Shortages of water supply for inhabitants;
 - Loss of number of forest species due to overutilization and lack of training and protection measures (NWFP)
 - Impact on water resources (as we can see this year)

Forests and climate



***Thank you for your
attention***

