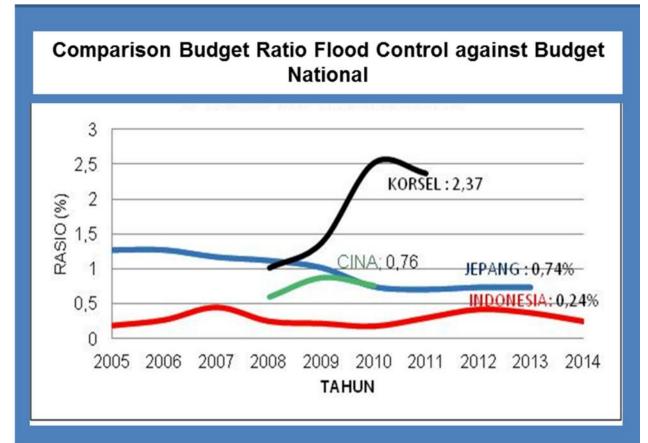
Indonesia 2010 Report (Flood Management)

| Indicator Types | Indicators | Progress | Description |
|-----------------------|--|-----------------------|--|
| Outcome Indicators | Total area affected by flood (target reduction in flooded area) | 178.461 ha | 21.539 ha of farm 20.646 ha of fishery 35.021 ha of settlement 109.315 ha of paddy field 940 ha of irrigation |
| | Total number of people affected by flood (target reduction in the number of people/households affected | 100.408 people | 224 died 300 disappeared 99.884 evacuated |
| | 3. Annual cost of flood damages | 2,102 Trillion IDR | Includes all activities to prevent and control of all the damage from flooding, volcanic lava, and also coastal protection |
| | Percentage of annual national budget allocated to flood management | 0,16% | from the total of DIPA (list the contents of budgetary) from national budget (1.313,76 Trillion IDR) See Note 1 |
| | Percentage of flood-prone areas in the country covered by early flood warning systems | 9,25 % | including all areas in Java Island and one area in Celebes Island |
| | Percentage of flood-prone areas in the country covered by real-time flood monitoring system | 6,27 % | only available in Java Island |

Outcome Indicators



Note 1

Note 2

The early flood warning and real-time flood monitoring system is being monitored by the RBO (River Basin Organizations) in their respective areas. Not all RBO in Indonesia have this system, but only in selected major rivers with a high risk of flooding (flood prone areas). There are ten RBO with early flood warning system, and nine RBO with real-time monitoring system from total 33 RBO in Indonesia. This system includes the flood information boards, forecasting models, water level and rainfall telemetry station.

Enabling Environment Indicators

| EE Indicators | Any "Policy" on flood management and river conservation | Yes (8) | Effectiveness of Output is monitored and evaluated Peraturan Pemerintah No. 42 Tahun 2008 tentang Pengelolaan Sumber Daya Air (Government Regulation Nr. 42 of |
|------------------|---|---------|---|
| | | | 2008 regarding Water Resources Management) |
| | | | See Note 1 |

Source: ASEAN Working Group for Water Resources Management (AWGWRM) – April 2015 [weblink - <u>aseaniwrm.water.gov.my</u>]

| 2. | . Any | Yes (8) | Effectiveness of Output is |
|----|--|---------|--|
| | "Legislation/Regulatio ns" on flood | | monitored and evaluated |
| | management and river conservation | | UU RI No. 7 Tahun 2004 tentang Sumber Daya Air (Law of Indonesia Nr. 7 of 2004 regarding Water Resources) |
| | | | See Note 2 |

Note 1

On Government Regulation Nr. 42 of 2008 regarding Water Resources Management in Chapter V, Clause 49 – 64, regarding Conservation, explained about conservation of water resources, including rivers, which is intended to maintain the continuity of existence, carrying capacity, capacity, and the function of water resources. To achieve the goals, several regulations had been set regarding the protection and conservation of water resources, water preservation, water quality management, and water pollution control.

Note 2

More details about flood management and river conservation explained on Law of Indonesia Nr. 7 of 2004 regarding Water Resources, Chapter III, and Clause 20 - 25, regarding water resources conservation. In this regulation explained about the conservation of water resources shall be conducted through the protection and conservation of water resources, water preservation, and management of water quality and water pollution control with reference to water resources management scheme set out in each basin.

Institutional Set-up Indicators

| IS Indicators | Any flood management regulatory agencies | Yes (8) | Effectiveness of Output is monitored and evaluated the agency who manage the flood regulatory is BNPB (Indonesian National Board for Disaster Management) |
|------------------|--|---------|---|
| | 2. Any institutional arrangements among related agencies to manage flood | Yes (8) | See Note 1 Effectiveness of Output is monitored and evaluated the arrangements are being held by BNPB See Note 2 |

Note 1

BNPB has the goals to protect the nation from the threat of disasters through risk reduction, to build a reliable system of disaster management, and organizing disaster management in a planned, integrated, coordinated, and comprehensive. This regulatory agency provides guidance and direction to the disaster relief effort that includes disaster prevention, emergency response, rehabilitation, and reconstruction in a fair and equitable, establishes standardization and implementation of disaster management needs based on the laws and regulations, delivering disaster management information to the public, and develop guidelines for the establishment of the Regional Disaster Management Agency.

Note 2

In May 2010, there is institutional arrangement among BNPB and ITB (Bandung Institute of Technology) MoU Nr. 02/KB/DIKTI/2010 associated with the development of human resources, through education, training, research and community service in the field of disaster management, including floods, as well as the development of science and technology in the field of Disaster Management.

| MT | 1. Any | No (4) | Existence of a plan to produce the |
|------------|---|---------|---|
| Indicators | implementation of Integrated Flood Management (IFM) approaches involving the use of structural and non-structural flood mitigation measures | | Output. The implementation has been planned but still no real action implemented in this year |
| | 2. Any program to develop flood hazard and flood risk maps | Yes (8) | Effectiveness of Output is monitored and evaluated the program has been run since 2006 by: 1. BNPB (Indonesian National Board for Disaster Management) 2. Dirjen SDA Kementrian PU-PR (Directorate General of Water Resources, The Ministry of Public Works and Housing) 3. BMKG (Indonesian Agency for Meteorological, Climatological and Geophysics) 4. BIG (Indonesian National Coordinator for Survey and Mapping) And since then until 2010 there are 55 maps had been created. |

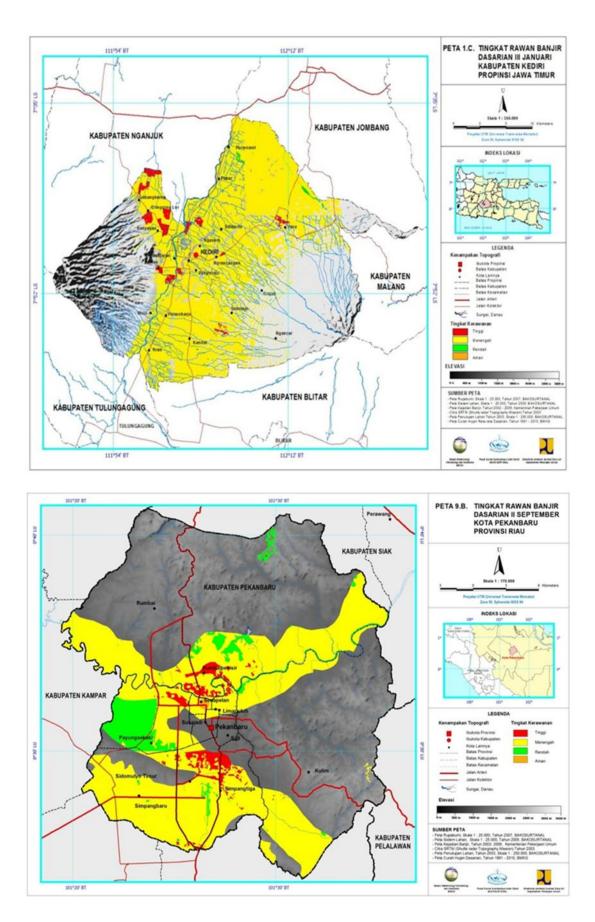
Management Tools Indicators

| Any river basin flood zoning and land use planning | Yes (8) | Effectiveness of Output is monitored and evaluated the flood zoning was made by BNPB and the land use planning was made by Dirjen Tata Ruang Kementrian PU- PR (Directorate General of Regional and City Planning, The Ministry of Public Works and Housing) |
|--|---------|---|
| Any program to control the loss of existing low-lying flood detention areas to development | Yes (8) | Effectiveness of Output is monitored and evaluated The program was arranged by BNPB |
| 5. Any climate adaptation program to mitigate the potential impacts of extreme floods due to climate change | No (4) | Existence of a plan to produce the Output. the implementation has been planned but still no real action implemented in this year |

| | | | | Tahun | | | | | |
|----------------------------|-----------------------|---------------------------------------|--------------------------------|--------------------------------|--------------|--------------------------------|----------------------------|----------------|--|
| 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | |
| Kab. Banyumas | Kab. Cilacap | Kab. Brebes | Kab. Pandegelang | Sragen | Pekanbaru | Blora | Sintang | Medan | |
| Kab. Grobogan | Kab. Jombang | Kab. Gresik | Kab. Tanggerang | Sukoharjo | Pontianak | Banyumas*'** | Sanggau | Deli Serdang | |
| Kab. Ogan Komering Ilir | Kab. Lampung Barat | Kab. Karawang | Kab. Cirebon | Kab. Pemalang | Sambas | Ponorogo | Putussibau/ Kapuas Hulu | Padang | |
| Kota Semarang | Kab. Mojokerto | Kab. Kebumen | Kab. Pekalongan | Kab. Klaten | Banjarmasin | Pacitan | Palangkaraya | Solok | |
| Kab. Sidoarjo | Kab. Pati | Kab. Ngawi | Kab. Kulonprogo | Kab. Lamongan | Banjar | Surabaya* | Barito | Bungo | |
| Kab. Situbondo | Kota Padang | Kab. Tegal | Kab. Kudus | Kab. Banyuwangi | Balikpapan | Sidoarjo* | Belu | Tebo | |
| Kota Surabaya | Kota Medan | | Kab. Madiun | Subang | Barito Kuala | Sampang | Manggarai | Lampung Utara | |
| Kab. Ogan Komering Ulu | Kota Palu | | Kab. Magetan | Probolinggo | Nganjuk | Semarang* | Sikka | Tanggamus | |
| Kota Palembang | Kab. Serang | | Kab. Tuban | Kab. Minahasa & Kota Manado | Tulungagung | Singaraja | Rokan Hulu | Pati | |
| Kab. Bandung | Prop. DKI | | Kab. Pasuruan | Kota Samarinda | Kediri | Kota Denpasar | Rokan Hilir | Grobogan | |
| | | | Kab. Jember | Purwerejo | Trenggalek | Bolaang Mongondow | Kampar | Bantul | |
| | | | Kab. Marros & Kota Makassar | | Lebak | Bolaang Mongondow Timur** | Majene | Jombang | |
| | - | | | | | Bolaang Mongondow Selatan** | Luwuk Utara | Bangkalan | |
| | 16 | · · · · · · · · · · · · · · · · · · · | | | | Kota Mataram | Luwuk Timur | Situbondo | |
| | | | | | | Pinrang | Bone | Barito Selatan | |
| | | | | | | Sidenreng Rappang | | Barito Timur | |
| | | | | | | Wajo | | Palu | |
| | | | | | | Aceh Utara** | | Sigibiromaru | |
| | | | | | | Kota Lhoksumawe** | | Kendari | |
| | | | | | | Kab. Bireun** | | Konawe Selatar | |
| | 3 | | | | | Kab. Pidie** | | | |
| | | | | | | Kab. Pidie Jaya** | | | |
| 10 | 14 | 6 | 17 | 12 | | | 22 (18 Peta baru, 4 | 45 | |
| 10 | 14 | 6 | 13 | | 12 | Peta hasil updating) | 15 | 20 | |

Note 1

The flood hazard and flood risk maps has been run since 2006 – 2014 with an increasing number of maps:



Source: ASEAN Working Group for Water Resources Management (AWGWRM) – April 2015 [weblink - <u>aseaniwrm.water.gov.my</u>]