

A FRESH APPROACH TO THE BIG DAM CONTROVERSY

Amulya K.N. Reddy
(President, International Energy Initiative, Bangalore)

The controversy over large dams needs to be seen from the perspective of the decision-making agenda described in the *Hindu Survey of the Environment 1998* for minimising, if not avoiding, environment-development conflicts.

The "developers" (government or private sector) must start with a clear *statement of the project objective*. They must describe up-front and in quantitative terms the extra infrastructural outputs (kWh of electricity, cubic metres of water, passenger kms of transport, etc.) that they propose to provide through the project.

The "developers" must then provide a *comprehensive listing of all the options* for achieving the declared objective. These options must include modifications of the project (e.g., lowering a dam height), alternative centralised options (e.g., pumped storage schemes in existing large hydroelectric reservoirs) as well decentralised options (e.g., small irrigation/hydel projects). And apart from supply-side expansion options, demand-side management and saving options (e.g., more efficient motors or drip-irrigation) must also be included because outputs saved are equivalent to inputs generated.

A mega-project can be replaced by a **mix** of mini alternatives. What matters is whether the mix provides the same services (e.g., million kWh of electricity) as the mega-project.

When the "developers" are backed by abundant monetary and personnel resources, it is callous of them to ask the project critics to come up with alternatives. The listing of alternatives should be the responsibility of the developers, and not that of the critics.

Since a comparison is being made of different options for providing the same benefit, e.g., kWh of electricity or cubic meters of water, what is next required is a *comparative costing of options*. But this computation must not be restricted to the initial costs thereby ignoring the annual costs throughout the entire life of the option, i.e., the life-cycle costs.

Apart from the usual items that appear in the balance sheets of the "developer", there are costs that are borne by society -- so-called *externalities*, such as environmental degradation, public health bills, etc. These externalities must be internalised, not ignored. Thus, *real* costs including environmental costs must be considered. For example, the costs of rehabilitation of project-affected persons and compensatory afforestation must be included in the cost of a hydroelectric dam. Despite this effort, there may still be unquantifiables, e.g., the costs of a well-knit community being scattered. These must be made explicit, not pushed under the carpet.

The *distribution of benefits* between different sections of society and between different regions, and in particular, the gender distribution of benefits, must be revealed and clarified prior to project approval. All these issues of distribution, equity

and access must be explicitly treated in public presentations of the project. **Equity Impact Assessments** (EqIAs) are imperative.

The choice between these various possibilities must be based on a rational procedure such as **least-cost planning**. This consists of ranking all the options on the basis of real costs. The cheapest option is taken as the first element/component of the mix with a certain potential for contributing to the desired infrastructural output goal. Then, the next more expensive option is taken with a further contribution to the desired output goal. In this way one can identify a **least-cost mix** that will provide the required output.

Ideally, the identification of the least-cost mix should be free of biases and ideologies, either in favour of mega-projects (e.g., big dams) or against them, of centralised options or against them and of generation or saving options. To become part of the least-cost mix, a mega-project has to earn its right to be in the mix on grounds of real costs. If in this situation, factors such as national security are invoked in favour of options that would lose on real cost grounds, then such considerations must be made public.

Unfortunately, certain options are backed by vested interests exerting pressures in their favour. For example, due to the corruption factor (“Mr Ten Percent”), the more gigantic a project, the bigger the profit it yields and the larger the commission it provides. No wonder that there are powerful politician-bureaucrat-engineer-contractor lobbies behind large construction projects. Strangely, the proponents of big dams have maintained silence on this corruption issue.

The best safeguard against the identification of the least-cost mix being hijacked by vested interests is **popular participation and democratic decision-making** in the process. Infrastructural projects are too important to be left solely to the government and its experts or even to the private sector. The experience of North America and Western Europe is clear -- public interest and civil society, rather than industry and government, has played a key role in protecting the environment by providing the vital checks and balances.

The final step is the **democratic approval** of the identified least-cost mix of options selected from the list of options consisting of the developer’s pet option and the various alternatives.

The information required for decision-making regarding projects must be widely and easily available. A modern way of achieving **universally accessible information** is to create a website for the process so that the information is available on the Internet.

With the proliferation of powerful PCs, what used to be the preserve of a few experts with access to main-frame computers in organisations like the Planning Commission, has now become trivial for large numbers of people in academic and non-governmental organisations. All these people can verify and crosscheck the assumptions, estimates and computations of the experts. So, **completely transparency** is vital.

Quite clearly, the above agenda involves a major change in the rules of the game. But, these changes in the rules require, as a necessary condition, changes in the old forums, or creation of new forums, for the actors to interact. That is, *institutional changes* are necessary. For instance, *public hearings* (where the project developers argue their case for their projects) are essential. Also, there must be involvement of all the stakeholders including project-affected and project-excluded persons.

The above perspective enables a listing of the sins of omission and commission of the Sardar Sarovar project (SSP) and other Narmada Valley projects. There was no prior public disclosure of services to be delivered. The provision of drinking water seems to have been a populist after-thought. There was no listing of alternatives by the government and the project developers. The SSP (like the other projects) was not the one and only solution. It is to the credit of the Narmada Bachao Andolan that it encouraged and developed alternatives. Having been encouraged by NBA to make a presentation to the Planning Commission on alternatives to the electrical component of the SSP, I am astonished that Gail Omvedt has accused the NBA of being uninterested in alternatives. In developing these alternatives, independent analysts have found it very difficult to obtain information from the developers. No effort has been made by the developers to carry out least-cost planning and to justify the projects as the most cost-effective of all the alternatives. There is no EqIA. In fact, it is the debate generated by the NBA that has provided these revelations.

The SSP seems to be guilty on all counts. If it were offering itself as a new project, it would have to compete with the alternatives. Unfortunately, it is not a clean sheet. In this muddled situation, there has to be a comparison of three options: (1) continue with the project as conceived, (2) repair/modify it and (3) scrap and replace it. There are examples from other countries of all three options. The relative real costs of these three options have to be evaluated.

The debate initiated by NBA is not over. It must continue with the mass-mobilising skills of Medha Patkar, the literary power of Arundhati Roy and their combined moral force backed by the popular movements. And hopefully the Varghese and Omvedts will come up with less invective and debating points and more hard-core quantitative analysis showing how the cost-effectiveness of the already-built big dams is greater than that of the alternatives that were never considered.

Filename: hindu99.doc 1,343 words (incl. title) 5 September, 1999