

Nepal



Name: Nepal Tunnelling Association

Type of Structure: Non-profitable organization

Number of Members: Life members: Total number 147, number of corporate members 11

ASSOCIATION ACTIVITIES DURING 2022 AND TO DATE

10th Annual General Meeting

The Nepal Tunnelling Association (NTA) conducted the 10th Annual General Meeting on 11th March 2022 in Kathmandu, Nepal. During the event, a paper was presented by the Vice President Mr. Ram Hari Sharma on, "Soft ground tunnelling and its construction methodology."

CURRENT TUNNELLING ACTIVITIES

Three day training on the design and construction of road tunnels

Sponsored by the Ministry of Physical Infrastructure and Transport, the training course was jointly organized for 3 days (22nd – 24th May 2022) by NTA, the Society of Consulting Architectural and Engineering Firms (SCAEF) and the Federation of Contractor's Association (FCAN). Ten NTA experts delivered lectures during the training.

Talk on mechanized excavation

A talk on "Mechanized Excavation" was organized by NTA in the Hotel Akama on 10th June 2022. In the program, EPIROC technical official/experts presented technical information on the EPIROC equipment used in drilling and excavating tunnels and underground constructions. About 50 NTA members attended the program.

NTA contribution to the MSc course in Rock and Tunnel Engineering, IoE. Lectures were given by the following NTA members throughout the year on various subjects: Dr. Gyanendra Lal Shrestha, Mr. Ram Hari

Sharma, Dr. Pawan Kumar Shrestha, Dr. Chhatra Bahadur Basnet.

A workshop was organized for the R&T Masters Course on 7th July, 2022 in IoE Pulchok. GLS and PKS focused on "Rock Foundation Design". Similarly, CBB focused on "Numerical Modelling".

Project work and Masters degree thesis were also supervised by NTA members.

Nepal Tunnelling Conference 2022

The Nepal Tunnelling Association (NTA) organized the Nepal Tunnelling Conference 2022, on 22nd – 23rd December in Kathmandu, Nepal with theme "Design and Construction of Underground Structures for Infrastructure Development". On the first day training was conducted by the EC members of the NTA and the second day was allocated for paper presentations. The conference was sponsored by various industries and supported by IPPAN, NHA and NSRM. In total, 212 participants from Nepal, India and China attended the Conference.

FUTURE TUNNELLING ACTIVITIES

SN	Project	Type	Headrace Tunnel Length (km)
1	Upper Karnali HEP (900MW)	Hydro	2.4
2	Khare Khola HEP (14MW)	Hydro	4.8
4	Kulekhani Bhainse Road tunnel	Road	3.2
5	Kaligandaki Koban HEP (150MW)	Hydro	6.2
6	Tamakoshi 3 (650MW)	Hydro	17
7	Upper Marsyangdi HEP (600MW)	Hydro	9.2
8	Nalsinggad storage (390MW)	Hydro	9.2
9	Upper Modi-A (42MW)	Hydro	4.8
10	Upper Modi (18.2MW)	Hydro	3
11	Budhi Gandaki Storage (1200MW)	Hydro	2
12	West Seti Multipurpose (750MW)	Hydro	6.7
13	Upper Marsyandi-2 (570MW)	Hydro	10
14	Lower Arun (400MW)	Hydro	15
15	Upper Tamor (415MW)	Hydro	8.7
16	Kali Gandaki Gorge (275MW)	Hydro	6.1
17	Solu Khola Small (40MW)	Hydro	4.1
18	Madi I (26.5MW)	Hydro	4.44
19	Upper Marsyangdi (14MW)	Hydro	5.15
20	Upper Arun (1061MW)	Hydro	7.1
21	Dudh Koshi storage (650MW)	Hydro	5.6
22	Tamor Storage (762MW)	Hydro	2.5

FUTURE TUNNELLING ACTIVITIES CONTINUED

23	Budhigandaki Ka HEP (130MW)	Hydro	3.447
24	Budhigandaki Kha HEP (260MW)	Hydro	6.925
25	East West Railway Project	Rail	45
26	Karnali chisapani Multi purpose (10,050MW)	Multi	
27	Karnali Betan HEP (450MW)	Hydro	2
28	Karnali Phukot HEP (450MW)	Hydro	4
29	Arun Kimanthanka HEP (600MW)	Hydro	4
30	Jagadulla HEP (110MW)	Hydro	7
31	Bajhang Upper Seti (140MW)	Hydro	8.5
32	Uttar Ganga Storage (828MW)	Hydro	6
33	Tamakoshi V (95MW)	Hydro	8.1
34	Andhi khola storage (180MW)	Hydro	2
35	Chainpur Seti (210MW)	Hydro	7
36	Begnas Rupa Pump Storage(150MW)	Hydro	2
37	Siddhababa Road Tunnel	Road	1.2
38	Simbuwa HEP	Hydro	4.5
39	Ghunsa HEP	Hydro	4.2

STATISTICS

1. Length or volume excavated

20% mechanized / 80% conventional during 2022

2. List of tunnels completed

Projects in-construction in 2022 - 26 (21 HEP, 5 Road Tunnel)

Projects with break-through - 7 (HEP - 6, Road Tun - 1)

Total tunnel excavated - 39.13km (HEP - 34,167 Road Tun - 4,963)

EDUCATION ON TUNNELLING IN THE COUNTRY

MSc in Rock and Tunnel Engineering, IoE, Tribhuvan University, Nepal, since 2020.