Western Balkans Climate Resilient Growth
Roundtable

Agriculture and Climate Change

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Agriculture sector in Albania

- Albania had a population of 2.8 million people in 2013.
  - the rural population is 45.4%;
- Agriculture plays an important role in the national economy:
  - it accounts for 18.3% of GDP in 2012;
- Agriculture remains the largest employer in Albania:
  - about 52 percent of employed people are engaged in this sector;
- Agricultural development is important in terms of enhancing the standard of living and poverty alleviation:
  - agriculture provides the income basis for most of the population and serves as an employment safety net.
Agriculture sector in Albania

- Agricultural land occupies an area of 695,500 ha or 24 percent of the territory;

- Average farm size has increased from 1.14 ha to 1.20 ha from 2007 to 2012, while parcel size has stayed at around the same levels (about 0.27 ha)
  - small farm size and a high level of fragmentation;

- 350,000 agricultural farms in 2012:
  - 301,950 are engaged in field crop and livestock production;
  - 159,000 farms with orchards;
  - Fruit production has been one of the fastest growing sub-sectors.
Agriculture sector in Albania

- *Irrigation and drainage* have a direct impact on increasing sustainable agricultural production;
- Albania is rich in water sources;
  - ...but, only about 20% of the total precipitation falls in the summer;
  - irrigation during the summer and drainage and flood protection in winter are indispensable;
  - half of water is taken by rivers and other half from artificial reservoirs;
- Flooding events are becoming very problematic during last years.
Expected effects of Climate change

A WB Study (Reducing the Vulnerability of Albania’s Agricultural Systems to Climate Change - *Impact Assessment and Adaptation Options*) revealed **a number of challenges and opportunities** for Albania’s agricultural sector under projected climate changes:

- Temperature will increase, and precipitation will become more variable as a result of climate change;
- The direct temperature and precipitation effect of future climate change on crops is mixed;
- Farmers in Albania are not suitably adapted to current climate; this effect is sometimes called the “adaptation deficit”, which in Albania is large.
- The direct effects of climate change on the livestock sector, particularly beef cattle, chickens, and even sheep, could be negative.
Expected effects of Climate change

- Water resources are abundant in Albania, and will continue to be through 2050 under a wide range of climate change scenarios;

- National-level adaptation and capacity building is a high priority.

- Studies should be conducted at the national level to more specifically map and assess crop suitability and the functionality of existing drainage capacity, particularly in flood-prone areas, and new drainage capacity standards should be considered;

- At the AEZ and farm levels, high-priority adaptation measures include improving drainage and irrigation capacity, optimizing fertilizer and water application, providing more climate resilient seed varieties and the know-how to cultivate them effectively for high yields, and encouraging wider use of hail nets;
Some findings of The report Turn Down The Heat: Confronting the New Climate Normal

- Climate extremes (heat, droughts, and flooding) in the Western Balkans pose major risk to agricultural systems:
  - The risk of drought is high;
  - Projections suggest an increase in riverine flood risk, in spring and winter;
  - Most crops are rain-fed and very vulnerable to projected climate change;
  - Pasture yields & grassland for grazing may be affected by sustained drought and heat;

- For Albania:
  - Projections up to 2050 indicate that flooding events could increase in both frequency and intensity;
  - Yield changes are projected to be more severe for rain-fed grapes and olives (yield declines of up to 20%) under 1.81°C;
What could be some priority areas for a Regional Climate Resilience Program?

- Water resource management (especially for cross-boundary river basins):
  - Prevention and minimizing the flood effects;
  - Flood warning systems/data exchange between countries etc;
  - Identification of joint investment projects;
  - Improve water efficiency (for example: developing the drip irrigation projects);
- Capacity building activities at national level with key stakeholders (including private sector) and regional cooperation to share relevant knowledge, experiences, information and materials (improved crop varieties) among respective institutions;
- Programs with practical models of “green jobs” in the region-specific context.
Thank you!