Seminar on Resilient Urban Delta Development

“Enhancing Water Security in the Urbanizing Ayeyarwady Delta Region”

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Mandates of IWUMD

- IWUMD is a *governmental organization* under the Ministry of Agriculture, Livestock and Irrigation (MOALI)
- IWUMD is *reorganized by the former two departments*, Irrigation Department and Water Resources Utilization Department in 2016
- IWUMD *Main responsibilities*
  - sustainable operation and maintenance of (Irrigation) *water management*
  - operation and maintenance of *flood protection* embankments and polder system all over the country
  - operates, maintains and manages 581 *irrigation facilities* and 479 *flood protection and drainage facilities* in the country
  - actively engaged in *water development planning* and the furtherance of irrigation for *food security*
Strategies for Obtaining Sufficient Water for Cultivation by IWUMD

- The *construction* of new dams and reservoirs
- The proper *management* for storage and utilization of runoff water from watershed areas
- The *renovation* of existing reservoirs for raising storage capacity and efficient delivery of irrigation water
- The *diversion and storage* of water from rivers and streams during high water level into adjacent ponds or depressions for storage with sluice gates
- The provision of water from rivers and streams through *pump-lift irrigation*
- The efficient utilization of *ground water resources*
Development Strategy and Plans for Ayeyarwady Delta

- To increase agriculture products in quantity as well as quality
- To raise and generate the livelihood and well being of the local people
- To establish the climate resilient delta community
- Putting into practice the sound ecosystem management
- Adopting to follow Adaptive Delta Management aiming to achieve the Sustainable Development Goals
Plans and Projects in Ayeyarwady Delta

- **National**
  - Greening Plan of Yangon Region (eastern side) 30 miles perimeter

- **International**
  - Pan Hlaing River Integrated Development Project (Netherlands)
  - Development of Integrated Ayeyarwady Delta Strategy (Netherlands)
  - Yangon South Polder IWRM Development Project (Netherlands)
  - Nyaung Done Infrastructure Flood Protection Project (Netherlands)
  - Establishment of Integrated Agriculture and Irrigation Development Master Plan in Ayeyarwady Delta (KOICA)
  - Irrigation Development Plan of Major Grains Producing Areas in Myanmar (China)
Greening Plan of Yangon Region (eastern side)
30 miles perimeter
Total length of PanHlaing River to be rehabilitated (re-excavated): 54.7 km
Yangon South Polder IWRM Development Project
Water Security Risks and Challenges

• Too much water – various types of flooding
• Too little water – water scarcity even for drinking water
• Seasonal fluctuation in water quantity and quality – surface water as well as ground water
• Inadequate water supply and sanitation
• Climate change impacts
• Ecosystem degradation and pollution
Knowledge Gaps

• Insufficient spatial planning

• Insufficient monitoring of base line data and information for planning

• Weakness and limitation in application of modern techniques such as modelling and simulation techniques

• Weakness and limitation in application of modern laboratory equipment and techniques

• Lack of effective decision support system

• Weakness in cooperation and collaboration mechanism among concerned organizations
To close the Knowledge Gaps

• Professional education, institutional capacity, academic capacity and network linkages are needed to promote

• Better to follow the Learning by doing approach

• Tailored made training for capacity building

• Leap frogging data collection to collect baseline data as Netherlands start doing it

• Government, public, private and NGOs are needed to collaborate in integrated approach and find out optimum solutions for the problem

• Cooperation with International Partners
Thank you for your attention