STUDY IN MK 30

THEME: WATER & ENERGY

SUBOPTIMAL OPERATION OF HYDROPOWER PLANT IN MYINGE

Prof Aung Ze Ya

Yangon Technological University

Ministry of Education

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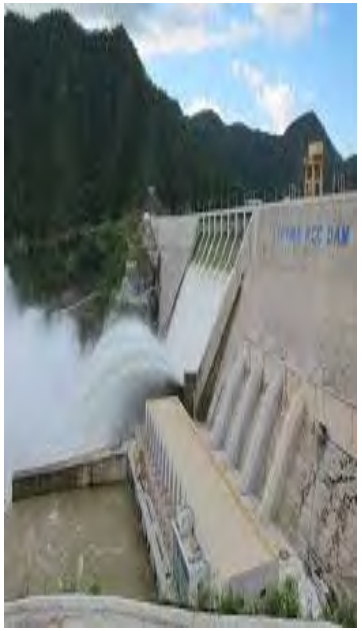
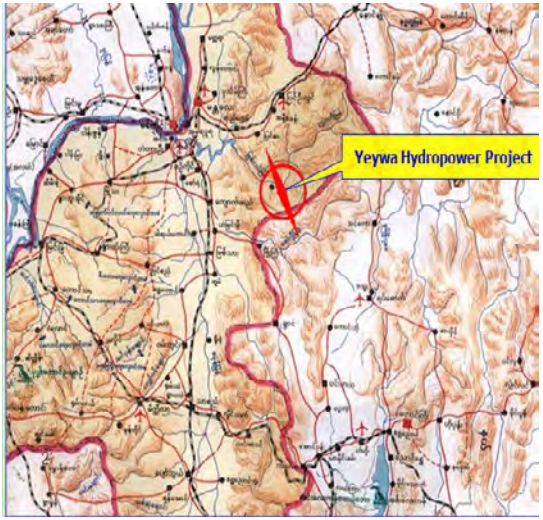
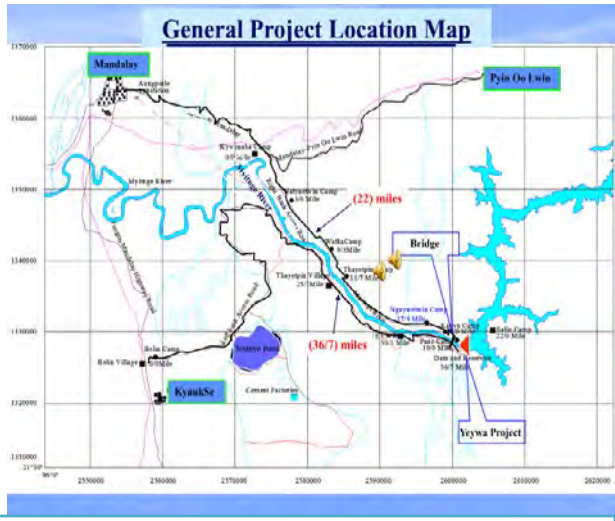
#Focus Plant







Project	**Lower Yeywa Hydropower (1999~Nov 2011)**
Location	**52 km (32 miles) South East of Mandalay**
Installed Capacity	**790 MW(197.5 MW x 4 Units) (Current Largest Hydropower Plant)**
People living in area	**HOW MANY HAVE POWER?**
Transmission Line	**230kV Double Circuit x 48 km** **230kV Yeywa-Belin Line (1) & (2) - (24) miles** **230kV Yeywa-Meikhtila Line (1) & (2) - (74) miles**

#Field Trip to Yeywa Hydropower

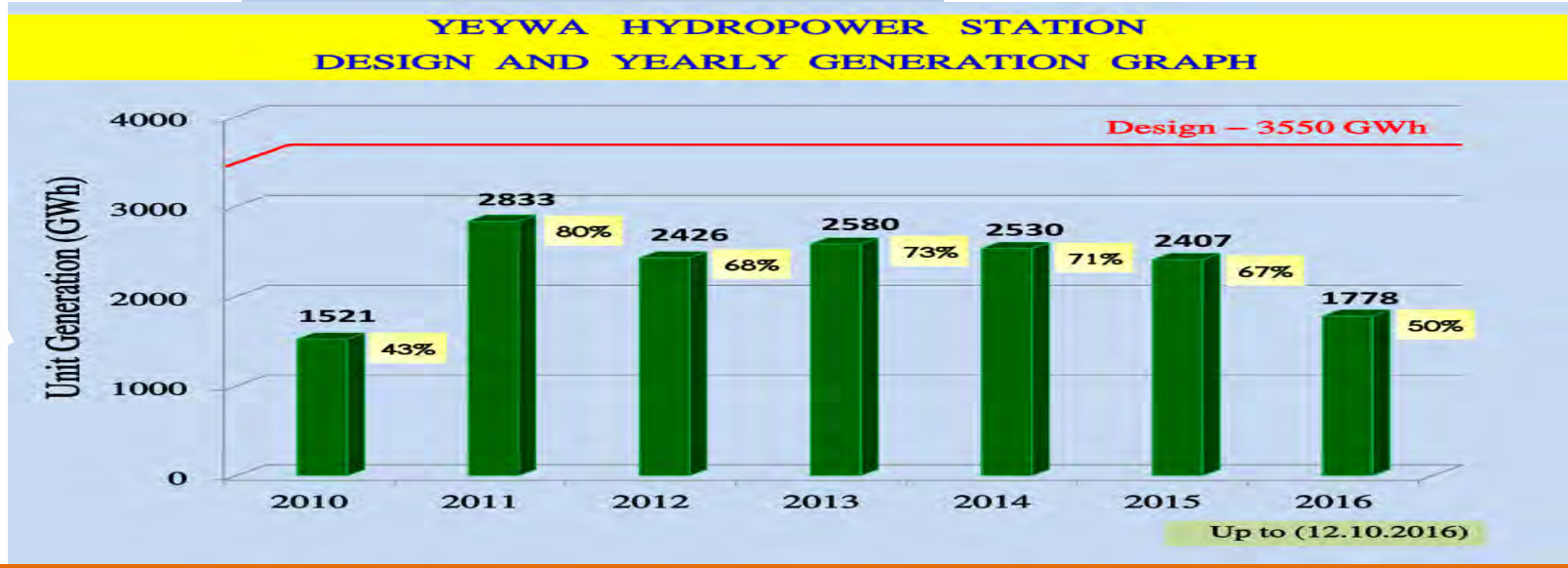
- Discuss with the Operators
- Interview to Villagers

Excess Electricity

We need the electricity!!!

PROBLEM-WHY

#SUB-OPTIMAL



- **Excess Electricity → Reserve Capacity ???**
- **Cascade Dam → Upper Yeywa (Under Construction) & Middle Yeywa (Planned)**

Other side of Myanma Power System:

- **Only ~38% Electrified → Insufficient Generation Capacity**
- **Unelectrified Villages locally (much higher than national level)**

→ Near to Transmission Lines from Hydropower

1. Situation or Problem

Suboptimal Operation of Yeywa Hydropower Plant

2. Negative Impacts

Lack of power to national and local people

Negative Environmental Flow Impacts

→ Ecosystems Issues

3. Causes

Weakness in Power System Optimization

- Optimization of other Plants
- **Limited Transmission Capacity & Poor Quality of Grid**
- Poor Reliability of Power System
- Reserve Capacity

It's not a Pumped-Storage Type.

4. Solution

Optimal Operation of Yeywa Hydropower Plant

5. Positive Impacts

Power Supply to un-electrified areas (local & national) → Social satisfaction

Increment in Generation → Efficient & Economical plant

New Plant ✗

Increment in Generation → Reduction of CO_2 Emissions instead of New Fossil Fuel Plant

Environmental flow as the design → Conservation of Ecosystems

To optimize the power system

To improve High power quality of national grid system

6. What is needed to fix the Causes?

To install sufficient transmission capacity, including local sub stations

To provide the efficient operation of the plant

Power System Optimization

Enhancement of the power quality of national grid system

Upgrading the Transmission Capacity, including local sub stations

7. What will you do?

Investigations of the needs

Improvement of the existing hydropower plant to efficient operation

Lessons learnt from the others

Inclusive Workshop With Key Actors

Stakeholder Engagement

8. What will be the changes?

Beneficial Operation of Hydropower Plant

- Less Negative Impacts
- Economic Viability
- Efficient Generation

9. Goal

High Quality of National Grid, Sufficient Local Grid and Optimum Power System in Myanmar

“Thank You Very Much for Your Kind Attention!”

PROF AUNG ZE YA

HONORARY DOCTOR & HONORARY PROFESSOR OF SCIENCE (CYPRESS BIBLE INSTITUTE, TEXAS, U.S.A.)

POST DOC: SMART TECHNOLOGY (UNS, FRANCE), PHD (EP, YTU)

NEDO (JAPAN) MASTER TRAINER OF RENEWABLE ENERGY GENERATION SYSTEMS

(dr.aungzeya010@gmail.com)

PROFESSOR OF EP DEPARTMENT

YANGON TECHNOLOGICAL UNIVERSITY (YTU)

DEPARTMENT OF HIGHER EDUCATION, MINISTRY OF EDUCATION, MYANMAR