



73RD INTERNATIONAL EXECUTIVE COUNCIL MEETING



24th ICID INTERNATIONAL CONGRESS 73rd IEC MEETING

3RD OCT - 10TH OCT 2022
ADELAIDE | SOUTH AUSTRALIA



Theme: Innovation and research in agriculture water management to achieve sustainable development goals



INTERNATIONAL WORKSHOP ON “THE WATER ENERGY FOOD NEXUS: IMPLEMENTATION AND EXAMPLES OF APPLICATIONS”

**04 October 2022: 08:45-10:30 and 11:15 to 13:00 Hours
Adelaide, Australia**



INTERNATIONAL WORKSHOP ON POLICY IMPLEMENTATION OF WATER-ENERGY- FOOD NEXUS WITHIN STAKEHOLDER IN INDONESIA

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INTRODUCTION

- ▣ The paradigm of the water-energy-food (WEF) nexus has emerged to strengthen the concept of sustainable development. Indonesia is a tropical country, which has abundant water resources and the 4th largest population in the world.
- ▣ The government of Indonesia (GoI) has a big challenge to optimize this framework. The policy implementation of optimizing the water-energy-food nexus is starting to notice with the drafting of the laws and regulations which support this concept.
- ▣ This paper analyses the implementation related to water, food, and energy in Indonesia through infrastructure and law.

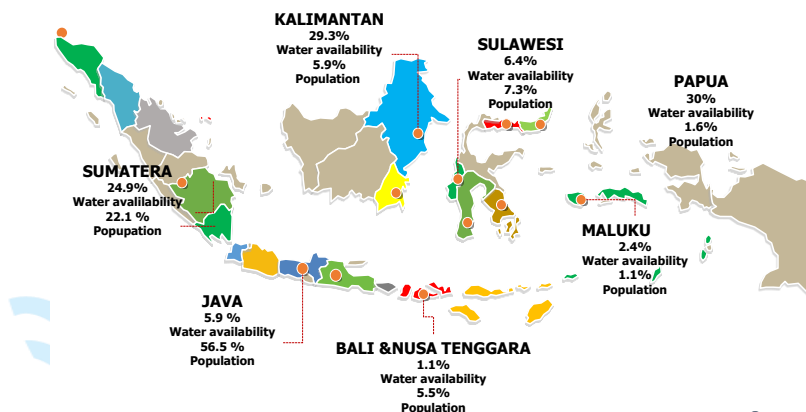


MATERIAL AND METHODS

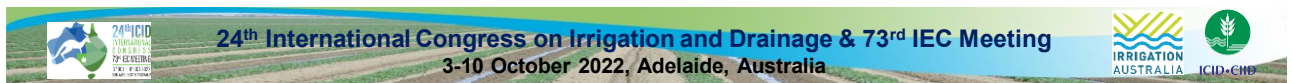
- ▣ This article uses secondary data which come from the Indonesia's Ministry of Public Works and Housing (MPWH) and Ministry of National Development Planning.
- ▣ Data were analyzed to associate the legal aspect of Indonesian Law with the implementation of the water-energy-food nexus.
- ▣ Since so many government institutions get involved in the WEF nexus, the overlapping job desk within institutions tends to arise.

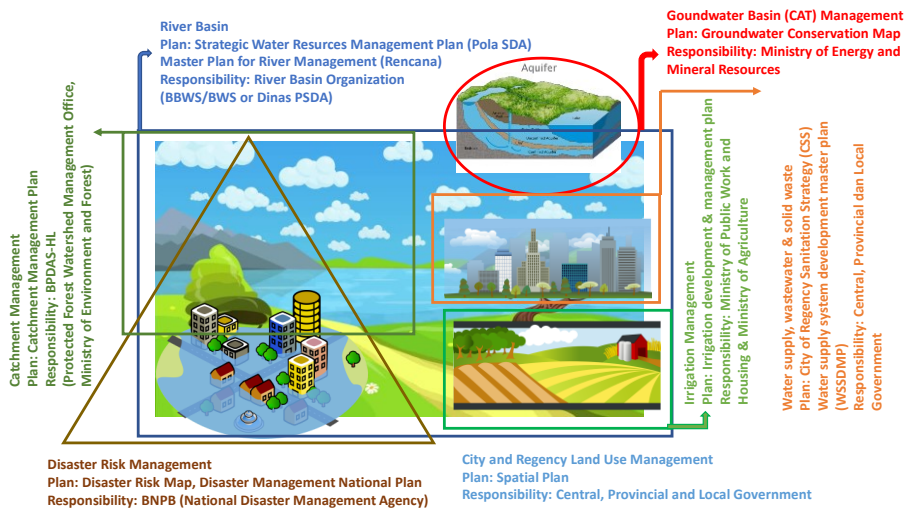


RESULT AND DISCUSSION



Spatial variability of available water and population
(Source: Kementerian Pekerjaan Umum dan Perumahan Rakyat, 2020)

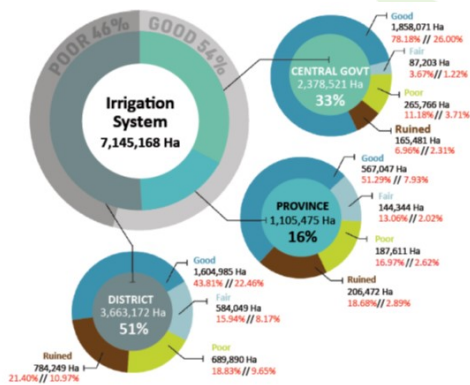




Overlapping responsibilities and planning documents in a river basin
Source: (Kementerian PPN & World Bank, 2021)

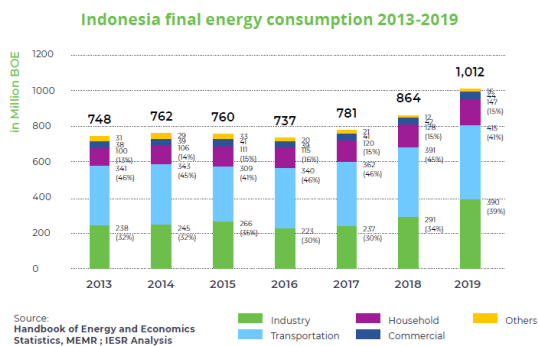


Overview of Irrigation System Functioning Across National, Provincial, and District Management



Source: (World Bank, 2021)

Energy Consumption In Indonesia 2013-2019



Source: (IESR, 2021)



Legal aspect to support water-energy-food nexus

Water

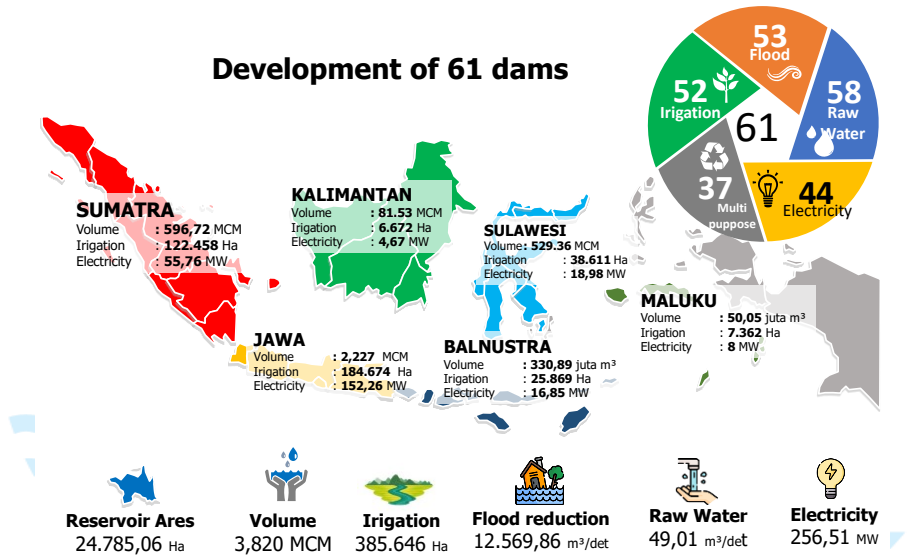
- Integrated water resources management is stipulated on Water Law 2019
- there are at least 12 government regulations and at least 42 ministerial regulations relevant to water management that appear to be in force

Energy

- Government regulation No. 70/2009 was issued to adjust energy conservation by implementing measures to conserve energy,
- Government Regulation No. 79 of 2014 on National Energy Policy, the new and renewable energy mix target is at least 23% by 2025 and 31% by 2050.

Food

- The GoI emphasizes food security with issued Presidential Decree No. 83/2006, which contains food security and nutrition by establishing a Food Security Council.



Sumber : Subdit Perencanaan Teknis, Dit Benda 2022

Development of 61 dams to strengthen water, energy, and food security
 Source: PUPR 2022



Conclusion

- ❑ In the legal framework, to manage water, energy, and food security, the government initiated reforming the law related to them.
- ❑ Coordination among stakeholders becomes challenging, between central and local government and also among ministries.
- ❑ The development of 61 dams will increase reservoir capacity to 3.82 BCM and premium irrigation will rise to more than 385.000 ha. The dam development not only increases the water security but also hydroelectricity, floating photovoltaic, irrigation, reducing flood control also strengthening energy and food security.



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