

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 !