

WORLD COMMISSION ON DAMS

SUMMARY OF SOUTH ASIA CONSULTATION

Colombo, Sri Lanka
10-11 December 1998.

Introduction

The World Commission on Dams emerged out of historical process that has seen large dams being discussed as one of the most intensely debated issues in sustainable development. One crucial aspect of the mandate of the WCD therefore, is to enable the development of an open and clear dialogue on the role of large dams in sustainable development. This meant that the Commission would establish an open process to ensure timely and appropriate opportunities for informed involvement in its work programme by the Commission's varied stakeholders. The Commission's communications strategy entails the open dissemination of summary and full documents. It also includes the use of the WCD Forum, regional consultations, stakeholder involvement in case studies and thematic reviews, a Commission presence at relevant international conferences, dissemination through the WWW site established for the Commission, and major media interaction to raise the profile of the Commission.

Consultations form an essential element of this communications process. They are planned in varied formats to meet the specific needs of the Commission's work programme. These include regional consultations, workshops, the WCD Forum, and technical review panels using electronic and other forms of conferencing.

Regional consultations are seen as a means of collating the extremely large body of diverse lessons, experiences and perspectives on large dams and their alternatives from a spectrum representing government and civil society, international organisations from the private sector, research and academic institutions, and water and power utilities. Four regional consultations have been scheduled during the life of the Commission.

The first of these was planned for Bhopal, in India in September 1998. An unfortunate turn of events led to the event being cancelled at the last minute. Fortunately for the Commission, the government and civil society in Sri Lanka stepped into the breach. An invitation extended by the Government of Sri Lanka to the Commission to host the consultation in Colombo was duly accepted. The fast response from the Sri Lankan Government and the openness of the support offered proved crucial in permitting independent and participatory sessions to be held at first regional consultation on South Asia on December 10-11, 1998.

The process of identifying submissions

A call for submissions for presentation at the consultation was sent to a range of organisations and networks across the five countries of South Asia: Bangladesh, India, Nepal, Pakistan and Sri Lanka. The call for submissions was advertised through a variety of means including by mail, the WCD website, and via e-mail lists.

A two-page summary of submissions for presentation was requested. In addition to submissions for presentation at the hearing, submissions not for presentation and other materials documenting the experiences and lessons learned with large dams and the sustainable development of water and energy resources in South Asia were encouraged. These submissions were requested in written, audio, video or other format.

Criteria were developed for presentation selection: the representative nature and expertise of the presenter, the relevance of the topic and the quality of the submission. Presentation proposals that were not formal submissions were also entertained.

The call for submissions drew an extremely encouraging response from the South Asian region. Over 100 submissions were received from India alone. With the shifting of the venue from India to Sri Lanka a second review was conducted and 28 selected (ensuring the widest range of representation) from a total of 120+ submissions received by the Commission.

The proceedings

The two days of the consultation were divided into eight sessions with fifteen minutes allowed for each presentation followed by 45 minutes of questions from the Commissioners. All the participants co-operated with the Chair to ensure equal opportunities were provided for everyone to make their case. The presentations were made in a positive, constructive spirit and there was clearly a real desire to provide the insight and background material necessary for the work of the Commission. Each of the eight panel sessions is briefly summarised below and full copies of the 28 papers presented to the Commission are available through the WCD Web page. (PROVIDE LINK TO WEB COPIES). The views presented here are those of the presenters and not the Commission.

Panel 1 - Sri Lanka I

Perspectives and Experiences related to Mahaweli Dam Legend in Sri Lanka - T Ranaviraja and S Karunaratne

The opening remarks from the Secretary of the Ministry of Mahaweli Development, Mr. Ranaviraja, set the tone for the consultation and the wider work of the Commission. He highlighted that it was often difficult to reach consensus, but there is always a possibility of bridging a gap between two perspectives. In the case of Sri Lanka, the history of dams and irrigation goes back more than two thousand years to a golden age in the 12th century that saw the construction and rehabilitation of 165 dams under the reign of King Parakrama Bahu I. The more recent Mahaweli Scheme initiated in the 1970s led to some controversy when the implementation period was reduced from its original 30 years to about 10 years. The paper describes the scale of this project that involved five large dam projects which now contributes 24% of the country's staple food production and 45% of its power generation. Recognising that there were some negative lessons, particularly regarding the resettlement programme, the presenters pointed to the significant improvements including direct and indirect benefits to 500,000 families within the area of influence of the project, improvements in the ecosystem as a result of bringing the water to a previously arid area, and improvements in forest cover. The benefits of the project were considered to go beyond agricultural production to wider achievements in rural development. The presenters concluded with a request for the establishment of a permanent body to provide information and technology on dams.

Development Effectiveness of Dams in Water Resources Development and Management - PC Senaratne and S Selvarajah

The central theme of this paper revolved around the limited amount of rainfall in the country both in time and space, the limited groundwater storage, and therefore the need to provide surface storage – a principle that has been accepted in Sri Lanka for more than two thousand years. Echoing the views of the previous presenters, the importance of multiplier effects and wider positive impacts of irrigation to rural development were highlighted. Reservoirs have also contributed to relief from flood events and permitted the development of industry. With respect to the relationship between large and small dams, no conflict was seen – both having their own place dependant on local conditions and needs. Although reservoirs submerged forests, the presenters considered that without alternative forms of livelihood brought about through irrigation, the pressures of the natural habitat would increase through more intensive slash and burn agriculture. A better means to mitigate soil erosion was however needed. In conclusion the presenters considered that the increasing population meant there was no alternative to further dam development.

Hydropower in Sri Lanka - D C Wijeratne

Mr. Wijeratne highlighted the significance of hydropower to Sri Lanka, producing an average of 2,970 GWh per year or between 80 and 90% of the nation's power. As the country's only indigenous resource, hydropower is expected to remain a prominent source of additional power generation and to remain in the public sector. A key consideration for Sri Lanka is the difference in cost between hydro

and thermal power generation based on imported fuel – a range from Rupees 0.15 to 4.50 per kilowatt was quoted. Reference was made to the planned Upper Kotmale project which is expected to generate an additional 10% of current capacity although the controversies surrounding the project have resulted in it being taken to the courts. Issues here included the loss of natural heritage in the form of major waterfalls and surrounding countryside. The problem for the developer was that no acceptable mechanism existed for valuing aesthetic beauty. Mr Wijeratne acknowledged that lessons had been learnt from past resettlement programmes and cited the cases of the recent Kukule reservoir where the relocated families were considered better off and the proposals for the Upper Kotmale reservoir which involved reclaiming low lying areas for resettlement of affected people.

Panel 2 - Sri Lanka II

Social Effects of the Victoria Dam Project - L Mediwake

Dr. Mediwake presented the problems of the Victoria Dam Project as a dam-affected person. He considered the problems resulted from hasty implementation, lack of controls and monitoring. One suggestion to avoid this in the future would be for an independent mediator to be established to review conflicts over major dams. Compensation for the affected people was considered inadequate and he proposed that lands that were barely submerged should be returned to their former owners. Costs for the project were exceeded leading to a much lower rate of return on investment than originally expected. As an alternative, a series of smaller run of river projects were proposed and the presenter recommended a decommissioning study that includes an assessment of this alternative. Other concerns over the project include the risk of induced seismicity that were intensified by a recent earthquake in November 1998.

Upper Kotmale Hydropower Project: Another Disaster in Sri Lanka's Dams History?

H Withenage

Mr Withenage started by commenting that there were many examples of good and bad dam projects in the world and also in Sri Lanka. The under-achievement of the Accelerated Mahaweli project in terms of delivering its stated benefits in agricultural production and electricity generation and concerns over sustainability were central to future concerns over the planned Upper Kotmale Project. The presenter questioned the adequacy of the environmental clearance procedures as they were implemented, citing that despite earlier rejections, the Upper Kotmale Project had now been given clearance without changes in design or mitigation of impacts nor with completing public consultation procedures. He maintained that the position regarding resettlement was still not clear with 600 families unsure of where they would go. The clear perception was that options to the dam were not considered seriously and that there were significant adverse affects on natural heritage that werenot given adequate weight in the decision making process. In conclusion, Mr Withenage pointed to the need for transparent and participatory planning processes in Sri Lanka and requested a moratorium on all decisions on dams until after the WCD report had been issued. In the meantime the country should concentrate on the renovation of existing irrigation tanks (reservoirs) and the use of natural gas as an alternative to hydropower.

Social Impacts of the Samanalawewa Project - A R Karunawathie

Ms Karunawathie was resettled from Kinghigune village due to the Samanalawewa Project. She related her view that compensation provided to farmers was far lower than the value of what they lost and that problems related to provision of housing, water supply and electricity were not resolved by Government. An area of 1.5 acres was given to each family, but this was insufficient given the subdivision among future generations. As a result there had been an increase in tenancy farming, a loss of forest land and an increase in social problems. The loss of forest land had resulted in lack of traditional medicines and reliance on modern age medicines that have to be purchased. Ms Karunawathie pleaded that solutions were needed for the full range of social and environmental issues before projects such as the Samanalawewa are planned.

Panel 3 - Pakistan

Pakistan's Perspective on the Experience with Large Dams - Sardar M Tariq

Pakistan has depended on the agricultural sector for centuries. With only approximately 60 days of rainfall per year totalling 150 mm, the importance of reservoir storage was clear. Following the signing of the Indus Basin Accord with India in 1960, Pakistan embarked on an ambitious plan to construct the Mangla and Tarbela Dams together with a series of link canals to substitute for water from the southern rivers allocated to India. Plans for another dam were now being considered. Alternatives such as increased groundwater abstraction, a series of small dams and canal lining were considered but rejected as being unable to provide the increased irrigation water necessary for the rapidly growing population. Another dam would also allow for the optimisation of power generation which was currently constrained due to operating requirements of irrigation. Pakistan imported 4 million tons of the staple crop wheat two years ago. Without additional reservoir capacity the import requirement would be 26 million tons of wheat by 2010 – the feasibility of such an approach was fundamentally questioned. Heavy sedimentation has however reduced the capacity of the existing dams with a total loss estimated at 4.5 billion cubic meters. The total number of people displaced by the two dams was approximately 150,000. Difficulties in resettlement were experienced leading to court cases on the compensation awards. It was generally agreed that two aspects of dam projects needed to be better studied – social and environmental – and knowledge had increased significantly in this regard. For example, lessons had been learnt from these dams and a completely new participatory approach was now being adopted for the Ghazi Barotha project where resettlement was conceived as a development component of the Project.

The Kalabagh Controversy - S R Khan

Mr Khan claimed that concerns over the Kalabagh Dam were intensified by an apparent entrenchment of a centralised decision making process in which social and environmental considerations were marginalised and equity considerations between provinces not addressed. Disputes also centred on the validity of hydrological figures put forward to justify the Kalabagh Dam. The basic assumption that more water was needed to increase agricultural production was questioned and the paper suggested that other approaches could be more appropriate, such as increasing existing water use efficiency, greater attention to reducing waterlogging which has been increasing in Sindh, and a move to higher value diversified crops. A power surplus currently existed in Pakistan, but future demands would increase, therefore alternatives should be evaluated exhaustively. The major environmental concerns surrounding the proposed project include the impact on the Indus delta ecosystem and increased risk of waterlogging and salinity. Internalising of externalities was needed to assess the true economic viability of the project.

Damming the People of the Indus - A Ercelawn, K Ali and O A Khan

This joint presentation on behalf of three non-governmental organisations from Pakistan regretted the lack of informed debate and public consultation in the planning of dam projects in Pakistan, and envisaged serious ecological and human impacts resulting from further dam building on the Indus. Furthermore, the presentation emphasised that the distribution of benefits and impacts would be highly inequitable. In particular, the paper anticipated that the problems in the downstream areas would intensify with the construction of another dam and proposed a substantive evaluation of the cumulative downstream effects. In addition to the study, Mr Ercelawn on behalf of the joint presenters requested a process that carried out a more comprehensive assessment of alternatives, involved a more participatory and integrated approach to decision making involving informed consent of affected groups, and involved prompt and adequate restoration and reparation. The presenters trusted the Commission would bring sanity to the debate based on comprehensive evidence and analysis, standards for planning and implementation, implementation of existing guidelines of aid agencies, and procedures to help protect the rights of affected people.

Panel 4 – India I

Large Dams in India: Experience and Lessons Learned - B G Verghese

As an introductory comment, Dr Verghese maintained that to consider the environment as changeless was a myth. He contended that there is a need to understand that population pressures had changed

many things – it was not possible to revert back to old ways of doing things. He highlighted the maldistribution of water in India where 80% of the rainfall falls in 100 monsoon days and within this the majority falls in 5 or 6 major cloudbursts. All approaches were important and one should recognise that there are good dams and bad dams as with other infrastructure, hospitals, universities etc, and learn from past lessons. Food security was vital for countries. However, with current trends in population, he considered that even the best demand management practices would not suffice and more reservoir storage would be required. Resettlement requires compassion and understanding and better monitoring and implementation, however there was a need to recognise that the situation of many people in remote areas was impoverished and that they have moved out in search of better opportunities. Land for land should not be considered to be axiomatic as other capacity building approaches can be considered. The role of women and readily accessible water was critically important for gender equity. In summary, Dr Verghese proposed that there was a need to move forward without dogma, but with due care. Technological arrogance and NGO fundamentalism led to stagnation. A sustainable social and political system was necessary, otherwise the environment would be a casualty.

Environmental and Social Aspects of Large Dams: Problems of Planning, Implementation and Monitoring - A Kothari

Mr Kothari maintained that India was capable of handling its own water management issues while learning from others' experiences. The thrust of his presentation was not on environmental impacts per se, but on the planning process and the problems associated with its implementation. His examination of the Indian experience with environmental impact assessment, preparation of environmental management plans and mitigation concluded that implementation was weak. Problems in the EIA system related to a lack of data and knowledge on which to base decision, lack of expertise, and lack of independence in the EIA process. Once projects had been approved, mitigation measures were violated to some extent in 90% of cases. For example, it is claimed that less than 50% of compensatory forestry has been carried out. Even where violations of the implementation plan were identified, no action was taken. For better dams to be built, Mr Kothari recommended a number of measures including improved, independent EIAs, blacklisting of consultants who had not performed in the past, greater influence for the Ministry of Environment, and a process of open participation and open scrutiny of public funds. Constraints that prevent this from happening relate to the sheer size and complexity of the projects, a poor information base and lack of resources.

Controversies about Large Dams - M G Padhye

Future trends in population growth in India with consequent increased demand for food production to some 450-600 million tons by 2050 led to three central policy directions in this paper – the need to store water, to use it judiciously and ensure that water quality is maintained. In resource poor countries, poverty becomes an environmental problem. The process of environmental impact assessment is also considered as a process of trade-offs comprising of value judgements. Mr Padhye clearly indicated his personal value call for food security. Taking up an earlier point, he maintained that most of the damage to forests was unrelated to dam projects. In conclusion, Mr Padhye drew the audience's attention to two drought prone areas that had become the bread baskets of India due to the Bhakra and Beas Dams. In the conclusion of his paper, Mr Padhye requested the Commission to come up with pragmatic methodologies for environmental impact assessment and technical and socio-economic criteria for assessing the viability of large dams.

Large Dams - destruction not development: the experience of the dams in the Narmada Valley in India (with the exception of Sardar Sarovar) - S Dharmadhikary

The case for more food and water has been made – but no axiomatic link has been made with the need for more large dams. The contention in this paper was that dams had resulted in heavy costs, but they had not delivered their promised benefits. One of the most important of these costs is displacement. The Bargi Dam was taken as an example where no resettlement plan was produced for the 101 villages over the implementation period from 1974 to 1990 and, as a result, affected people have ended up in slums of nearby cities. At the same time, the dam achieved only 5% of its benefits due to financing constraints. The private sector Maheshwar Dam tells a similar story, with no implementation of resettlement despite the first displacement taking place in 1995. Land for land was the policy, but land was not available. Now a task force had been established to look at alternatives

for the Narmada Valley – this was the first time a participatory procedure for options assessment had been initiated. In concluding Mr. Dharmadhikary proposed that ‘if you can’t resettle, you have no right to displace’.

Panel 5 - India II

Water Resources Development in India: the Need for Storages - M S Reddy

India is a water short country and even without the future population growth, there is water stress. Currently 145 million hectares are irrigated and there is a need to increase this figure by a further 15 million ha. – predominantly by increasing the available storage through reservoirs. In the 1950s there was hunger and drought in India with imports coming from the USA. Now, 200 million tons is produced and India is almost self sufficient – this would not have been possible without irrigation. After religion and language, Mr Reddy maintained that water was the most important issue for India – 70% of the population depend on irrigation. In addition domestic and industrial water supplies formed a major rationale for dams. In Delhi for instance, additional capacity would be needed to supplement the Bhakra dam. Madras, Bombay and Hyderabad faced similar demand increases. For Calcutta, the presenter indicated that control of saline intrusion by the Farakka Barrage was essential. Lessons from past projects were there to be learnt and problems such as those related to the environment needed to be addressed. Other approaches such as small and medium sized dams, catchment management etc should also be considered, but were complementary to large dams. The real alternative would be to reduce population growth.

Performance of Large Dams in India: the Case of Irrigation and Flood Control - H Thakkar

With an annual production of almost 200 million tons India is a food exporting country. Two thirds of this depended on irrigation – was there a need to keep expanding this area? Mr Thakkar argued that the expansion in irrigated agriculture since 1950 had come at a cost: a considerable amount of land was inundated, about 3% of land was waterlogged, and traditional water harvesting systems were lost. In addition, it was claimed that productivity of groundwater systems was some 70% higher than surface water systems. Of the 129 million tons of increased production, only 12% was attributable to large irrigation schemes. Considerations of equity are also important, both in terms of the lost opportunity to develop water supply over a larger area and as a result of inequitable distribution within surface systems. In relation to flood protection, the figures presented in the paper demonstrated that despite significant investment in flood protection infrastructure, the annual area affected by floods had increased significantly. Part of the overall problem was perceived to be a lack of political will to examine alternatives. Recent projects in Gujarat had demonstrated that alternatives can work.

Strategy for Further Growth and Environmental Sustainability of Hydro-Projects -

B S K Naidu (Dr Naidu was not present to deliver his paper - comments on a similar subject were provided by Mr Reddy)

Hydropower is described as the highest density, inflation free resource used non-consumptively. India has developed about 15% of its 84,000 MW hydropower potential. Hydropower is clean, but gives rise to social impacts. Alternatives are not available – there has been no breakthrough in solar power, coal is poor quality and polluting and nuclear has strong opposition. The long gestation period implies that planning of future projects should proceed now.

Reassessing the Role of Large Dams in Meeting Power Demand - G Sant, S Dixit and S. Wagle

Mr Sant, in his joint presentation, said that despite the obvious benefits of hydropower, its role for India needed to be reassessed. Although clean, it has social impacts. The target was to increase capacity by 2,000 MW per year, but only about a quarter of this target was realised. At the time of appraisal, the projects appear viable, but cost benefit analyses needed to be reworked to include externalities. Alternatives also needed to be evaluated more thoroughly. These include reducing losses from the current 35% to 15%, new planning for baseload capacity, metering consumption, and improving end use efficiency. Instead of such alternatives, there is a business as usual approach that favours large-scale projects and increasing tariffs to increase efficiency that tends to marginalise the

rural consumer. Instead the low cost options should be taken first as they do not lock in large volumes of capital, providing a chance to review dam planning through a participatory and democratic process. In this scenario there should be no new dams for the next 10 years. Also Dr Sant proposed a fundamental rethink of the current development model and consequently the role of dams and electricity.

Panel 6- Nepal

Prospects for Large Dams in Nepal - K B Chand

Water was presented as the key natural strategic resource for the economic growth in Nepal, the only other resource being the beautiful landscape that is a base for tourism. Imbalance in the seasonal flows led to a requirement for storage which could be augmented 100% by reservoirs. Irrigated agriculture, electricity generation for industrial, rural and urban growth, foreign exchange earnings and increased navigation were the root of demands for increased storage. As upstream riparian on international rivers, Nepal was seeking co-operation with other countries. Lessons had been learnt from previous projects, and the 145 MW Kaligandaki project had incorporated environmental measures in a participatory manner. Displacement was minimal in many of Nepal's dam projects, but more could have been done on resettlement. Concerns remained about sedimentation of the reservoirs. Considerable changes have been made to the planning and preparation process for dam projects in Nepal including incorporation of participatory processes and gender considerations, internalisation of environmental and social aspects, an open options assessment process and legislative changes to protect the rights of displaced people. In parallel, the national capacity to implement such projects had been increased. As foreign companies demonstrate interest in supporting future projects, more would need to be done including improvements in the hydrological database, more ecological studies, and continued strengthening of national regulatory frameworks.

Large Dams and Alternatives in Nepal: Experiences and Lessons Learnt - I R Onta

The paper started with some illustrative statistics - poverty is rampant in Nepal with 42% below the poverty line, urban population growth is 14%, life expectancy is 55, adult literacy is 74%, and 60% of the population has access to safe drinking water. The Nepalese rivers contribute 40% of the flow to the Ganges River. The presentation then reviewed details of the existing Kulekhani scheme, the Kaligandaki scheme under construction, and a number of other major proposed dams. Nepal considers its domestic energy need can be met by utilising small and medium hydropower schemes and those under construction will meet demand increases until 2005. Large projects are identified with the primary purpose of exporting power to India. Caution is necessary on these high dam projects and Mr Onta stated that 'the time had come to approach India more meaningfully to work on a mutually beneficial agreement on multipurpose projects located wholly in Nepalese territory'. Considerations should also be given in such projects to augmentation of low flows at the Farakka Barrage in India.

Dams and Civil Society in Nepal - B Pandey

The paper proposed that the differences between two basic development models was at the root of some problems with dam projects. Nepal's experience with dam projects has identified issues related to downstream water rights, the rights of fishers, conflicts over distribution of benefits, and hydrological problems. On technical grounds, one dam has seen a loss of 75% of its expected life due to sedimentation. Then externally funded projects carry the risk of exchange rate fluctuations. Still there was a major push to develop more dams to export electricity to India. Civil society issues, resettlement and environmental problems would be more significant in these larger projects. The benefits in terms of royalties to the Government were considered unlikely to reach the people. Mr Pandey considered that the alternatives of smaller projects should be reconsidered as they were more flexible, and offered the chance of wider distribution of benefits. Confidence in the Government process would improve if it could prove that resettlement and ecosystem management were achievable on smaller projects before embarking on the major developments. One of the fundamental problems was a perception that natural resources were seen as a source of rent.

Environmental Monitoring of the Construction of the Upper Bhotekoshi Hydropower Project - D Ghimire

Construction of this private sector run of the river project started in 1997 and is considered a test of the environmental protection legislation passed in 1996. IUCN carried out an independent EIA and approved the project subject to mitigation of minor environmental impacts and that some of the electricity generated would be provided to local people. Valuable lessons and experiences were gained from the involvement of IUCN, including identifying weaknesses in linking and integrating local development needs into the project. Other findings showed that planning and implementation of resettlement and of compensation needed to be further improved; the project resulted in increased indirect pressure on the forest; and dust, noise and river pollution problems associated with constriction were more problematic than expected. Clear lessons for the future were the need for an environmental monitoring authority with enforcement capacity.

Panel 7 - Bangladesh

Large Dams and their Alternatives in Bangladesh: Experiences and Lessons Learnt -

G A Choudhury

The floods in Bangladesh in 1998 reinforced the view that people have nowhere to go when faced by such calamities. Approximately 67% of the country was flooded affecting 30 million people. More than 1000 people died and the shortfall in rice production was twice the normal amount. This situation is common to Bangladesh which has experienced major floods recently in 1974, 1987 and 1988 and 1998. In the dry season, rivers are getting drier. 57 of the country's rivers are shared with other countries and Bangladesh has no control over them. The presentation maintained that there should be integrated planning of dams upstream – dam sites had already been identified in the Brahmaputra and Meghna basins. A reduction in the flood depth of 0.5m would make a significant difference in a low lying country like Bangladesh. Mr Choudhury made the case for integrated river management to provide for all sectors. Within Bangladesh there was not much scope for more dams. The Kaptai Hydropower Dam had experienced considerable problems with the resettlement approach, however, in the recent Jamuna Bridge project where 1600 families lost land, a major programme was instigated that aimed to restore and improve living standards, provide training and income generation programmes. Lessons were there to be learnt from this programme for other projects. The planning approach in Bangladesh had also significantly changed with a more participatory approach. Mr Choudhury concluded with a plea that water was getting more and more scarce and that a regional approach was necessary.

Dams made Environmental Refugees of the Ethnic Minorities of Bangladesh -

S Samad

Mr Samad reminded the participants that the major water management projects in Bangladesh were carried out under a military regime. The Kaptai multipurpose project in the Chittagong Hill Tracts where ethnic minority groups were particularly affected, resulted in 54,000 hectares of cultivable farmland getting submerged and approximately 100,000 people displaced. Many of the hill people migrated to India and Burma where they still live, without citizens rights in any country. The project was cited to have negative impacts on agriculture and increased the frequency of slash and burn agriculture to 2-5 years which was no longer sustainable, leading to soil erosion, soil degradation and low yields. Consultation with the local people about the project was not part of the process and their resettlement needs were not met – even resettled villages were not free from flooding during impoundment.

A Note from Bangladesh on the Importance of Large Dams in the South Asia Region -

T A Khan

Many of the sentiments of Mr Choudhury's earlier presentation were reinforced – 'an overabundance of water when we don't need it and a shortage when we do'. Even though a 30-year accord with India for the Ganges was signed in 1996, too little water entered Bangladesh in the dry season – in fact demands on both sides of the border were increasing. The reduction in water in the Ganges had directly led to environmental degradation in the southwest of Bangladesh as the major distributary river, the Gorai, now dries up completely in the dry season. As water cannot be stored in Bangladesh, some additional upstream storage was required. The Ganges-Brahmaputra-Meghna region is one of the poorest areas of the world and it is expected that water could be the engine of growth. Upstream dams in Nepal could supplement low dry season flows and reduce flood peaks. In addition to such

large projects, attention should be given to other types of projects - additive not alternative - such as run of the river, water harvesting, and micro hydro. Bangladesh is a poor country but it might be able to find a cost sharing solution for water from Nepal. Mr Khan summarised by stating that 'we must not harm the environment, but also in the name of environment we should not veto development'.

Panel 8 - Regional Perspectives

The Large Dam Debate - R R Iyer

The presentation by a former secretary of the Government of India commenced with a conceptual and analytical perspective rather than a regional one. The driving forces behind dam projects were water variations over time and space, limited rainfall, and storage of water to prevent losses to the sea and development of more productive usage. Development meant striving for an ever higher standard of living. The presenter described his growing disenchantment with such views for a number of diverse reasons which included the insatiable use of financial resources, the high capital cost, equity issues, corruption, ecological concerns and resettlement. In the majority of cases, environmental impacts were not internalised and there was a built in bias to favour the project with tremendous pressure exerted on the approval process. Application of the cost benefit analysis was often flawed with overestimation of benefits and underestimation of costs. Another criticism of the system related to the lack of comprehensive assessment of alternatives. Many examples now exist, but their assessment needs to be more thorough and they need to be replicated more widely to appreciate their potential contribution. A number of questions were raised in relation to the alternatives: were they available? why were a restricted set of alternatives considered? what were the preconditions for success and inhibiting factors? In conclusion, Mr Iyer felt that alternatives needed to be taken seriously and dams treated as the option of last resort.

North Bihar Floods and the Proposed Dams in Nepal - D K Mishra

Dr Mishra raised a number of concerns about dam projects based on their apparent inability to deliver their objectives. The popular perception that floods are only damaging was challenged in the paper and that the immediate reaction to major floods should not be to consider only what physical measures can be instigated. Flood control dams are expensive. Embanking the rivers in Northern Bihar with an increase from 160km to nearly 3,500 km had been an expensive option, leading to considerable problems of sedimentation, erosion and still leaving a high area prone to flooding. The increase in risk was significant as the result of overtopping or breaching of an embankment was far more catastrophic than gradual rising of water levels. Once physical protection had been provided, it had to be maintained and strengthened. This leads to the development of a vicious cycle where costs are often significantly underestimated. Dr Misha also questioned the viability of the Barahkshetra Dam in terms of its power generation capacity, scope to reduce flooding downstream, net increase in irrigation area, underestimate of cost, and susceptibility to earthquake damage. He claimed 'flood control will be the plank of publicity for the dam whereas the real aim will be power generation'.

Water and Energy in South Asia: Large Dams and their Alternatives - K R Datye

Food security and self-reliance were key elements of this presentation. The concerns of the presenter went beyond those of large dams to how large and small systems can contribute to development. In his view, the lessons from Sri Lanka were interesting, but diverted water and new systems should not destroy the old systems. He agreed that new technology should be introduced and adapted from outside, but not at the expense of destroying local ownership and resource systems. Alternatives also needed to be examined more closely with solar energy and biomass. Top down solutions for supply side options were not the answer, local initiatives were needed. Mr Datye maintained that the role of dams needed to be evaluated on the basis of their contribution to sustainable resource development and equitable distribution of benefits. Consideration should be given to local storage. Demand management and integrated development were not possible without decentralisation. The presentation also considered alternative institutional forms in the light of past experience and discussed the prospects for emergence of appropriate forms based on equal partnership of user-producer communities, development agencies of governments and financial institutions.

Water and Energy in South Asia: Large dams and their Alternatives - A McKecknie

As the only representative of an international lending institution at the consultation, Mr McKecknie provided an overview of some of the recent experiences and trends in population growth, urbanisation, poverty, energy consumption, demand and losses, and water for irrigation. Based on a case study from India, he suggested that economic growth played a more significant role in reducing poverty than policies directed at redistribution and that higher farm yields had contributed to reducing poverty in rural areas. Projections for energy consumption in developing Asia to the year 2020 were in the range of 200 to 350% of 1996 values. Two case studies were used to demonstrate new approaches to planning of hydropower projects (socio-economic screening of hydro projects in Nepal) and of the resettlement aspects of project design (from the Ghazi Barotha Project in Pakistan). In conclusion, Mr McKecknie identified a number of challenges for the future including internalising the social and environmental cost of dams, lowering the transaction costs, attracting private finance, ensuring compliance with environmental and social safeguards, and creating beneficial partnerships with NGOs.

Chair's Summary Statement at the Conclusion of the Consultation

"Over the past two days we have heard a wide range of views from the countries of the South Asian region and note the diversity of the experiences, but also the common threads that run through the discussion on dams.

"What has struck me in particular is the openness and balance of the discussions and the frankness of the presentations. We appear to be in a situation where the core issues and driving forces about past and new developments are being aired. Also the acknowledgement that lessons from the past have and can be learnt – both positive and negative. This is immensely encouraging for the work of the Commission as it attempts to review the effectiveness of dams around the world and to make proposals for the future.

"The common threads, but also sometimes confusing threads, include:

- the potential need for dams to satisfy the projected massive growth in demand for food, energy, drinking water and flood management,
- seasonal and locational variability in rainfall and natural resource endowment;
- the need for, and viability of, demand management and greater efficiencies from existing systems;
- desires to increase participation in decision making processes and the appreciation of human rights;
- potential environmental benefits of providing storage;
- the agreement that transparent governance systems can improve the options assessed and effectiveness of planning and implementation;
- the importance of considerations of environmental sustainability, for example, the need to assess and mitigate the unforeseen impacts of dams on downstream ecology;
- the consensus for equitable treatment of project affected people from an early stage of planning;
- a number of alternative approaches for irrigation, power and water supply that deserve wider attention.

"I would like to thank the presenters for their willingness to share their experiences and expertise with the Commission. This has been an impressive review of lessons learned from the extensive involvement with large dams in South Asia.

"As I have mentioned throughout this Consultation, you are encouraged to send in more detailed responses to the questions raised by the Commissioners using the benefit of more time, and to supplement your presentations to us. Your experiences and recommendations will form an important part of the input to the work of the Commission. This Consultation should be seen as the beginning of a participatory process rather than the end of a meeting.

“Let me close by paying a special tribute to the Government and people of Sri Lanka. Something quite unusual occurred during the last two days. An independent, international Commission was hosted by the country’s leading ministries involved with dam projects, the Ministry of Mahaweli Development. Not only did they welcome us, but they respected the independence of the Commission while providing all the planning and logistical support that such an important event required. I pay tribute to the spirit of openness and mutual respect with which we were able to fulfil a part of our unique mandate”.

Major Outcomes

In the view of the Commission the key outcomes to emerge from the consultation were:

- Approximately 200 people attended the two-day South Asia Regional Consultation. Of these, 28 were presenters representing five countries of the South Asian region. Ten out of the 12 Commissioners were present as were seven members of the WCD secretariat. A large number of the participants were attending the consultation as invited observers, some of whom had come on their own expense from different parts of the globe. The proceedings were declared to be open to the public and this drew some response mainly from Sri Lanka. Media representatives were also visible through out the proceedings with 20 journalists attending the press briefing held on the last day of the consultation.
- The consultation was conducted in a spirit of openness and enquiry. There was a marked lack of rancour or discord in spite of the many opposing positions expressed by presenters. The presentations and the ensuing discussions between the presenters and the panel of Commissioners were held in atmosphere that was noted by all the participants at the consultation for its cordiality.
- As summed by the Chair of the Commission in his concluding statement, the South Asia Consultation was a positive experience for the Commission Members because of the open, frank and balanced dialogue and the diversity of opinions expressed. For the Commissioners it was an acknowledgement that there are both positive and negative lessons to be learnt from the past. The common threads to emerge from the consultation would contribute valuable inputs into the work of the Commission.
- Feedback from the participants (ie the presenters), both during the event and afterwards through a small questionnaire distributed to them, provided a set of useful comments and pointers for the Commission. Comments were also received from individual Commissioners. Collectively, these will be valuable in planning and organising the remainder of the regional consultations. A summary of the feedback is available in the annexes.
- By all accounts the consultation was a success. It had managed to achieve what it had set out as its goals (access to stakeholder input, wide representation of expertise, learning from regional experiences in large dams and their alternatives). The factors that contributed to the successful conclusion of the consultation as pointed out in the introduction were: the independence allowed to the Commission in conducting the consultation in Sri Lanka, by its government and its people, and the openness and transparency with which the proceedings were conducted.
- A final outcome of the consultation was the very positive media coverage received both prior to and after the event in the Sri Lankan and some of the influential South Asian media. It is also worth mentioning here that after the cancellation of the Indian consultation there was, after the early round of negative reports on the Commission in the Indian press, a huge number of press reports that were extremely supportive of the Commission’s work. A selection of clippings from the South Asian press is available on the WCD web site.

Next Regional Consultations

At the fourth meeting of the Commission in Sri Lanka, the number of future regional consultations was fixed. The reduced availability of financial resources meant the Commission would conduct two more consultations with the possibility left open for a fourth if funding was made available. The next consultation on Latin America is scheduled to be held in Brazil in August 1999. The third and fourth regional consultations will be held on Africa/Middle East and on South East Asia in November 1999 and February 2000. Their venues are in the process of being finalised.

Call for submissions for the consultation in Brazil will be issued in April 1999.

Annexes:

Annex 1: Consultation Programme

World Commission on Dams Consultation

“Large Dams and their Alternatives in South Asia: Experiences and Lessons Learned”

Bandaranaike Memorial International Conference Centre - Committee Room A

Programme

December, 10 1998

Session 1

Panel 1: Large Dams and Alternatives in Sri Lanka - I

Mr. T Ranaviraja and Mr. S Karunaratne 9:00 - 9:15
Secretary, Ministry of Mahaweli Development, and Director, Headworks Administration,
Operations and Maintenance, Mahaweli Authority
Large Dams and Alternatives in Sri Lanka: Experiences and Lessons Learnt

Eng. P C Senaratne and Eng. S Selvarajah 9:15 - 9:30
Senior Engineers International Commission on Drainage and Irrigation/Ministry of Irrigation
Development Effectiveness of Dams in Water Resources Development and Management

Mr. D C Wijeratne 9:30 - 9:45
Additional General Manager, Ministry of Power and Energy
Hydro Power in Sri Lanka

Commissioners' Question Time 9:45 - 10:30

Tea/Coffee Break 10:30 - 11:00

Panel 2: Large Dams and Alternatives in Sri Lanka - II

Dr. L Mediwake 11:00 – 11:15
Affected Person, Victoria Project
Social Effects of the Victoria Dam Project

Mr. H Withenage 11:15 - 11:30
Senior Environmental Scientist, Environmental Foundation Ltd.
Upper Kotmale Hydropower Project: Another Disaster in Sri Lanka's Dams' History?

Ms. A R Karunawathie Samanalagama Samagi Kantha Samithya	11:30 - 11:45
Commissioners' Question Time	11:45 - 12:30
Lunch Break	12:30 - 14:00
<u>Session 2</u>	
Panel 3: Large Dams and Alternatives in Pakistan	
Sardar M Tariq Member Water and Managing Director - Water and Power Development Authority <i>Pakistan's Perspective on the Experience with Large Dams</i>	14:00 - 14:15
Mr. S R Khan Researcher, CEESP/Sustainable Development Policy Institute <i>The Kalabagh Controversy</i>	14:15 - 14:30
Mr. A Ercelawn The Creed Alliance <i>Damming the People of the Indus</i>	14:30 - 14:45
Commissioners' Question Time	14:45 - 15:30
Tea/Coffee Break	15:30 - 16:00
Panel 4: Large Dams and Alternatives in India - I	
Mr. B G Verghese Senior Researcher, Centre for Policy Studies <i>Large Dams in India: Experiences and Lessons Learnt</i>	16:00 - 16:15
Mr. A Kothari Kalpavrisksh Environmental Action Group <i>Environmental and Social Aspects of Large Dams: Problems of Planning, Implementation and Monitoring</i>	16:15 - 16:30
Mr. C C Patel Chairman and Managing Director CC Patel and Associates <i>Planning and Implementation of Large Dams</i> (Mr Patel could not attend the Consultation. Replaced by Mr Padhye)	16:30 - 16:45
Mr. S Dharmadhikary Narmada Bachao Andolan <i>Large Dams – Destruction not Development: the Experience of the Dams in The Narmada Valley in India (with the exception of Sardar Sarovar)</i>	16:45 – 17:00
Commissioners' Question Time	17:00 -17:45
Reception (Pavilion Gardens, Trans Asia Hotel)	19:00

December, 11 1998

Session 1

Panel 5: Large Dams and Alternatives in India - II

Dr. M S Reddy 9:00 - 9:15
Vice-President, International Commission on Irrigation and Drainage (ICID)

Mr. H Thakkar 9:15 - 9:30
Centre for Water Policy
*A Balance Sheet of Performance of Large Dams in India:
The Case of Irrigation and Flood Control*

Dr. B S K Naidu 9:30 - 9:45
Director, India Rural Electrification Corporation Ltd, Winrock International
Strategy for Further Growth and Environmental Sustainability of Hydro-Projects

Mr. G Sant 9:45 - 10:00
Head of Energy Cell, PRAYAS
Re-assessing the Role of Large Dams in Meeting Power Demand

Commissioners' Question Time 10:00 - 10:45

Tea/Coffee Break 10:45 - 11:30

Panel 6: Large Dams and Alternatives in Nepal

Mr. K B Chand 11:30 - 11:45
Project Director, Kaligandaki "A" Hydroelectric Project,
Ministry of Water Resources

Mr. I R Onta 11:45 - 12:00
Director, East Consult KTM
Large Dams and Alternatives in Nepal: Experiences and Lessons Learnt

Mr. B Pandey 12:00 - 12:15
Winrock International
Dams and Civil Society in Nepal

Mr. D Ghimire 12:15 - 12:30
The World Conservation Union, Nepal
*Environmental Monitoring of the Construction of the
Upper Bhotekoshi Hydropower Project*

Commissioners' Question Time 12:30 - 13:15

Lunch Break 13:15 - 14:00

Panel 7: Large Dams and Alternatives in Bangladesh

Dr. G A Choudhury 14:00 - 14:15
Director Planning, Bangladesh Water Development Board
Large Dams and Alternatives in Bangladesh: Experiences and Lessons Learnt

Mr. S Samad 14:15 - 14:30

Coordinator, Like-Minded Environmental Activists Group
Dams Caused Environmental Refugees of the Ethnic Minorities of Bangladesh

Mr. T A Khan 14:30 - 14:45
Member Secretary, Bangladesh National Committee of International Commission on Irrigation and
Drainage
A Note from Bangladesh on the Importance of Large Dams in the South Asia Region

Commissioners' Question Time 14:45 - 15:30

Tea/Coffee Break 15:30 - 16:00

Panel 8: Large Dams and Alternatives in South Asia: A Regional Perspective

Mr. R Iyer 16:00 - 16:i5
Former Secretary, Ministry of Water Affairs in India
Large Dams and Alternatives in South Asia: Experiences and Lessons Learnt

Mr. D K Mishra 16:15 - 16:30
Barh Mukti Abhiyan
North Bihar Floods and the Proposed Dams in Nepal

Dr. K R Datye 16:30 - 16:45
Engineer, CASARD
Large Dams and Alternatives in South Asia: Experiences and Lessons Learnt

Mr. A McKechnie 16:45 - 17:00
The World Bank
Large Dams and Alternatives in South Asia: Experiences and Lessons Learnt

Commissioners' Question Time 17:00 - 17:45

Hearing ends with concluding remarks from the Chair

Annex 2

Participant and Commission Members Feedback on the South Asia Consultation

In response to the questionnaire sent to the participants (the 28 presenters) after the meeting, the overall process of the consultation and the ability of the Commission to organise a meeting of such importance appeared to have made a positive impression on the presenters.

For all the participants who responded to the WCD questionnaire (approximately one third), the consultation was an informative process for individuals and organisations sharing different perspectives on the dams debate. They found the eight panels balanced in terms of the background of the speakers and perspectives represented.

It was an excellent opportunity to hear both sides of the story.

-- Sardar Muhammad Tariq, Pakistan

Further, the consultation was found to be a good example of an appropriate mechanism for consultations with civil society and for providing information of appropriate policies and guidelines for future development of dams. However, it was felt that there should have been greater attempts on the part of the WCD to invite directly affected communities to the consultation.

Personally, I found it comforting that people presenting a spectrum of positions on the dams debate were all deeply concerned about trying to respond to the issues around the human predicament. There were shared commitments, for transparency and broad participation in decision making, immediate and adequate compensation for those affected, seriousness in addressing environmental and sustainability concerns, and for an examination of the full range of alternatives, even among individuals whose organisations appear to have diametrically opposite points of view on the debate. The Consultation reinforced my belief that within its two year mandate, the WCD will be able to build on these commitments to give the much needed direction on this important question.

-- Bikash Pandey, Nepal

On the selection of papers for presentation, some participants felt that the Commission had to be more selective of the presentations in line with the objectives of the Commission. They recommended that presentations should directly focus on the development effectiveness of dams, their options and alternatives, on the decision-making processes for water resource development, and on the providing reviews of costs and benefits of dam projects. In the suggestions for future consultations some recommended that the WCD should select only those presentations that emphasised issues of immediate relevance to the work of the Commission. One participant recommended that presentations should identify case studies that could be visited as field trips during the consultation.

Some participants wanted more time allocated to presentations to enable better elaboration of all the issues involved. Participants felt that the 15-20 minutes allocated to each speaker were not enough to develop the case of each presentation fully.

One participant felt the Commission had not done enough publicising of the consultation in local languages to encourage greater attendance of observers. Likewise, it was the participant's view that the local media should have been involved to a greater extent to highlight the issues being discussed. Greater efforts were also needed to involve the local affected people's groups in these unique meetings.

The WCD needs to put more emphasis on options assessment than it is doing now. It needs to do much more to gain the confidence of the critics of the WCD process. The pro-dams lobby has, over the last few years, lost a lot of credibility. For a process in which the pro-dams lobby is also a participant, WCD's functioning will have to be more transparent and democratic if it wishes to gain the confidence of the critics. More resources will need to be allocated for the active participation of the anti-dams lobby in the WCD process.

-- Himanshu Thakkar, India



All the respondents of the questionnaire strongly backed the need for future regional consultations to be conducted by the WCD.

It was recommended that for future consultations the WCD should compile all the papers that were submitted in the response in the call for submissions/final presentations for the consultation. These should be made available to all the participants in order to give them a broader picture of issues being presented. Participants felt it was important for them to have all the papers since these would help them to communicate the issues raised during the consultation with the government, civil society, NGOs and the media in their respective countries and communities.

To keep the participants engaged in the process, it was suggested by some of them that the WCD should institute the following recommendations:

- i) post progress material on the work and process of the Commission on the web page, including participants papers
- ii) send periodic notes to the participants to inform them of the progress being made.
- iii) WCD should circulate their activities and proceedings of the consultation to the public.
- iv) A newsletter or regular mailer should be organised for the presenters.

What did the Commissioners learn from the Consultation? Should these be repeated and can we improve their usefulness to the Commission? My answer is yes, as explained below.

The most important lesson for me was the direct exposure to the important controversies and the often sharp differences of opinion and experience between dam proponents and opponents. Unhappy experiences of the latter group were evident in most cases as a result of affected people not having received the promised benefits in the form of improved water supplies. At the same time, other aspects of dam construction were frequently agreed upon as being beneficial, including the aspect of land redistribution. In my opinion, these facts explain, justify and underwrite the need for the work of WCD. There is no question in my mind that people are looking to the commission for developing guidelines to mitigate unacceptable adverse impacts of dams.

Our performance at this first hearing demonstrated objectivity and certainly not a division among commissioners along pro-dam and anti-dam lines. The issues involved are much more complicated, as documented quite well in our drafts of the Strategy and Objective Paper, as well as in the Work Programme.

Presentations by representatives of the five South-Asia countries (Bangladesh, India, Nepal, Pakistan and Sri Lanka) were well balanced with both sides of the debate on dams presenting their impressions and experience with the effects of dams. Personally, I would prefer in the future a more direct exchange of opinions (without necessarily calling this a debate). Such an approach would clarify the issues involved more clearly and sharply, thereby providing the commissioners with more specific information and hence valuable guidance on how to define proposed solutions to some of these very difficult issues. The more we know how strongly stakeholders feel about their personal gains and losses, the better the commissioners will be prepared to draw conclusions and make really effective contributions. The question therefore arises whether future regional consultations should be adjusted to encourage such an exchange between antagonists. For one, I am in favour of trying a more results oriented approach for the next hearings.

-- Commissioner Jan Veltrop

We were all pleasantly surprised at how well the consultations went. I felt they were well-managed and informative. Again, we have learnt lessons from this first effort which we can be aware of next time. In March I would suggest that we take some time to evaluate the Colombo event from a cost-benefit point of view both in terms of dollars and qualitatively in terms of our other objectives.

-- Commissioner Judy Henderson

Annex 3

Press coverage and other media activities

A local media agency was hired by the WCD to assist the Commission in raising awareness on the South Asia Consultation and on the Commission. With the help of the agency (the Sri Lanka Environmental Television Project) a number of activities were conducted. These included the preparation of a number of press releases, distribution of information to the local and regional media on the Commission and on the consultation, media briefings and interviews with Commission Chair, Members, Secretary General and consultation participants, and video and photographic documentation of the proceedings.

The outcome of this effort was the very positive coverage given to the Commission and to the regional consultation. A selection of press clippings are available on the WCD web site. Copies of the original clippings can be provided on request if necessary.

(LINK TO SELECTION OF PRESS CLIPPINGS)

Annex 4

A note on field visits

Field visits were conducted by some of the Commission members on the 14-15 December 1998 at four different locations, as a way of evaluating the ground realities related to the social issues raised in the presentations at the consultation in Colombo.

The first site visited was the Victoria Dam. On the trip were the Chair of the Commission and 7 of the Commissioners, staff from the WCD secretariat and a few members of the media. The visit was arranged by the Ministry of Mahaweli Development. After an on-site briefing on the technical aspects of the dam the MMD had organised a meeting for the Commissioners with some members of a displaced farming community. The visit offered a quick opportunity to the Commission members to raise queries with regard to the dam project with the managers of the Victoria project as well as to the local community, which was unfortunately devoid of any female representatives. Community members displaced from the Victoria, Kotmale and Randenigala projects had been bused in by the MMD.

A second trip was made the same day to Haragama village, near Kandy. Belonging to a village of 160 settlers displaced by the Victoria Dam, the village community was well represented by men, women and children at a meeting organised with the assistance of an NGO participant of the consultation. As with the meeting at the Victoria Dam, Commission members introduced the purpose of the visit and asked the community to present issues of concern before the Commissioners present. Some of the key issues to emerge from the village dialogue were inadequate compensation, lack of access to drinking water, and generally poorer economic conditions 14 years after resettlement. Two officials of the MMD were present at the meeting to listen to the problems highlighted by community representatives. (Later they were given an opportunity to provide clarifications if they felt these were needed). The government presence was encouraged by the Commission at the community visits on the following day as well.

On December 15 two field visits were conducted to villages situated at 3-4 hours distance from Kandy. Six of the Commission members were present on these visits. The meetings were organised with the assistance of the Environmental Foundation Ltd whose representative provided interpretation facilities.

The first visit was to the village of Eppawala. The meeting was conducted under the aegis of local buddhist temple and its chief priest. About 50-60 citizens of Eppawela - men, women and children - took active participation in the question answer session. The community appeared to be economically better off than those from Haregama in terms of their physical conditions. With the assistance of the temple based organisation, the community had organised itself to lobby against an issue of major concern (a phosphate mining project near the village that envisaged resettling 10,000 of the local people, people already displaced 14 years ago under the Mahaweli project). Although dissatisfaction was expressed over the compensation package and its implementation and the loss of a lifestyle dependent on traditional water management through the system of rain fed tanks, the community appeared to have taken roots in Eppawela and were now disinclined to move again. Furthermore they revealed to the Commissioners that the village had not been consulted about the proposed resettlement plans.

The final field visit was to the village of Thalawa some 20 minutes from Eppawela. The community were displaced under the Victoria Dam project. The physical conditions (and appearance) of village representatives offered a marked contrast to the earlier communities met with. The Commission's visit appeared to be the first external means of communication for the community in the 14 years since their resettlement (it was claimed that no government official had visited the village). Their patience and generosity in answering questions after being informed of the limitations of the Commission's visit (to prevent any expectations being raised) were admirable. Issues raised related to insufficient compensation, poor access to drinking water and to water for irrigation, very poor health indicators, insufficient land for future generations, destruction of traditional water tanks etc.

Comments from two of the Commission members on the field trips:

What did the Commissioners learn from the field trips? Should these be repeated and can we improve their usefulness to the Commission?

First of all, several of the commissioners, including myself questioned the usefulness of the field trips because the trips were exhaustive and time consuming in relation to what we learned. Yet, in light of the conclusions at the end of these comments, I am in favour of at least one repetition.

During the field trips we met many local people, who exposed us first hand to a number of beneficial and adverse aspects of dams, that people have actually experienced. In general, nothing new. However, in some cases I was surprised about the lack of planning on the part of responsible authorities to provide resettlers with the same amenities as they were used to in their original settings. Let me repeat, lack of providing promised new water supplies was foremost among the dissatisfactions often expressed. Such lack of implementation is of course unacceptable to those affected, especially when water was available in their old setting, albeit inadequate. At the same time, there were a number of local people who reported improvements in their lives. Several land-owners noted loss of land for which they received compensation in one form or another. I had the distinct impression that they were not opposed to and showed little resentment against the government for having imposed such a social and economic equalizer [e.g. 1 ha per family] .

The first day in the field we met with leaders of local agricultural organisations, who were, it seemed, in favour of the dam projects, especially for providing irrigation water in the dry season. Later on, we met with local farmers, mostly represented by women whose main concern was water supply. Other issues were touched upon as well, such as managing small boutiques after having been resettled. In one case we were made to understand that an entire village decided to move to another location than had been agreed upon initially. We were told on several occasions that land in Sri Lanka is in short supply. As a result opposition to submergence of good agricultural land is growing, especially among farmers, which form the vast, majority [80%] of this island's population. I find it difficult to conclude where planning mistakes were made originally, but the land issue is clearly one that planners have to consider much more seriously than in the past.

-- Commissioner Jan Veltrop

The Sri Lankan field trip was of great value to those Commissioners who took part. It was important for us to hear the concerns of affected people in their own environment and there is nothing like nine hours of Asian driving to bond Commissioners together... We might want to consider another one day field trip if we can have our commission meeting fairly accessible to a dams site. Clearly the number of regional consultations we can hold will depend on funding. But I do think that it is very valuable for Commissioners to hear what stakeholders are saying

-- Commissioner Judy Henderson