

Justification for locating the project in forest area

Developing and assessing various alternative schemes is one of the first activities during the preparation of the DPR. Various alternative studies have been carried out for arriving at the most optimal location & layout of the Project. While carrying out the detailed studies, different axes have been identified by various agencies, Site-A & Site B by Brahmaputra Board; A-5, A-6 and A-11 by NHPC & an axis near to A-5/6 by Tojo Vikas Interational Private Limited for KHEPCL.

Brahmaputra Board Alternatives- Site -A & B

Two alternative sites for locating dam axis were examined on river Kamla namely Site-A (nearly 3.5km upstream of Kamla Bridge) and Site-B (nearly 12.5km upstream of Kamla Bridge).

Brahmaputra board in consultation with CWC and GSI considered Site-A as a better option and carried out two exploratory drill holes, one each on either bank at the proposed dam site. The project was transferred to NHPC for preparation of Feasibility and Detailed Project Report during May 2000.

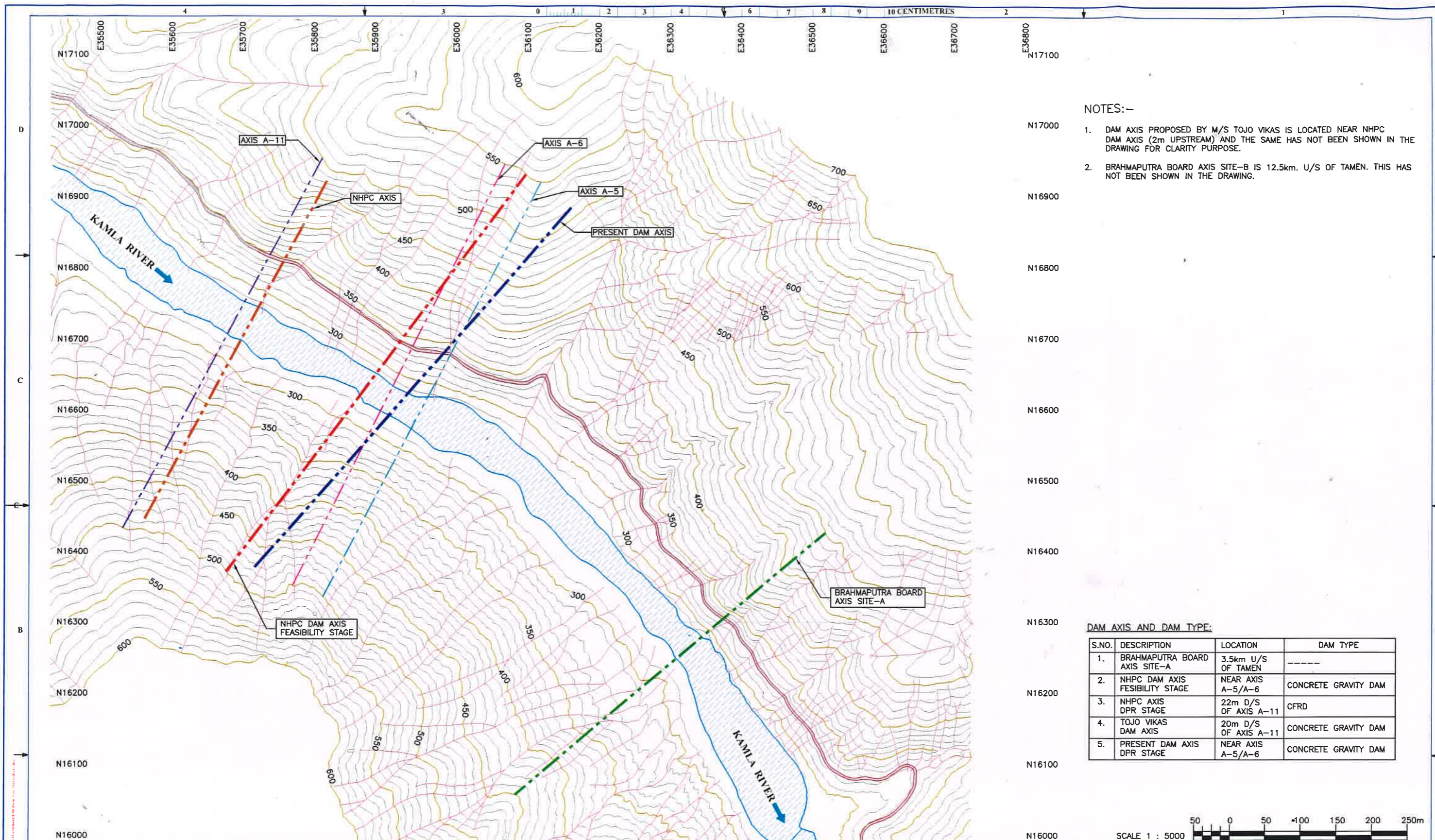
NHPC Alternatives: Site-A-5, A-6 & A-11

During the feasibility study, NHPC after detailed inspection of the area, did not consider Site-A (as proposed by Brahmaputra Board) suitable because of presence of thick overburden on the right bank and abundance of mica schist bands & shear zones in rockmass on the left bank. NHPC then identified two other axes A-5 and A-6, located about 3.95 km and 4 km upstream of Kamla Bridge. Through further investigations and studies, NHPC considered that the sites selected during the feasibility stage for axes A-5 & A-6 was not suitable for concrete dam and also the topography around these axes was not conducive for a rockfill type dam. Investigations were started on another axis located about 4.25 km upstream of Kamla Bridge. This axis was designated as A-11. A Concrete Face Rockfill Dam (CFRD) was proposed at Dam axis A-11 by NHPC. The project was further transferred to KHEPCL with the survey and investigation data collected by NHPC.

KHEPCL Studies

KHEPCL commenced the studies with an independent review of all previous study reports (including the investigation results). The Dam axis A-11 with a Concrete Face Rockfill Dam (CFRD), as proposed by NHPC was not considered by KHEPCL because of economic unviability of the project. Further after carrying out detailed investigations by KHEPCL, a concrete gravity dam between axes A-5 & A-6 (approximately 4 km from Kamla Bridge) was proposed. KHEPCL continued further investigations required for the present project configuration (Dam axis between A-5 & A-6) and after detailed Geological mapping, Geotechnical investigations, Topographical survey and Preliminary Engineering studies the most optimum layout for the Project was finalized with the present dam axis which is located about 4 km from Kamla Bridge.

It is a well known fact that the State of Arunachal Pradesh has the second largest forest cover in the country. Out of the total geographical area of 83,743 Sq. Km, the forest cover accounts for 68,000 Sq. Km (approx.) making 81.20% of the State under forest cover. Thus, looking at the quantum of trees / shrubs available on either bank of Kamla River & also since major portion of the State falls under Forest cover, it was assessed that all the alternatives involve diversion of significant forest area, regardless of ownership of land & technical feasibility of finalized layout.



NOTES:-

1. DAM AXIS PROPOSED BY M/S TOJO VIKAS IS LOCATED NEAR NHPC DAM AXIS (2m UPSTREAM) AND THE SAME HAS NOT BEEN SHOWN IN THE DRAWING FOR CLARITY PURPOSE.
2. BRAHMAPUTRA BOARD AXIS SITE-B IS 12.5km. U/S OF TAMEN. THIS HAS NOT BEEN SHOWN IN THE DRAWING.

DAM AXIS AND DAM TYPE:

S.NO.	DESCRIPTION	LOCATION	DAM TYPE
1.	BRAHMAPUTRA BOARD AXIS SITE-A	3.5km U/S OF TAMEN	-----
2.	NHPC DAM AXIS FEASIBILITY STAGE	NEAR AXIS A-5/A-6	CONCRETE GRAVITY DAM
3.	NHPC AXIS DPR STAGE	22m D/S OF AXIS A-11	CFRD
4.	TOJO VIKAS DAM AXIS	20m D/S OF AXIS A-11	CONCRETE GRAVITY DAM
5.	PRESENT DAM AXIS DPR STAGE	NEAR AXIS A-5/A-6	CONCRETE GRAVITY DAM

<div></div> <div>V.Batta Project Director Sandip Shinde Designed Harpreet Singh Drawn N.T.S. Scale</div> <div>Aug. 2013 Arun Mehta Verified Arun Mehta Verified 161109-KM-35-40DD-0001-00 AutoCAD No.</div>				<div></div> <div>Kamala Hydro Electric Power Company Limited</div> <div>KAMALA (SUBANSIRI MIDDLE) HYDROELECTRIC PROJECT Arunachal Pradesh, India.</div> <div>DAM AXIS ALTERNATIVES</div> <div>Drawing No. 161109 KM-35 40DD 0001 00 Project No. Drawing Code. Serial. Rev.</div>																																											
Issue				Revision				Date				Distribution & Status				Drawing No.				Title				Revision				Date				Description				By				Verified				Approved			
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