

# **NATIONAL REPORT ON IHP RELATED ACTIVITIES**

## **MYANMAR**

### **1. ACTIVITIES UNDERTAKEN IN THE PERIOD**

**November 2015 – October 2016**

#### **Status of IHP- VIII Activities**

- Monitoring Water Quality of Rivers in Myanmar
- Monitoring the changes of Water resources in Myanmar
- Monitoring the low flow characteristics
- Assessment of the climate change impact on the flood events
- Developing the flood hazard map in order to reduce loss of lives and properties due to flood disaster
- Implementing the hydrological disaster risk management activities by using GIS and Remote Sensing Technologies

**1.2.1 National/local scientific and technical meetings**

-Workshop for Policy Dialogue on the new Climate Change Projections for Myanmar organized by DMH, MCCAlliance and RIMES was held on 13. 6. 2016 at NayPyiTaw.

- Stakeholders Workshop to Implement a Pilot Project on Impact-based Forecasting and Risk-based Warnings was held at NayPyiTaw on 28. 9. 2016 to 30. 9. 2016.

**Collaboration with other national and international organizations and / or programs**

Myanmar is the member country of EANET (Acid Deposition Monitoring Network in East Asia) since 2005. So Myanmar collaborates with EANET's activities.

Myanmar is collaborating with ADPC and RIMES(Regional Integrated Multi-Hazard Warning System for Africa and Asia) in Hydrometeorology, Seismology and Climate Change sectors.

Training on ADB TM4: RRI Model was held at NayPyiTaw on 25<sup>th</sup>-28<sup>th</sup>, January, 2016 organized by ADB , ICHAM, CTI & DMH.

Follow-up Training on RRI Model and Storm Surge Model and Training on Flood Disaster Risk Assessment organized by DMH, Asian Development Bank (ADB), ICHARM and UNESCO was held on 30th, March, 2016 to 6, April, 2016 at NayPyiTaw.

Training on Flood Disaster Risk Assessment and Follow up Training on RRI Model was held on 30<sup>th</sup>, March, 2016 to 6<sup>th</sup>, April, 2016 at NayPyiTaw.

“Donor Coordination Conference: Improving the delivery of Weather, Climate and Hydrological Services in Myanmar” was held on 1<sup>st</sup>, January, 2016 to 2<sup>nd</sup>, January, 2016 at NayPyiTaw.

Training Workshop on Hydraulic Modeling Using HEC-RAS with HEC-GeoRAS and ArcGIS for Flood Inundation Mapping organized by DMH and ADPC was held on 30<sup>th</sup>, May, 2016 to 2<sup>nd</sup>, June, 2016 at NayPyiTaw.

DMH is participating in Ayeyarwady Integrated River Basin Management Project organized by World Bank.

#### **Other Initiatives**

- Developing the Flood Hazard Map for and Katha and Kalewa .

- Five Hydrometry Monitoring Systems were installed Phaan, Taungoo, Hinthada, Pegu and Shwekyin stations along major rivers in Lower Myanmar area in 2014 and 2015. Some stations will be installed Hydrometry Monitoring Syatems in 2016 and 2017.

### **1.3 Educational and Training Courses**

#### 1. Contribution to IHP courses

- Training on Hydrological Grate I was held in October, 2016 at Yangon.
- Training on Hydrological Grate II is preparing to open in November, 2016 in Mandalay.
- Training on RS and GIS Basic Course has been held from 5<sup>th</sup> to 9<sup>th</sup> in October, 2015 in NayPyiTaw.

### **1.5 Participation in International Scientific Meeting**

#### 1.5.1 Meeting hosted by the country

- Monsoon Forum was held in May 2016 at Nay Pyi Taw, Myanmar. This meeting was organized by RIMES and DMH. Regional
- level Monsoon Forums were held in Ayeyarwady, Mandalay Regions and Taunggyi township.
- Training of Hydraulic Modeling using HEC-RAS with HEC-GeoRAS and ArcGIS to produce flood hazard maps for Lower Chindwin basin. It was implemented with technical assistance of ADPC (Asian Disaster Preparedness Center)
- Final meeting of the ADB on TA 8456 Part II (Flood Management in Myanmar) organized by DMH, ADB and ICARM will be held on 18<sup>th</sup>, October, 2016 at NayPyiTaw

### 1.5.2 Participation in meetings abroad

The Secretary of MNC-IHP is a Permanent Representative of WMO and so she has contact and coordinate with WMO's activities.

- United Nations Climate Change Conference COP 21/ CMP 11, Paris, 23th. November.  
2015 - 11<sup>st</sup>, December, 2015.
- Forty-Fourth Session of the Subsidiary Body for Implementation (SBI 44) and Subsidiary Body for Scientific and Technological Advice(SBSTA 44) as well as the first session of the Ad-hoc Working Group Paris Agreement(APA1), Bonn, 16<sup>th</sup> – 26<sup>th</sup>, May, 2016.
- 8<sup>th</sup> Meeting of the RIMES Council, Pathumthani, 1<sup>st</sup> – 2<sup>nd</sup>, July, 2016.
- China-Asean Meteorological Forum and 46<sup>th</sup> China Study Tour, Nanning, 11<sup>th</sup> - 16<sup>th</sup>, September, 2016.
- Meeting on the Promotion Strategy for the National Meteorological Advancement in Myanmar and the Korea Climate and Meteorological Industry Exhibition, Seoul, 11<sup>th</sup>-12<sup>nd</sup>, October, 2016.

## **2.2 Activities foreseen for 2016-2017**

- The MNC-IHP will try to implement the water related activities in line with the themes of IHP
  - IHP national committee will continue to encourage scientific and technical symposia and workshops
  - The members of MNC-IHP will attend the 26<sup>th</sup> Regional Steering Committee for Southeast Asia and the Pacific.
  - The members of MNC-IHP will participate in the international and national activities of IHP.
  - Hydrological Division will upgrade the flood early warning system and flood monitoring system.
  - Remote Sensing and GIS Division will produce the flood risk maps and flood assessment maps in order to reduce the loss of life and properties.

**Workshop for Policy Dialogue on the new climate change projections for Myanmar(13.6.2016)**  
**Thingaha Hotel, Nay Pyi Taw**



**Training Workshop on Hydraulic Modeling Using HEC-RAS with HEC-GeoRAS and ArcGIS for Flood Inundation Mapping**

*30<sup>th</sup> May – 2<sup>nd</sup> June 2016, Nay Pyi Taw, Myanmar*



**"Follow-up Training on RRI Model and Storm Surge Model" and "Training on Flood Disaster Risk Assessment" (30.3.2016) to (6.4.2016)**



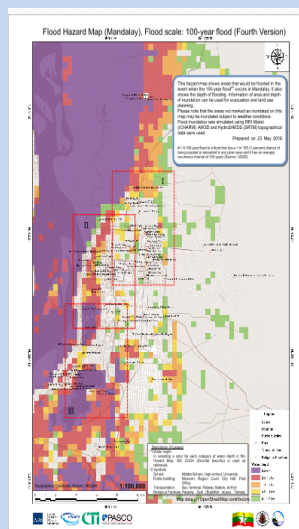
**"Donor Coordination Conference: Improving the delivery of Weather, Climate and Hydrological Services in Myanmar" (1.10.2016) to (2.10.2016), PARKROYAL Hotel, NayPyiTaw**



**Stakeholders Workshop to implement a Pilot Project on Impact-based Forecasting and Risk-based Warnings”(28.9.2016) to (30.9.2016), PARKROYAL Hotel, Nay Pyi Taw**



**Final Meeting of the ADB TA-8456 Part II(Flood Management)**





Norwegian Water Resources and Energy Directorate (NVE) is supporting DMH with Hydrological trainings within the NVE-MOEP program



**THANKS A LOT**

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## MYANMAR

### 1. ACTIVITIES UNDERTAKEN IN THE PERIOD November 2015 – October 2016

#### **1.1 Meeting of the IHP National Committee**

##### 1.1.1 Decision regarding the composition of the IHP National Committee

The Myanmar National Committee for IHP (MNC-IHP) has been organized on 24 March 2003 comprising a Chairman, a Vice Chairman, a Secretary and (17) members from 8 Ministries and 2 City Development Committees.

Under MNC-IHP, the (5) Working Committees (WC) were organized according to the (5) Themes of IHP-VI. Each working committees consists of (10) members from the members of departments and committees. Activities related to the themes of IHP-VII are implemented by the members of the working committees.

##### 1.1.2 Status of IHP- VIII Activities

- Monitoring Water Quality of Rivers in Myanmar
- Monitoring the changes of Water resources in Myanmar
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- Developing the flood hazard map in order to reduce loss of lives and properties due to flood disaster
- Implementing the hydrological disaster risk management activities by using GIS and Remote Sensing Technologies

#### **1.2 Activities at National Level in the framework of the IHP**

##### 1.2.1 National/local scientific and technical meetings

- Workshop for Policy Dialogue on the new Climate Change Projections for Myanmar organized by DMH, MCCAlliance and RIMES was held on 13. 6. 2016 at NayPyiTaw.
- Stakeholders Workshop to Implement a Pilot Project on Impact-based Forecasting and Risk-based Warnings was held at NayPyiTaw on 28. 9. 2016 to 30. 9. 2016.

##### 1.2.2 Participation in IHP steering committees/working groups

Participants from DMH attended the UNESCO-IHP 13<sup>th</sup>, 14<sup>th</sup>, 15<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup> and 22<sup>nd</sup> Regional Steering Committee Meetings for Southeast Asia and Pacific during 2005 to 2015.

### 1.2.3 Research / applied projects supported or sponsored

### 1.2.4 Collaboration with other national and international organizations and / or programs

Myanmar is the member country of EANET (Acid Deposition Monitoring Network in East Asia) since 2005. So Myanmar collaborates with EANET's activities.

Myanmar is collaborating with ADPC and RIMES (Regional Integrated Multi-Hazard Warning System for Africa and Asia) in Hydrometeorology, Seismology and Climate Change sectors.

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### 1.2.5 Other Initiatives

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## **1.3 Educational and Training Courses**

### 1.3.1 Contribution to IHP courses

- Training on Hydrological Grade I was held in October, 2016 at Yangon.
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- Training on RS and GIS Basic Course has been held from 5<sup>th</sup> to 9<sup>th</sup> in October, 2015 in NayPyiTaw.

### 1.3.2 Organization of specific courses

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### 1.3.3 Participation in IHP courses

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## **1.4 Publication**

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## **1.5 Participation in International Scientific Meeting**

### 1.5.1 Meeting hosted by the country

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- Meeting on the Promotion Strategy for the National Meteorological Advancement in Myanmar and the Korea Climate and Meteorological Industry Exhibition, Seoul, 11<sup>th</sup>-12<sup>nd</sup>, October, 2016.

### **1.6 Other activities at regional level**

#### 1.6.1 Institutional relation / cooperation

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#### 1.6.2 Completed and ongoing scientific projects

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## **2. FUTURE ACTIVITIES**

### **2.1 Activities planned until / December 2016**

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### **2.2 Activities foreseen for 2016-2017**

- The MNC-IHP will try to implement the water related activities in line with the themes of IHP
- IHP national committee will continue to encourage scientific and technical symposia and workshops
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