Guest commentary

Size isn't everything when it comes to hydro projects *By Renat Heuberger, COO, South Pole Carbon*

As it stands, the hurdles are high for EU member states in accepting CERs from so-called "large hydro" projects .

Typically, a 16-page questionnaire has to be completed and validated/verified by a DOE to obtain a host country Letter of Approval – and all this in addition to the existing complexity of the CDM registration process.

Some countries even prohibit "large hydro" completely. By using this arbitrary 20 MW threshold, it is very possible that CERs from a small hydropower project, which has led to the flooding of a huge tropical forest, are allowed into the EU ETS without further investigation. Meanwhile an 80-MW run-of-river hydropower station, which would have produced large amounts of electricity at close to zero environmental or social impacts, is denied access to CER funding under the current policy.

By focusing on the relevant question, namely environmental integrity, and not the size, of a hydropower station, policy makers could ensure that hydropower would fulfil what CDM is all about. That is, assisting host countries in achieving sustainable development, and enabling investor countries to comply with their reduction commitments!

Hydropower is one of the oldest and most widespread ways of generating renewable energy. For the purposes of the CDM, it is important to distinguish between two ways of generating hydropower: On one hand, there are the so-called "run-of-river" plants. For such plants, you don't need a dam at all, and almost no land has to be flooded. An important factor is topography: Run-of-river plants work best in mountainous areas, for example in South-West China, the Himalayas, or Indonesia. This makes it possible to generate large amounts of power with very marginal environmental impacts.

On the other hand, there are hydropower stations that need a huge reservoir to collect the water. These projects are typically located in rather flat areas. As a consequence, the submersion of land, forests, or entire villages, and the evacuation of people is sometimes inevitable – which is rather an environmentally and socially quite destructive way to produce power.

Hydropower is also the most widespread type of CDM projects. Of course, EU member states should be very careful, if not prohibitive, with accepting CERs that have resulted from projects, where large areas have been flooded and environmental damage is caused. As a consequence, Article 11.b.6 of the EU Linking Directive (2004/101/EC) tries to address the problem:

"In the case of hydroelectric power production project activities with a generating capacity exceeding 20 MW, Member States shall … ensure that relevant international criteria and guidelines, including those contained in the World Commission on Dams November 2000 Report … will be respected during the development of such project activities."

So far so good – but it looks like this threshold of 20 MW to decide whether a project is "good" or "bad" is subject to a fundamental misunderstanding: The generating capacity is not necessarily linked to the environmental /social integrity of a hydro plant. There are a lot of large run-of-river hydropower plants, with installed capacities of several dozens of MW, where not one single person has been relocated. At the same time, there are many tiny dam projects way below the 20 MW threshold, where huge areas had to be flooded.