Presentation 3: NJHEP dam and reservoir general site orientation

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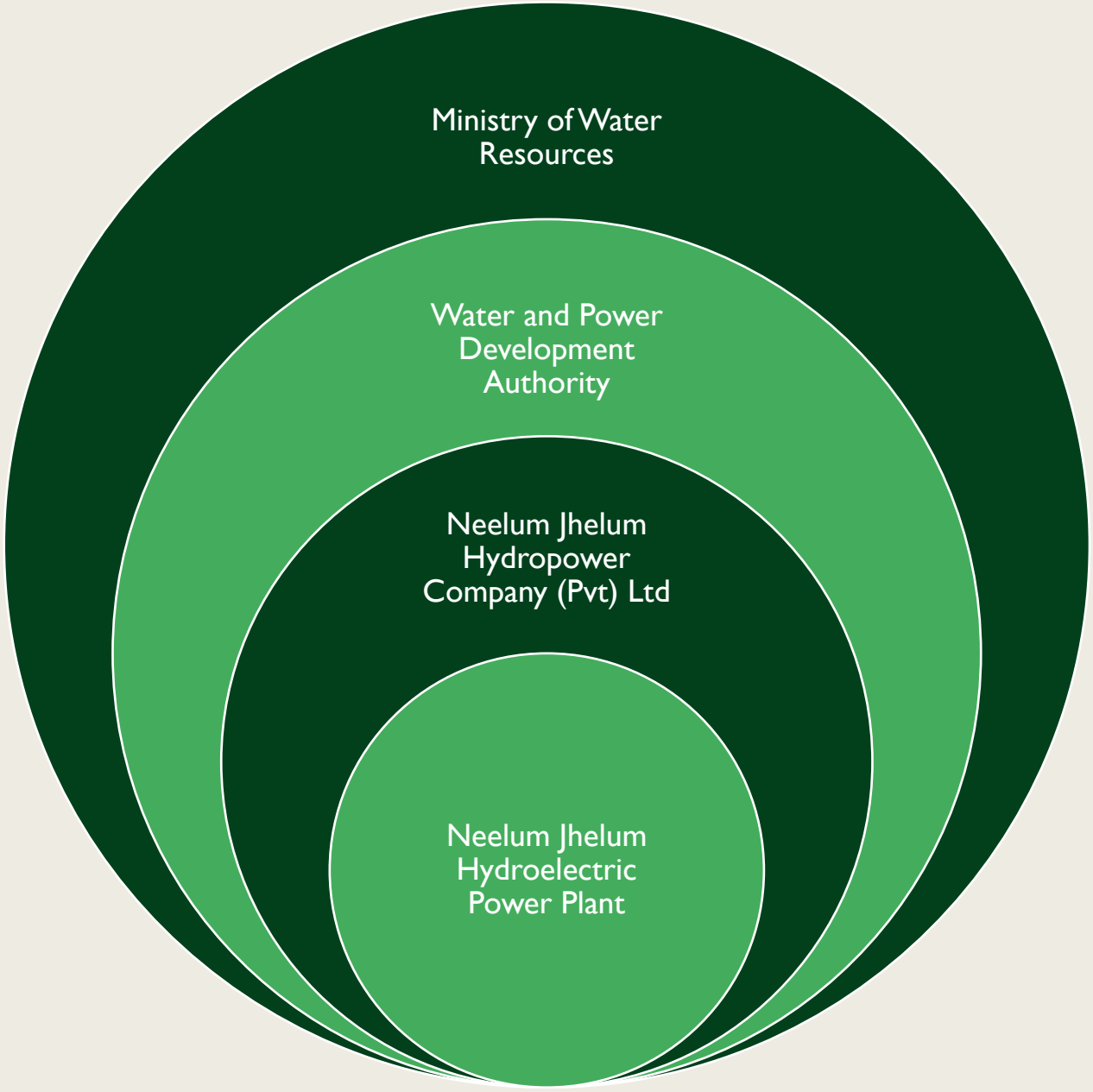
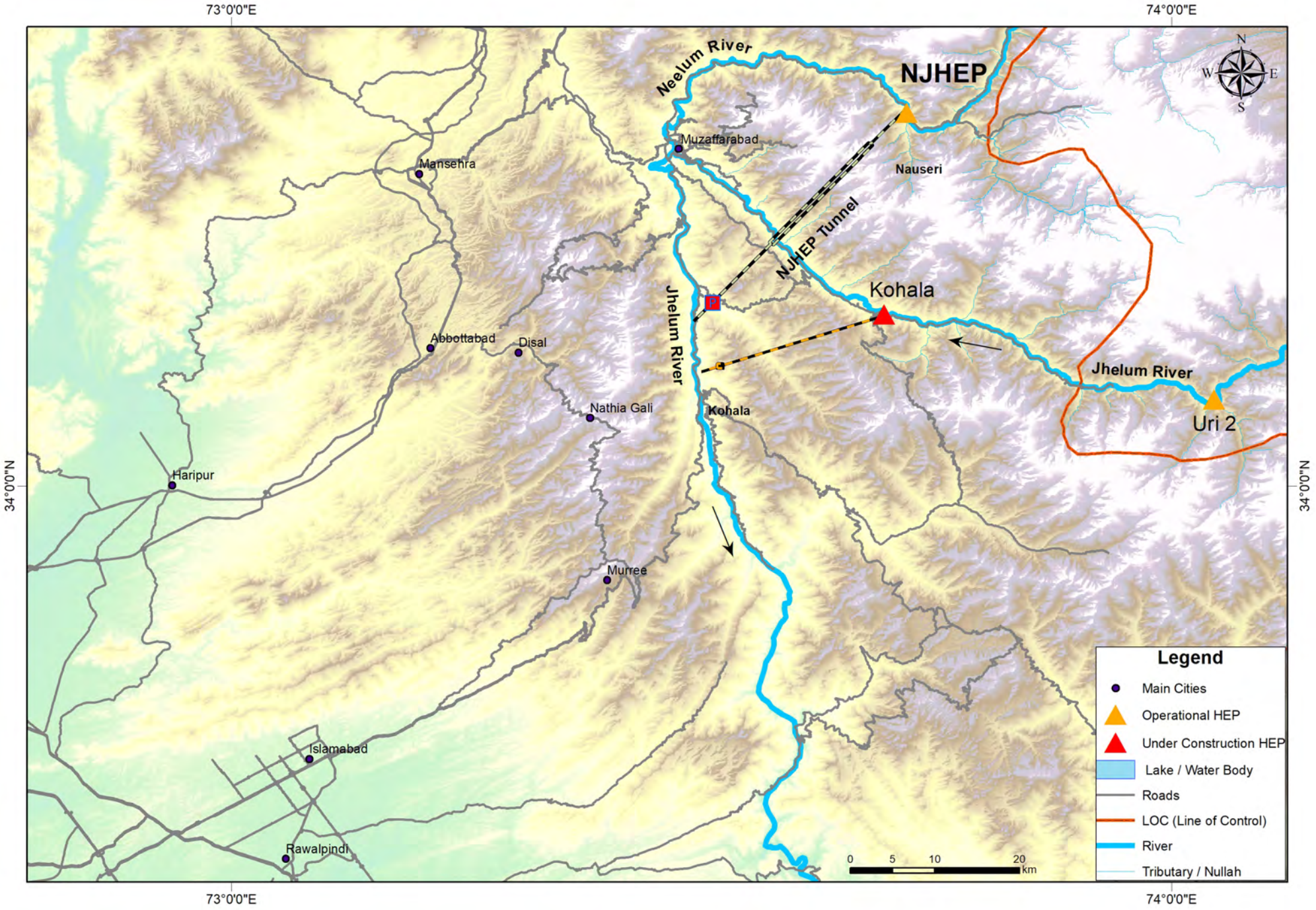


NJHEP within Pakistan

Dam and reservoir site


73°0'0"E
74°0'0"E
34°0'0"N
Neelum River
NJHEP
Muzaffarabad
Mansehra
Nauseri
NJHEP Tunnel
Kohala
Jhelum River
Abbottabad
Disal
Nathia Gali
Kohala
Jhelum River
Uri 2
Haripur
Murree
Islamabad
Rawalpindi
N
S
E
W
0 5 10 20
km
Legend
Main Cities
Operational HEP
Under Construction HEP
Lake / Water Body
Roads
LOC (Line of Control)
River
Tributary / Nullah

NJHEP site

NJHEP design and construction

NJHEP headworks and reservoir

Basic statistics

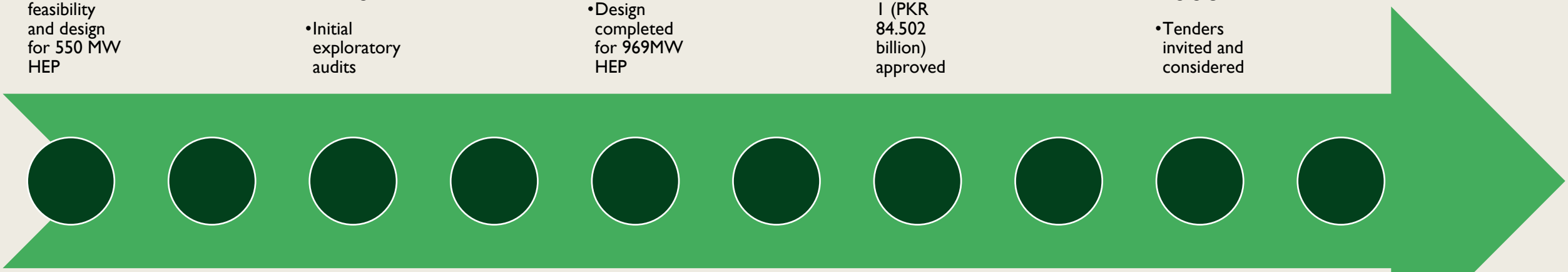
Capacity & storage

- Installed capacity: 969MW
- Live storage: 3.8Mm^3
- Dead storage: 6.2Mm^3

Hydrology

- Catchment area: 6,809km^2
- Mean average flow: 283m^3/sec
- 1,000-year flood: 7,600m^3/sec
- Probable maximum flood: 12,500m^3/sec

Feasibility and design



1984-1987
- Initial feasibility and design for 550 MW HEP

1989
- Original PC-1 (PKR 15 billion) approved

1990
- Initial exploratory audits

1996
- Revised feasibility

1997
- Design completed for 969MW HEP

1998
- Detailed design

2002
- Revised PC-1 (PKR 84.502 billion) approved

2005
- Kashmir earthquake

2005–2006
- Tenders invited and considered

2007
- Contract awarded to CGGC and CMEC

Construction

2008
- Works commence

2011
- River diverted

2013
- Desander excavation

2014
- Powerhouse excavation

2016
- Diversion dam

2017
- Headrace tunnel

2018
- Production commences

Concrete works

Spillway construction

Headrace bifurcation


0+305~0+297
XCMG
Tailrace
collapse

Safety briefing

Safety rules

- All visitors must wear **rubber sole shoes** (e.g. hiking boots or tennis shoes).
- All visitors must wear **hard hats** and **hi-vis safety vests** when directed to do so and follow **safety signs**.
- In wet areas, all visitors must wear **waterproof boots**.
- Please keep a safe distance from all **handrails and guardrails**.