

# Prof. Fatchan: Integrated Institution for Water Resources Management is Needed

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Management of water resources is the responsibility of government as water regulator. However, in practice it needs to have the support of the farmers as beneficiaries. Without good cooperation, management of water resources cannot be relied upon to meet the needs.

According to Prof. Dr. Ir. Fatchan Nurrochmad, M. Agr., water as a natural resource cannot be separated by an administrative boundary and authority of an institution. As a system, the existence of water resources needs to be converted, not only at the in-stream, but more in off-stream.

Therefore, to meet the needs of irrigation, water resources management is the responsibility of the Ministry of Public Works as manager of in-stream. "However, this authority would not allow them to manage it alone. Yet, it should have the support of the Ministries of Agriculture and Forestry as the off-stream manager at the watershed area," said acting UGM vocational school director at the Senate Hall on Monday (28/2), when inaugurated as Professor of the Faculty of Engineering.

In his speech *Water Resources as a Supporting Means of Production of Rice in Indonesia*, Fatchan said that water requirements for cultivation of food crops are enormous. If the average of irrigation water requirement is 1 liter/sec/ha with rice aged 100 days old with rice yields average 3,000 kg/ha, irrigation water requirements per 1 kg of rice amounts to 2880 liters in the wet rice field. "Consequently, if farmers are able to save irrigation water by conducting water-saving patterns, the need for irrigation water to produce 1 kg of rice can be compressed into 1366 liters," he said.

In the view of Fatchan, optimizing the utilization of water resources in the future will become very important. The development of the region marked with population and industrial growth demands the availability of adequate water supply. Meanwhile, due to the relatively fixed availability of water resources, the management of water resources in a comprehensive, integrated and sustainable way should be carried out by a single institution. "This is the problem that arises at this time, there is no coordination for an integrated way to manage water," Fatchan added.



The husband of Nurhayati Purwaningrum and the father of two children considered the water resources management involving the three pillars, namely empowerment, conservation, and control the destructive force of water as stipulated in Law No. 7 of 2004 has not been fully applied. This is because those who have management authority, both in-stream and off-stream, have not been united in a single institution.

Ministry of Public Works should have authority in the in-stream management by managing water resources that focuses on the utilization and control on the destructive force of water. Meanwhile, the Ministry of Agriculture and Forestry has the authority management of off-stream in form of land resources, flora and fauna with more focus on efficient use and conservation. "These three ministries, the ministry of Public Works, Agriculture and Forestry, could be empowered into one ministry," he said.

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