

Nam Theun 2 (NT2) Hydropower in Lao PDR: Lessons Learned from a Unique Resettlement Project

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BACKGROUND

Cross-Border project

Trans-Basin Project

Project dams the Nam Theun River and diverts water to the Xe Bangfai River

Key dates

2003: Signature of PPA

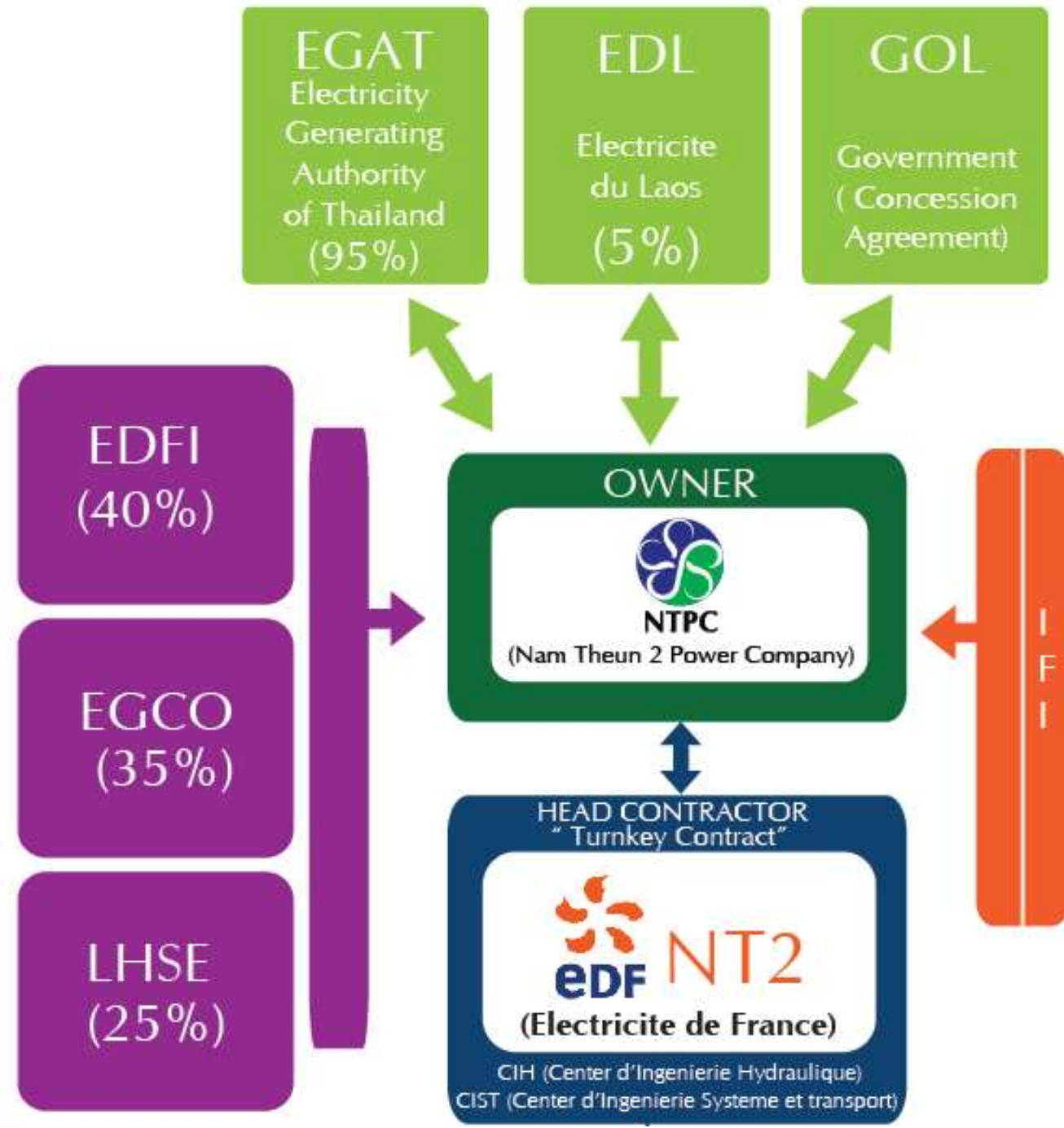
2008: Reservoir Impoundment

2010: Commercial Operation Date

2035: End of concession



1,070 MW Capacity



BACKGROUND

Main social impacts

- **48 900 ha lake**, 40% of Nakai plateau
- Resettlement **6300** indig. **people** (1310 HH) in 16 villages;
- Impacts on livelihoods and **lifestyle**
- **> 100.000 pers. affected** on **DS** area
- Vast construction area => impacts on **lands for ~2.500 HH**
- Peak of **8200 workers** in isolated area



NT2 IMPACTS MITIGATION STRATEGY

~10 yrs development, series of E&S studies and plans

- ESIA, HIA, EAMP, SEMFOP, RAPs, PHAP;
- **SDP** combines RAP and indigenous plan to provide integrated vision of plateau dev.
- Complete **SDP for downstream** areas;
- **RAPs** for construction areas;
- Social management split in **several programs** to apply plans: Nakai, DSP, PL, PCR, SERF, WMPA + environmental management



Crucial world-class innovation: complete E&S strategy rendered mandatory in CA. Key to E&S risk mitigation.

OVERVIEW OF E&S PROGRAMS

Nakai Program

- > 12 years **livelihood** support; compensation; infrastructure; health, PLUP, Community dev.(VDP, CLWP, Happy Nakai...)
- **2003 - RIP closure (foreseen end of 2017).**

Downstream Program

- World **Première** as DS impacts tended to be neglected in HPP. Livelihood support, cash, VIRF, WASH, etc. **2005-2013.**

Project Lands Program

- Mitigation construction impacts. Livelihood, cash, replacement of infrastructure, etc. **2005-2011.**

Camp Followers Program

- Avoid boom town effect and social disarticulation **during construction.** HIV/AIDs, hygiene, regulations, etc.



Health Program

- Regional reach. Health monitoring; Infrastructure development, provision of equipment, awareness and training, etc. **2005-2013.**

Social and Environmental Remediation Fund (SERF)

- Maintenance of structures built by NT2: boreholes, fences, etc.
- 3-400 K\$ per year **during entire concession period.**
- Managed by Local Authorities, with participation of village heads.

Environmental Programs

- WMPA: 1.3 M\$/year for Watershed protection **during entire concession period.** Managed by Local Authorities
- Environmental programs **during construction**
- Follow-up water quality and fish catch reservoir and DS: **ongoing**



WHAT DID WE ACHIEVE?





1,330 houses



2 health centres

A gravel access road curves through a dense, lush green forest. The road is light-colored and contrasts with the surrounding vegetation. On the left, a steep, rocky embankment is covered in thick green plants. On the right, there's a grassy shoulder with some dry, yellowish vegetation. In the distance, the road continues to curve, and several small, white and black striped markers are visible along its edge. The overall scene is a serene, natural landscape.

**120km
of access roads**



32 schools



10 years of livelihood support



**>\$800,000 in Village
Development Funds**



>176 community-based organizations



**Women have 36,8% of seats on
village committees**

WHAT RESULTED?



EDUCATION



16 PRIMARY SCHOOLS
16 NURSERY SCHOOLS

} built
&
equipped



SCHOOL
ENROLLMENT
among children
5-9 years old

90%

POST-resettlement

31%

PRE-resettlement

OVER 4,000 CHILDREN

on Nakai are
now going
to school



HEALTH

97.7% of people are using
MALARIA BED NETS



90%

Immunization rates among
children under **5 years old**
in the resettled populations.



2

Health centers
built & equipped

93.4%

POST-resettlement

32%

PRE-resettlement



NUTRITION



Source: NTPC Final Health Survey Report 2013

REDUCED CHILD MORTALITY

2008 to 2014

105 /1000
live births



46/1000

Source: NTPC Routine Public Health Monitoring

ERADICATE EXTREME POVERTY



After
resettlement,

97%*

of affected communities achieved the Household
Income Target. Average consumption levels

3 x higher than the poverty line

*The remaining villagers under the target (3%) are being
directly supported by the social safety net program

Source: NTPC LSMS 7, QSEM 7,8,9,10, Village Income Target survey 2014

HOWEVER...

- Long term livelihood sustainability
- Ethnic groups
- Poor and Vulnerable
- Forestry
- Local stakeholders' capacity

WHAT HAVE WE LEARNED?



Lesson #1

Real people need real time



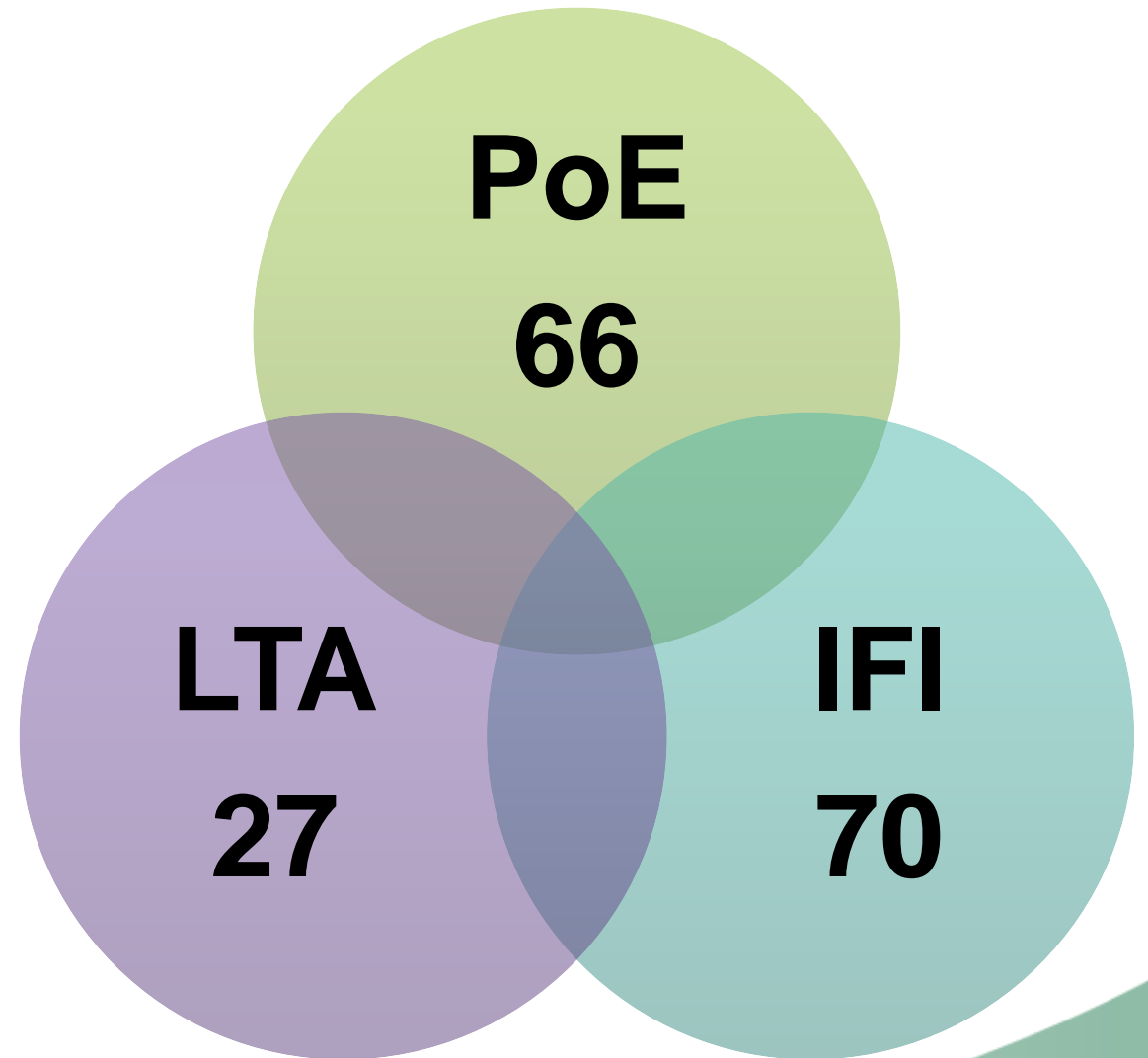
Solution #1

Human-centered approach that fosters ownership

- Mentoring and coaching
- Encourage volunteerism to build up social cohesion
- Foster social entrepreneurship

Lesson #2

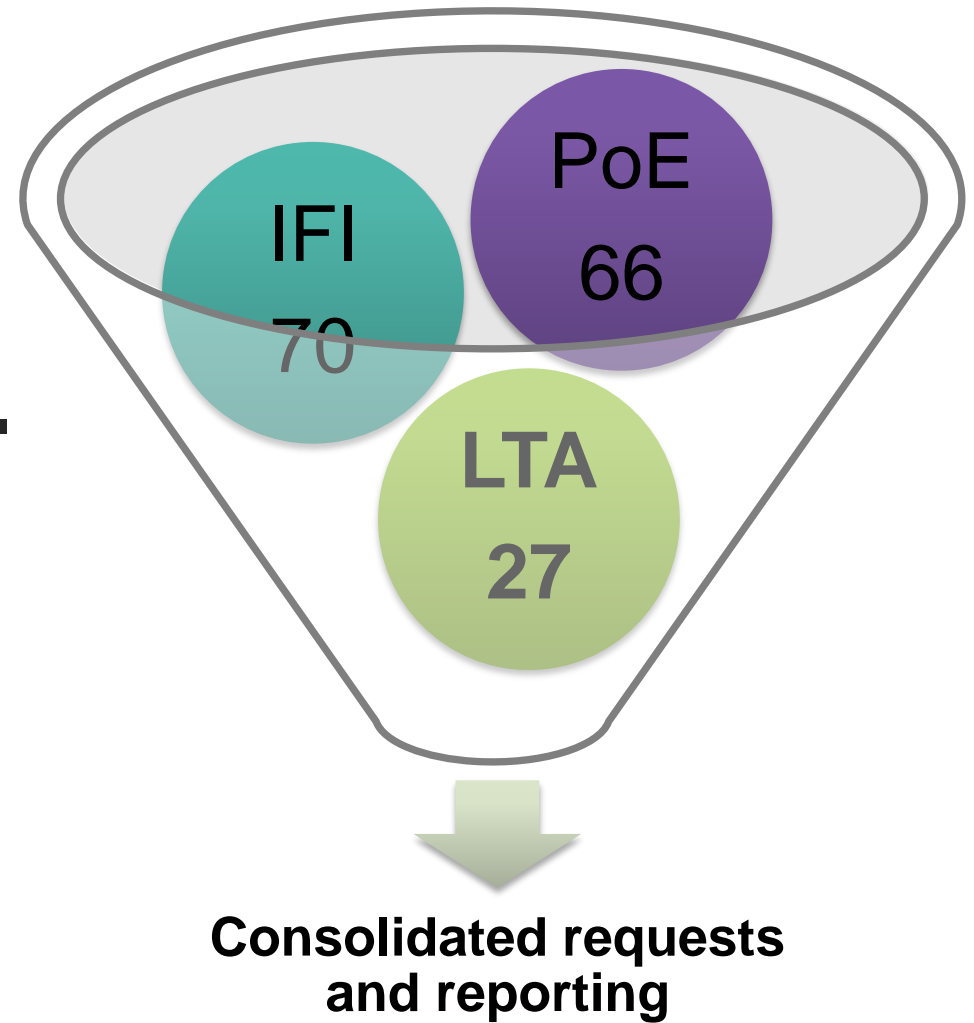
M&E complexity hinders implementation



Solution #2

Find the common ground. Speak with one voice.

- Agree on common M&E tools
- Stakeholders visit simultaneously
- Joint auditing group



Lesson #3

The CA should be SMART(er)

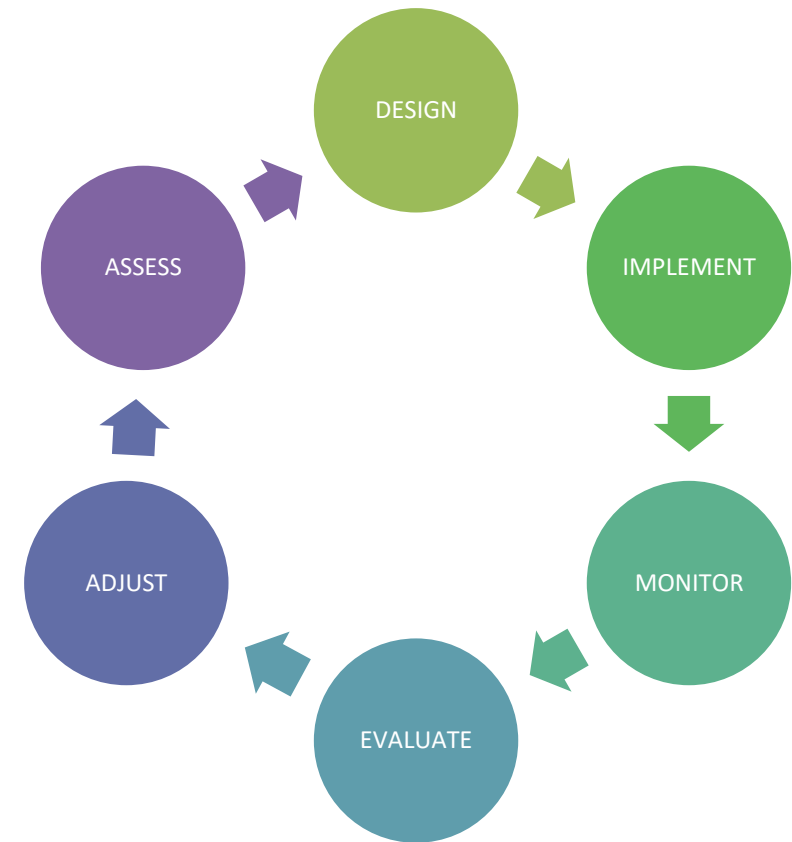
- (c) the Company is responsible for:
- (i) providing funding for the implementation of the Resettlement Process consistent with the quantity and quality of the entitlements and measures set out in this Part;
 - (ii) providing prompt and adequate compensation to the Resettlers and the other Project Affected Persons in accordance with the NT2 Resettlement Policy and this Part, with such compensation being based on the principle of actual full replacement or provision of equivalent assets or provision of alternative livelihood; and
 - (iii) providing for any other costs and implementing such other measures as are associated with mitigating the social effects of the Project on any Project Affected Persons, in accordance with this Part.
- (d) resettlement must be avoided or minimised where feasible;
- (e) participation, cooperation, opinion, and advice from Project Affected Persons is essential to the Resettlement Process and will be sought;
- (f) assistance from international experts is also essential to the Resettlement Process and such experts will be engaged;
- (g) the social and cultural cohesion of villages will be protected and resettlement sites will be as near as possible to the previous villages of the Resettlers;
- (h) traditional organisational structures, religious beliefs and resource use will be recognised and respected;
- (i) appropriate consultation and participation methods are to be used, utilising local knowledge in developing production systems that suit the Resettlers' needs and
- 25 APR 2005

Nam Theun 2 Concession Agreement (2005 Financial Close) Consolidation - Volume 2A, Schedule No. 4 Part 1

Solution #3

Adaptive Management

A **structured, iterative process** of **robust decision making** in the face of uncertainty, with an **aim to reducing uncertainty** over time via **system monitoring**.



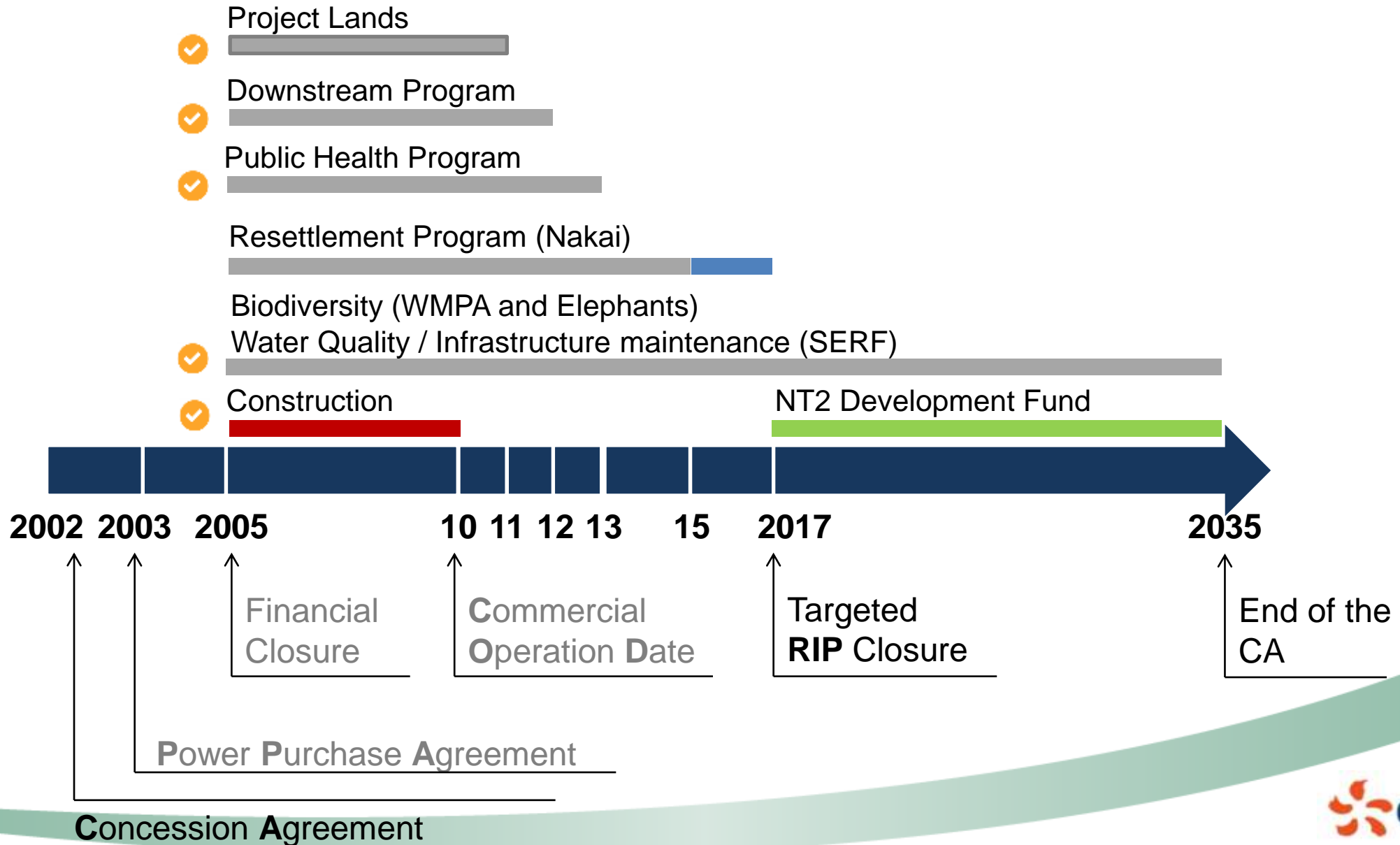
- Unified monitoring body
- Mandatory AM structure



Moving Forward

OUR COMPREHENSIVE ACTION PLAN

Timeline



Moving Forward

- **Joint Working Group**

- Members: GOL (Central Govt -DEB and MAF advisors-, RMU, District), WB, ADB, AFD, NTPC
- Objective: common work to clarify what needs to be done to close the RIP **in accordance with the CA.**

- **Clarification**

- **Clarify the CA** re “sustainability” and hence to **quantify** what sustainable basis is in terms of output/targets.

- **Identification of actions** listed into a Comprehensive Action Plan (CAP)

FIND OUT MORE
<http://www.namtheun2.com>

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