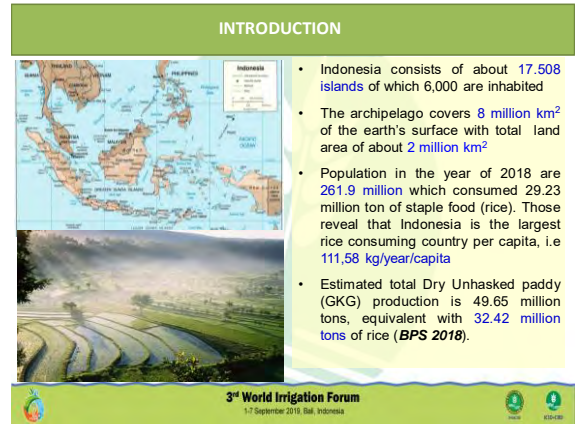
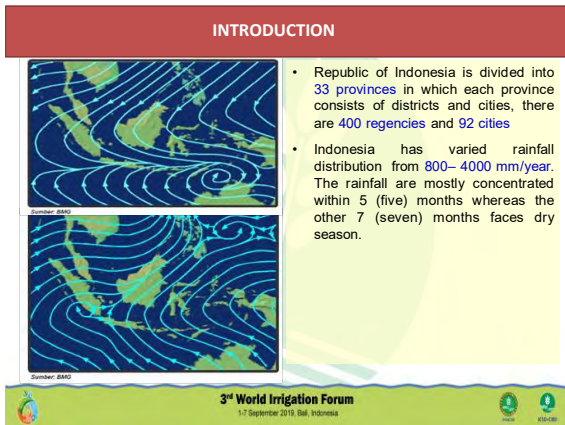




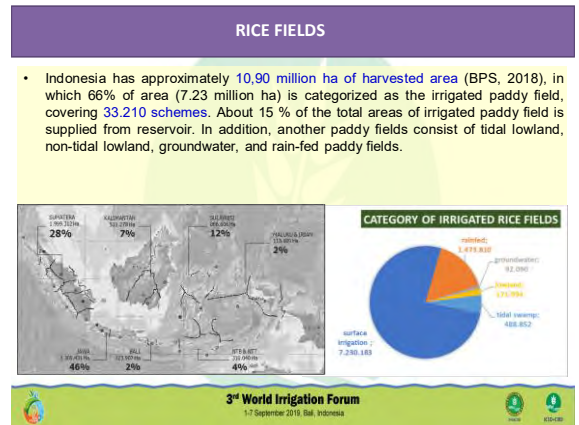
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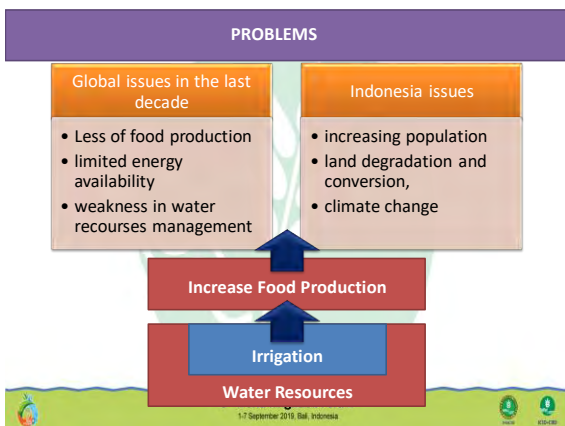
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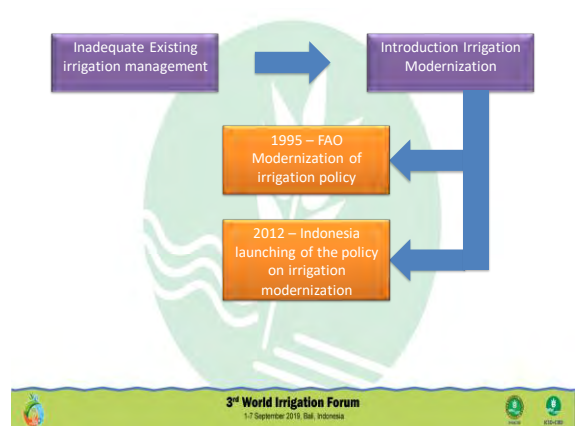
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6

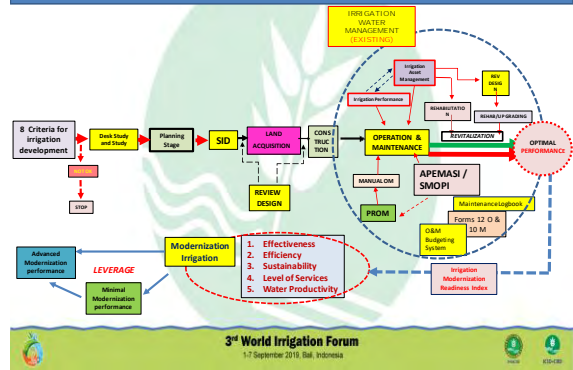
**Indonesia BLUE CIRCLE Paradigm**

- Water productivity in Indonesia is relatively low (0.50 kg grain rice equals to 1 m<sup>3</sup> of water.
- In general most Irrigation scheme in Indonesia is managed and operated under existing technology and management. (“Indonesia Blue Circle Paradigm”)
- Indonesia Blue Circle Paradigm was described in term of relation of water availability, infrastructure and irrigation water management respectively



7

**PROCESS OF IRRIGATION WATER MANAGEMENT IN INDONESIA TOWARDS MODERNIZATION OF IRRIGATION**



8

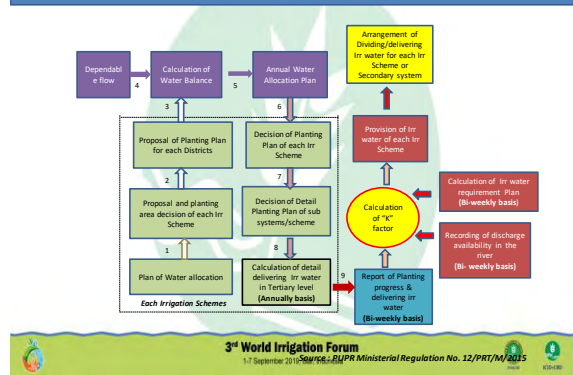
Existing irrigation was conducted in the procedure of irrigation operation in the system. The procedure of operation as stated in PUPR Ministerial Regulation No. 12/PRT/M/2015 on exploitation and maintenance

**(12 – Irrigation Water Operation Forms)**



9

**FLOW CHART OF EXISTING IRRIGATION WATER MANAGEMENT**



10

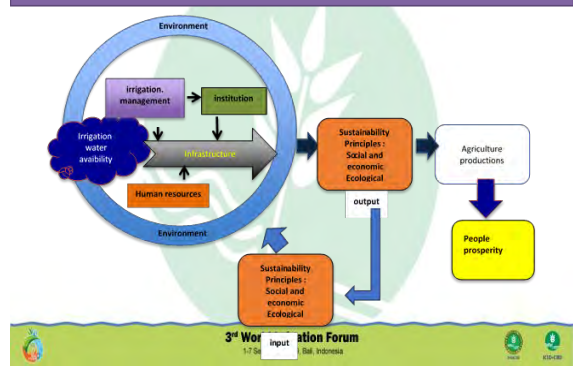
**Definition of Modernization**

- ICID Congress in Mexico October 2017
  - Process of Upgrading infrastructure, operation and management of irrigation and drainage system to sustain the water delivery service requirement of farmers and optimize production and water productivity.
  - Requirements:
    - Process (continuous) exercise
    - Align with Government development and Budgetary time frame and system
- Indonesia Modernization Irrigation
  - An effort to actualize a participative irrigation system that is oriented on irrigation service level compliance effectively, efficiently and sustainably in order to support water and food security through improvement
    - Irrigation water availability
    - Infrastructure
    - Irrigation water management
    - Institution
    - Human resources

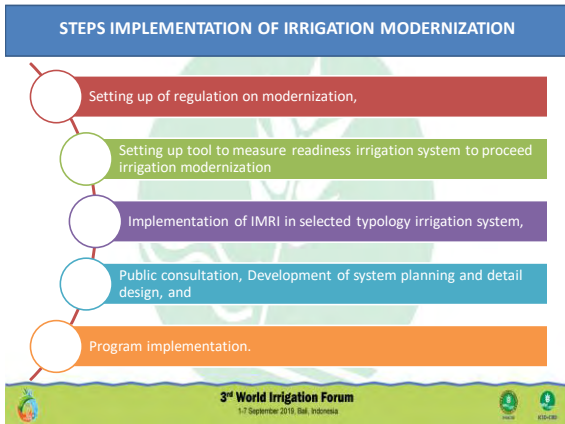


11

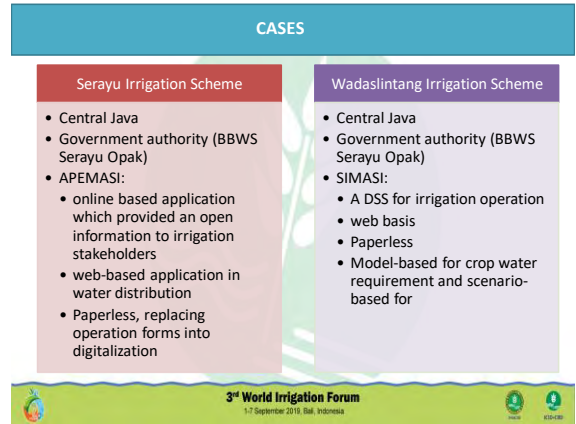
**RELATION OF FIVE PILLARS OF IRRIGATION AS BASIS OF IRRIGATION MODERNIZATION**



12



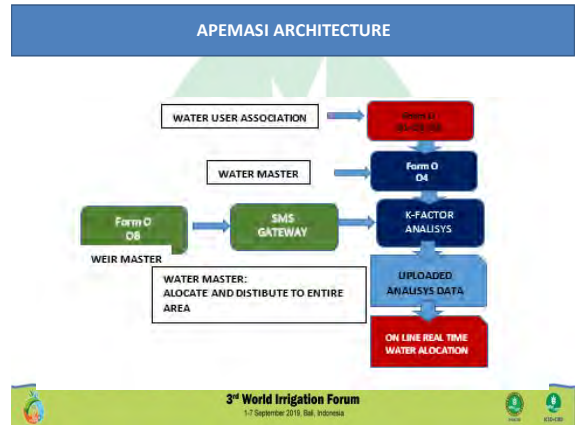
13



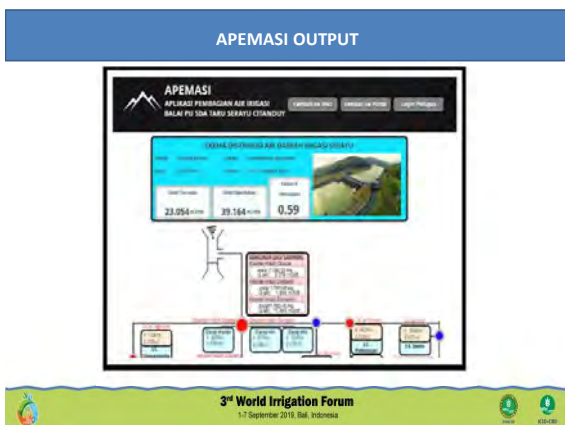
14



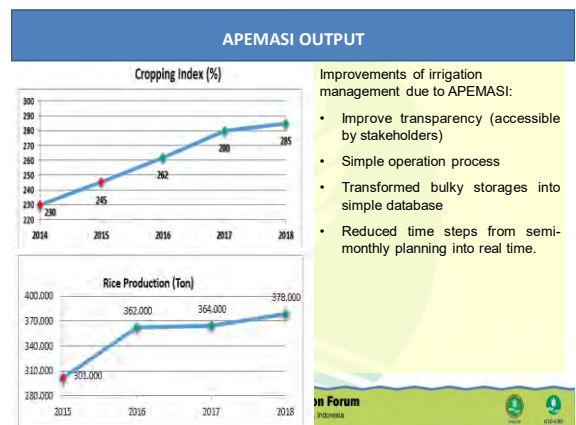
15



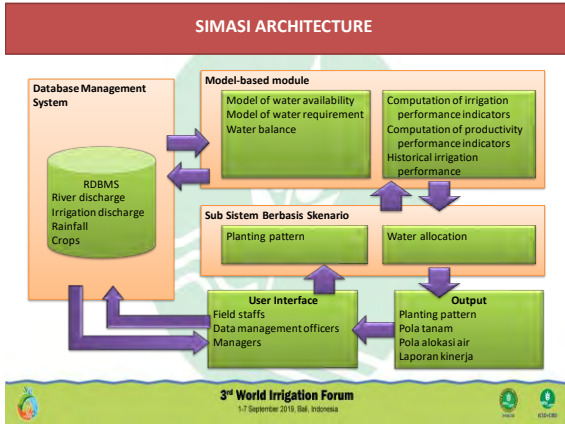
16



17



18



19

- ### SIMASI FEATURE
1. Storage of historical data on hydrology and crop and model are automatically update by data stored
  2. Management users and their authority to access the system
  3. Sharing data among stakeholders in different level
  4. Prediction water availability in the future by using artificial neural network model
  5. Computation of crop water requirement using Penman Monteith model
  6. Module of annual water balance computation
  7. Provision of annual water balance as platform of dialog between farmers and government in planting pattern determination
  8. Computation of short-term water balance to determine water allocation in a certain period
  9. Computation irrigation system performance.
- 3<sup>rd</sup> World Irrigation Forum  
1-7 September 2019, Bali, Indonesia

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