

NEED AND SUSTAINABLE DEVELOPMENT OF MYANMAR'S HYDRAULIC INFRASTRUCTURE: ENSURING DAM SAFETY AND PUBLIC ACCEPTANCE THROUGH WATER POLICY

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PRESENTATION BRIEF

- Session number: T3D1
- Name of presenter: Prof. Dr. Khin Ni Ni Thein
- Institution: Myanmar Water Academy (<https://www.myanmarwatersacademy.com>)
- Keyphrases:
 - Myanmar Water Policy; Sustainability; Public Acceptance
 - Dams Safety; Economic Development; Water Circular Economy
 - Water-related Disaster Risk Reduction; Humanitarian Assistance
 - Peace Before, During and After Water-related Disasters; HELP (<https://www.wateranddisaster.org>)
 - Ecocivilisation (<https://www.ecocivilisation.eu>)



Water infrastructure is vital for Myanmar

- Access to Clean Water
- Agricultural Development
- Hydropower Generation
- Flood Control
- Industrial and Economic Growth
- Environmental Conservation
- Climate Change Impacts Reduction



Do the Right Infrastructure!
Do it Right!

Ecocivilisation Year of Water 2023
Water Risk Reduction Webinar
22 Feb 2023, Virtually hosted by Ecocivilisation Secretariat in Slovenia
“HELP Policy Recommendations to Water Risk Reduction and its Flagship Initiatives”



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International Peer Reviewer for River Basin Organizations*

Water and Disaster Risk Reduction: Infrastructure plus Policy Recommendation



HELP High-level Expert and Leaders Panel

<https://www.wateranddisaster.org/>

PEACE before, during and after Water-related Disasters

Rationale of the Principles

Rationale of the Principles

As water is a fundamental source for lives and livelihood of people and a key element of the environment, excess, shortage, and/or pollution of water have been of major concern by leaders, politicians, diplomats, stakeholders, and citizens. Such concern and awareness are heightened particularly when water is in an extreme status. Women, children, and vulnerable populations are particularly at higher risk in emergencies.

- **High-Level Expert Panel on Water and Disaster (HLEP/UNSGAB)**
The High-Level Expert Panel on Water and Disaster (HLEP/UNSGAB) was convened at the request of [the UN Secretary General’s Advisory Board on water and Sanitation \(UNSGAB\)](#) in 2007, under the Presidency of H.E. Dr. Han Seung-soo, Prime Minister of the Republic of Korea and Former President of the Korea Water Forum.
- The HELP included 21 experts in disaster preparedness and response and international issues, and was co-moderated by the World Water Council, the UN Secretariat for the International Strategy for Disaster Reduction (UNISDR), the Japan Water Forum and the Korea Water Forum. More ... <https://www.wateranddisaster.org/who-we-are/>
- The issue of “water and disasters” must be addressed if we hope to make sustainable development a reality.
- The High-level Experts and Leaders Panel on Water and Disasters (HELP) issues principles and flagship initiatives to assist the international community, governments and stakeholders in mobilizing political will and resources, when adopted, principles turn policies.
- HELP promotes actions to raise awareness, ensure coordination and collaboration, establish common goals and targets, monitor progress, and take effective measures aimed at addressing the issues of water and disasters.
- **This presentation is a proof of Action in Cross-pollination among HELP, Ecocivilisation, and wider international Community.**



Myanmar National Water Policy (2015) Highlights

Water Security

- **The objective** of the National Water Policy is to take cognizance of the existing situation, to propose a framework for creation of a system of laws and institutions and for a plan of action with a unified national perspective including the Myanmar National Water Framework Directive.
- **Article 4.4** In the water rich northern, north western and north eastern regions of Myanmar, the water use infrastructure is weak and needs to be strengthened in the interest of food security. In the Ayeyarwady Delta, the different kind of water-infrastructure may also need and most importantly, navigability of the mighty Ayeyarwady River to develop its potential to become a world class water highway may contribute significantly to the country's economy in sustainable way.

Sustainability

- **Article 17.2** The State Water Policies may need to be drafted, and time to time revised, in accordance with the National Water Policy keeping in mind the basic concerns and principles as also a unified national perspective.
- **Article 17.3** Every implementation should be executed with the spirit that every citizen has a right to national water and long term sustainability of Myanmar National Water(s) should be considered with appropriate safeguards and measures.

Inventory of existing Dams before building anew: Dams safety project?

Article 5.6 During some studies on the existing dams under the Irrigation Department (ID), irregular performances of many reservoirs influenced by impending climate change were observed yielding huge volume of water to the waste. Up to now, more than hundred of reservoirs have been constructed at the cost of thousands of billion kyats from the public fund. Upgrading of the existing reservoirs after rigorous studies would optimize the water use for apprehending more irrigated lands to enhance the livelihood of the grassroots level farmers and to meet the nation's goal of poverty alleviation. (Myanmar National Water Policy, 2015)



Hydropower Dams: A Path to Sustainable Development

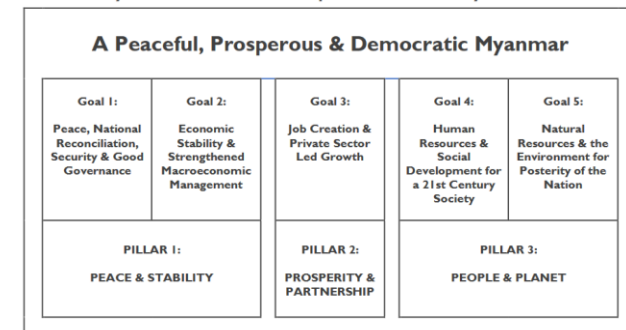
Potential with To Do List

- Hydropower Dams = Sustainable and renewable Energy Source
- The hydropower potential is estimated to be more than 100,000 megawatts (MW) in terms of installed capacity. (ADB, Dec 2016)
- Myanmar has identified 92 large hydropower potential projects with a total installed capacity of 46,000 MW, while the current installed capacity of hydropower plants is 3,033 MW. (ADB, Dec 2016)

How to build Sustainably and Peacefully!

- Generation Mix has been proposed
- Carefully observe/ abide by the International Hydropower Protocol for Sustainable Development (<https://www.hydropower.org>)
- Build large, medium, micro- and mini-hydro energy across the country where necessary! (including multi-purpose dams)
- Abide by Myanmar Sustainable Development Plan (MSDP) 2018-2030

Box 1: The Myanmar Sustainable Development Plan Summary Framework



Micro- and Mini-hydro Energy

- A total of 26 micro-hydro and 9 mini-hydro projects have been implemented with installed capacity ranging from 24 kilowatts (kW) to 5,000 kW to reach remote border areas. (ADB, Dec 2016)
- An additional five micro-hydropower projects are planned for eastern Shan State (3), Kachin State (1), and northeastern Shan State (1). (ADB, Dec 2016)
- A study by the Ministry of Electricity and Energy (MOEE) concluded that there are as many as 210 potential sites of small- and medium-size hydropower projects, each of which have a capacity of less than 10 MW, for a total potential installed capacity of approximately 230 MW. The regional government is permitted to approve small-scale hydro plants (up to 30 MW according to the new Electricity Law [2014]). Through this strategy, small-scale hydropower plants of approximately 40 MW will be developed until 2030. (ADB, Dec 2016)
- The socio-economic and political situations changed after 2021 and future planning must be based on the long-term forecast.



About the MSDP: -

The MSDP is structured around 3 Pillars, 5 Goals, 28 Strategies and 251 Action Plans. All are firmly aligned with the SDGs, the 12 Point Economic Policy of the Union of Myanmar, and various regional commitments which Myanmar has made as part of the Greater Mekong Subregion (GMS) Strategic Framework, the ASEAN Economic Community (AEC) and many others. (MSDP 2018-2030)

To ensure a sustainable water and hydropower supply for the projected future of Myanmar's sustainable development is a must, if we were to meet the criteria for graduating from the Least Developed Country (LDC) status, following the footsteps of Bangladesh, Laos PDR, and Nepal in the upcoming 2027 United Nations General Assembly resolution.



References

- Myanmar National Water Policy (2015) (<https://faolex.fao.org/docs/pdf/mya201049.pdf>)
- Myanmar Energy Sector Assessment, Strategy and Road Map, ADB publication Dec 2016 (<https://www.adb.org/sites/default/files/institutional-document/218286/mya-energy-sector-assessment.pdf>)
- Myanmar Sustainable Development Plan (2018-2030) (https://themimu.info/sites/themimu.info/files/documents/Core_Doc_Myanmar_Sustainable_Development_Plan_2018_-_2030_Aug2018.pdf)
- The International Hydropower Protocol for Sustainable Development (<https://www.hydropower.org>)





We are Water!
We are Peace!
We are Water for Peace!

THANK YOU

