

# Contributing Paper

## Response to Planning Survey

Daud Beg  
Independent Expert, Pakistan

**Prepared for Thematic Review V.1:**  
Planning approaches

*For further information see <http://www.dams.org/>*

---

This is one of 126 contributing papers to the **World Commission on Dams**. It reflects solely the views of its authors. The views, conclusions, and recommendations are not intended to represent the views of the Commission. The views of the Commission are laid out in the Commission's final report "Dams and Development: A New Framework for Decision-Making".

## **Planning Approaches Survey:**

The World Commission on Dams is preparing a review paper on the issues/concerns and emerging good practice in planning for sustainable water and energy resource development. There are great variations in different countries on the adaptation and change of planning systems and approaches at the national, sectoral and project level, as well as a host of internal and regional and global influences shaping the evolving practices. Similarly there are typically different institutions at all levels of government directly or indirectly involved in planning for water and energy services, which may involve single purpose or multi-purpose dams, such as for irrigation, power generation, water supply, flood management, navigation or fisheries.

The purpose of this note is simply to provide a framework to capture a range of perspectives on:

- **Principles:** Identification of key principles for good planning in sustainable water and energy resource development in today's context;
- **Issues:**
  - At Planning Levels:** Identification of emerging issues at different levels of planning (e.g. national, sectoral and project);
  - At Planning Interfaces:** Identification of emerging issues with the roles and influences of different groups at the planning interfaces (e.g. external and the country; between political and administrative levels of government; and between government and community level initiatives and informal sectors);
- **Good Practice:** Identification of examples of good practice (e.g. planning approaches adopted in different countries, or exercises and projects where lessons can be drawn).

The purpose of this note is to provide a framework to guide contributors on the types of principles, issues and concerns that they feel may be most relevant to sustainable water and energy resource planning and development in their country, region or more generally. Contributors may use this note as a template for point form comments (placing comments in the boxes), or use any other format for points. Descriptive text is not required. The various points will be collected and assembled by the synthesis writer for the paper. At this time, the WCD is simply assembling perspectives on principles for good planning, and some of the underlying issues and concerns, and suggestions on good practices that respond to the principles or accommodate the issues raised.

Your input will provide a point of departure for our discussion on the thematic review paper and will hopefully help to direct the flow of the argument within the paper towards the recommendations and the profiling of examples of good practice. This paper along with the 17 other thematic papers and various other work programme activities (<http://www.dams.org>) will provide a knowledge base on which the WCD outputs will be developed:

- Output 1: A global review of the development effectiveness of large dams;
- Output 2: A framework for options-assessments and decision-making processes;
- Output 3: A set of internationally acceptable criteria and guidelines.

**In view of the tight deadlines for the WCD process involving consultations, we would kindly ask if this survey could be completed and e-mailed to us ([lhaas@dams.org](mailto:lhaas@dams.org)) by 31 October. If that is not feasible, could you kindly indicate a date in early November when you would be able to send the completed form.**

## Completed Survey from Daud Beg

### **Part A: Key Principles for Good Planning in Today's Context**

#### **Principles for Good Practice in Planning:**

What are key planning principles at the national and sectoral level?

Illustrative only:

- establishing fundamental policies and planning objectives?
  - options assessment early in the planning cycle?
  - use of multi-criteria frameworks to make explicit trade-offs in decision making?
  - transparency and participation at all levels of planning to improve consensus and reduce risks of project abandonment or failure?
  - clearly defined roles in planning and approval of plans?
  - incorporation of information feedback during plan implementation?
  - Critical stages for consultation on plans?
1. Key Principles: What do you consider are the most important principles to promote and encourage good planning practices in water and energy resource development; and more specifically ones that support the choice and development of sustainable options?
    - One: *The Government should issue an Energy Policy or a "White Paper" clearly defining its objectives and goals. A Task Force should be assigned this important job, and its members should be highly qualified professionals representing different stakeholders including private sector and community representatives. The targets should be realistic and achievable.*
    - Two: *In larger economies like India and Pakistan, the Planning Commission undertakes the task of preparation of individual projects, the review and monitoring. Highly qualified professionals are necessary to ensure sustainable development.*
    - Three: *A Cabinet to check progress of the plans periodically, and provide interface between politicians and civil service*
    - Four: *Strong support by donor agencies to provide international advisory services to the Planning Commission*
  2. Other Principles: What other principles for good planning do you think are important to consider in review paper?
    - One: *Transparency and International Competitive Bidding (JCB) for all procurements*
    - Two: *Options and issues at all stages of planning process*
    - Three: *Continuous feedback and coordination at all levels*
  3. Planning and Decision Making for Dams: Apart from the above, what are specific principles that relate more particularly to planning and decision-making on dams?
    - One: *Decision making on dams to be based on merit, economic, technical, environmental and social. Politics to be kept out. Cases of failure: Kalabagh (Pakistan), Arnon (nepal), Sardar (India). Successes: Ghati Borotha (Pakistan), Indus Basin Mangla and Tarkela (Pakistan).*
    - Two: *Issue a Hydropower Policy to ensure the commitment of the Government at the highest level. Remove or reduce procedures and red tape in the development process, both for the Public and Private Sector.*

- *Three: Keep the general public fully informed about hydropower developments and particularly dams, through television, radio, newspaper preferably by the relevant Cabinet Minister.*

## Part B: Issues Identification: - At Different Levels of Planning

### National-Level Planning:

This relates to overall national planning frameworks for water and energy resources development, within which dams may be an option. There are various areas where issues arise such as in the formulation of national policy/planning frameworks to guide the preparation and co-ordination of long range perspective plans, five year plans and the relationship of planning to evolving legislation and regulation, government and private sector roles and institutional arrangements. The context for the issue identification is past or emerging barriers, constraints, or enabling conditions for the achievement of sustainable goals and planning practices.

Illustrative Issues/Areas:

- major driving forces of change and adaptation of planning systems and approaches; e.g. the extent to which the trend toward the introduction of regulatory systems influences, overlaps, or changes traditional five-year planning formulations in water and energy development?
  - the changing role of federal, state or provincial and local levels in planning practices and outcomes?
  - the design of new regulatory frameworks introduced at the national levels that may have cross-sector implications?
  - the economic and financial principles embodied in regulatory frameworks and how they are implemented in practice?
  - co-ordination between multiple legislative areas (e.g. investment promotion, environment protection, resource development, and social legislation)?
  - opening planning at the national level to inputs from stakeholders, and the impact and influence of the introduction of one-window systems for government-private sector planning interactions?
1. Key Emerging Issues: What do you consider are the most important issues and a more specific context if appropriate?
    - One: *Independent Regulatory Systems like democracies need time, sometimes a long time, to take roots in the newly independent nations. Pakistan has National Electric Power Regulatory Authority (NEPRA) for a few years, but it is ineffective. India is in a \_\_\_\_\_ stage. Nepal, Zambia, Central Asian Republics have Regulatory Authorities in name, but all of these are rubber-stamps in the hands of politicians.*
    - Two: *Allow the Planning Commissions to prepare 5-year plans and twenty year long term plans, at least to provide a perspective and a framework*
    - Three: *Strengthen the Regulatory Authorities, by strong legislation reporting only to the Parliament, and find independent eccentrics like Professor Littlechild of UK offer to run them.*
    - Four: *Transition of planning function from Central Ministry of Finance or Planning Commission to Regulatory Authority to be gradual.*
  2. Other Issues: What other issues do you consider should be addressed in the review paper?
    - One: *Increased participation by stakeholders in the central planning process. Include representatives of private sector (banking, industry) and other chambers in the review of five-year plans.*
    - Two: *Provide legislative support to the plans, to avoid political vicissitudes, on change of the Government.*
    - Three: *Define Federal (or Central) and Provincial (Regional) subjects and allow autonomy of planning process.*
  3. Dams Planning, Development or Operation: Apart from the above, what are specific issues that relate more particularly to dams?
    - One: *Planning of dams should remain a central subject, entrusted to integrated Ministry of Energy and Water, who possess the professional expertise. Regulatory Authority should award licenses, monitor the progress, and ensure Regulation Compliance.*
    - Two: *Inputs from all stakeholders, particularly at community level and NGO's for environmental and social impacts, in the planning process to be allowed.*
    - Three: *Diverse legislation (Electricity Act, Water Act, Environmental Act) to be coordinated for dams. Can it all be consolidated?*



### **Sector -Level Planning:**

This relates to sectoral planning typically carried out by central and line agencies such as Ministries for (energy, power, water, resources, agriculture, environment), within which dams may play a role as options for providing multiple services (irrigation, electricity generation, flood management, water supply, navigation, recreation, etc.). In industrialised economies, the Ministry or government role may be more of a strategic oversight and monitoring role, with planning and the selection projects left to the corporate or private sector, within the regulatory oversight of government. In developing and emerging market economies, the Government sector may carry out all aspects of planning and project selection at the sectoral level, then invoke project level planning process within government and its agencies, or in the private sector, or at the community level, and the government would co-ordinate government or private sector financing.

#### Illustrative Issues/Areas:

- weak or strong co-ordination among sector Ministries in planning and developing multi-purpose water and energy projects?
- the growing importance of multiple criteria (economic, technical, financial, social, environment, legal, institutional) in planning and sector-level decision making (i.e. which projects and the implementation mode)?
- the degree and extent of planning for the development of large-scale projects and medium and smaller scale projects?
- the changing purpose, intent and future of Masterplanning exercises, given the regulatory frameworks that may promoted direct investment in projects without regard to masterplans?
- the quality or absence of data to support different planning approaches, tools and methods developed and industrialised economies?

#### 1. Key Emerging Issues: What do you consider are the most important issues?

- One: *Prepare a Hydropower Policy, which reflects positive commitment by the Government, and outlines procedures and evaluation criteria for both public sector and private sector development. This is a credible approach in emerging economies, and sends a strong signal to developers.*
- Two: *Strong coordination among Sector Ministries for multipurpose water and energy projects is essential.*
- Three: *For larger projects (say above 50 MW), feasibility reports are essential as a planning tool.*
- Four: *Small projects, particularly less than 1 MW may be allowed to be developed by entrepreneurs, based on survey and preliminary studies.*

#### 2. Other Issues: What other issues do you consider should be addressed in the review paper?

- One: *Multiple criteria should be used for hydropower development.*
- Two: *A portfolio of hydropower projects should be prepared based on ground surveys.*
- Three: *Advisory services to be provided to the planning agencies for integrated water and energy planning models.*

#### 3. Dams Development, Planning or Operation: Apart from the above, what are specific issues that relate more particularly to dams?

- One: *Provide tools and methods, including models, in order to improve the planning capabilities in the emerging economies.*
- Two: *Regulatory agencies to approve licenses, monitor progress and compliance with standards. This would take time to develop.*
- Three: *Clear distinction to be provided for large, medium, small and micro projects, and appropriate planning technologies and methods employed.*

### **Project Level Planning:**

This relates to project planning level for water and energy resources development of which the option of dams may play a role. The planning may be carried out by government, an agency, within the corporate or private sector or at the community level.

Illustrative Issues:

- the future of the traditional sequence of project studies and how that is changing in light of the regulatory and other changes?
- independent review during the project cycle and the role of the project developer in preparing the project studies the EIA for example?
- the design and optimisation of projects to meet economic or financial criteria and optimal economic use of the resource?
- the need for pre-project baseline monitoring and operation phase monitoring to plan the project or to modify operations to improve realisation of the benefits and to resolve problems that emerge?
- Issues around, participation in planning and decision making; information dissemination or institutional capacity?

1. Key Emerging Issues: What do you consider are the most important issues?

- One: *Institutional development is a priority to increase project preparation capability.*
- Two: *Feasibility studies to be prepared for large projects (say above 50 MW) before issuing request for proposals (RFP) on ICB basis.*
- Three: *Avoid issuing exclusive licenses to developers for preparation of feasibility studies. This excludes other serious developers. In Nepal, developers have misused their licenses without any significant developments in a period of five years.*
- Four: *Continuous dialog with all stakeholders is important.*

2. Other Issues: What other issues do you consider it important to address in the review paper?

- One: *The developer to be responsible for EIA and Social Impact assessments.*
- Two: *Use local labor and create social welfare facilities, like a hospital, school.*
- Three: *Be generous in payment of land compensation. This is only a very small percentage of the project cost.*

3. Dams Planning, Development or Operation: Apart from the above, what are specific issues that relate more particularly to dams?

- One: *Optimization of financial and economic criteria in dam design planning.*
- Two: *Monitoring from the conception stage, through execution, commissioning and operation.*
- Three: *Realization of uncertainties of geological and climate conditions, and safety aspects*

## Part C: Issues Identification: - Planning Interfaces and Influences

### External World and the Country

This relates to overall national planning frameworks for water and energy resources development within which dams may play a role. This concerns the nature of the interface and influences of external bodies or external trends on the planning approaches and practices in the country. This may include for example the interaction and influence of the donors, global and regional financial markets, or the emergence of specific issues in the international agenda, which may influence (positively or negatively) planning goals, practices and outcomes in the country.

Illustrative Issues:

- competition among developing countries in attracting direct foreign investment and how that may influence planning, regulatory structures and incentive frameworks in countries (positively or negatively) in promoting sustainable growth and development?
  - the retraction of official development assistance (government to government) in favour of private financing mechanisms and how the implications are addressed in planning, such as the degree of uncertainty in financing from other sources?
  - Role and influence of donor conditionally, tied aid or other practices on planning practices at the national, sectoral and project level?
  - Impact of donor programming, appraisal and approval systems in terms of time and operational procedures?
  - Influence of planning practices or approaches in the region or sub-region?
1. Key Emerging Issues: What do you consider are the most important issues?
    - One: *A clear and hassle free IPP policy to be issued to provide level “playing field” incentives, free from complex procedures and red tape, to attract direct foreign investment (DFI).*
    - Two: *Legal protection from change in laws, or change in Governments. Although this did not provide any security to IPPs in Pakistan, India or more recently Indonesia.*
    - Three: *Donor support in the form of “back-to-back” financial guarantees provides comfort level to investors.*
    - Four: *To consider short term Power Purchase Agreements (PPA), say for five years, and reduce high “up front” tariffs.*
  2. Other Issues: What other issues do you consider it important to address in the review paper?
    - One: *How to provide risk-free environment to DFI? A slight whisper of uncertainty loses the investor confidence.*
    - Two: *Tied loans from donors (bilateral aid) must be avoided. Increases the cost manifold.*
    - Three: *Donors must provide loans for longer duration (23 years or more).*
  3. Dams Development or Operation: Apart from the above, what are specific issues that relate more particularly to dams?
    - One: *Power Purchase Agreement (PPA) with Hydro IPP must address the issue of vagaries of nature. “Take or Pay” provisions must be included.*
    - Two: *Technical specifications of cost engineering structures should be ensured, because of safety considerations.*
    - Three: *EIA and SIA guidelines should be provided by WB/WCD.*

## **Government Level: Between the Political and Administrative/Planning /System Structure:**

This relates to how the political levels of government interact with the administrative/planning levels of government in the context of issues/ interactions that promote and encourage sustainable practices, recognising the different roles.

Illustrative Issues:

- the degree of autonomy of regulatory agencies for different functions e.g. regulating government and private sector infrastructure developers and operators in the planning and project selection stage?
  - the role of administrative levels of government in presenting options and decision-tradeoffs for political levels?
  - the influence of political levels in project selection?
  - the negotiation of licenses and concessions for the private sector and the capacity of government planners to address issues?
1. Key Emerging Issues: What do you consider are the most important issues?
    - One: *The Regulatory Agencies should be autonomous, preferably reporting directly to the Parliament, so as to ensure independence from political and bureaucratic influences. So far, the Regulatory agencies in most of the emerging economies are ineffective.*
    - Two: *Low priority is accorded to the provision of budgets for the Regulatory agencies, no competent professional staff is seconded to them. Donors must provide funding for the Regulatory agencies for five years, and also provide advisory services.*
    - Three: *Where to get an Independent Regulator? There are few “angels” with requisite qualifications in the emerging economies.*
  2. Other Issues: What other issues do you consider it important to address in the review paper?
    - One: *Politicians and bureaucrats are a coalition for the benefit of mutual survival. Allow the traditional procedure of presentation of issues and options by the bureaucrats, through the Planning Commission or Ministries of Finance, to the politicians, then everyone feels secure.*
    - Two: *Interaction between the Ministries and the politicians is necessary for smooth implementation of the projects.*
    - Three: *The Regulatory agency can issue licenses and monitor progress of the projects.*
  3. Dams Development or Operation: Apart from the above, what are specific issues that relate more particularly to dams?
    - One: *Water and energy projects have a wide impact on local populations. Thorough coordination with all stakeholders and community level is necessary.*
    - Two: *Due to the multipurpose nature of dams, its choice and selection should be left to the Planning Commission and the Ministries.*
    - Three: *WB/WCD/Donors can establish review panels from the stage of planning of a dam project.*

### **Community Level and the Government System:**

This relates to how community based initiatives, or proposals are reflected, integrated or otherwise supported by the government level planning system in the context of sustainable practices.

Illustrative Issues/Areas:

- Reconciling top-down and bottom-up approaches to planning and associated decision-making?
- determining the extent to which civil society is involved in sector planning and decision making?
- the extent to which community based initiatives are encouraged, and how they are integrated in sector level planning and decision-making leading to resource allocations?
- the extent to which community level issues, concerns and views are reflected in sector planning, masterplans etc.?
- the scope and role for government Departments operating in a service orientation e.g. providing financial resources and inputs to support community organised projects versus traditional project approaches that may be top down?

1. Key Emerging Issues: What do you consider are the most important issues?

- One: *This is an age of awareness. NGOs and local communities must be kept informed at all the stages of project development.*
- Two: *Planning process is top down in emerging economies. But EIA and SIA can be bottom up approach.*
- Three: *The local communities must benefit from the project development in their area.*

2. Other Issues: What other issues do you consider it important to address in the review paper?

- One: *It is now well known that many NGOs thrive on obstruction. Unfortunately, one has to listen to their complaints.*
- Two: *The benefits of the project should be widely publicised.*

3. Dams Development or Operation: Apart from the above, what are specific issues that relate more particularly to dams?

- One: *Most hydropower projects in the world have led to the economic development of the area. The local population must share in these benefits.*
- Two: *Local labor must be employed to the largest extent possible.*
- Three: *Developers may financially support community development initiatives, e.g. schools, hospitals, etc.*

## Part D: Identification of Good Practice

### Examples of Tools, Methods, and Good Practice:

This relates to overall national planning frameworks, as well as sector level and project level for water and energy resources development, within which dams may play a role.

1. Planning Approaches: What do you consider to be examples of good practice in water and energy resource planning at the national, sectoral or project level (government, corporate/private sector, or community based). These examples may partially or fully capture and reflect good planning principles, and which the WCD should refer to in the review paper for lessons to learn, and subsequently profile in the WCD outputs as good practice?
  - One: *Ghazi Barotha Project in Pakistan: A run-of-the-river project of 1,450 MW capacity downstream of Tarbela on Indus River is an example of good practice. Excellent planning and design, optimum utilization of resources, EIA and SIA consultation at the local NGO level right from the conception stage. WCD are in touch with WAPDA and NESPAK for case study on Tarbela, and additional information on Ghazi Barotha can be obtained from them.*
  - Two: *Indus Basin Project: A fine example of international cooperation. WB facilitated Indus Basin Treaty after the partition and independence of India and Pakistan. Tarbela (3,500 MW) and Mangepa (800 MW) Dams were constructed under the Treaty, along with vast river interconnection channels.*
  - Three: *Syr Darya and Amu Darya Cascade Developments (Central Asian Republics): An excellent example of central planning by USSR of integrated water and energy development of two major rivers in 1960's which has fallen victim of regional tensions and lack of cooperation after independence of CAR in 1991, resulting in catastrophic environmental degradation of Aral Sea.*

Citations of reports, Papers, Web-sites or other information to follow up on?

2. Tools, Methods, and Practices: Which help promote sustainable development planning and management practices, and which can serve to operationalize or implement the principles identified in the previous boxes. (e.g. tools or methods for integrated resource planning, options assessment, multi-criteria analysis, scenario analysis, forecasting, risk analysis or tools and practices applied at the community level planning level)
  - One: *WB funded the preparation of Hydropower Policy for Zambia, which has addressed several of the issues in this survey.*
  - Two: *USAID has funded the advisory services for Private Sector Hydropower Development Project in Nepal at an estimated amount of \$4m over a period of three years, which is introducing good practice and good governance. This has been an ongoing effort earlier provided by M/S Acres.*

