

Today's industrialized world has become extremely dependent on sustainable energy and demands supply at affordable prices. The world's population is exponentially increasing and the demand for energy constantly increasing especially in developing countries. In more, the scarcity of fossil fuels is fundamentally responsible for the increased costs. With these concerns in mind, hydroelectricity is a very tempting alternative especially given easy use and apparent lack of carbon dioxide emissions.

Notwithstanding, when the total environmental and social impacts are included, the hydroelectricity might not be an appropriate solution to meet the future energy needs. In Albania, the risks of an immediate and fundamental problem is eminent because the majority of the rural population depends either directly or indirectly on agriculture for their livelihoods.

Indeed the Albania's ecosystem already afford the historically relied in hydropower plants. Nevertheless, in the last year GoA has seen as a priority the further investing on hydropower electricity production. In specific, there are given new permission for around 500 new projects. Thus, a heavy reliance of hydropower may be good for reducing greenhouse gas emissions and improving air quality in Albania

in general, but it can reverse all the side effect to effect to the local community directly relate with the place.

There are many drawbacks and concerns associated with hydroelectric dams: loss of land, relocation of animals and humans, change in ecosystems, as well as safety. Especially the Hydroelectric dams

require large quantities of water, which greatly reduce the liveable land for both humans and animals. Then a sound policy must determine whether or not it would make sense to build hydroelectric dams and all possible factors, not necessarily limited to the above mentioned examples must be considered.

In regard, the Environment and Social Management Plan (ESMP) normally comprise all social and environmental mitigation measures. The ESMP outlines DHP's commitments to the environment and Project Affected Households/Persons (PAP and PAHs) in relation to mitigating project impacts and promoting project development opportunities. The Plan summarize impacts, outlines policy and other overarching issues, and provides a general framework for resettlement, livelihood restoration, regional development and environmental initiatives.

The alternative of what here above are multiple and of course the calculation include a multiple and complex effect. Normally they have to base in the so-called Analysis of the Cost

## Risks and realizing opportunities that may bring the build-up of all the new hydropower planed in Albania

Benefit (CBA). Regard

the Albania they first of all have to go from the benefit of the distribution generation for renewable energy which include: wind; solar; geothermal and biomass and biogas energies. A great potential stand also in the efficiency and the side demand management (SDM). In same time, in the last years, the country has been involved by in the process of build-up interconnection: a process to be completed within 2 or 3 next years. An electrical interconnection line with Kosovo is already in work and another with Macedonia will be ready the next year. Not far away seem also the one with Italy or the country can already in that between Montenegro and Italy when it will be ready. These interconnection can be seen as a possibility to slow down the build of new generation capacity (mainly in hydro) but also an incentive for the accelerate the plans for the new hydroelectric power plants. The establishment of TAP project is also a momentum for Albania since it is also completed with a master plan for the gasification of the country.

Therefore, a research and following related activity will aim to offer options about the risks and realizing opportunities that will bring the build-up of all the new hydropower planed. In one hand to demonstrate, the other solutions that increase resilience to future environment change and related effect to the local community (even keeping a limit greenhouse gas emissions for all the country), on the other hand what the above project would offer for the ongoing development of sector and economy of the country. The goal of the research should help the country mainstream to adapt the changes in policies programs and investments.

source: ACERC Albania