



# ***National Status Report of Myanmar***

## ***IFI Related Activities in Myanmar***

**MYANMAR Delegation**

# ***Institutional Activities for Floods in Myanmar***

## **DMH**

- ❖ Flood Forecasting/ Early Warning System
- ❖ Flood Inundation / Hazard Mapping

## **DWIR**

- DWIR normally do channel surveys in most of rivers and streams in Myanmar
- River cross-sections which is very important for modeling
- DWIR dredge out (channel cleaning) to reduce flood
- River bend cutting to reduce flood
- Channel cleaning by dredging (to reduce flash flood)

## **IWUMD**

Flood protection works are carried out in the Ayeyarwaddy Delta, Bago River and Sittaung River.

Flood Modeling for Bago River Basin was developed with the technical supports of ICHARM

Auto Weather Stations and Water Level Gauge Station with Telemetry Systems were established in the Bago River Basin (IWUMD, U Tokyo & YTU)

# ***Projects Activities for Floods in Myanmar***

## **❖ ADB TA 8456 – Transformation of Urban Management – Part II Flood Management (2014-2016)**

- ICHARM, PWRI, CTI and Relevant Departments cooperate flood in Myanmar
- Cooperate for Flood Hazard Mapping and Flood Disaster Risk Assessment and Damage Assessment

## **❖ JICA/JST SATREPS Project: Development of a Comprehensive Disaster Resilience System and Collaboration Platform in Myanmar (5 years officially starting from fy 2015)**

- UTokyo, Hokkaido Univ., Tohoku Univ., Keio Univ. and Myanmar Relevant Univ./Depts. )
- Development of Flood Early Warning System, River Basin Development Plan and Capacity Building

# ***IFI Activities in Myanmar***

- Myanmar participated the Implementation Planning Workshop on International Flood Initiative (IFI) in Asia-Pacific (10<sup>th</sup> January 2017 , Japan)

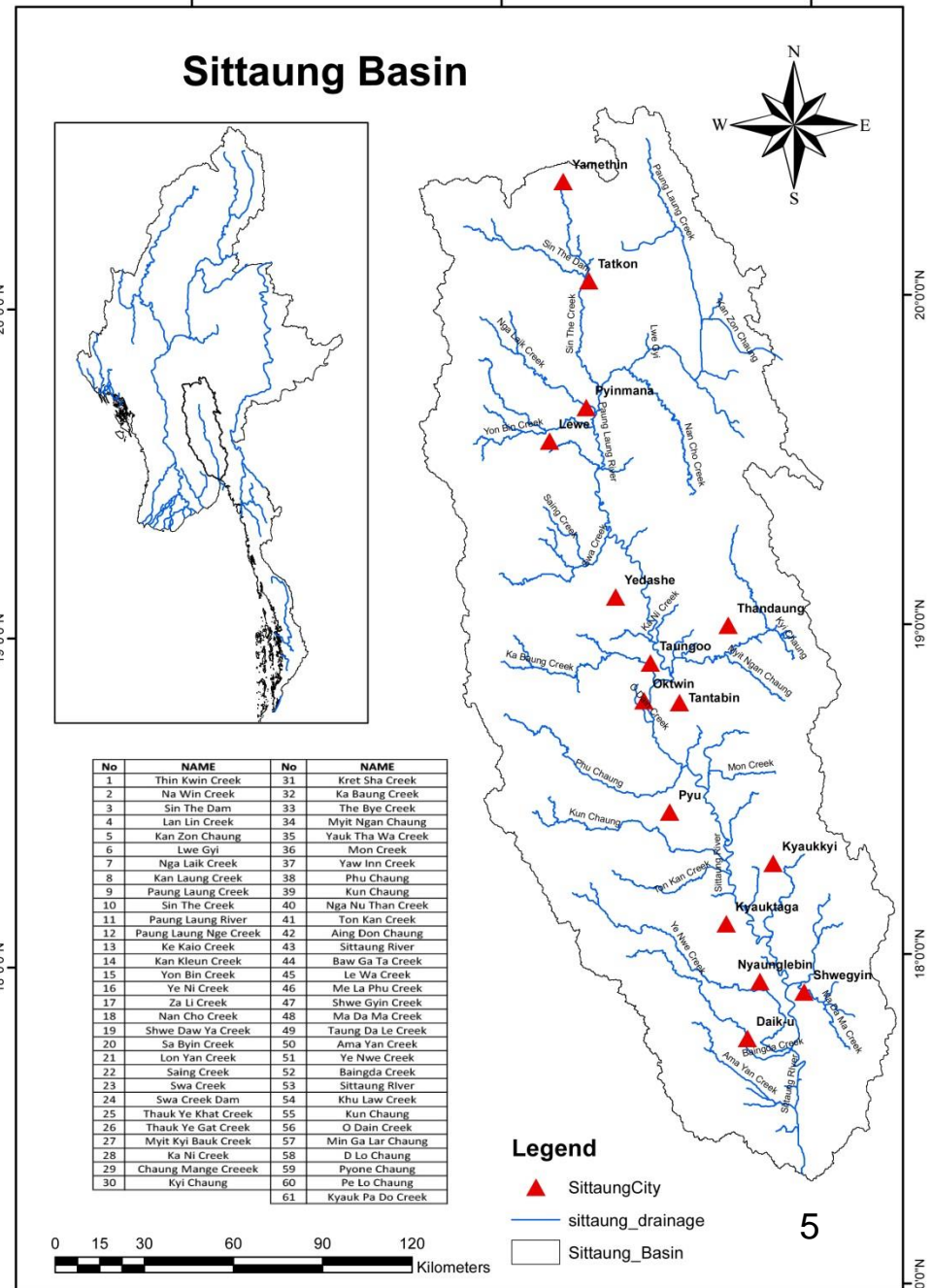
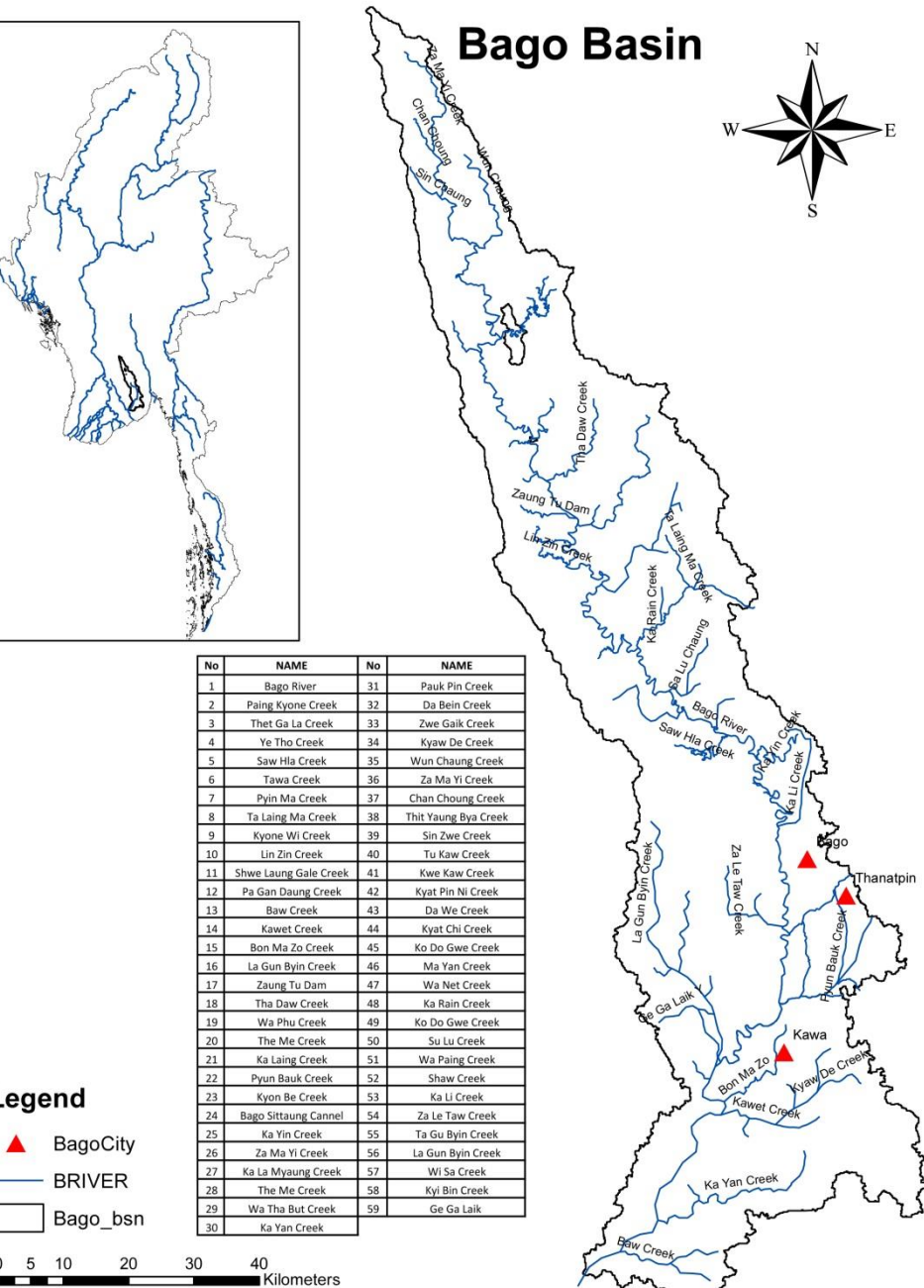
❖ 1<sup>st</sup> High Level Consulting Meeting on IFI Coordination in Myanmar (9<sup>th</sup> May 2017, at Naypyitaw, Myanmar)

❖ To hold 2<sup>nd</sup> High Level Consulting Meeting on IFI Coordination in Myanmar (1<sup>st</sup> November 2017, Naypyitaw, Myanmar)

## ***Meeting Achievement (1<sup>st</sup> Meeting)***

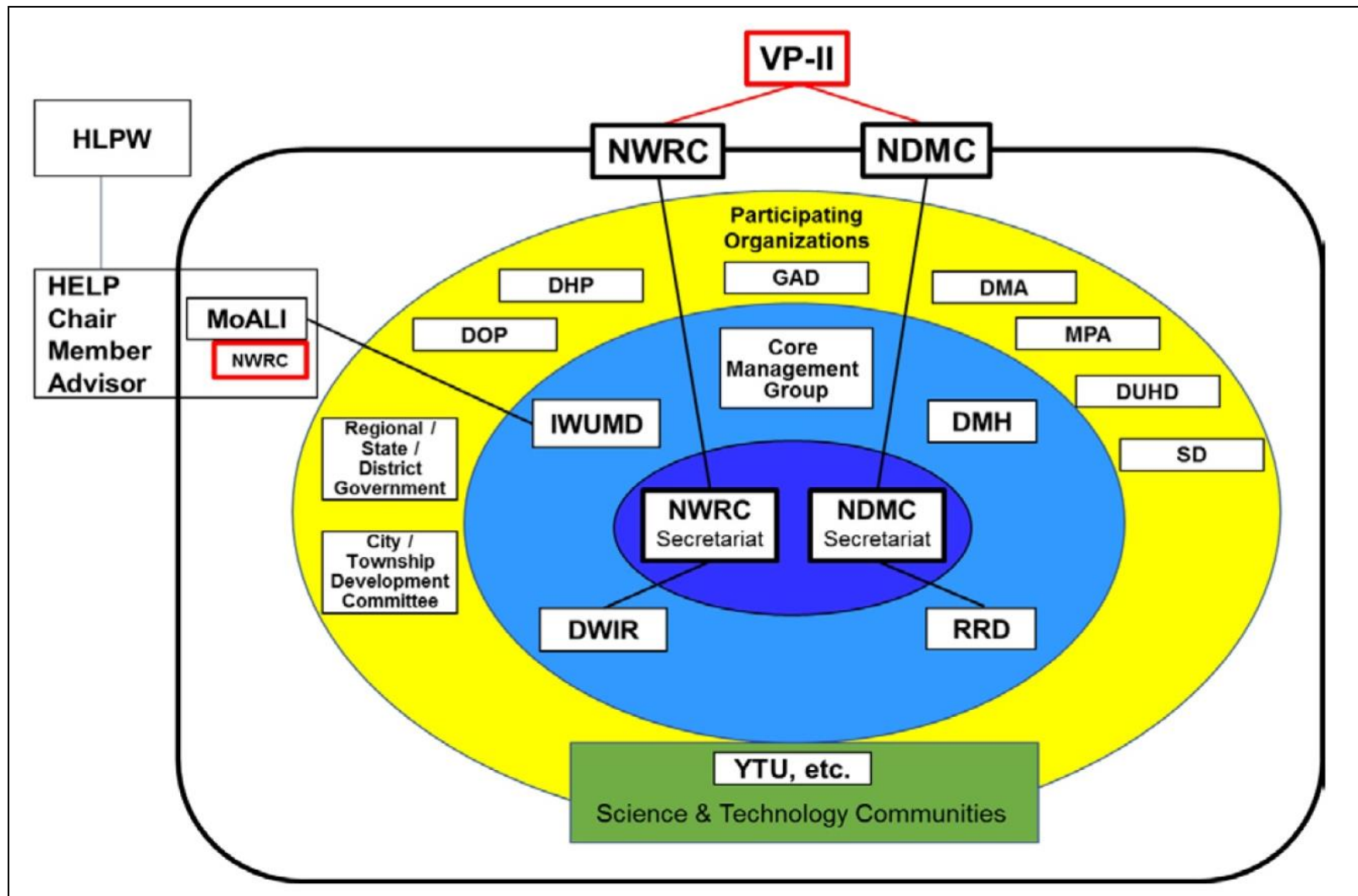
- Basic Institutional Structure
- Target Basins : Bago River, Sittoung River
- Target Region: Bago
- Data: (a) Clearly Described Data Policy  
(b) Data List
- Tools and Models

# Location of Bago and Sittaung river Basin



# Outcomes of 1<sup>st</sup> High Level Meeting on IFI Coordination in Myanmar

## Institutional Structure



# ***Outcomes of 1<sup>st</sup> High Level Meeting on IFI Coordination in Myanmar***

## **Other Noted Points**

- Further discussions on technical details should be followed after the confirmation of the institutional structure and the role of each organization.
- Participating organizations will be identified after the decision of target basins and contents of activities for the demonstration by the national platform.



# ***Outcomes of 1<sup>st</sup> High Level Meeting on IFI Coordination in Myanmar***

## **Next Actions**

- Formulate a data policy under the initiative of the four leading organizations (DWIR, DMH, RRD, IWUMD) responsible for data collection and management as the Core Management Group.
- Prepare a list of data that are necessary for Integrated Risk Assessment.
- Identify organizations (national and international organizations) that collect and manage data in the list.
- Identify tools/ models to be used for Integrated Risks Assessment with support from the international science and technology communities.



# ***Current Issues and Problems***

- Weak in cooperation between the relevant Depts./ Orgs.
- Weak in Data management system of the relevant Depts./ Orgs
- Need to establish Integrated Data management system for IFI Myanmar
- Capacity Building (for flood Forecasting , Flood Hazard Mapping and Flood Risk Assessment Techniques)
- Need to upgrade the advance, effective and more accurate flood forecasting Techniques
- Need to upgrade Flood Inundation/Hazard Mapping and Flood Risk Assessment Techniques (software, high resolution DEM and satellite images, techniques)
- Need technical assistance in usage of Satellite Rainfall Data (GsMap and TRMM)

# ***Current Issues and Problems***

In Myanmar

## **Physical**

1. Deforestation and mining processes causes sedimentation and bed level rises in the streams and river
2. Rainfall pattern changes due to climate change,
3. River flow in the alluvial soil and so, it meandering, braided and reduce velocity,
4. Small longitudinal bed slopes in most rivers
5. Rainwater storage infrastructures requirements in the basin,

## **Data**

1. DMH measures water level and discharge of most of rivers in Myanmar
2. Topographic data (good resolution DEM) is lacking for Hydraulic modeling
3. Focal agency for flood management is missing (Combining if flood occur)
4. GAD organizes flood management committee if flooded
5. Needs future strategy for flood reduction

## What should we do for flood reduction in Myanmar

1. Assign to exact department (committee) for flood management (technically strong, full financial supports, full responsibilities and authority)
2. Collect / store data in the data server from the relevant departments
3. Procure the good resolution DEM for the whole country
4. Train the people (staffs) in the modeling (software) for flood forecasting, hazard mapping, ---, etc.
5. Install the required data monitoring stations along the rivers and streams
6. Survey the discharge and water level from all streams and rivers
7. Need coordination and share the data information between agencies related with floods
8. Invest in the flood reduction measures (non structural and structural)
9. Draw the strategies for flood mitigation

# *Expectation from IFI*

- Good cooperation **and collaboration** between the relevant Depts./ Orgs in Myanmar
- Developing in Data management system of the relevant Depts./ Orgs
- To cooperate with the IFI Partners
- Establishing Integrated Data management system for IFI Myanmar
- Capacity Building (**Model usages in** flood Forecasting , Flood Hazard Mapping and Flood Risk Assessment Techniques)
- Upgrading the advance, effective and more accurate flood forecasting Techniques
- Upgrading Flood Inundation/ Hazard Mapping and Flood Risk Assessment Techniques (including software, high resolution DEM and satellite images, techniques)
- Technical Supports in usage of satellite rainfall data for flood modeling and in hydrological analyses for Dam Safety (such as Dam Break Analyses with PMP and PMF)

# ***Expectation from IFI***

1. Experiences and knowledge sharing from Japan and other countries
2. Exact plans / activities will be prepared,
3. Classify the duties / responsibilities of each department for implementation
4. Pilot area is already selected, data collection and other arrangements
5. IFI Guidelines
6. How to implement? Frequency of meeting?

# CONCLUSION

*Myanmar will cooperate with the IFI Partners for Flood management activities*

**Thank you for your kind attention!**