Energy Sector of Georgia

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Hydro Potential of Georgia

- One of the top countries in the world by the water resources per capita.
- Second in the Europe by the water reserves amount.
- 300 rivers out of total 26,000 are significant for the electricity generation.
- Currently, only 20% of the hydro potential is utilized.
- Hydro Potential for development is equal to 40 TWh (approximately)

Operating Power Plants in Georgia

Total Installed Capacity - 4099 MW

Hydropower Plants:

72 HPPs

Installed Capacity – 3142.9 MW

Wind Power Plant:

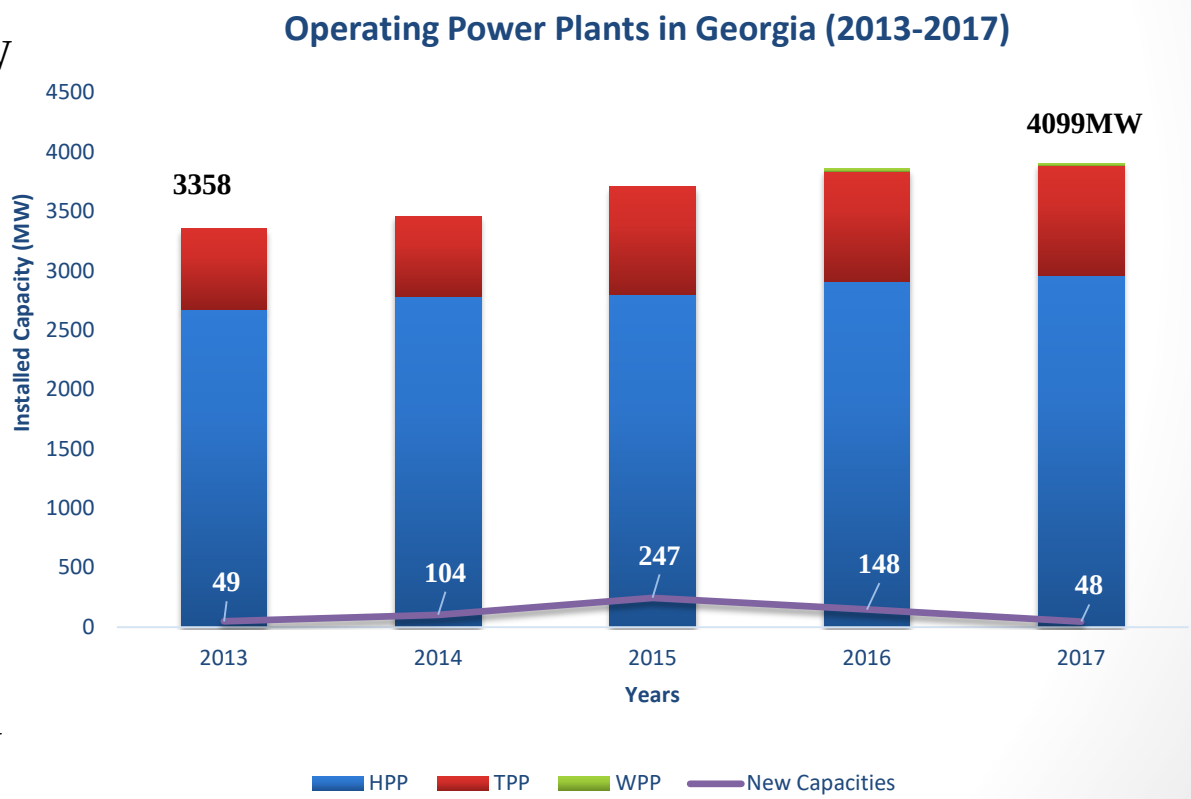
1 WPP

Installed Capacity – 20.7 MW

Thermal Power Plant:

6 TPPs

Installed Capacity – 926.4 MW



Ongoing Renewable Power Plant Projects

- **Construction Stage – 17 projects (524 MW – 1.4 bln USD)**
- **Licensing Stage – 20 projects (223 MW – 352 mln USD)**
- **Feasibility Study – 102 projects (3,750 MW – 5.8 bln USD)**

- *17 Wind Power Plant projects are under feasibility study (1156 MW – 1.8 bln USD);*
- *11 Solar Power Plant projects are under feasibility study (505 MW – 497 mln USD).*

TOTAL: 139 Power Plant Projects – 4,497 MW – 8.3 bln USD

Policy Programs/ Projects Promoting RE

Georgia is member of the energy community

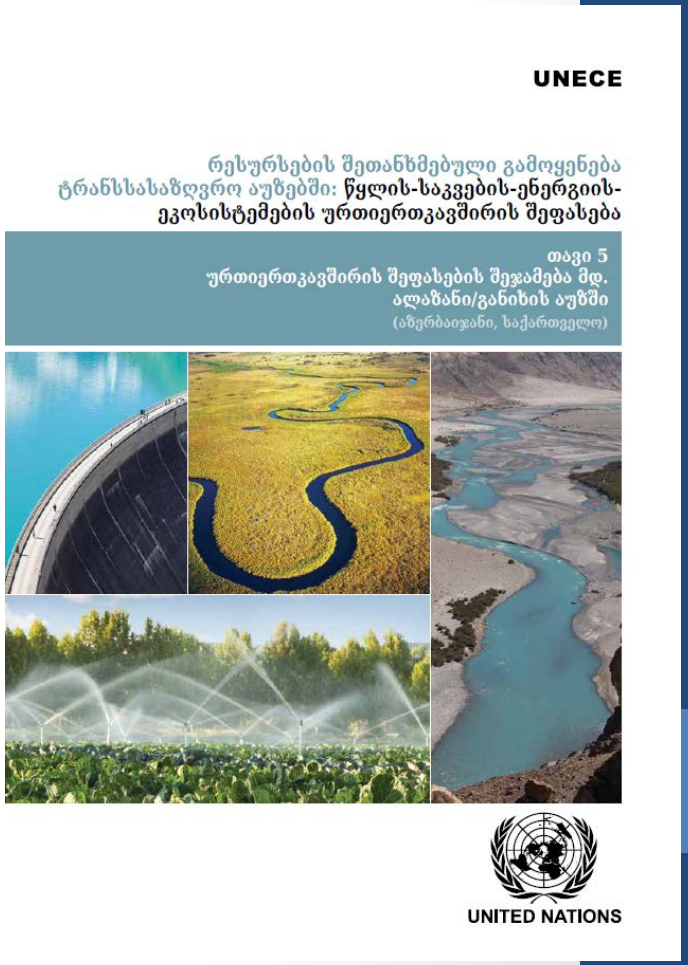
- *Based on RED requirement and characteristics of Sectors;*
- *RE policy Measures;*
- *Energy Statistics for RE and EE;*

Ongoing projects

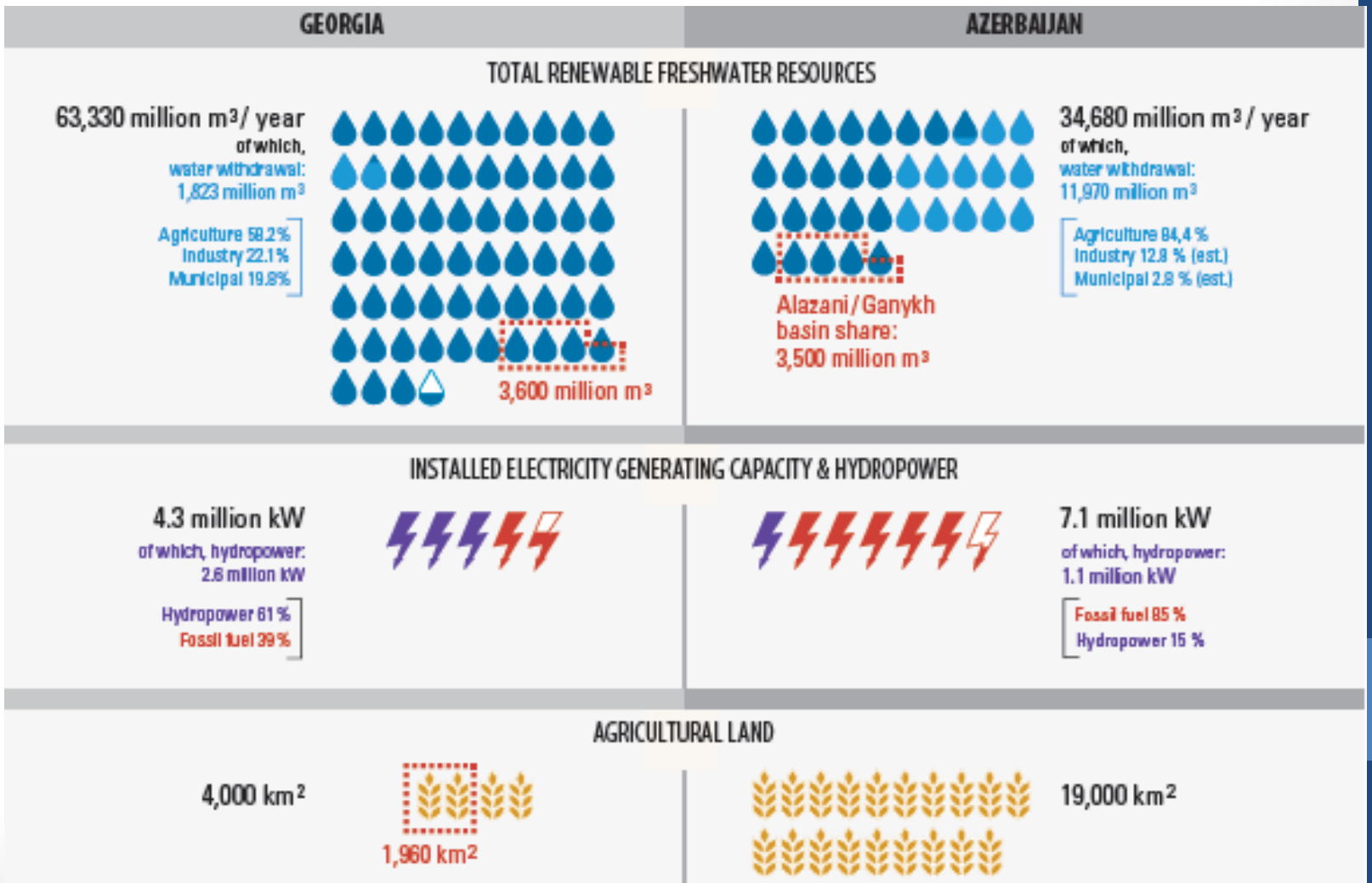
- *First renewable energy action plans;*
- *Preliminary renewable energy low;*
- *Grid code for integration of renewable energy into national power system;*
- *Practical projects*
- *others.*

Towards better policy coherence: assessment of intersectoral links, trade-offs and benefits

- A series of participatory intersectoral assessments of the “nexus” considering water resources, energy, land/agriculture and ecosystems was carried out under the UNECE Water Convention; Alazani/Ganykh Basin (Georgia, Azerbaijan) the pilot basin to test the assessment methodology
- Conclusions and recommendations published in November 2015, Georgian version launched at the Environment for Europe Conference in Batumi, Georgia in June 2016. Available at: http://www.unece.org/index.php?id=42935
- *GERE will discuss intersectoral synergies & how to address the nexus in work programme 2017-2018; synergies with other sectors can help renewable energy development!*



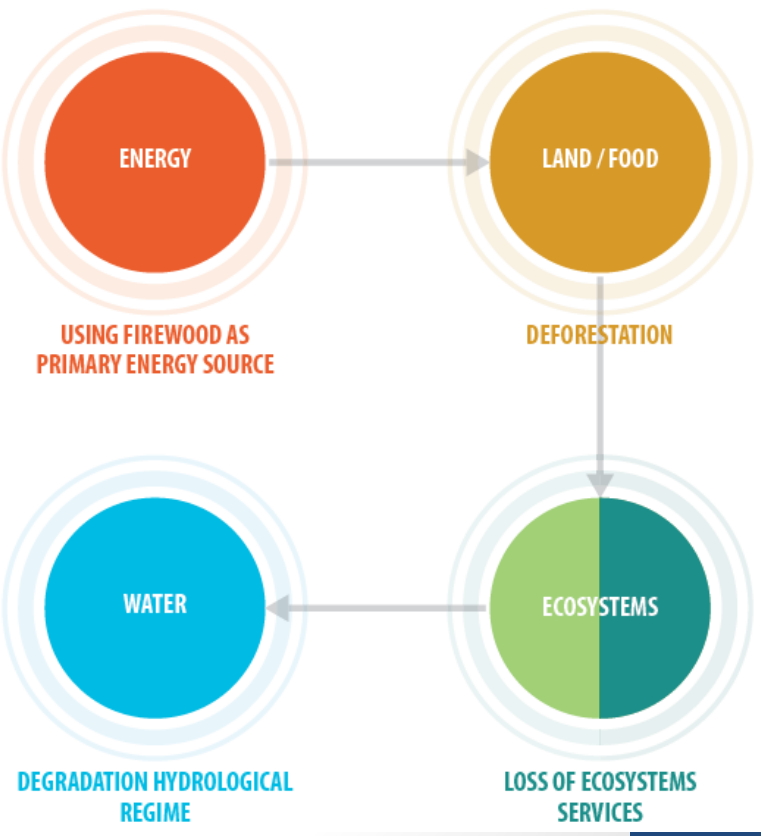
Alazani/Ganykh Basin Complementarity of resource bases Georgia-Azerbaijan



Main intersectoral issues in the Alazani/Ganykh Basin

Energy sector policy and action in a key role in the possible response:

Target setting and development of the normative frameworks are expected to facilitate investment into different renewable energy sources. *A strengthened consultation of multiple stakeholders* would help ensure finding the best options, setting priorities and using resources efficiently. *International experience* through the application of guidelines and good practices would help to improve sustainability in the location, design and construction of hydropower plants.



Collaboration on Water-Food-Energy-Ecosystem

- The Ministry of Energy of Georgia is working with the Ministry of Agriculture on developing 150-200 MW HPPs using irrigation waters. The project will have several benefits:
- Preventing floods;
- Utilisation of water energy potential;
- Developing of irrigation and drinking water systems.

Construction of the HPPs are going to be in line with the international standards. (EU, Energy Community)

Advantages (RE)

- Diversification of energy supply sources and increase of energy security;
- Boost of Economic development – Job creation;
- Reduction of GHGs;
- others

Challenges (RE)

- Difficulties of curtain technologies cussing unreliability of the energy system;
- Technology price;
- Environmental aspects;
- Regional characteristics.

THANKS FOR ATTENTION!

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