THE MULLAPERIYAR CONFLICT:
Meeting to understand issues and explore a common ground
4th August 2009|4 to 8pm
Constitutional Club, New Delhi

Organised by

Forum for Policy Dialogue on Water Conflicts in India
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Introduction

The Forum for Policy Dialogue on Water Conflicts in India had organised a meeting on the Mullaperiyar water conflict between Tamil Nadu and Kerala on 4th August 2009 at the Deputy Speaker's Hall, Constitutional Club, New Delhi.

The meeting was organized in the background of the increasing tension between Tamil Nadu and Kerala on this issue. For various reasons, the 1886 agreement (lease deed) between the then Maharaja of Travancore and the erstwhile Madras Presidency – perhaps the first formal inter-state, inter-basin water sharing and transfer in India – which led to the construction of the Mullaperiyar dam (113 years old) has come under stress in the recent times. The end result has been the escalating tension between Tamil Nadu and Kerala, and as each tries to prove the validity of its case, the possibility of finding an amicable settlement of the issue seems to recede further every year. In the recent years many efforts have been made on various political, legal and administrative fronts to resolve the issue. However, the Forum feels that there is a need to focus the effort more on understanding each other’s standpoints and concerns and exploring common areas of agreement through a process of dialogue (or even better, a trialogue – between the conflicting parties and civil society experts) on various issues that are unfolding around the Mullaperiyar conflict ranging from inter-state agreements, the legal framework, dam safety, environmental justice, irrigated agriculture and so on. The Forum’s effort in organising this 4th August meeting was aimed at filling this central gap.

The main objective of the meeting was to understand the issues involved, the different viewpoints around the conflict and then to explore common ground between the two conflicting parties and see whether agreement can be reached on a few action points and steps that can pave the way to a solution which can address the concerns of both the parties in a win-win or positive sum framework.

Dr. Biksham Gujja, Policy Advisor of the Living Water Programme at WWF International, Gland, Switzerland and also Team Leader of WWF-ICRISAT Project on Water Productivity in Agriculture, chaired the meeting. On behalf of Kerala government Mr. M. Sasidharan, Retd Chief Engineer, Technical expert from Kerala on Mullaperiyar issue made a presentation on the issue. Experts like Prof. Subhash Chander, Formerly with The Department of Civil Engineering, IIT, Delhi and international expert on dam safety; Prof. Brij Gopal, formerly with the Department of Environmental Sciences, JNU, New Delhi; Prof. Ramaswamy Iyer, Ex-Secretary, Ministry of Water Resources, Government of India and presently with the Centre for Policy Research, New Delhi and Suhas Paranjape, Forum for Policy Dialogue on Water Conflicts in India and SOPPECOM, Pune spoke at the meeting bringing out different dimensions of the case.

Mr. N K Premachandran, Minister, Water Resources, Kerala, also spoke at the meeting and also promised all help and cooperation to the efforts of the Forum. About 7-8 MPs from Kerala and actively participated in the meeting.
Welcome and introduction

K. J Joy from SOPPECOM and coordinator of the Forum welcomed all the participants and set the agenda for the meeting.

He introduced participants to the Forum and its work. The Forum started its activities towards the end of 2004 when WWF had initiated documentation of some of the conflicts around water in India. In the first phase, the Forum tried to understand different types of conflicts. The present second phase of the Forum continues the documentation process but also gearing up to go towards conflict resolution.

He also shared that the Forum is working on a few actual water conflicts in an action research mode to see how the conflicts can be resolved, these conflict are Hirakud dam – agriculture vs. industry conflict in Orisaa and Chalakudy River – the issue of reservoir operation to mitigate the negative effects on downstream conflict in Kerala.

The Forum has also set up expert groups working on two important themes for conflict resolution and prevention: 1. Equity and allocation for livelihoods and ecosystem needs 2. Legal and constitutional provisions and issues related to conflict resolution.

While talking about the agenda of the Meeting he said that this meeting is to understand issues involved and explore a common ground. This meeting also aimed at initiating a process of “trialogue” – science/knowledge, policy and stakeholder interaction – on issues that are unfolding around the Mullaperiyar conflict - ranging from inter-state agreements and transfers, the legal framework, dam safety, environmental justice, irrigated agriculture and livelihoods and so on. The meeting aims to possibly arrive at a few action points and steps that the Forum can take which can contribute to the resolution of the conflict.

Joy also gave some details of the location of Mullaperiyar dam and its salient features. (See annexure 2)

Speech by Mr. N. K. Premachandran

Mr. N. K. Premachandran, emphasized on the decision taken unanimously by the Kerala Assembly to construct a new dam in the place of the old one. He pointed out that not a single drop of water has been flowing into the river Periyar since the treaty was executed and highlighted the Magnanimous Act of the Government of Kerala in ensuring continuous supply of water to the neighbouring state for all these years without fail and he promised that the state is willing to continue with the same. However, the people living in Kerala do not feel safe anymore. Hence the ‘feeling of safety’ is of paramount importance for the Government of Kerala and hence the decision for a new dam was taken. The Minister went on saying that both ends can be met together provided the Government of India agrees to become the arbitrator and Tamil Nadu follows the democratic principle of dialogue based resolution. The Minister stressed at length the need to uphold the ‘Precautionary Principle of Action’ in case of the dam safety. The Minister concluded by promising his support to any initiative of the Forum towards arriving at a win- win situation. (See annexure 4 for the full speech by Mr. Premachandran)
Presentations

Kerala: Mr. M. Sasidharan, Retd Chief Engineer, Technical expert from Kerala on Mullaperiyar issue

Er. Sasidharan, retd. CE, Kerala State Electricity Board presented the Kerala version of the issue. However he focused more on the structural aspects of the dam pointing out that no repair or maintenance has been carried out below the draw down level of 111m by Tamil Nadu. He stressed on the structurally unsafe condition of the dam.
Tamil Nadu: Suhas Paranjape, SOPPECOM, Pune

One of the lacunae of the meeting was that nobody from Tamil Nadu agreed to speak at the meeting irrespective of making efforts at various levels till the last moment. Therefore Suhas Paranjpaye presented the Tamil Nadu perception of the conflict. Before starting his presentation he clarified that the official Tamil Nadu representatives declined to speak because the case was sub judice. Some of the other people did not find the time and venue convenient. Com. Varadarajan wanted to come but had an engagement in Karnataka and could not depute anyone else. So he was presenting the third party perception of the Tamil Nadu perception.

While explaining the Tamil Nadu part of the case, Suhas Paranjape presented a chronology of the events in the Mullaperiyar issue. (See annexure 3 for the chronology of events)
Suhas further explained that on the background of the events, there is a widespread feeling in TN that Kerala is using the safety issue as a ruse to deny water, especially since one expert committee after another has allowed raising of water level after suggested measures. Indeed many feel that Kerala simply wants to increase flows into Idukki, which is facing severe shortfalls for power generation. One such suggestion we have received is to allow the 152 ft height at Mullaperiyar and offer to generate electricity from the greater fall and give all additional power to Kerala.

**Presentations by experts**

**Prof. Subhash Chander**, Formerly with The Department of Civil Engineering, IIT, Delhi and international expert on dam safety
Dr. Subhash Chander spoke on the dam safety aspects from a hydrological angle. He pointed out that no proper rain gauge data is being referred to in this case and stressed that the dam is hydrologically unsafe and needs to be reconstructed. He also warned that as a precautionary measure it is necessary to check the hydrological safety of the dam structures.

**Prof. Brij Gopal,** formerly with the Department of Environmental Sciences, JNU, New Delhi

Prof. Brij Gopal was of the opinion that this issue cannot be solved in a court since a Judge cannot say if a dam is safe or not. He also recommended an environmental impact assessment on the river stretch due to the diversion since the KFRI study did not cover the river system.

**Prof. Ramaswamy Iyer,** Ex-Secretary, Ministry of Water Resources, Government of India and presently with the Centre for Policy Research, New Delhi
Prof. Ramaswamy Iyer said that the biggest blunder committed by the Government of Kerala was the decision to continue with the Agreement in 1970. There is no need for Tamil Nadu to be so angry with Kerala. ‘For a 113 year old dam how many more years of safety can be guaranteed?’ Prof Ramaswamy Iyer suggested that the dam be phased out or decommissioned in phases and explore alternatives for water management in Tamil Nadu. It is not easy to bring changes in an established use of water for over a century. Joint consensus is needed on the matter. However, a new dam shall not be built by Kerala either. He expressed his apprehensions of the issue getting solved in a Court of Law and suggested that Tamil Nadu should withdraw the case from the Supreme Court and instead go for a consensus outside the court. Experts from outside the two states should carry out independent evaluation on the dam safety as well.

Suhas Paranjape, Forum for Policy Dialogue on Water Conflicts in India and SOPPECOM, Pune

Suhas Paranjape put forward few recommendations on behalf of the Forum for discussion. A non-legalistic approach rather than a legalistic approach works better in the case of shared resources like water. While admitting the Tamil Nadu Agreement as status quo, Kerala however needs to feel safe as well. He also pointed out that the merits of the case have not been gone into in detail. Suhas suggested that there is no need for a large dam to be built to meet the status quo needs of Tamil Nadu. Even a smaller or shorter structure can divert quantity equivalent to 152 ft water to Tamil Nadu. A phased plan has to be worked out towards the same while ensuring better water use efficiency and lowering the utilization by Tamil Nadu.
Open discussion

Himanshu Thakkar from SANDRP was of the opinion that the safety of the dam has to become a people’s issue and has to be addressed at that level as well. There is a need to examine various options available before taking the decision of constructing a new dam. He also suggested that both the States should be ready to publish a White Paper on the issue if they have not done so far and have a discussion based on it.

James Wilson from the Mullaperiyar Cell, Kerala appealed to the dais that the problem cannot be draged further since the safety of the dam is surely an issue. James agreed to the fact that the issue was not the height of the dam per se but the quantity of water to be ensured. He also emphasized on the fact that not a single study has been carried out so far on the ecological impact of the dam. The steady increase in the ayacut on the Tamil Nadu side over years also has to be considered and addressed as a serious issue.

Address by Chairperson

Dr. Biksham Gujja, who chaired the meeting, said that it was unfortunate that the TN side was unrepresented. But it was good that the Minister from Kerala attended the meeting and took a very positive attitude to the issue. He was happy that all the presentations were made in an open manner and that even though TN representatives could not attend, it was good beginning. However, now efforts will have to be made involve TN in the dialogue and suggested that a lot of work was needed to be done on a one-to-one basis on both sides before a common process of dialogue could begin.
Action points and vote of thanks

K. J. Joy concluded the discussion by putting forward few decisions on behalf of the Forum regarding the role towards resolving the Mullaperiyar Issue. The Forum has already constituted a group for addressing this issue a few months back. This group involves Dr. Janakarajan from MIDS, Chennai, Dr. N. C. Narayanan from IIT Mumbai, Dr. A. Latha from the Kerala State Centre of the Forum, Suhas Paranjpae from SOPPECOM and Joy. Both research and dialogues have been planned as a part of this venture as below.

Research Elements

- Study the feasibility of the alternative to the new dam/raising the dam height by a team of three well known technical experts.
- Assess the environmental implications of the already existing Mullaperiyar dam for the downstream side.
- Assess the water management aspects including demand management, ‘more crop per drop’ on the Tamil Nadu side

Dialogue and Dissemination

- Create a network of academicians/civil society and media professional who can critically evaluate and carry forward the dialogues for the third alternative to a wider scale
- Organise a series of workshops and media events in both the states on the same

The meeting has come up with few suggestions. Some of the important suggestions include:

- To take up three thematic studies: a) storage and water delivery/conveyance to TN - different options for that; b) environmental issues in both upstream and downstream of the dam, c) the ayacut/irrigated command -- issues of the extent, cropping pattern, water use, water use efficiency, alternatives (less water intensive crops, alternative agronomical practices to reduce water use and so on).
- To set up an independent committee/commission to look into the issues and suggest a way out
- Initiate interaction at various levels from both the states -- farmers, people's science movements, teachers/academics, civil society organizations and so on.
- The Forum could join as a party to the Supreme Court case and put up its viewpoint

There was a strong suggestion that the Forum should not see the whole issue as a technical one, but more of a people’s issue and involve people in the efforts.

The meeting ended with vote of thanks by K. J. Joy from Forum.
Annexure 1

MEETING ON MULLAPERIYAR WATER CONFLICT
Meeting to understand issues and explore a common ground
4th August 2009 | 4 to 8pm | Constitutional Club, New Delhi

Programme

Chairperson: Dr. Biksham Gujja, Policy Advisor of the Living Water Programme at WWF International, Gland, Switzerland and also Team Leader of WWF-ICRISAT Project on Water Productivity in Agriculture

Welcome and introduction: K. J. Joy, Forum for Policy Dialogue on Water Conflicts in India and SOPPECOM, Pune

Presentations

- Kerala: Shri M. Sasidharan, Retd Chief Engineer, Technical expert from Kerala on Mullaperiyar issue
- Tamil Nadu: Suhas Paranjape, SOPPECOM, Pune

Comments/brief presentations by experts

- Prof. Subhash Chander, Formerly with The Department of Civil Engineering, IIT, Delhi and international expert on dam safety
- Prof. Brij Gopal, formerly with the Department of Environmental Sciences, JNU, New Delhi
- Prof. Ramaswamy Iyer, Ex-Secretary, Ministry of Water Resources, Government of India and presently with the Centre for Policy Research, New Delhi
- Suhas Paranjape, Forum for Policy Dialogue on Water Conflicts in India and SOPPECOM, Pune

Open discussion

Address by Chairperson

Vote of thanks

Tea
Annexure 2

Features of the Mullaperiyar Dam

Type of Dam: Masonry structure
Length: 1200 ft.
Top of the dam: 155 ft.
Top of solid parapet: 158 ft.
FRL: 152 ft.
MWL (Design): 155 ft.
Crest level of spillway: 136 ft.
Storage Capacity (gross): 443.23 m.cu.m
Live capacity: 299.13 m.cu.m.
Irrigation benefit in TN: 68,558 ha.
Age of the dam: 113 years
Mullaperiyar and Idukki arch dam on the downstream
Annexure 3

Chronology of the events in the Mullaperiyar issue

- The original 1886 agreement and later allowed for a dam at the site. The agreed upon height right from the beginning was 152 ft.
- The lease was reconsidered in 1970, after independence and after the states of Tamil Nadu and Kerala were formed and ratified again. In fact, there was an additional provision for power generation.
- In 1979, safety considerations surfaced.
- There was a meeting between the CWC, Tamil Nadu and Kerala engineers and it was decided on some emergency measures to be completed before 1980 and other measures to be taken and meanwhile one of the measures was to restrict the water level to 136 ft.
- Immediately TN acted on those concerns and carried out the emergency measures and also restricted the water level to 136 ft.
- Another meeting was held under the chairmanship of CWC Chairman in Delhi (29 April 1980) where it was decided that after emergency measures and medium term measures were completed, the dam could be allowed to store water up to 145 ft.
- The CWC then took time to study the question in full and six years later in 1986 (25 March 1986) came up with a Memorandum on the Rehabilitation of Mullaperiyar Dam. It gave details of the emergency measures, the medium term measures as well as additional long term measures which if carried out would allow water level to reach the FRL of 152 ft.
- All the measures that the CWC memorandum listed have been practically completed by TN after 1986, especially all the emergency measures.
- In spite of the opinion of the highest technical authority in the country’s opinion and TN’s implementation of all its recommendations, Kerala has remained dissatisfied and this has led to a lot of litigation with all the cases finally being clubbed and transferred to the Supreme Court.
- The SC refused to take a stand and asked the states to come to an amicable settlement.
- Naturally, TN filed a petition (31 March 2006) in the SC against this enactment and asked to restrain Kerala from applying this Act to Mullaperiyar dam.
- On 27 July 2006, the SC threw out Kerala’s review petition filed against TN on 3 April 2006, but in spite of all legal being in TN’s favour, in its wisdom asked the States to try and settle the matter amicably.
- We do not see how flouting every verdict of the highest court in the land and all the expert committees appointed jointly for that purpose can lead to an amicable settlement.
- TN repeated this stand in the 29 November and 18 December 2006 meetings and we do not see any possibility of an amicable settlement until Kerala accepts the legal and expert committee findings as a starting point for a settlement.
- There matters now stand!
Annexure 4

Speech by Mr. N.K. Premachandran, Minister for Water Resources, Government of Kerala

Respected Chairperson Dr. Bikshain Gujja, Policy Advisor of the Living Water Programme at WWF, Switzerland, Members of Parliament, Eminent Engineers and Scientists, Ladies and Gentlemen, I am grateful to the Forum for Policy Dialogue on Water Conflicts in India for convening this seminar on Mullaperiyar dam issue. It is understood that the objective of this meeting is to understand the issues involved, the different viewpoints around the conflict and to explore some common ground. The Mullaperiyar dam constructed in the year 1895, across River Periyar of Kerala State, when the dam technology was in its infancy was now become a permanent threat to the millions of people living downstream of this old weak dam. As the matter in now before the Hon’ble Supreme Court for adjudication, I am not going to dwell into the details of the merits of the case.

I would like to invite your attention to the ‘Precautionary Principle’. The origin of the Precautionary Principle can be traced back to Germany in the 1970s with the Vorsorgeprinzip. ‘Translated as the ‘Foresight’ Principle, this broad principle is a philosophical approach to risk prevention by taking protective measures against specific environmental/safety hazards in order to avoid or reduce environmental/safety risks. This approach was subsequently adopted in various International agreements.

Precautionary Principle must be invoked:

- Where the scientific evidence for safety is insufficient, inconclusive or uncertain.
- Where preliminary scientific evaluation suggests that effects on the environment, health or safety may be unacceptable and/or inconsistent with the chosen level of protection; and precautionary principle may be applied without waiting for the reality and seriousness of those risks to become fully apparent.

This principle was laid down in the Rio de Janeiro Declaration on Environment and Development of the United Nations Conference on Environment and Development (1992), in which India is a signatory. The due jurisprudence implied in the Rio instruments are international in impact and it cannot be ‘violated by signatories like India.

Moreover, a number of important international conventions have incorporated this principle, including conventions on Climate Change and Biological Diversity.

- “States....must riot wait for proof of harmful effects before taking action” (1984 Bermen Ministerial Declaration of the International Conference on the Protection of the North Sea)
- “The parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures” (1992 Framework for Convention of Climate Change, Art 3(3))
Former Judge of Supreme Court Sri. V.R. Krishna Iyer recently invited the attention of
the nation through an article in Hindu daily and he pointed out that “Mullaperiyar is a
classic instance where the precautionary principle of action cannot wait for a public
calamity to happen. The nation as a whole must raise its voice against a possible natural
calamity involving Mullaperiyar.”

He also cited a recent judgement of Supreme Court of India in M.C. Mehta v. Union of
India (AIR 2004 SC 4033): “In such matters [involving actions that pose a threat of
serious or irreversible damage], many a time the preferable option is not clear. If an
activity is allowed to go ahead, there could be irreparable damage to the environment; if
it is stopped, there could be irreparable damage to economic interests. In case of doubt,
however, protection of environment should take precedence over economic interest. The
Precautionary Principle requires anticipatory action to be taken to prevent harm. This
harm can be prevented even on a reasonable suspicion. It is not always necessary that
there should be direct evidence of harm to the environment.”

Nothing in life is entirely risk free, and indeed science cannot demonstrate freedom from
risk, particularly from as yet known risks, because ‘absence of evidence’ is not ‘evidence
of absence’! There are situations where engineers may disagree with one another. Some
experts may consider the condition of a dam to be marginally safer than what others say
it is. But nature has its own way, and experts’ expectations and calculations may go awry.
Once there is reasonable apprehensions about the imminent danger and the possibility of
a risk, the state should not take any chances.

However sound the CWC’s and Tamil Nadu engineers’ opinion on the structural safety
of the Mullaperiyar dam may be, as engineers in IITs and Kerala have expressed grave
doubts about a tragic alternative scenario, no chances can be taken. Responsible
governments are duty-bound to protect and save the lives of every citizen. In this
background, Government of Kerala cannot sit idle without taking appropriate and quick
remedies to avoid a possible catastrophe.

I would like to sum up my short speech by citing two examples from the international
area wherein the precautionary principle was implemented to ensure the safety of the
people.

- **Boyds Corner Dam** is the first concrete dam built in USA iii 1872. In 1980s, after
  the collapse of Tenton Dam, it was decided to review the condition of that dam.
  There was divided opinion on the safety of the dam. Some strongly believed that
  it was safe while others believed that it was unsafe. Despite opposition, the
  Government of USA decided to construct a new dam and the Boyds Dam was
demolished and rebuilt in 1990.

- **Decommissioning of Old Victoria dam** in Australia is an example of how a
century old unsafe dam of almost the same age and built using similar technology
as that of Mullaperiyar dam was treated in a developed country. This dam was
constructed in 1891 with lime concrete like Mullaperiyar dam in 1895. In 1966, the
Darn witnessed lot of seepages, which is also the case in Mullaperiyar dam.
Certain strengthening measures were carried out to the Victoria dam, which were
found to be inadequate in 1988. Therefore the authorities concerned decided to
decommission the dam in April 1990. In its place, a new Victoria dam has already
been constructed, which now supplies drinking water to the city of Perth.

Considering all the above international covenants and precautionary actions adopted,
Government of Kerala has decided to construct a new dam downstream of the existing
Mullaperiyar dam to ensure the safety of its citizens and also for ensuring the continued supply of water to the needy farmers of our neighbouring State of Tamil Nadu. This has been now endorsed by our legislative assembly through a unanimous resolution. We have conveyed this assurance several times to Government of Tamil Nadu and Government of India. I hope Tamil Nadu Government will come forward for a dialogue on New Dam and it will became a reality soon.

I offer my sincere thanks on behalf of Government of Kerala to Sri. K. J. Joy, Forum for Policy Dialogue on Water Conflicts in India and SOPPECOM, Pune for organising this National Seminar and hope that this will pave way for a national debate on this issue.