## Alternative source of energy - modern challenge for Georgia

## Ilia Kalandadze

E-mail: ilia.kalandadze@ens.tsu.edu.ge;

Department of Geography, Faculty of Exact and Natural Sciences, Iv. Javakhishvili Tbilisi State University #3, I. Chavchavadze Avenue, Tbilisi 0179, Georgia

Today, in the world various economic branches increasingly use non-traditional or alternative sources of energy. An alternative source of energy must be renewable and must pollute the environment to the least degree, and most importantly, it must solve the problem of fuel. Therefore, many world countries, with the aim to maintain environmental and exhaustible resources, pay a great attention to the use of solar, wind, water and geothermal energy.

Georgia has a significant potential of almost all kinds of renewable energy resources. In the specialists' view, the really attainable power potential is 5-10 billion KWh (TWh), or alternatively, equivalent to approximately 1 million ton of oil making approximately 30% of the total present energy consumption. Presently, too little of this potential is exploited. The share of the renewable energy resources in the total energy balance of Georgia (except firewood) is less than one percent, and the share of the electrical power generated by small-capacity (<10 MW) HPPs is approximately 3% of the total generation.

The goal of the official bodies in making the decisions regarding the policy to develop renewable energy resources is to create the most favorable conditions to exploit the renewable energy potential in Georgia by means of economic regulation of the market forces and harmonization of the interests of the private entrepreneurs and the society. This objective can be realized by means of a reasonable and rational activation of the policy instruments available to the state.