

Problems and perspectives of development of energy sector in Tajikistan

We are writing to you because Tajikistan has signed partnership agreement with EIB in February 2009. And we welcome this event and hope it will bring positive changes for the country. However, our main concern is the intention of the EIB to finance large hydro projects in Tajikistan as stated in the media¹.

Tajikistan is known as a country with young democracy, high level of corruption and the one that leads the other former soviet countries by the level of poverty². The issue of energy is of high importance in the country. The existing energy facilities cover the needs only at the level of 50% and many people stay still without electricity.

Over 90% of the total generated energy in the republic is produced on large and small hydroelectric power plants (HPP). Around 6% is produced on thermal power plants. The scope of government plans for construction of new large HPPs (Rogunskaya, Sangtudinskaya, etc.) and more than hundred small HPPs is impressive. Currently Tajikistan uses about 5% of its hydropower resources.

At the same time, many public organizations point out several important problems associated with construction of large HPPs in the republic.

It is well-known that Tajikistan is located in seismically active region. Therefore, construction of such sites as dams and embankments is potentially risky and dangerous. Furthermore, unpredictably large amount of population will be put on the risk of flooding. Not only may the citizens of Tajikistan be affected but also the other people inhabiting the territories downstream the cross-border rivers valleys. For this reason we demand that financing of construction of dams and embankments (HPP) should be preconditioned by the government guarantee of insurance against the risks posed to life, health and living conditions of the local people downstream the rivers. Only this precondition can guarantee observance of Human Rights, including the right to life.

Another problem is resettlement of population, which will be displaced as a consequence of dam and associated infrastructure construction. The practice of compensating population affected by various infrastructure projects available in the republic is at least insufficient and unsatisfactory.

During the construction of Rogunskaya HPP dam important local natural ecosystems will be affected, including Tigrovaya Balka reserve. The change in the hydro-regime of the Vakhsh River is going to have serious impact not only upon ecosystems but also upon soil quality in Tajikistan and other downstream countries incurring risk of flooding and land erosion.

Current market trends of electric power distribution gives us the possibility to doubt that population will have significant benefits from the project. Current construction of power transmission lines to Afghanistan and Pakistan provides

¹ <http://www.export.by/?act=news&mode=view&id=6748>

² <http://www.ferghana.ru/news.php?id=9539>

evidence that the electric power generated in results of projects like Rogunskaya HPP Project will be exported to foreign markets. While local population, which is in desperate need for power supply, won't receive it. Instead localization of energy resources may be applied as alternative solution.

Feasibility of dam construction (HPP) still is questionable as there are evidence-based facts of drastic reduction of area and volume of glaciers and consequently reduction of potential water supply. Tajikistan glaciers have been affected too, in particular, the famous Fedchenko Glacier which has already lost over thirty percent of its original size. For the short winter periods, the glacier is unable to restore the lost water reserves which are indispensable for efficient operation of large hydroelectric power plants located in the country.

Interception of water resources in the cross-border river basin with no international contractual regulatory framework is a *casus bele* leading to local water distribution conflicts among Tajikistan, Uzbekistan and Turkmenistan. Besides that, water supply deficit is annually observed in many republic regions.

It should be noted that Tajikistan has huge potential of other renewable sources (solar energy, geothermal energy). Unfortunately, those alternative energy sources are developed at too slow pace. Some Tajik scientists and specialists stand for wider use of solar power plants and wind farms. In such a high-mountain country, where the sun shines for 250 to 300 days per year, solar power should be used. While powerful wind plants can be installed all-the-year-around in the wind corridors provided by mountain relief.

We believe that there is no point of constructing new HPPs in the country. It is better to construct small hydroelectric power plants close to the local population, profitability of which has been proved in actual practice in some mountain settlements in Gorno-Badakhshan Autonomous Region. Small HPPs need no intensive investment; construction of one facility will cost 30,000 to 150,000 dollars US. Thus, local population will have sufficient access to power supply.

Attention also should be given to energy efficiency which would ensure loss reduction occurring in the available power grid at minimum costs.

We urge the Bank to strictly revise the reasons and approaches to financing the large dam construction projects as well as obligatorily include the following issues into negotiation process with Tajikistan authorities: (1) Tajikistan authorities should undertake to develop the mechanisms of preventive and obligatory insurance against all risks posed to population inhabiting areas down the dam; (2) environmental and social aspects should be the priorities; (3) the risks of international conflicts associated with possible construction should be considered; (4) special attention should be given to alternative energy sources, development of small HPPs and energy efficiency issues.

Sergey Vorsin, "Taraqiyot" Development Centre, Tajikistan
svorsin@gmail.com