

# Effort to Promote *Subak* as an Irrigation Commission in Bali

## Un Effort pour Promouvoir *Subak* Section D'Irrigation à Bali

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### Abstract

*Subak* is an organization of water user association for irrigation in Bali Province which is predicted to exist since the IX Century. *Subak* is a traditional organization of unique characteristics, and rich of local genius, which is based on *Tri Hita Karana* and obtained universal appreciation. The increase use of water has triggered conflict among water users, specifically in agricultural and urban and tourism sector, and causing the role of *subak* and its structure such as *Sedahan* and *Sedahan Agung* water managers for irrigation at district and regency levels become uncertain of their existence.

Irrigation Commission is irrigation-managing institution whose duty is to materialize the integrated irrigation management system in every province and regency/city. The guidelines and regulation regarding Irrigation Commission is regulated in the Government Regulation (PP) No. 20 year 2006 and the Regulation of Public Work Department (Permen PU) No. 31/PRT/M/2007. The function of *subak* and irrigation commission is similar, and hence irrigation commission can be developed based on *Subak* Organization.

The formulation has been done, and named: *Sabha Sedahan Agung* for Provincial level, and *Loka Sabha Sedahan Agung* for Regency Irrigation Commission which is in accordance to the spirit of *subak*. The government's political will is necessary at the province and regency level, and to take stronger role in order to strengthen and maintain *Subak* and its structure to become a media of modern irrigation coordination and management in Bali.

Key words: *subak* organization, water managers, *sedahan*, *sedahan agung*, irrigation commission, irrigation management.

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## 1. Introduction

Irrigation management in Bali Island historically has its own tradition and culture in a form of society organization called *subak*. *Subak* is an association of water user farmers whose responsibility is developing and managing water resources specifically in irrigation sector. Since its development, irrigation continually increased with the implementation of agricultural intensive program, the development of urban area and industry sector specifically tourism industry, the demand of clean water sharply increased in the area such as: the City of Denpasar, the Regency of Badung, Tabanan and Gianyar. The increased used of water has triggered the scarcity of water supply and conflict among water users especially in the sector of agriculture and urban and tourism.

Other than that, the area of the irrigation that is managed by *subak* organization in Bali is less than 1000 ha, thus the responsibility of for the irrigation management is under the government of the regency/city which caused a limited fund allocated for developing *subak* organization. Also the absent of *Sedahan* and *Sedahan Agung* role as government official whose job is to coordinate *subak* organization together with other division in the governmental structure has caused *subak* to confuse and lost its commanding official. In the past the role of *Sedahan* and *Sedahan Agung* is very important for the *subak* organization, because they can play a very important role in managing the available water, regulating the planting pattern, resolve conflicts, and even collecting tax from the *subak* members.

## 2. The History and Definition of *Subak*

Purwita in Pitana (1992) explained that, it is difficult to trace when was actually traditional irrigation system ( *subak* ) was firstly built, however it is belief that it had already been exist since the estimated time that rice-field was exist in Bali, on the 9<sup>th</sup> century (Sukawana record, 882), furthermore some ancient records such as: Pandak Badung written in 1071, and Klungkung written in 1072 in which was written about '*kasuwakan*' which is in Balinese

Language become '*kasubakan*' that means *subak* organization, or an irrigation area. Since then the number of *subak* in Bali increased from year to year, as it was recorded in 1971 there were 1193, in 1991 there were 1331 and in 2002 up to now, there are 1611 *subak* organizations.

In the Bali Province regulation (*Perda*) No.02/PD/DPRD/1972, it is defined that *subak* is; “ a traditional society recognized by the law in Bali which is socio agricultural religious entity which historically built since ancient time and had been developed as a land authority organization in the field of water management in a region”. This is based on the fact that in practice, the *subak* philosophy is very closely related to the philosophy of traditional governmental structure in Bali villages that is *Tri Hita Karana* which generally means: the 3 harmonious relations of: human and God (*Parahyangan*), which is expressed by the building of *Pura* (Temple) in *subak* area; human and the environment (*Palemahan*) in this case is the *subak* area itself; and, relation between human (*Pawongan*) in this case it is the farmers as *subak* members who are called '*kerama subak*' which is regulated by the *subaks*' rule called *awig-awig*. It can be said that *subak* is basically a traditional society organization which is established with the purpose of managing water from its spring for irrigation of rice fields.

### **3. Organisational Structure and *Subak* Management**

As an organization, generally *subak* also has organizational structure. However the form is very simple but it is effective for regulating the activities that need to be done by the farmers who are *subak* members which are called '*kerama subak*'. A group of managers in *subak* is called '*prajuru*'. As it is described by Pitana (1992), for a small *subak* it is sufficient just being managed by one leader which is called '*kelian subak*' or '*pekaseh*'. And for a bigger scale of *subak* the '*prajuru*' is consist of: *Pekaseh* (leader), *Petajuh* (vice leader). Not every *subak* has vice leader, *Penyarikan* or *juru tulis* (secretary), *Patengen* or *juru raksa* (treasury),

*Kasinoman* or *juru arah* (informen), and *Saya* (special assistant), usually is appointed in relation to religion activities.

For *subak* that is large in size which is called *subak gede* the structure is facilitated with *pekaseh gede* (grand leader) and *wakil pekaseh gede* (vice grand leader). *Subak* is also can be divided into smaller sections which is called *tempek* which is led by *kelihan tempek* whose position is under *pekaseh*.

The *Perda* No.02/PD/DPRD/1972 is a provincial regulation which regulated the irrigation in Bali Province which is still valid up to date because it has never been reviewed and revised.

In its clausal conveyed:

- 1) *Subak* members are called *krama subak* led by *Kelian Subak* or *Pekaseh* (clausal 6 and 7).
- 2) *Sedahan/Sedahan-Yeh/Pengelurah* is a District Official who manages and monitors water for irrigation for *subaks* inclusively in the region.
- 3) *Sedahan Agung* is a Regency Official who manages and monitors the irrigation regularity in the area of regency and is an advisor and implementer from the Regional Government in the field of irrigation (clausal 9).

From the description of the above *Perda*, it is clear that *Sedahan* and *Sedahan Agung* are the government official whose duty are coordinating, regulating and managing water in the level of district, and regency/city, and is a government extension in managing the area of *subak* which is in this case an irrigation area. However the irrigation management in the level of province, *subak* organization has not regulated yet.

#### **4. Irrigation Commission**

Irrigation commission is a management institution aims at materializing the synergy of irrigated management system in every province and the regencies/citys. Irrigation commission can be established in the level of province or in the level or regency or city.

The guidelines of irrigation commission formation is regulated based on the government regulation ( *PP*) No. 20/2006, regarding Irrigation, it is in the regulation of Public Work

Ministry (*Permen PU*) No 31/PRT/M/2007 about the Guidelines of Irrigation Commission.

The membership and authority of the irrigation commission according to the Government Regulation (*PP*) No.20/2006 are as follows:

1). Province Irrigation Commission

- a. is established by the governor
- b. the membership is consist of : the representative of related irrigation commission from regency or city, the representative of the organization of water user farmers , the representative of the government and groups irrigation network user with the principle of proportional membership and being represented.
- c. assist the governor in:
  - o Formulating the regulation for maintaining and improving the irrigation condition and function.
  - o Formulating the annual plan of irrigation water supply.
  - o Formulating the annual plan of water distribution irrigation water for farmers and other water use.
  - o Recommending allocation priority of irrigation management fund.

2). Regency or City Irrigation Commission

- a. Is established by The Regency Head or Mayor
- b. The membership is consist of : The representative of regency/city government, and the representative of non-government (the representative of the organization of water user farmers or the representative of the irrigation network user groups) with the principle of proportional membership and being represented.
- c. Assist the Regency Head or Mayor in:
  - o Formulating the regulation for maintaining and improving the irrigation condition and function.

- Formulating the pattern and the planting plants in the irrigation area in the regency.
- Formulating the annual plan of irrigation water supply.
- Formulating the annual plan of water distribution irrigation water for farmers and other water use.
- Recommending allocation priority of irrigation management fund.
- Providing recommendation regarding the license of land function change.

The Province Irrigation commission holds coordination function for irrigation area of 1000 ha up to 3000 ha or at the irrigation area that is across regencies/citys; between provincial governments; the Regency/City Irrigation Commission that has irrigation area across regencies or citys; cluster of water user farmers at the level of irrigation area with irrigation network users for other purposes in the respected province. While irrigation commission regencies or citys assist regency head or mayor with duties and functions which are almost the same with the province irrigation commission, but it is focused for the irrigation area that is less than 1000 ha which becomes the responsibility of the regencies or the city government.

In the case of management and membership according to the regulation of Public Work Ministry No. 31/PRT/M/2007, The Province Irrigation Commission is regulated as follows:

For the managers, the head: is filled by the Head of Province Development Planning Division, while the day-to-day operation head is filled by the Head of Provincial Public Works.

Secretary is consist of:

Secretary I which is filled by the Head of Sub-Division Irrigation and Water Resources of Province Public Works; and

Secretary II is filled by the Head of Sub Division of Water Use in Province Agriculture Division.

Related to the membership of The Province Irrigation Commission, they are consist of:

- 1) The representative of provincial government;
- 2) The members from non-government element
  - a. The representative of water user farmers at the irrigation area across regencies or city;
  - b. The representative of other irrigation network users; and
  - c. The representative of irrigation commission of regencies or city that has irrigation area across the regencies or city.

For the irrigation commission in the level of regencies or city, the managers structure and the membership are almost the same with the irrigation commission at the level of province.

##### **5. Promoting Subak as Irrigation Commission**

Based on the above explanation, the *subak* in Bali is an association of water user farmers for irrigation of rice field (irrigation area), where *Sedahan* and *Sedahan Agung* as coordinator and management at the district and regency/city level, which is the government extension, even though *subak* does not manage coordinating activities at the province level. While irrigation commission is an irrigation management which is appointed by the rule produced by the government. Function, duties and the authority of *subak* and the irrigation commission is almost the same, so as *subak* and its structure has a high potency to be strengthen to become the irrigation commission, or the other way around the irrigation commission can be developed based on the *subak* organization principles.

Considering that the today the role of *subak* and its structure in irrigation management have become marginal, so that The Bali Province Planning Division has to put efforts in order for *subak* to be strengthen and adjusted with the current situation and in accordance with the government rules. Study that had been done in 2007 recommended that Sedahan Agung to become the *subak* coordinator at the level of regency of which currently is not clear in its existence, and its function must be restored, as the extension of regency government in

managing *subak*. While study that has been done in the year of 2008 has recommended the formulation of irrigation commission either in the level of regency and province that is based on *subak* organization system with the philosophy of *Tri Hita Karana*.

Name, managerial, and the members of the irrigation commission is formulated as follows:

- 1) Name: *Sabha Sedahan Agung* (name is adjusted in accordance to the *subak* organization where *Sedahan Agung* becomes the coordination media for irrigation management).
- 2) Head: The Head of Bali Province Planning Division.
- 3) The day to day Head/ Head I/ The coordinator of *Palemahan* Division: The Head of Public Work Division of Bali Province.
- 4) Head II/ The coordinator of *Pawongan* Division: The Head of Food Agricultural Division of Bali province.
- 5) Head III/ The coordinator of *Parahyangan* Division: The Head of Bali Province Cultural Division.
- 6) Secretary I/ *Palemahan* Division: The Head of Irrigation and Water Resources Sub-Division of Public Work Division of Bali Province.
- 7) Secretary II/ *Pawongan* Division: The Head of Organizational Development Sub-Division of Food Agricultural Division of Bali province.
- 8) Secretary III/*Parahyangan* Division: The Head of Traditional Organization Deveelopment Sub- Division of Culture Division of Bali Province.
- 9) Members:
  - a. The representative of provincial government include: Assistant of Province Government, Province Planning Division / Physical Sub-Division, Province Public Work Division/ Irrigation dan Water Resources Sub-Division, Province Evironment Control (Bapedalda) /Monitoring and Recovering Sub-Division, Province Agricultural Division/ Organization and Resources Sub-Division, The Head of Pronvince Fishery Division, The Head of River Basin Division Bali-Penida.



- b. The Non-Government elements include: The representative of Regency/City Irrigation Commission (*Loka Sabha Sedahan Agung*) across regency/city, Main Board of Village Members, *Pekasehs* Forum (*Sabantara*), Drinking Water Company Association (Perpamsi), Packaged Water Mineral Association, Ponds (*Mina Padi*) Association, The Element of Tertier Education, Indonesian Irrigation Communication Network Bali Branch (JKII)

The Province Irrigation Commission is facilitated with secretariat and experts.

The Regency/City Irrigation Commission is called *Loka Sabha Sedahan Agung*, is led by *Sedahan Agung* (filled by the Head of Planning Division of Regency or City), while the managers and members are almost similar to the Province Irrigation Commission and is adjusted to suit the local condition, and if necessitated could be equipped by revitalizing the position of *Sedahan* as the district government extension in irrigation management.

## **6. Recommendation**

- 1) The traditional organizational of *subak* as an organization of water user for irrigation farmers in Bali province has been recognized its credibility as an organization that managed water, so as it is crucial to be conserved and even strengthen and improved.
- 2) The Structure of *Sedahan* and *Sedahan Agung* as a media of coordination and a government extension in managing the *subak* organization and water for irrigation, currently are marginalized and vague in their role, so as it is necessary to be empowered.
- 3) The irrigation commission that has been appointed by law as irrigation management either at the level of province and regency/city is quite in line with *subak* structure that is exist in Bali Province, so as it is necessitated and can be used as a based for re-empowering the *subak* organization structure.
- 4) The formulation that has been established by giving name: *Sabha Sedahan Agung* for the Province Irrigation Commission and *Loka Sabha Sedahan Agung* for the regency/city

- irrigation commission is in accordance to the spirit of the *subak* organization, and need to be followed up its formation.
- 5) It is necessary to review the regional regulation Perda No.02/PD/DPRD/1972, regarding irrigation in Bali Province, because it is not relevant to the current condition.
  - 6) The political will of the Bali Government and the regency/city government to take a bigger role in order to strengthen and to conserve the *subak* organization and its structure to be able to become a coordination media of modern water management in Bali Province.

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