

WORLD WATER DAY

SEA OF THE HYDROPOWER SECTOR IN MYANMAR

Rory Hunter

Nay Pyi Taw, Tuesday 14 March 2017



IFC

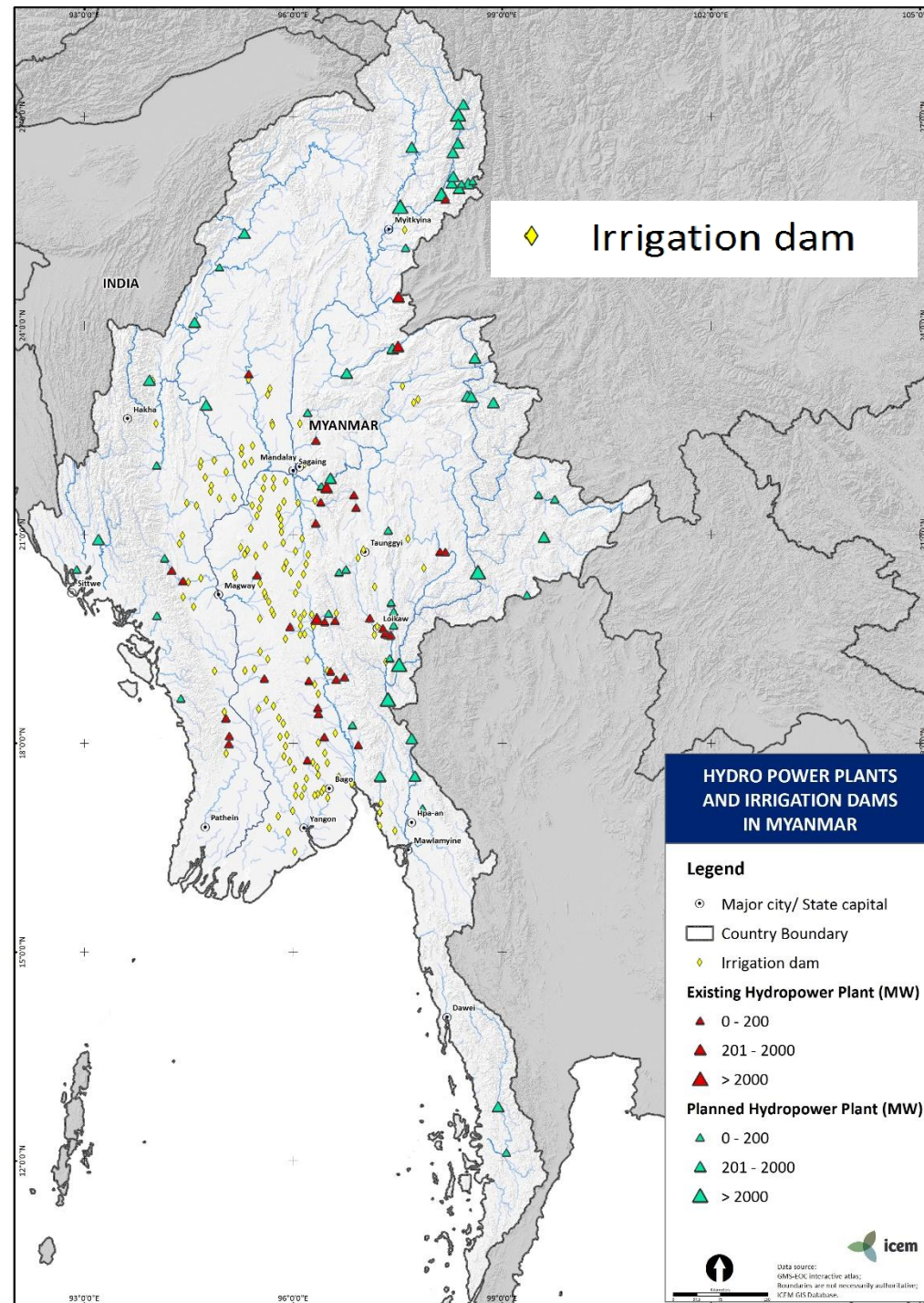
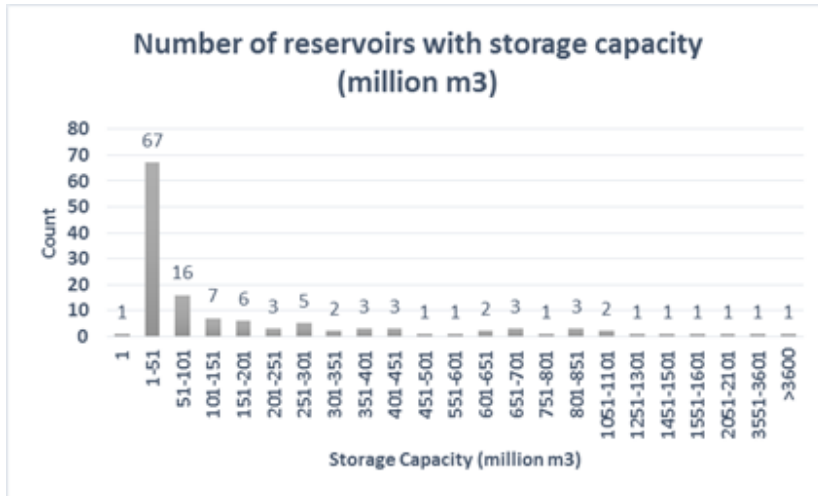
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The current situation

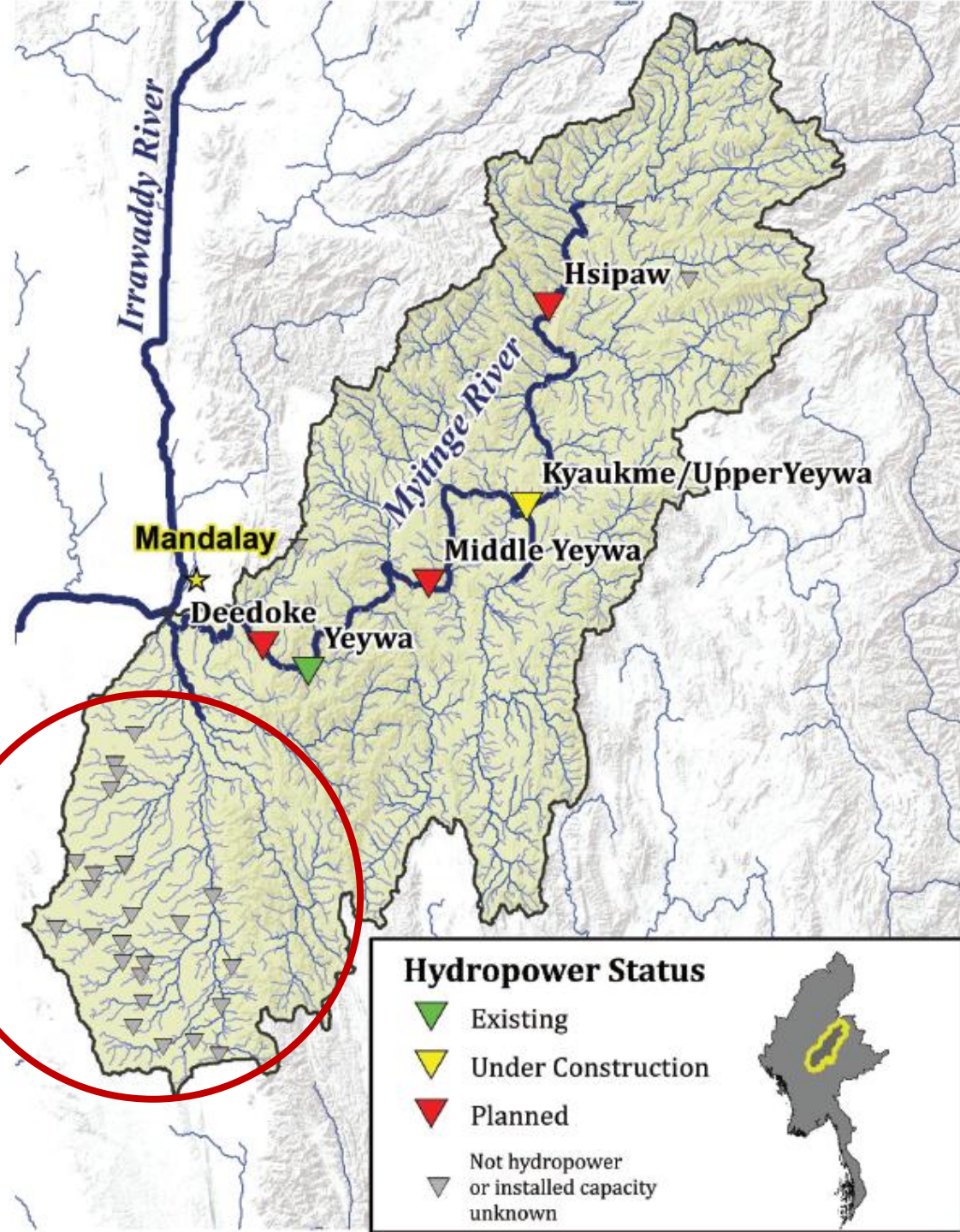
- **84 hydropower dams:**
 - 26 existing,
 - 8 under construction and
 - 50 planned
- **More than 200 existing irrigation dams**

Irrigation reservoir capacity:



Myitnge River basin
5 existing, under
construction and
planned hydro dams

With 24 existing
irrigation dams



THE MYANMAR STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

The SEA goal: to promote consensus on a sustainable hydropower development pathway for Myanmar.

The objectives of this SEA are to:

- 1) define a sustainable development pathway for hydropower in Myanmar over the next 20 years and beyond,
- 2) promote broad consensus on this pathway, based on environmental, social and economic considerations, and
- 3) promote long-term economic development and sustainable use and protection of natural resources and ecosystems.



What this SEA is not:

1. It is not a process to promote hydropower or to recommend projects for development
2. It is not intended to identify which of the planned 50 projects should proceed
3. It is not a detailed environmental impact assessment of individual projects

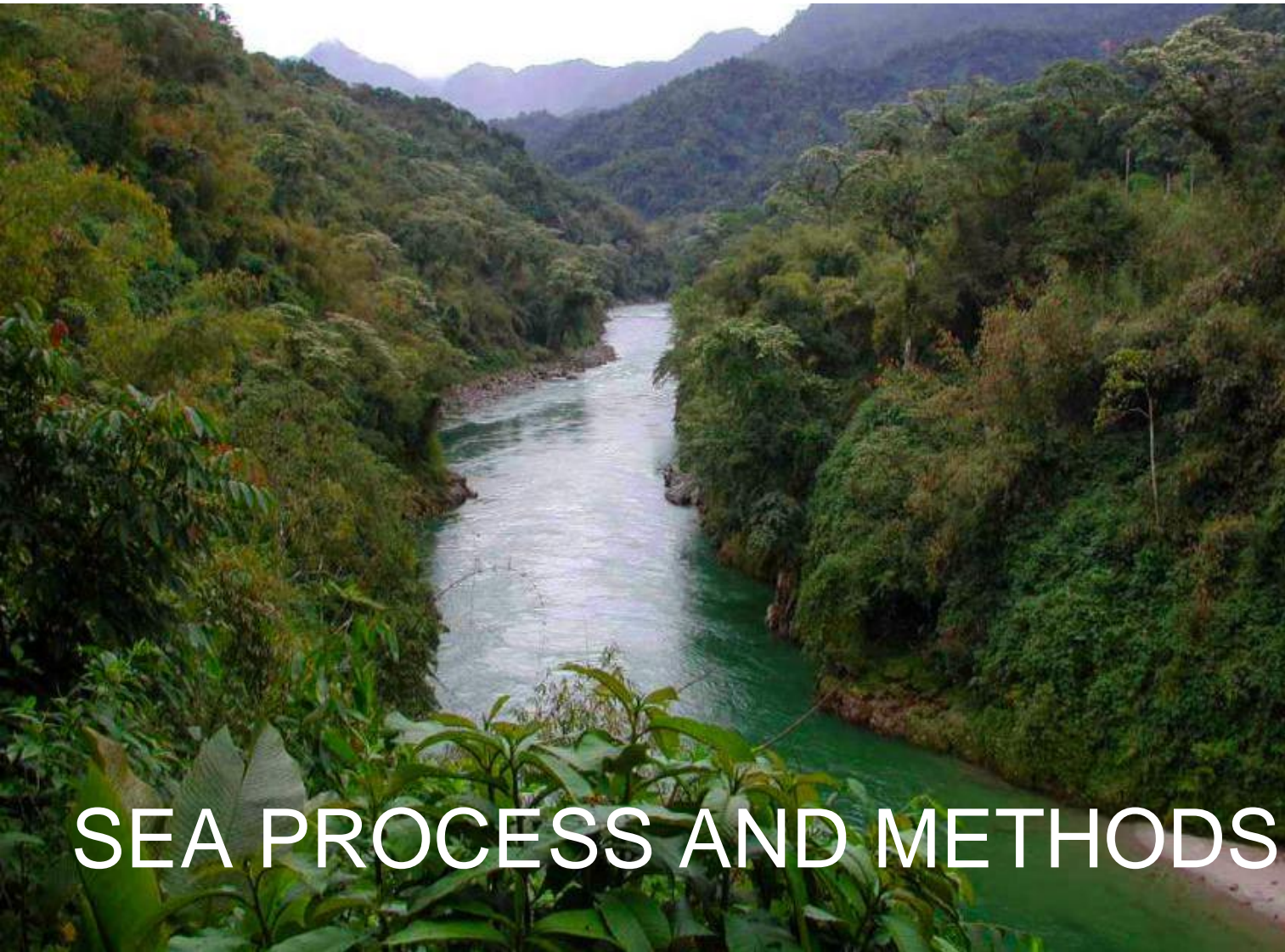
What the SEA will do -

1. **It will help identify those things that Myanmar wishes to keep:**
 - Social, cultural and heritage areas and things of value
 - Biodiversity areas of local, national and international value
 - Ecosystem services of value to the economy and livelihoods
2. It will rate the areas in terms of importance and sensitivity
3. It will define frameworks of safeguards for their protection and maintenance

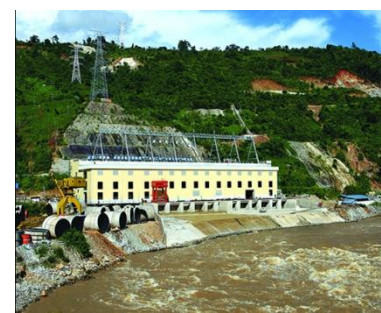
The inspiration for the SEA is:

1. Stakeholder opinion, information, experience and values
2. An expanded science evidence base
3. Expert judgement
4. Advisory groups:
 - Senior Advisory Group
 - Expert technical groups (on key themes)
 - 2 MONREC and 2 MOEE technical advisors

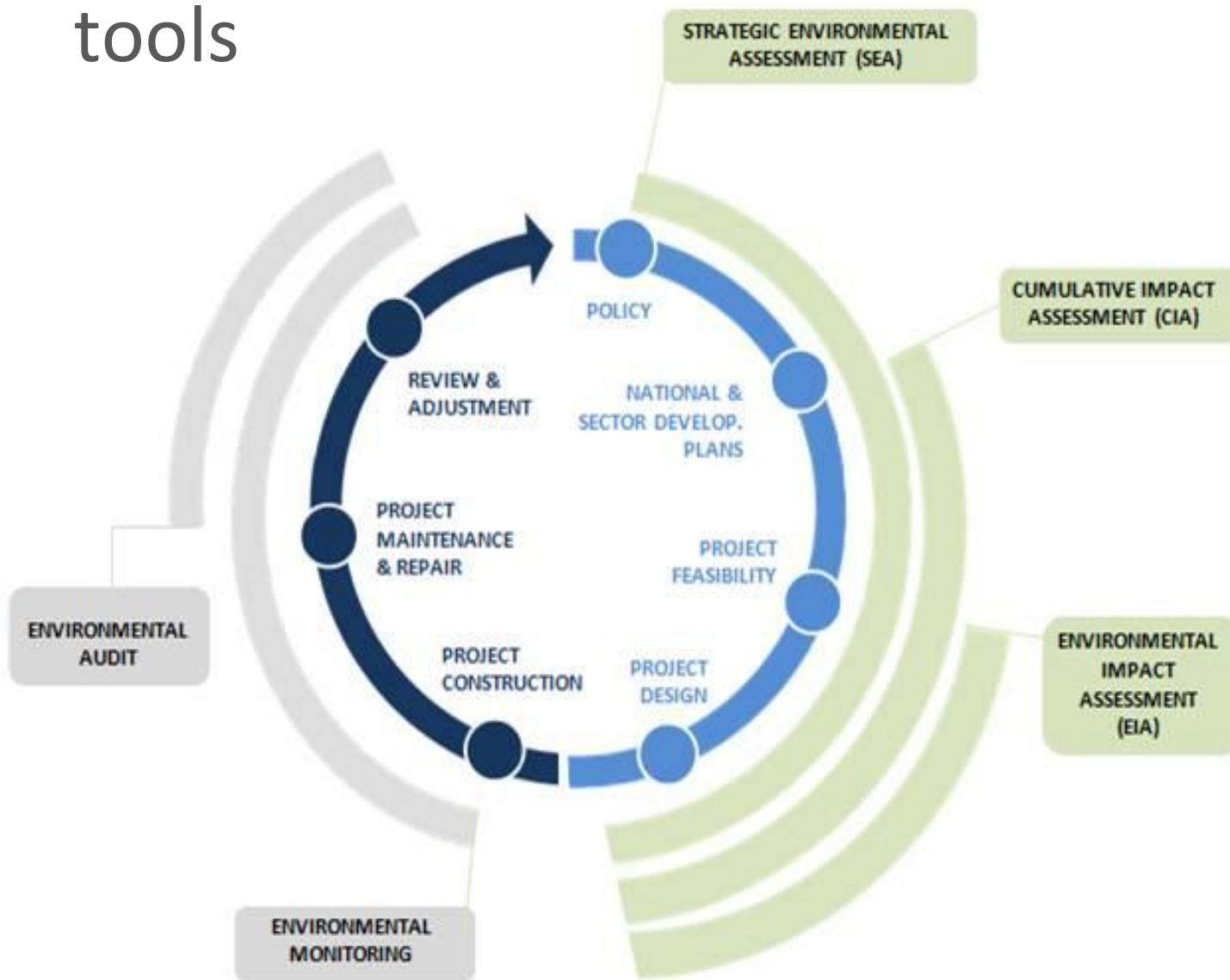




SEA PROCESS AND METHODS



Environmental assessment and monitoring tools



Four main tools for environmental assessment:

- SEA
- EIA
- M&E
- Audit

SEAs can:

- **assess an existing plan** to improve environmental and socio-economic performance in on-going implementation
- **assess a plan which is to be revised** to guide adjustments to its revised form
- **contribute to preparing a new plan** (so that it addresses environmental and socio-economic concerns as the plan takes shape)

This SEA does not address “a plan” but **contributes to the Power System Master Plan** now being prepared



Importance of
stakeholder
involvement



Why stakeholder involvement in SEAs is essential

Major changes are usually involved if the proposed developments are to proceed. **Change** can:

- affect many communities
- affect many development sectors relying on the same resources and areas
- lead to long term gains/benefits
- be irreversible and lead to permanent losses

Need to understand who gains and who loses? – who, where and how?

Uncertainty: Most often dealing with situations of extreme uncertainty

Expert judgments: Decisions need to be made based on:

- the best available information and analysis (often limited and of uncertain reliability)
- the levels of risk (involves values and assumptions about the future)



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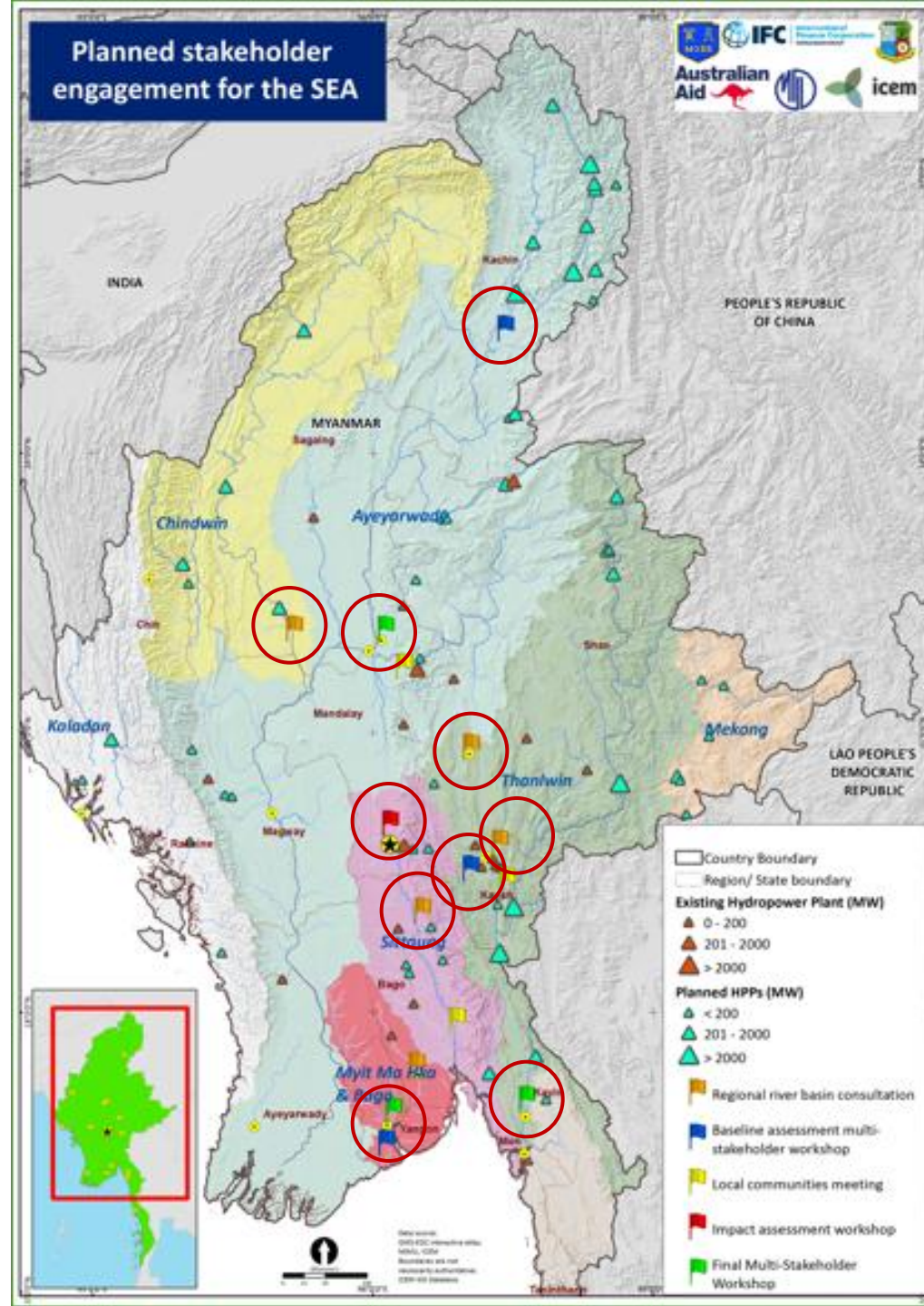
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STAKEHOLDER ENGAGEMENT MAP

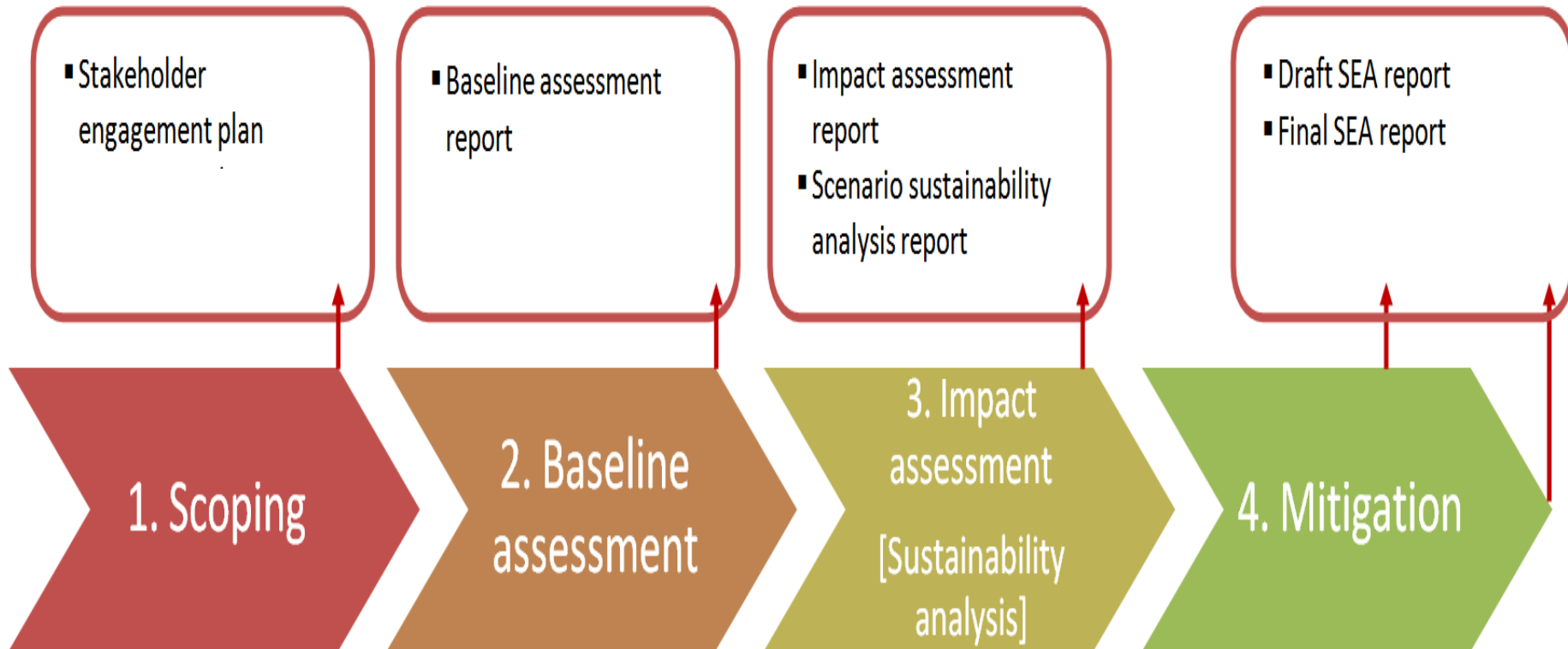
Cover all states/regions affected by existing and future hydropower development





SEA STEPS

Steps in the SEA process



A staged approach – analysis, consultation & documentation at each stage



1. SCOPING

What will the SEA cover?

Screening and scoping compared

Screening

- determines if an SEA should be conducted
- Sets the initial terms of reference

Scoping

- sets the time and space boundaries for the assessment
- begins to identify the key issues to be considered
- reviews and refines the terms of reference

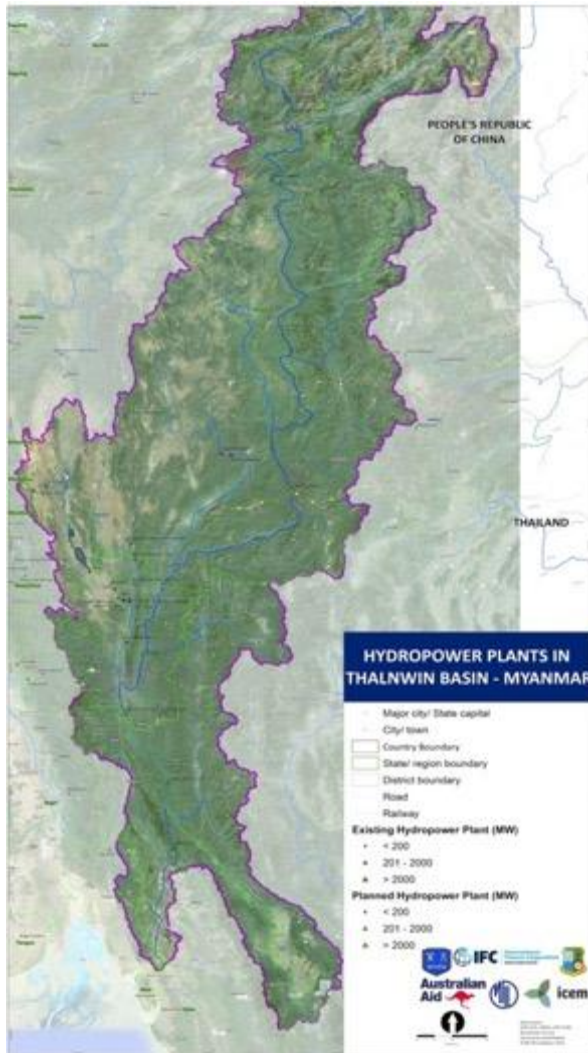
Scoping is a form of priority setting and can continue throughout the SEA process

Regional river basin consultations

As part of the scoping, the team conducted a series of river basin consultations in November and December 2016:

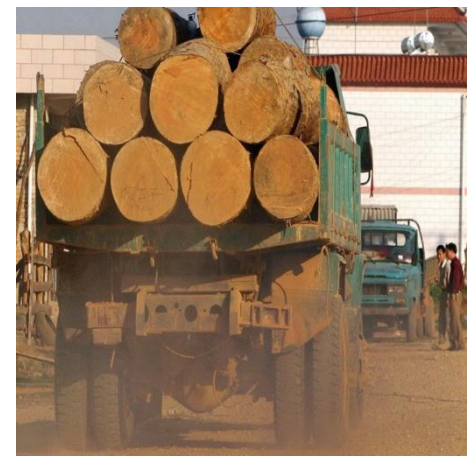
- **Thanlwin:** Taunggyi, Shan State & Loikaw, Kayah State
- **Sittaung:** Bago & Taungoo, Bago Division
- **Chindwin:** Monywa, Sagaing Division
- **Tanintharyi:** Dawei, Tanintharyi region

PARTICIPATORY MAPPING AND ANALYSIS AT THE RIVER BASIN LEVEL





2. BASELINE ASSESSMENT



2. Baseline assessment

...identifies the issues and strategic themes

1. What are the most important issues of concern to the development and use of the target area and resources?
2. How can those issues be categorized into themes and prioritized – ie given strategic focus?
3. What have been **past trends** for each of the key themes/issues?
4. What will **future trends** look like when projected to 2035?
 - Without planned hydropower projects
 - When other trends and drivers are considered

SEA Strategic themes

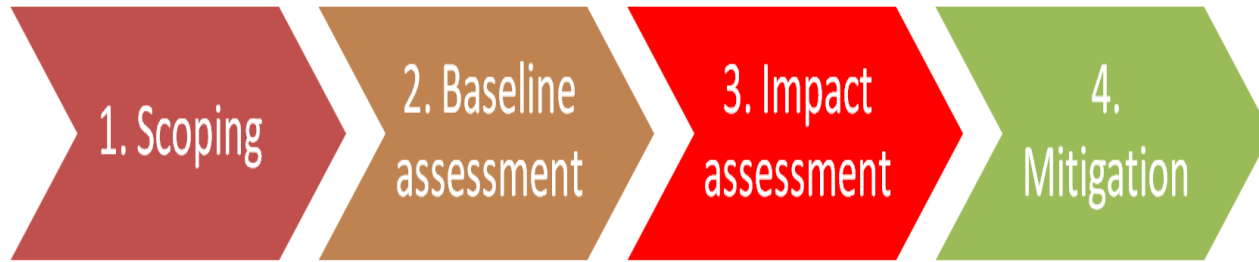
1. Social & livelihoods
2. Conflict
3. Economic development
4. Hydropower
5. Geomorphology and sediment
6. Aquatic ecology and fisheries
7. Biodiversity and environmental quality
8. Climate change



Baseline Assessment Workshop

The team conducted three multi-stakeholder workshops in January and February 2017:

- 1. National Workshop:** Friday, 27 January, 2017 in Yangon
 - 2. Ayeyarwady-Chindwin Workshop:** Tuesday, 31 January, 2017 in Myitkyina, Kachin State
 - 3. Thalwin Workshop:** Friday, February 3, 2017 in Loikaw, Kayah State
- More than 350 participants focussed on identifying key issues and opportunities facing river basin development in Myanmar.



3. IMPACT ASSESSMENT



3. Impact assessment

Impacts – overlay the proposed development plan onto the baseline

1. Will the proposed development plan affect the trends in key issues?
2. Will those affects provide benefits and/or costs?
3. Will those affects enhance or reduce sustainability?

SEAs are a form of sustainability analysis – where economic, social and biophysical trends and effects under different **development scenarios** are considered

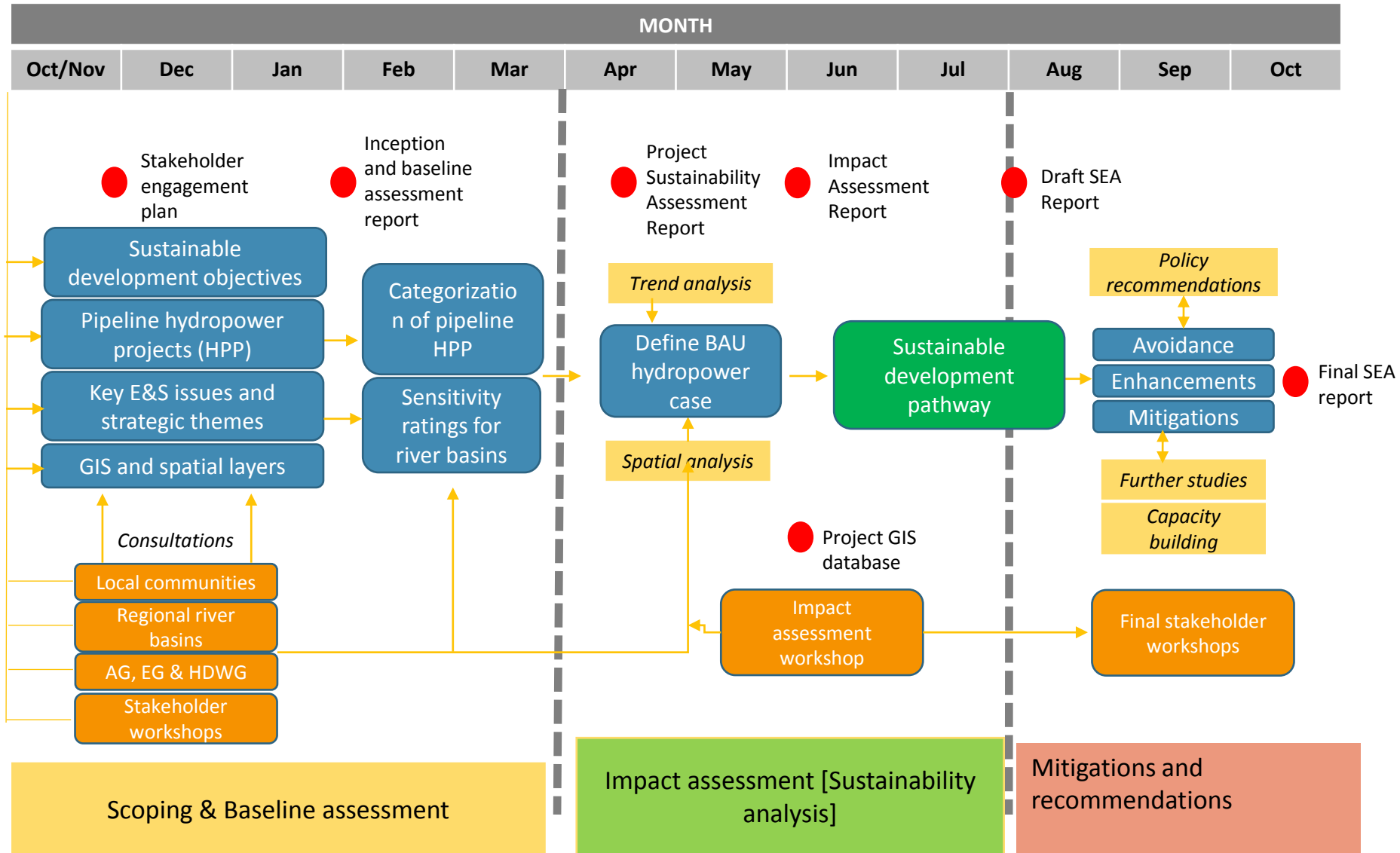


Scenarios in the Myanmar SEA

1. The projected baseline development scenario without the proposed hydropower for next 20 years (2035)
2. The business as usual (BAU) hydropower development case for next 20 years (2035)
3. The sustainable development pathway scenario

Rapid comparative impact assessment of BAU case and sustainable pathway

Snapshot of SEA process





- Engagement with local communities- April 2
- Impact assessment workshop- June 2017
- Final stakeholder workshops- August 2017
- **Communications**
 - Website roadmap
 - Radio
 - Podcasts
 - Newspaper articles
 - Local interpretation

တၢ်ကွဲးပၤလၢ ဟ့ၤဟ့ၣ်ရၤလၢတၢ်ကစီၣ်ကိၤကဲးအဲၤအဲၤတၢ်
ပတံၤထီၣ်အိၣ်ခဲၤကနီၣ်အိၣ်တၢ်က့ၢ် !

တၢ်ထီၣ်ထီၣ်လၢဟ့ၣ်ရၤလၢ တၢ်ကစီၣ်အဲၤတၢ်ဘၣ်ယးဒီး
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ဂၢၢ်သ့ၣ်ကိၤ, ကိၤဝဲပၤယၢ



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95 (1) 654824 မူတၢ် nlin@ifc.org လၢကတၢၢ်ညါအိၣ်တၢ်တၢ်အဲၤတၢ်က့ၢ်
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လၢတၢ်ပုၤသ့ၣ်ညါအိၣ်အဲၤတၢ် : www.ifc.org/hydroadvisory

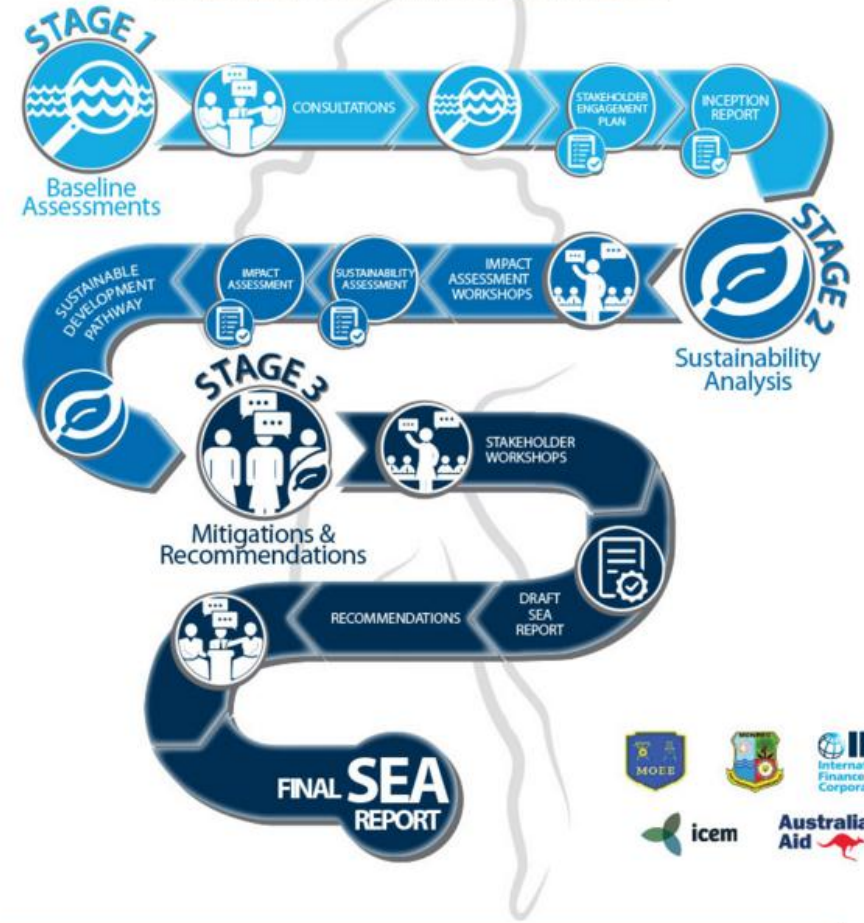




SEA for the Hydropower Sector in Myanmar

[MORE RESOURCES »](#)

ROADMAP TO MYANMAR'S STRATEGIC ENVIRONMENTAL ASSESSMENT FOR THE HYDROPOWER SECTOR



Learn More:

- STAGE 1
- STAGE 2
- STAGE 3



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