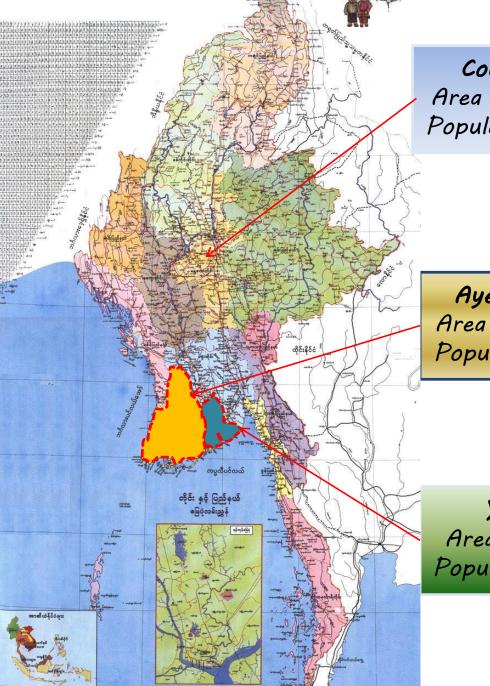
## DELTA Interventions in Ayeyarwady Delta

*Country Myanmar* Area : 676,577 *Sq*-Km Population : 51,419,420

Ayeyarwady Region Area : 35,032 Sq-Km Population : 6,175,123

**Yangon Region** Area : 10,170 Sq-Km Population : 7,355,075





#### **Upper Delta**

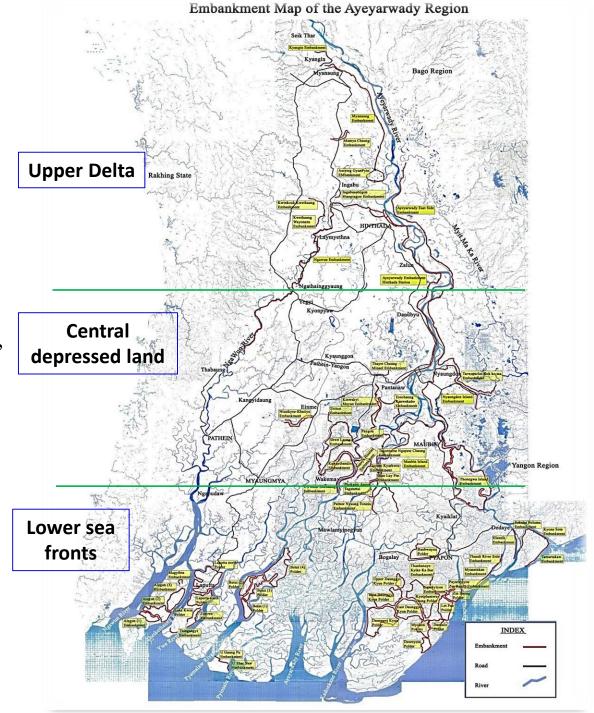
8 - 17 m above MSL
Ayeyarwady distributary
danger of riverine floods,
Dykes are very important
moderate rainfall

#### Middle Delta

#4 - 6 m above MSL
# riverine and localized floods,
# fresh water, tidal affected,
# Agriculture, fishing industry

#### **Lower Delta**

- ✤Low lying area 1.5 2.5 m
- Sea Water Intrusion
- High Rainfall
- Polders, coastal dikes and sluices established
- Scarcity of fresh waterDisaster prone



## **Important Issues**

- Salinity Intrusion
- Lack of Infrastructure and asset management
- Mangroves and delta degradation
- Adverse water and environmental quality
- Public health
- Flooding and lack of drainage
- Livelihood limitations
- Lack of knowledge and innovation



## Opportunities

- Some of the processes, especially *legislation and policy frameworks, cannot be initiated* by the community alone and require the government's *initiative and intervention*
- Close involvement of Myanmar authorities on all relevant government levels and of all relevant stakeholders
- Use a step wise approach and new methods for stakeholder involvement need to be used
- By using a *mutual gains approach and visualization methods* to promote understanding of the situation and to promote productive discussions
- Capacity building needs to be included to promote a real transition towards an integrated and adaptive approach for the Ayeyarwady Delta area
- To provide capacity building through "*learning by doing*"



### Lesson Learnt & Best Practices

- weakness in management
- insufficient training to officials and local people
- allowing the voluntary group to real implementation without going under training
- annual riverine floods help clean the farm lands and replenish the ground with nutrients
- overflowing rivers are welcoming events as they facilitate the fish spawning process
- Functioning of Retarding basins
- Strengthening of Flood protection dykes and River banks
- Enhancing Polder system
- Improving Navigability



## How did the countries develop their Delta?

#### Flood Resilience Delta

- Flood protection works
- Flood fighting practice

#### Food Secure Delta

- Polder system for agriculture development
- Irrigation and drainage

#### Climate Resilience Delta

- After Nargis Cyclone, evacuation of local people - cyclone shelters, drinking water ponds and storm shelter embankment (Hillock) were built
- Early warning system
- Awareness raising for local people
- Myanmar Action Plan on Disaster Risk Reduction (MAPDRR)







#### • \*\*\*\* • Early Warning



#### Color Code used for Storm Warning Cyclonic Storm Event

- Yellow Cyclonic storm forms in the Bay of Bengal
- Orange Cyclonic storm is approaching Myanmar Coast
- Red Cyclonic storm is going to cross Myanmar Coast within 12 hours
- Brown Cyclonic storm is crossing Myanmar Coast
- Green The remnant of Cyclonic Storm is dissipated



#### Drainage channel



Myanmar Action Plan on Disaster Risk Reduction (MAPDRR) 2009-2015



Ministry of Social Welfare, Relief and Resettlem Relief and Resettlement Department

## Implemented / Implementing Delta Projects in Ayeyarwady Delta

Development of Integrated Ayeyarwady Delta Strategy
 Implemented with grant aid provided by Dutch Government
 Follow up Phase will be expected in the coming period



#### Adoption of Adaptive Delta Management

With regard to this, the ADM is outlined in the Integrated Ayeyarwady Delta Strategy and to be followed in the real implementation

 Establishment of Integrated Agriculture and Irrigation Development Master Plan (EIAIDMP) for Ayeyarwady Delta

Being implementing with grant aid provided by KOICA with 3 years project period and main concerned sector is Agriculture, Livestock and Irrigation

Project for Irrigation Development of major grains producing areas in the Ayeyarwady Delta

Being implementing for feasibility study with technical and financial assistance provided by Chinese government through Lancang-Mekong Water Cooperation Center

# Thank you for your attention