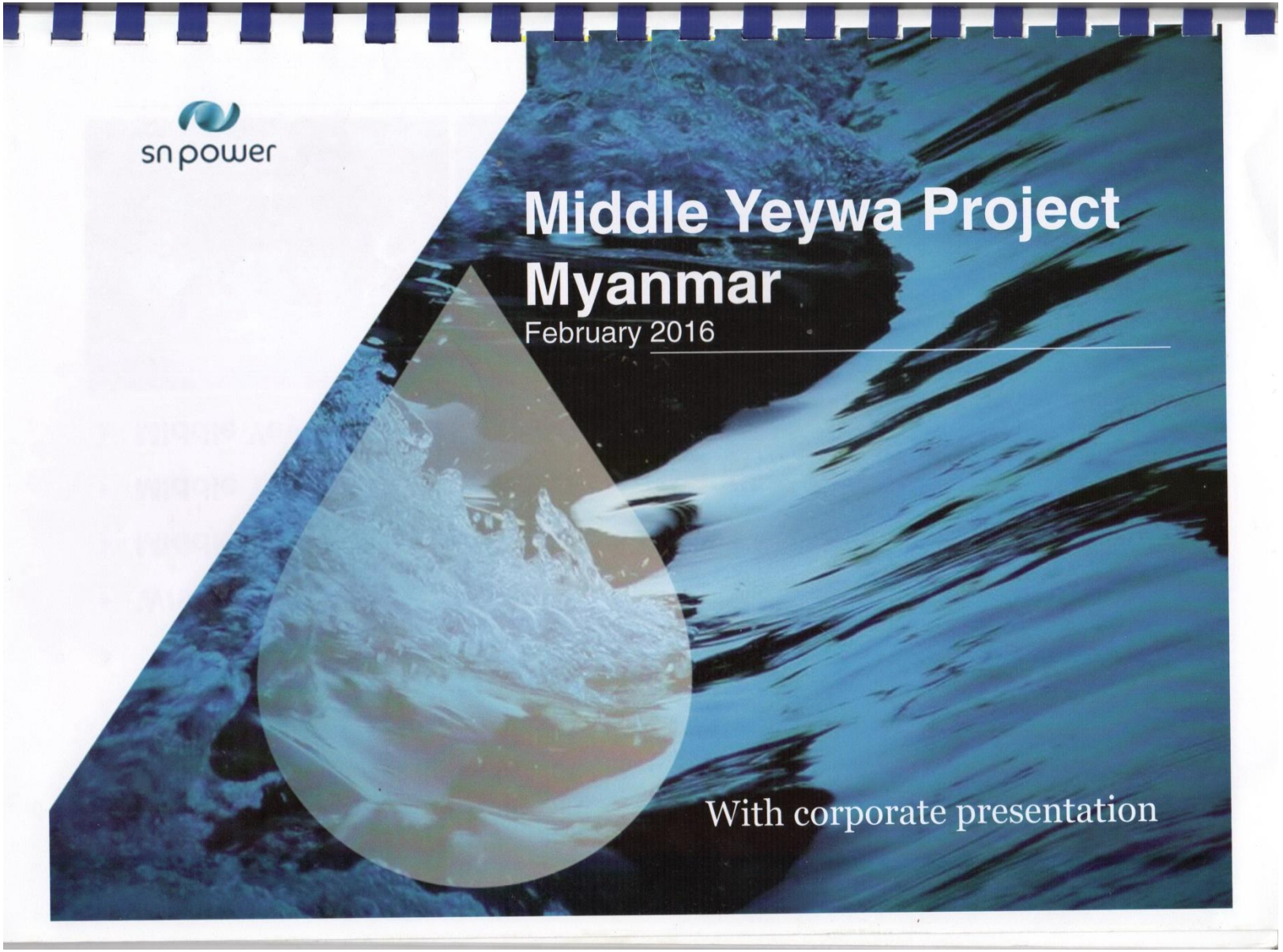
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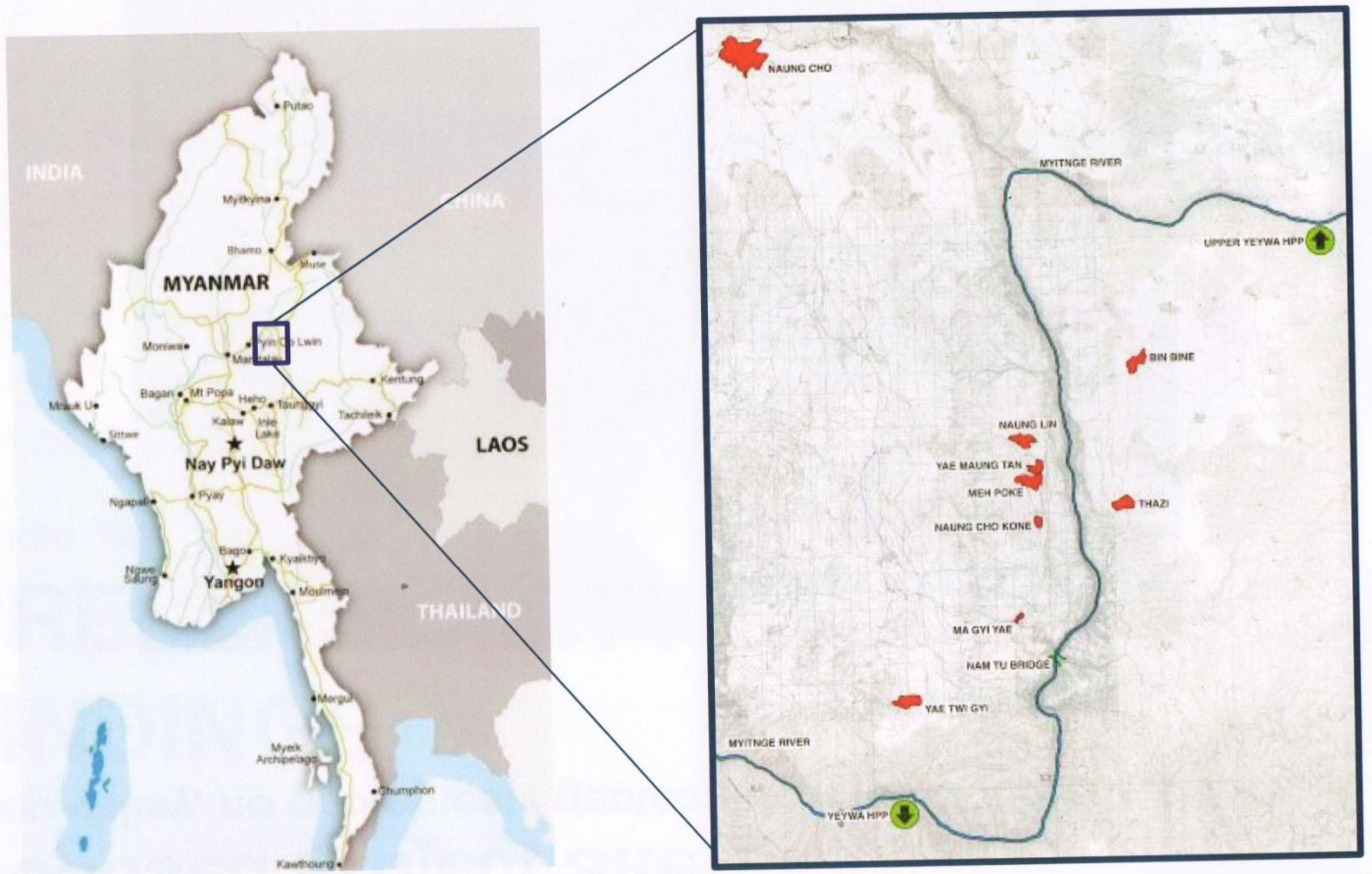
Middle Yeywa Project
Myanmar
February 2016
With corporate presentation

Middle Yeywa Project

Project Location



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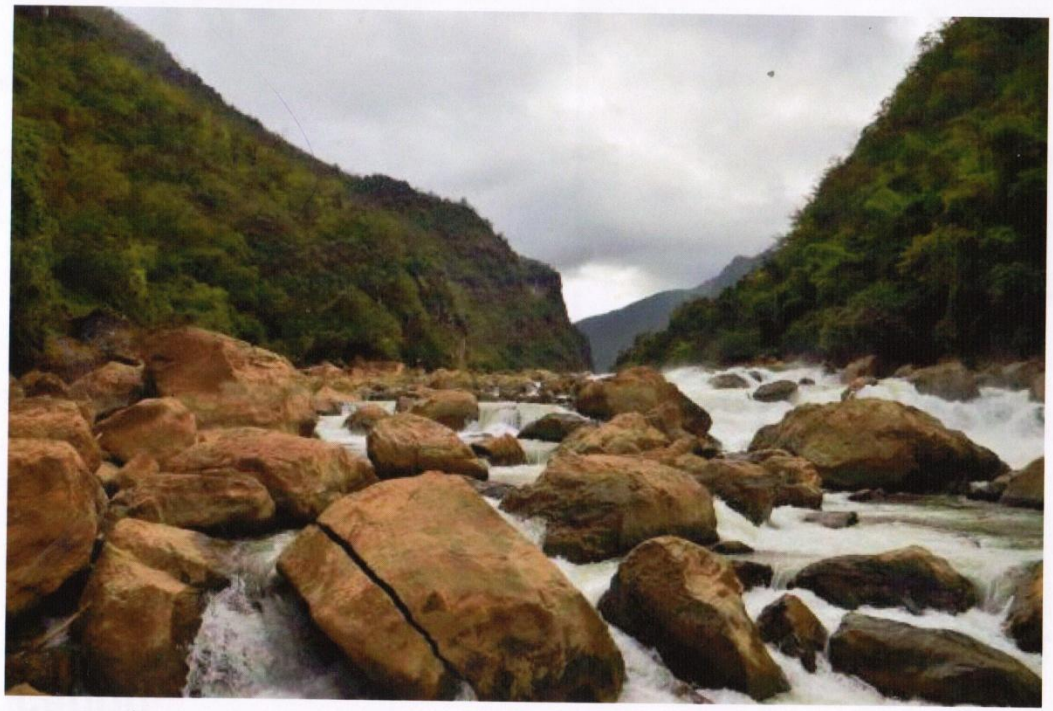
Proposed Project Site

Steep valley, no geological / geotechnical restrictions



Myitnge (Nam Tu) river: Dry season rapids at proposed project site

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Middle Yeywa Project

PREFEASIBILITY STUDY FINDINGS

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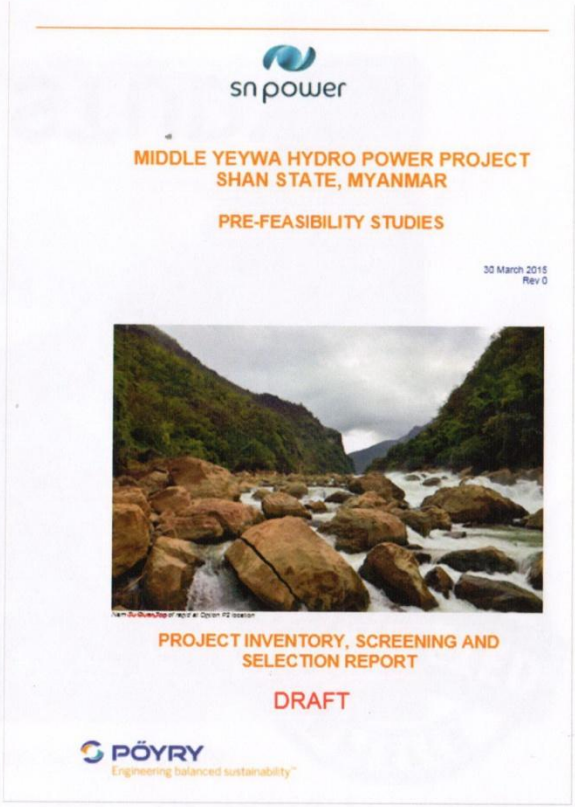
PFS Report

Submitted to MOEP

- The draft PFS report was submitted to MOEP on 29 June 2015
- MOEP comments on the draft was received on 3 August 2015
- The comments were discussed in detailed on several occasions in meetings and letters since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MIDDLE YEYWA HYDRO POWER PROJECT
SHAN STATE, MYANMAR

PRE-FEASIBILITY STUDIES

30 March 2015
Rev 0

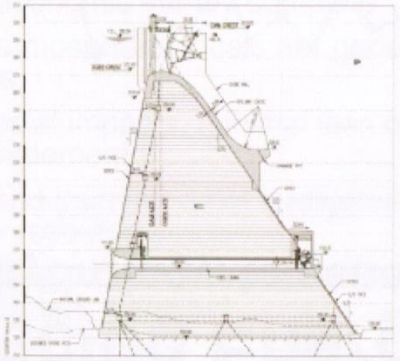
PROJECT INVENTORY, SCREENING AND SELECTION REPORT

DRAFT

PÖYRY
Engineering balanced sustainability

Salient Features of the Project

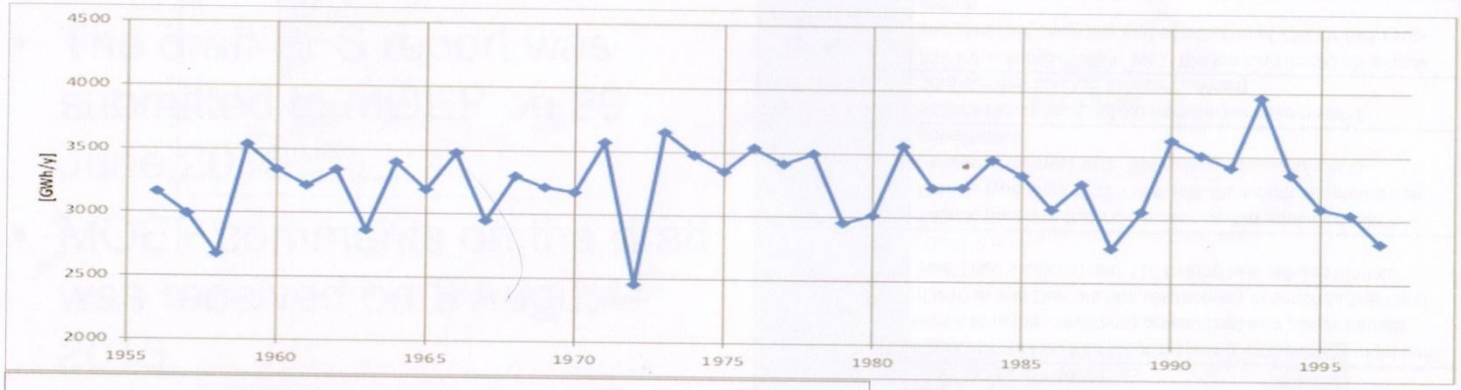
Capacity of 700 MW, RCC dam

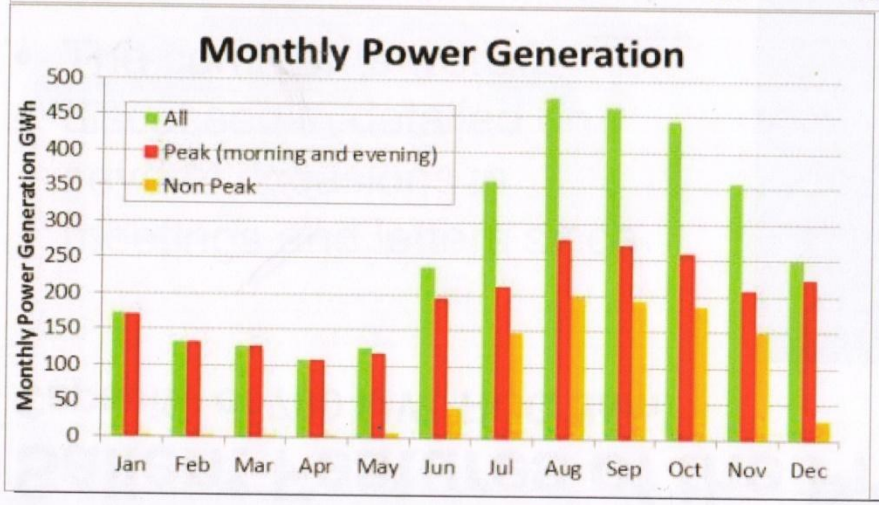


Reservoir	Water Level: FSL at 320, MOL at 300 masl, Dead storage: 258 MCM, Live Storage 195 MCM
Dam	160 m high RCC dam with an upstream slope of 0.1:1 and a downstream slope of 0.85:1; crest length of 244 m, and dam volume of 1.65 MCM
Spillway	Gated crest spillway with 4 bays equipped with 15mx17m (width/height). With a steep chute on the downstream face and a "ski jump" dissipation structure. Safety check flood: PMF of 12,000 m^3/s
River Diversion	Protection against 50 years Return Period flood during the season. 760 m long diversion tunnel on the right bank with an inner diameter of 10 m and overtoppable cofferdams made of RCC (u/s) and hardfill (d/s)
Power Waterways	Separate outdoor free standing power intake on the right bank with 440 m long (average) pressurized twin power tunnels (D=10 m and D=8.0/5.6m, respectively in concrete lined and steel lined sections) and 110 m long twin tailrace tunnels (D=11.2 m)
Power Cavern	180mx25mx47m (LxWxH) power cavern equipped with 4 Francis type units of 175 MW with the length orientated sub-parallel to the river axis. 284 m long access tunnel to powerhouse
Transformer Cavern	55.6mx16mx14m (LxWxH) transformer cavern with 2 30mx5mx6m busduct tunnels (LxWxH)
Transmission System	230 kV switchyard (dam site), 106 km long 2x230 kV double circuit transmission line and connection at 230 kV Belin sub-station
Access Roads	Upgrade of existing roads (L=13.0 km) new access road in easy morphology (1.8 km) and new access road in difficult morphology (around 10 km)
Nam Tu bridge	New conventional concrete bridge 300 lm ong

Expected Energy Generation

Good hydrology, to generate 3,287 GWh pa





Q_d	Gross Head	Installed Capacity	Net Energy production	Load factor
(m^3/s)	(mCe)	(MW)	(GWh/y)	
592	135	700	3,253	0.53

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Early Environmental and Social Study

No “red flags”

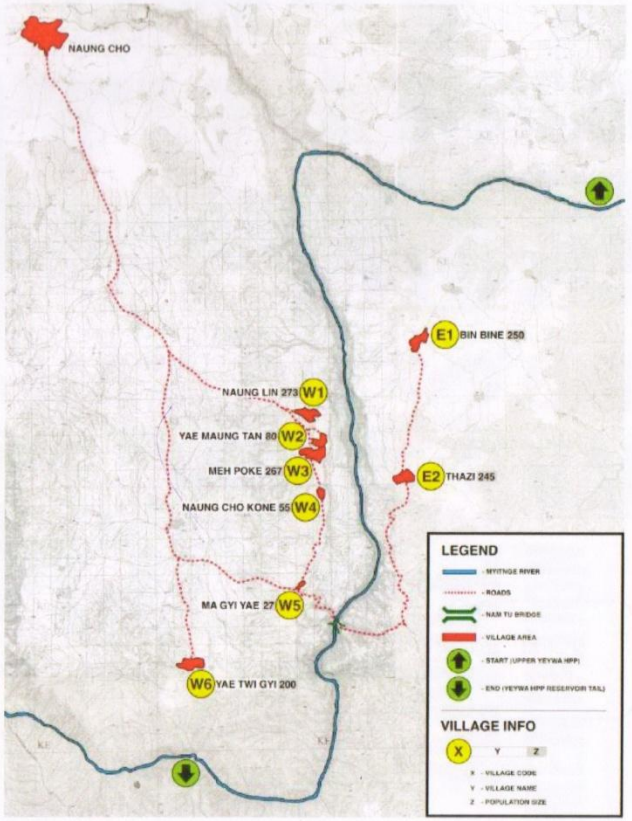
Competent international consultants overseeing field work by local companies, and the analysis of results in the Initial Environmental and Social Impact Assessment

Environmental

- Baseline for all key environmental aspects established
- Reconnaissance of flora and fauna species
- Preliminary environmental management strategies identified

Social

- Initial consultations with local communities and socio-economic survey complete
- Good atmosphere, locals are generally positive
- Low social impacts, minimal loss of land and no resettlement
- River and inundated not a major source of food or resource
- Preliminary social approach for mitigation and development identified



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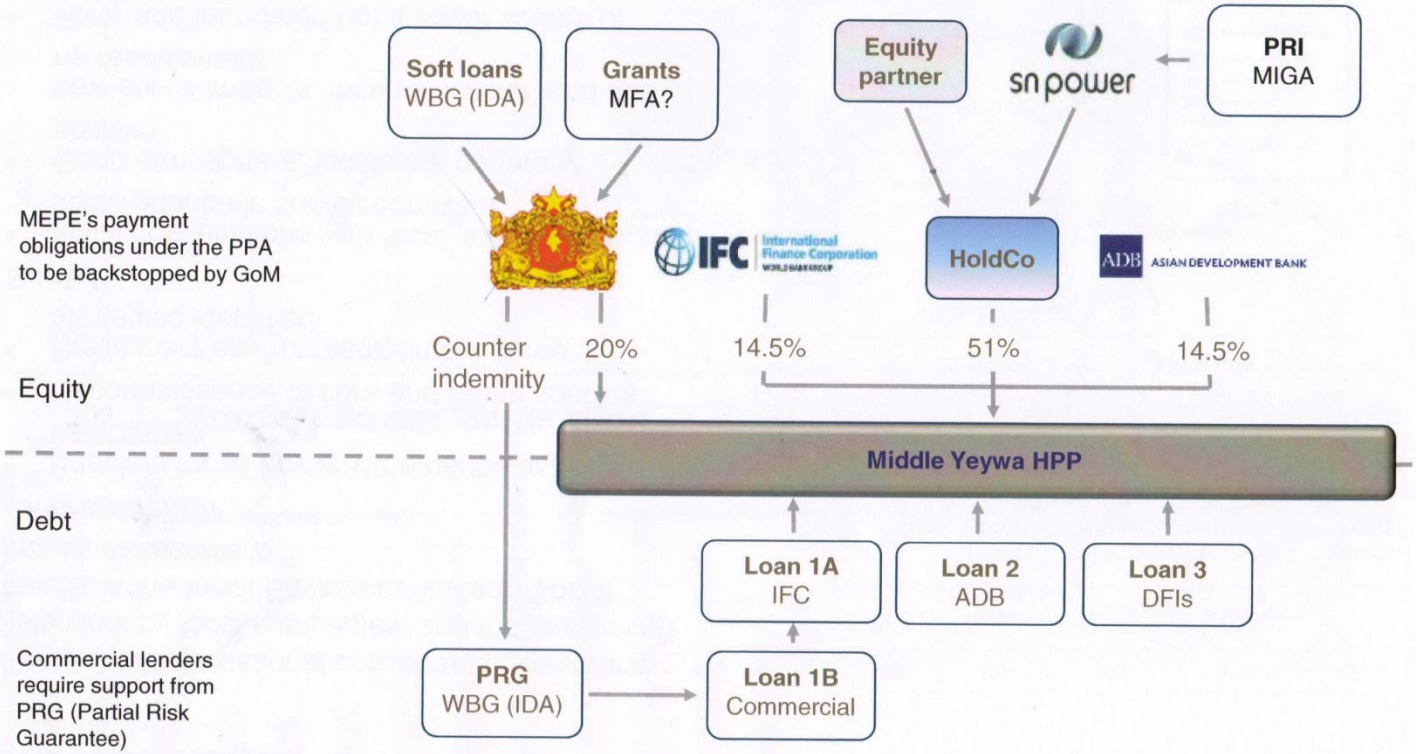
Potential Project Structure

Public Private Partnership



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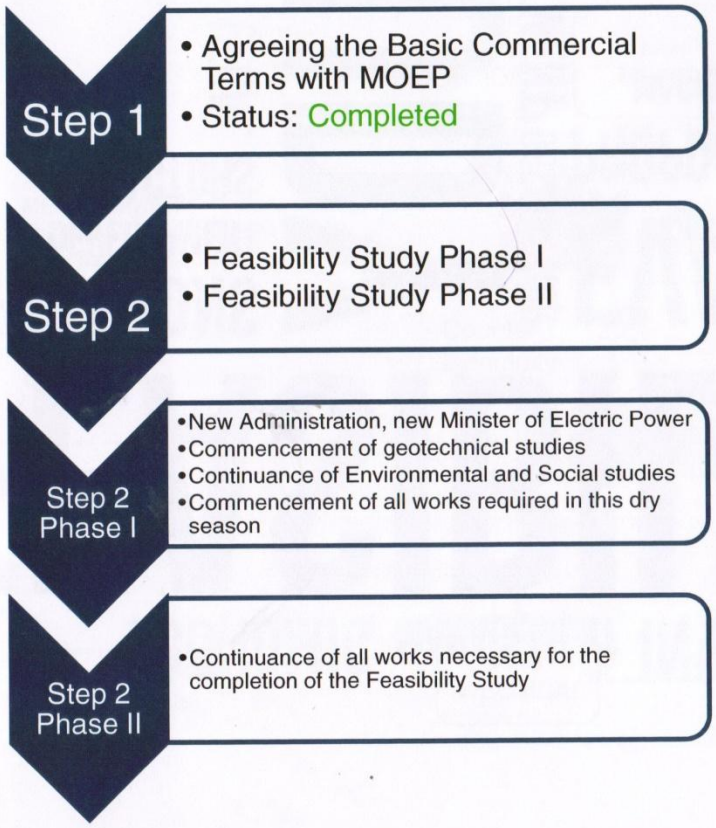
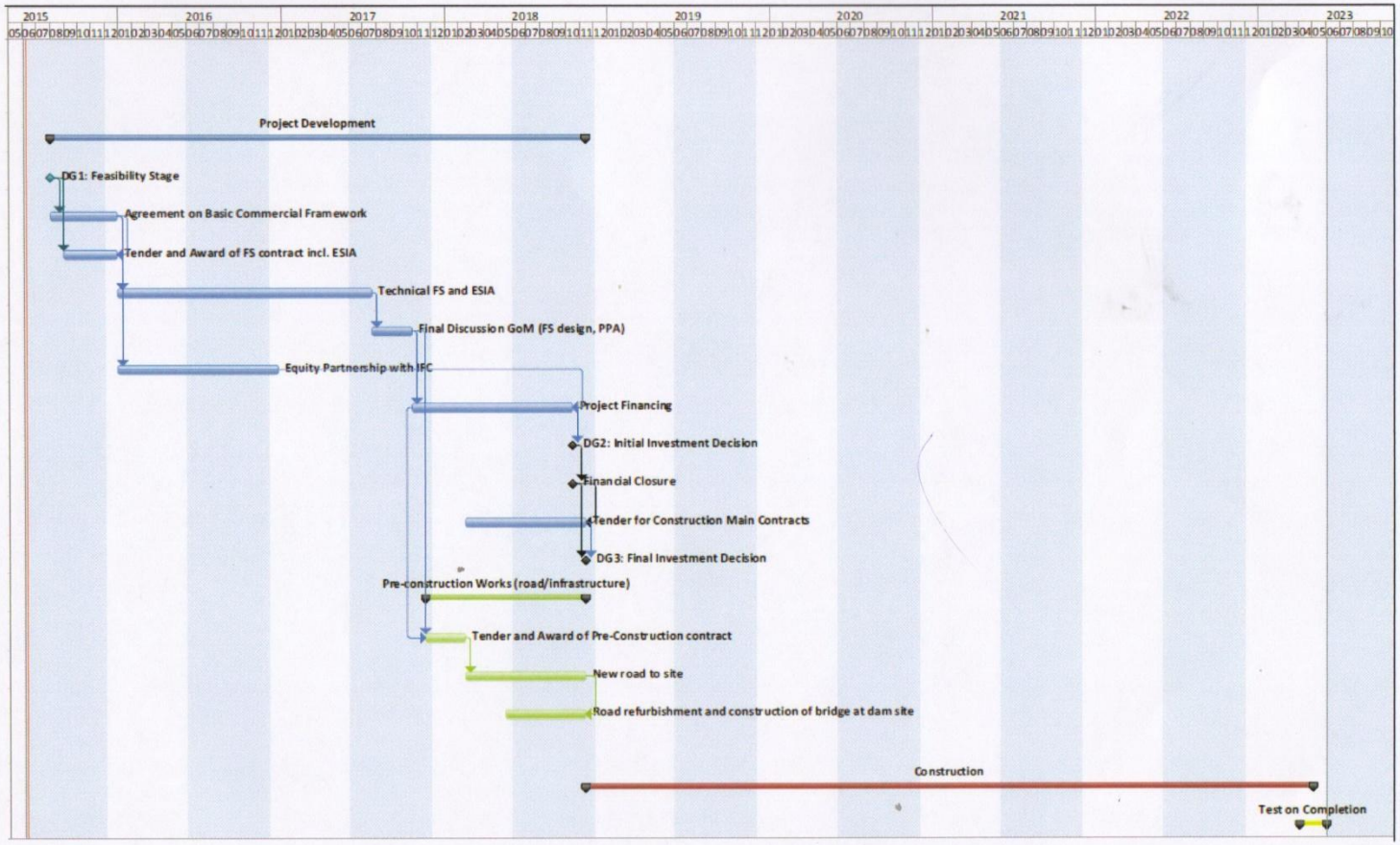
Feasibility Study Stage



- According to the MOU, the Feasibility Study Stage consist of a 2-year period expiring on 2 August 2017
- The Feasibility Study consists of:
  - Technical feasibility studies including but not limited to geotechnical studies, detailed topography, design and drawings
  - Environmental and Social Impact Assessment
  - Environmental and Social Mitigation Plan
  - Project Financial Assessment

Feasibility Study

Overall project schedule



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