

MINUTES OF THE SIXTH MEETING OF THE NEPAL-INDIA JOINT TEAM OF EXPERTS (JTE) ON SAPTA KOSI HIGH DAM MULTI PURPOSE PROJECT AND SUN KOSI STORAGE-CUM-DIVERSION SCHEME HELD ON JUNE 12-13, 2005 AT BIRATNAGAR, NEPAL.

The Sixth Meeting of the Joint Team of Experts (JTE) between Nepal and India was held on June 12-13, 2005 at Biratnagar, Nepal. The Indian delegation was led by Shri M.K. Sharma, Member (River Management), Central Water Commission (CWC) and ex-officio Additional Secretary to Government of India (GOI) and Nepalese delegation was led by Shri Sharada Prasad Sharma, Executive Director, Water and Energy Commission Secretariat (WECS), His Majesty's Govt. of Nepal. The composition of the Nepalese and Indian delegation is attached as Annex-1.

Shri Sharada Prasad Sharma, the leader of the Nepalese Team, extended a warm welcome to the Indian delegation and wished that their stay in Biratnagar be pleasant and comfortable. He stressed the importance of both the Sapta Kosi High Dam Multi Purpose Project (SKHDMP) and Sun Kosi Storage-cum-Diversion Scheme (SSDS) both for Nepal and India in terms of irrigation, power generation, navigation and flood control potentials. He noted that Joint Project Office has already been established along with its field Offices and is carrying out all the assigned activities to complete its mandate of preparation of Detailed Project Report. He also emphasized that at this stage there is an urgent necessity of an expert level visit to the proposed Sun Kosi dam site.

Shri M.K.Sharma, the leader of the Indian Team thanked the Nepalese side for their warm hospitality. He stressed that Nepal and India apart from having the common heritage and culture, also have the trans-boundary rivers whose water resources could be tapped for the benefit of the people of both the countries. He expressed that the joint investigation & preparation of DPR for SKHDMP and SSDS is a forward step towards co-operation between the countries on bi-lateral mega Water Resources Projects. He suggested that through the mechanism of JTE, we should endeavor to steer JPO-SKSKI out of procedural and logistic



issues, so as to facilitate investigation & preparation of project report work within agreed time frame.

A presentation on features of Sapta Kosi and Sun Kosi projects was made by JPO-SKSKI. A detailed overview of work plan and progress of various field activities was presented with special emphasis on highlighting critical activities and immediate decisions pertaining to their earliest starting. The two delegations held detailed discussion on the various items of the agenda, a copy of which is attached as Annex-II. Details of the discussion are as follows.

1. Follow up action on decisions of 5th JTE Meeting :

JTE noted the follow up action on the decisions of 5th JTE Meeting.

2. Establishment of Joint Project Office :

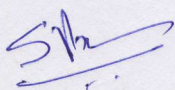
JTE noted with satisfaction that all the Offices of Joint Project Office – Sapta Kosi Sun Kosi Investigations have been established.

3. Progress of Work :

The JTE noted the progress of various field works as presented by JPO-SKSKI and urged the JPO-SKSKI to adhere to the road map of completion schedule and directed JPO-SKSKI to expedite the critical activities in order to prevent slippage. For this purpose, they would establish a suitable monthly system of monitoring & reporting to the Team Leaders.

4. Work Plan :

The work plan prepared by JPO-SKSKI for the preparation of Detailed Project Report was presented to JTE and it was noted by JTE that the activity of topographical survey, navigational studies, EIA studies, command area studies and excavation of drifts are critical and necessary steps are required to be taken to compress the time duration of these critical activities in order to ensure that these activities do not delay the completion schedule of preparation of Detailed Project Report. JTE emphasized that these works should be started immediately. After discussions, the work plan envisaging completion of the work by February, 2007 was approved by JTE.



5. Scope and Agency for topographical survey work :

5.1 Scope :

The scope of topographical survey work as prepared by JPO-SKSKI and concurred by both the Team Leaders, was approved by JTE.

5.2 Agencies and Modalities :

The modalities for monitoring the time schedule and to evaluate the quality and performance of mapping work, finalized by JPO-SKSKI in the meeting with Survey of India and Survey Department, HMG/N were noted by JTE and approved.

5.3 Cost Estimate:

Cost Estimate proposed by Survey Department, HMG/N was noted by JTE. It was agreed to commence the survey work at the earliest to avoid further delays. Payment for the work will be as per the approved norms of HMG/N.

6. Geo-technical Investigations:

6.1 Diamond Core Drilling

JTE noted the progress of drilling work at Chatra Barrage site, Kamla Dam site and Chisapani Barrage site.

JTE after discussion ratified the decision of both the Team Leaders for awarding the drilling work at Sapta Kosi High Dam Site to M/s Pratay Nivesh Pvt. Ltd., Asanasol (India) for an amount of NRs.65.05 Lakhs.

JTE discussed the recommendations of "Tender Evaluation Committee" on the tender for the work of Diamond Core Drilling at Spillway site of Sapta Kosi High Dam and accepted its recommendations as given below:

- a) M/s Bumi Developers India Pvt. Ltd., New Delhi (India) may not be considered for award of work in view of their unsatisfactory



performance in the other similar work awarded by JPO-SKSKI at Chisapani barrage site.

- b) In order to expedite the work, JTE decided that the work should be given to the second lowest Contractor, i.e. M/S RITES Ltd. JTE urged JPO , however, to negotiate with M/S RITES LTD. for bringing their bid amount down/nearer to the rates that of L-1 viz. M/S Bumi Developers India (P) Ltd. New Delhi and award the work to M/s RITES Ltd.,

The estimate for the work of Diamond Core Drilling at Power House Site of Sapta Kosi High Dam amounting to IRs. 145.7 Lakhs was discussed and approved by JTE so that the tendering process for this work could be initiated by JPO-SKSKI.

6.2 Exploratory Drifting:

6.2.1 Kosi High Dam and Power House Complex:

JTE noted the progress and action taken to locate and clean the existing drifts at Sapta Kosi High Dam site.

6.2.2 Kamala Dam and Power House Complex:

JTE noted the information about the estimate for the excavation of drifts on right abutment of Kamala Dam site being prepared by JPO-SKSKI.

6.2.3 Requirement of Explosives:

JTE was informed that the work of drift is a critical activity and the method of handling of explosives required for drift work is required to be finalized immediately, so that tenders are called for this work. JTE discussed the issue and related security aspects. Nepalese side assured the JTE that necessary action would be taken to resolve this issue with utmost urgency with the concerned authorities of HMG/N.



7. Seismological Studies :

JTE discussed the estimate amounting to IRs. 75 Lakhs for the work of procurement of seismological equipments prepared by JPO-SKSKI in consultation with CWPRS. It was intimated to JTE that there was a provision of IRs. 60 Lakhs in the approved CPIB memorandum for procurement of micro earthquake recording system and no provision for Strong Motion Accelerograph. It was explained to JTE that Strong Motion Accelerograph have also been recommended by CWPRS to be installed at all the eight seismological observatories to be established for JPO-SKSKI in the project area. JTE noted the above facts and approved the estimate and directed the JPO-SKSKI to start the procurement process for seismological equipments.

8. Construction Material Survey :

JTE noted that probable quarry sites and borrow areas of both the projects have been identified by JPO-SKSKI which would be firmed up during the visit of CSMRS Team in consultation with Geological Survey of India.

9. Scope of Work for EIA Studies

The JTE approved the scope of work for procuring consulting services to carry out the EIA studies, which was prepared and submitted by the JPO-SKSKI. The JTE took note of the progress in short listing the consulting firms for the study. To enquiry of the Nepalese side, as to whether EIA studies would be required for the project activities in Indian territories, the Indian side stated that it would ascertain the requirement.

10. Command Area Survey:

The scope of work for command area studies in Indian as well as Nepalese territories as finalized by JPO-SKSKI and concurred by both the Team Leaders was discussed and ratified by JTE. However, JTE directed JPO-SKSKI that topographical survey of command area shall be to the extent required for the preparation of DPR.



11. **Scope of work and agency for carrying out the navigational studies.**

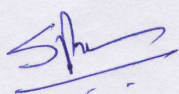
The scope of work for navigational studies prepared by JPO-SKSKI and concurred by both the Team Leaders was ratified by JTE.

JTE was informed that M/s RITES, Gurgaon, India has been proposed to be engaged for carrying out the navigational studies and an estimate amounting to IRs. 196 Lakhs has been received from them for these studies. The provision of IRs 186 Lakhs is available in CPIB Memorandum. It was explained by JPO-SKSKI that the increase in cost was due to normal escalation since 2000-01 as well as due to additional work of Mathematical Model Studies of river Kosi initially not provided for in the CPIB Memorandum. JTE noted the change in scope of work and approved the estimate and proposal to award the work to M/s RITES, Gurgaon, India

12. **Follow up action on 2nd JCWR Meeting :**

JTE was informed that JCWR in its 2nd Meeting held at New Delhi on 7th & 8th October, 2004, had directed JPO-SKSKI to carry out the feasibility level study of Kamala Multipurpose Project and the preliminary study of Bagmati Multipurpose Project to ascertain likely environmental & social constraints in the implementation of these projects so that these could be appropriately addressed. JTE authorized JPO-SKSKI to take up following additional works on Kamala and Bagmati Projects:

- a. Feasibility Level Survey and investigations for preparation of feasibility report for Kamala Multipurpose project.
- b. A preliminary study comprising reassessment of Bagmati Dam based on available information in light of present environmental and socio economic problems of the project will be carried out. Field verification by JPO-SKSKI officials and experts will be conducted as required.



13. **Investigations on Sun Kosi Storage-cum-Diversion Scheme**

Nepalese side informed that field investigation team can now move to the project site any time based on the present assessment of ground situation. Further, air lifting could also be arranged during visit of experts to the project sites.

JTE took note of present security scenario and directed JPO-SKSKI that the field investigation work should be started immediately and investigations teams should visit the sites. The visit of Government of India Officials of JPO-SKSKI and Expert Team should be finalized by JPO-SKSKI in consultation with the Indian Embassy. In the mean time, a team comprising of Officials of JPO-SKSKI and the Nepalese experts can undertake visit to the site to select the location of the dam and required investigation works. JTE agreed to allow JPO-SKSKI to proceed with the field investigation work based on the recommendation made by such a team.

14. **List of Government Agencies of Nepal and India for conducting specialized studies:**

JTE approved the proposal of JPO-SKSKI to include the following agencies of GOI and HMG/N in the approved list in addition to the list approved during 5th JTE meeting:

- (i) National Institute of Rock Mechanics (NIRM), Ministry of Mines, GOI
- (ii) Central Mining Research Institute (CMRI), Ministry of Mines, GOI
- (iii) Nepal Electricity Authority (NEA), HMG/N
- (iv) Nepal Engineering Consultancy Services (NEPECON), HMG/N
- (v) Water and Power Consultancy Services Ltd. (WAPCOS), GOI
- (vi) RITES, GOI.



15. **Shifting of Sub Division from Biratnagar to Chatra and from Kurule to Katari :**

JTE approved the proposals of JPO-SKSKI for shifting of Sub Division Offices after ascertaining the suitability of places from the point of view of working convenience, security and infrastructure facilities:

- i. Shifting of Sub Division from Kurule to Katari
- ii. Shifting of Sub Division from Biratnagar to Chatra

16. **Identification of Project area :**

JTE approved the following districts in Nepal and India in addition to the already approved list as per 5th JTE Meeting to be included in Project area:

In Nepal:

(1) Ramechhap	(5) Sankhuwasabha	(9) Sindhupalchok
(2) Makwanpur	(6) Terhathum	(10) Kavrepalanchok
(3) Panchthar	(7) Taplejung	(11) Chitwan
(4) Solukhumbu	(8) Dolakha	

In Bihar, India :

(1) Khagaria
(2) East Champaran
(3) West Champaran

17. **Hiring of Security Agency :**

JTE approved the proposal of JPO-SKSKI for hiring the services of professional security agency, M/s Group 4 Falcon, Kathmandu @ monthly charge of NRs. 43484/- for providing round the clock security to JPO-SKSKI Offices located at Biratnagar, Dharan and Janakpur.

18. **Re-deployment of one Junior Engineer to JPO-SKSKI, Biratnagar:**

JTE approved the proposal of JPO-SKSKI of bringing one of the Junior Engineer to Biratnagar from either of its two Divisions.



19. **Re-deployment of one Stenographer/Administrative staff to JPO-SKSKI, Biratnagar**

JTE approved the proposal of JPO-SKSKI of bringing One Stenographer from either of its two Divisions and one Administrative staff from Liaison Office, Kathmandu to JPO-SKSKI, Biratnagar.

20. **Hiring of skilled and un-skilled staff:-**

The JTE instructed JPO-SKSKI for engaging skilled and un-skilled category workforce from either country in accordance with the relevant letter of exchange between HMGN and GOI.

21. **Visit of Indian experts – Mechanism of approval**

JTE noted the delays in arranging the visit of Indian experts to project sites on account of procedural difficulties and agreed in principle to the proposal of JPO-SKSKI to recommend to Government of India to approve the consolidated proposal indicating the man-days required for visit of experts team to project area during 2005-06.

22. **Meeting of Tender Evaluation Committee:**

JTE discussed the Agenda item and approved the following proposal for convening the meeting of Tender Evaluation Committee:

The visits of Members of Tender Evaluation Committee can be included in the list of experts proposed for visit in the project area. When, it may not be possible for all the members to be present in the meeting due to their prior engagement, an alternative member in lieu of un-available member from the same discipline can be invited as Member of Tender Evaluation Committee. In addition, the possibilities of evaluation of tender by circulation amongst the Members of Tender Evaluation Committee should also be explored.



23. Public Inter-action Programme:

The JTE emphasized the importance of disseminating correct information about the projects and the activities of JPO-SKSKI. The JTE directed the JPO-SKSKI to compile the technical details and benefits of the projects and prepare pamphlets on the projects for general information. JPO-SKSKI will also prepare a plan for dissemination of information.

JTE felt that it would be beneficial, if the two Governments took necessary steps to apprise the stakeholders of the benefits of the projects.

24. Approval of JTE to following proposals:

24.1 Hiring of building at Kathmandu for Liaison Office-cum-transit camp.

JTE accorded its ex-post facto approval for hiring of building for JPO-SKSKI Liaison Office-cum-transit camp at Kathmandu at the rate of NRs. 46,000/- per month w.e.f. 16th December, 2004 the proposal of which was already concurred by both the Team Leaders.

24.2 Procurement of two vehicles:

JTE ratified the concurrence of Team Leaders for procurement of two inspection vehicles from Mahindra & Mahindra, Mumbai (India) at a cost of IRs. 10.13 Lakhs.

24.3 Facility of Mobile phones:

JTE approved the proposal for providing facility of mobile phones to the Project Managers and Senior Engineers of field units only if mobile network is available but with a ceiling of IRs. 500/- per month per user.

24.4 Establishment of Camp Office at Jogbani, Bihar (India):

JTE directed the JPO-SKSKI to explore the possibility of utilizing facility of extending paid retainer-ship to the existing STD Booth owner at Jogbani for making and receiving FAX messages and other urgent telephonic communication



24.5 Hiring of inspection vehicles:

JTE approved the expenditure proposal for hiring of two inspection vehicles from the lowest quotationer @ monthly rate of NRs.45,000/- per vehicle (Land Rover type) for Dharan Division and NRs. 40,500/-) per vehicle (Marshal type vehicle for Janakpur Division.

24.6 Procurement of Meteorological Instruments and Silt Analysis Instruments:

JTE approved the following proposals of procurement:

- a) Procurement of Meteorological instruments from the lowest quotationer, ie., M/s Kendriya Bhandar, Ghaziabad, India, and M/s Geohydromechs, Roorkee at an aggregate amount of IRs.3.24 Lakh.
- b) Procurement of Silt analysis instruments from the lowest quotationer, M/s Geohydromechs, Roorkee at an amount of IRs. 5.993 Lakh.

24.7 Estimate for arrangement of 6th JTE Meeting:

JTE approved the estimate amounting to IRs.6.36 Lakhs for arrangement of 6th JTE Meeting.

24.8 Visits of Nepalese Experts :

JTE approved the visits to project area by following Nepalese experts

S. No.	Name & Designation	Period of Visit
1.	Shri S. P. Pradhan, Senior Divisional Engineer Geologist, DOED, HMG/N	31/10/2004 to 6/11/2004
2.	Shri A. K. Pokharel, Project Manager, SMIP, HMG/N	23/11/2004 to 24/11/2004
3.	Shri L.M. Singh, Joint Secretary, MOWR, HMG/N and Team Member, JTE(N)	3/12/2004 to 4/12/2004
4.	Shri S. P. Sharma, Executive Director, WECS, HMG/N and Team Leader, JTE(N)	05/01/2005 to 10/01/2005
5.	Shri S. P. Pradhan, Senior Divisional Engineer Geologist, DOED, HMG/N	13/04/05 to 18/04/05
6.	Shri J.K.Mackey, DDG, DOED, HMG/N	04/03/05 to 06/03/05
7.	Shri K N Ghimire, U/S, MOWR, HMG/N	04/03/05 to 06/03/05
8.	Shri S. P. Sharma, Executive Director, WECS, HMG/N and Team Leader, JTE(N)	17/05/05 to 24/05/05

25 Any other item with the permission of Team Leader :

25.1 The Nepalese side stated that the existing hydrometric and meteorological stations under the Department of Hydrology and Meteorology (DHM), HMGN should be utilized with upgrading and strengthening, if necessary, as that approach would provide continuity of long term data. They also stated that upgrading and strengthening of existing stations and establishment of new stations should be carried out in consultation and cooperation with the DHM for improving the quality of data, avoiding duplication of efforts and maintaining continuity of observation even after the completion of the project investigation.

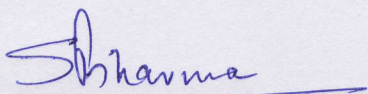
25.2 Engineer – in – Chief, WRD, Government of Bihar (GOB) suggested that two Assistant Engineers from GoB should be deployed to JPO-SKSKI for making them associated with the process of investigation and preparation of DPR. JTE agreed to the proposal in principle.

26. Next JTE Meeting

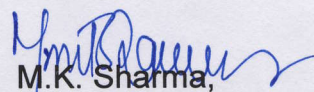
It was agreed to hold the next meeting of the JTE at mutually agreed date but not later than six months.

The meeting was conducted in a cordial and friendly atmosphere.

Signed at Biratnagar, Nepal on 13th June, 2005.



Shri Sharada Prasad Sharma,
Executive Director,
Water and Energy Commission
Secretariat (WECS),
His Majesty's Govt. of Nepal



M.K. Sharma,
Member (River Management),
Central Water Commission (CWC) and
ex-officio Additional Secretary to
Government of India (GOI)

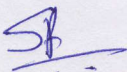
ANNEXURE-1

LIST OF PARTICIPANTS FROM INDIAN SIDE

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|----|--|------------------|
| 1. | Shri M.K.Sharma,
Member (RM),
Central Water Commission &
Ex-Officio Additional Secretary to the Government of India | Team Leader |
| 2. | Shri N.Pant,
JS & FA,
Ministry of Water Resources | Member |
| 3. | Shri M.L. Goyal,
Commissioner (ER),
Ministry of Water Resources | Member |
| 4. | Shri S.K. Agrawal,
Chairman,
Ganga Flood Control Commission | Member |
| 5. | Shri M.L. Goyal,
Commissioner (ER),
Ministry of Water Resources | Member |
| 6. | Shri Achal Malhotra,
Director(N),
Ministry of External Affairs | Member |
| 7. | Shri B.P.Singh,
Chief Engineer (LGB),
Central Water Commission | Member Secretary |

Special Invitees

1. Shri Devi Razak,
Engineer-in-Chief,
Water Resources Department,
Government of Bihar
2. Shri Jawed Ashraf,
Counsellor (Commerce),
Embassy of India, Kathmandu
3. Shri Y.Deva,
Director,
Engineering Geology Division,
Geological Survey of India
4. Shri Kailash Nath,
Director,
Nepal & Bhutan Co-ordination Directorate,
Central Water Commission
5. Shri A.K.Jain,
Project Manager (I),
JPO-SKSKI, Biratnagar, Nepal





LIST OF PARTICIPANTS FROM NEPALESE SIDE

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|-----|--|------------------|
| 1. | Shri S.P. Sharma,
Executive Director,
Water and Energy Commission Secretariat | Team Leader |
| 2. | Shri D. Bhattarai,
Deputy Director General
Department of Electricity Development | Member |
| 3. | Shri A. Pokharel
Project Manager
Sunsari-Morang Irrigation Project | Member |
| 4. | Shri S.B. Malla
Senior Divisional Engineer
Department of Electricity Development | Member |
| 5. | Shri S.K. Sharma
Senior Divisional Engineer
Department of Water Induced Disaster Prevention | Member |
| 6. | Shri K.D. Adhikari
Senior Divisional Engineer
Ministry of Water Resources | Member |
| 7. | Shri U.R. Sapkota
Senior Law Officer
Ministry of Water Resources | Member |
| 8. | Shri D.M. Kayastha
Chief Survey Officer
Survey Department | Member |
| 9. | Shri K.P. Sharma
Senior Divisional Hydrologist
Department of Hydrology and Meteorology | Member |
| 10. | Shri S.M. Bajracharya
Project Manager,
Sapta Kosi High Dam Multipurpose Project & Sun kosi Storage Cum
Diversion Scheme | Member Secretary |

Special Invitee

1. Shri S.P. Pradhan
Senior Divisional Engineering Geologist
Department of Electricity Development

