

# Dam's Reviews in the Development of Tirta and Recreational Tourism

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## ABSTRACT

The Titab-Uluran Reservoir that has been established by the Government of Buleleng Regency as an Artificial Tourism Destination for Titab-Uluran Reservoir, but to date the potential for tourism, recreation and natural tourism has not been developed involving the active participation of communities in the region. The problem is the lack of creative efforts of the buffer communities of the Titab-Uluran Reservoir to support the development of artificial tourism and natural tourism as an integral part of the purpose and objectives of the construction of reservoirs for irrigation, raw water reserves and hydroelectric power plants, while the potential nature such as the natural beauty of agriculture and hills, the potential for large and stable river flows throughout the year and the agrarian culture has not been managed to be an additional source of income. In addition, the awareness and concern of the regional community for the environment to maintain the sustainability of the functions of the Titab-Uluran reservoir, especially the preservation and development of a green belt and the reduction or elimination of the causes of siltation of the reservoir need to be increased. The solutions offered are (1) community empowerment of the Titab-Uluran Reservoir area to become a tourism conscious community by implementing Sapta Pesona; (2) pioneering tourism and recreation attractions; (3) tourism village pioneering in the Titab-Uluran Reservoir area which begins with the formation of Tourism Awareness Groups (Pokdarwis), and (4) promotion and branding of Tirta and Recreation Tours and Tourism Villages in the Titab-Uluran Reservoir Area, (5) training and mentoring appropriate technology and entrepreneurship in productive productive community groups such as youth organizations and housewives to establish household or micro-industry businesses based on regional potential; (6) environmental counseling to maintain the sustainability of the Titab-Uluran Reservoir, (7) the preparation and implementation of environmental management models for sustainable development in the Titab-Uluran Reservoir.

**Keywords:** *reservoirs, creative industries, tourism and recreation*

## 1. INTRODUCTION

The Titab-Uluran Dam or Reservoir area is a watershed area of the Saba River which includes four villages in Busungbiu District, namely Titab Village, Kekeran Village, Telaga Village and Busungbiu Village and two villages in Seririt District namely Ularan Village and Ringdikit Village. The areas that are targeted by PKW-Pemda are areas that are in direct contact with the banks of the Saba River from the southern boundary of the Titab Bridge, stretching north to the bridge boundary just north of the front of the Titab Dam with the boundaries of which the eastern side is owned by Busungbiu and Ringdikit villages while on the west side is Ularan Village. The section of the Saba River watershed which is the target area is the stretch of the river basin with the east side (from south to north) covering a part of the Kekeran Village area, part of the

Busungbiu Village area and part of the Ringdikit Village area, while the west side (from south to north) covers part of the Titab Village area, part of the Telaga Village area and part of the Ularan Village area. Community members who are the focus of PKW-Pemda activities are residents in the Kelodan sub-village / Banjar Dinas (Busungbiu Village, Busungbiu District) and in the Dusun / Banjar Dinas Bhuana Kerthi (Ularan Village, Seririt Sub-district) and Dusun / Banjar Dinas Angsana (Titab Village).

The Titab-Uluran Dam or Reservoir is the largest dam on the island of Bali using approximately 137 hectares of land with details of 64 hectares for inundation.dam water, 5 hectares for the dam body, 10 hectares for the spillway and other buildings, and 69 hectares for the green belt area. If it is completely filled in 64 hectares and about 30 meters deep, it will be able

to hold around 12 million cubic meters of water. The Titab Dam was initiated in 2000 with a feasibility study carried out in 2003. The dam construction project itself was from 2011 to 2015 and in March 2016 the dam was inaugurated. The main use of the Titab Dam is (1) as an irrigation canal capable of irrigating 1,794 hectares of rice fields, (2) reserves of raw water (300 cubic meters per second), (3) micro-hydro power plant (PLTA) with a capacity of 1.5 megawatts (MW), (4) fisheries, and (5) water tourism and recreation. The dam, which also functions as a reservoir, was inaugurated on Sunday, December 13, 2015 by the Minister of Public Works and Public Housing Basuki Hadimuljono, the Minister of Cooperatives and UKM RI, AA Puspayoga and the Regent of Buleleng Agus Suradnyana and was attended by the General Chairperson of PDIP Megawati Soekarnoputri. On Saturday, January 16, 2016, there were three explosions with water jets reaching a height of 30 meters. This was caused by the rupture of the water pipe leading to the power plant and the explosion caused the wall of the embankment to crack, so that until now various repair processes have been carried out with

the 2017 target that the repair can be completed. The Indonesian Minister of Cooperatives and SMEs, AA Puspayoga and the Regent of Buleleng Agus Suradnyana and was attended by the Chairperson of PDIP, Megawati Soekarnoputri. On Saturday, January 16, 2016 there were three explosions with water jets reaching a height of 30 meters. This was caused by the rupture of the water pipe leading to the power plant and the explosion caused the wall of the embankment to crack, so that until now various repair processes have been carried out with the 2017 target that the repair can be completed. The Indonesian Minister of Cooperatives and SMEs, AA Puspayoga and the Regent of Buleleng Agus Suradnyana and was attended by the Chairperson of PDIP, Megawati Soekarnoputri. On Saturday, January 16, 2016, there were three explosions with water jets reaching a height of 30 meters. This was caused by the rupture of the water pipe leading to the power plant and the explosion caused the wall of the embankment to crack, so that until now various repair processes have been carried out with the 2017 target that the repair can be completed.



Figure 1. Planned (mock-up) for the Titab Dam, which was built in 2011-2015



Figure 2. Potential development of water tourism and recreation along the Saba River watershed from the object of rice terraces in Subah Titab

Based on a survey of potential destinations and tourist attractions in the Titab-Ularan Dam area, several problems and challenges faced by the area and its people were obtained, namely (1) the Buleleng Regency Tourism Office has determined the Titab-Ularan Dam area to be one of the artificial tourist destinations and rice terraces and the natural scenery in the Titab Village and Kekeran Village areas is one of the agro tourism destinations, but tourism facilities in these two tourist destinations are still minimal and the support of the local community is also lacking, for example there is only one stop over place for tourists who want to see its beauty. natural rice terraces and the bends of the Saba River from Kekeran Village and there are only a few stalls and one fishing tourism spot downstream of the Titab-Ularan dam. The main livelihood of the local population in this area is still conventional farming and making the area an agro tourism area as well as a water tourism and recreation village still needs a change in mindset and behavior through structured and sustainable community education; (2) The section of the Saba River from next to the Titab Bridge to the Titab-Ularan Dam with a track length of approximately 10 km is very suitable to be developed as water tourism such as white water rafting and tubing, but the feasibility of the route needs to be assessed; (3) The route from the stop over of Kekeran Village along the rice terraces in Titab Village to Telaga Village then goes to the edge of the Titab-Ularan dam in Ularan Village to Dusun Kuwum (Ringdikit Village) and across rice fields and plantations in Kelodan Hamlet (Busungbiu) until it returns to the stop over Desa Kekeran has the potential to be developed into a recreational sport track for cycling and trekking, however the trekline of the two tourism activities needs to be assessed for its feasibility; (4) Green belt or green belt to support the Titab-Ularan Dam / Reservoir as depicted in the green belt development plan mockup, The existing condition still needs to be reforested with various support trees but they can still produce plant parts that are useful for the community or have economic value without having to cut the trees later. It can be seen that there are several cliff sides or riverbanks that are still prone to landslides; (6) Titab-Ularan Dam it is not clear which party the government decides to manage whether the Buleleng Regency Government or Bali Province or the Central Government, as well as how to collaborate in managing the dam / reservoir with the management of tourism activities that utilize the Saba River basin and the Dam. This Titab-Deuteronomy. Cooperation between the government of the villages that oversee the Titab-Ularan Dam area, namely Titab Village, Kekeran Village, Telaga Village, Busungbiu Village,

Regarding the focus of developing the

Bendungan Titab-Ularan tourist destination, it can be mapped into several related fields, namely (1) the field of education related to the development of regional local human resources through awareness to change the mind set of ordinary farming into farming that seeks tourism, capacitating with various science and technology education and training and cultural arts to support the development of the Titab-Ularan Dam tourist destination; (2) the tourism sector includes the development of tourist attractions to turn the Titab-Ularan Dam tourist destination into a new and superior tourist area in accordance with the motto "Buleleng is different"; and (3) the environmental sector, especially in relation to ensuring the green belt to support the watershed that empties into the Titab Dam and reducing or eliminating the entry of materials into water bodies or river bodies that result in sedimentation in the dam.

## **2. METHOD**

### **A. PARTNER PROBLEMS**

The problems faced by the community in the Titab-Ularan Reservoir Area can be classified into three main aspects, namely socio-economic problems, problems in preparing human resources to support sustainable development in the reservoir area and environmental problems. The Titab-Ularan Reservoir, which was inaugurated at the end of 2015, has been designated by the Buleleng Regency Government as an Artificial Tourism Destination for the Titab-Ularan Reservoir, but until now the potential for water tourism, recreation and nature tourism has not been developed and the local community has not been prepared from a mental, social perspective. economy, tourism awareness or sapta charm by involving the active participation of the community in this area. Another problem is the absence of creative efforts by the community to support the Titab-Ularan Reservoir Area to support the development of artificial tourism and natural tourism as an integral part of the aims and objectives of the construction of reservoirs for irrigation, raw water reserves and hydroelectric power plants. Part of the population, especially the working age population in this region, still depend on farming and for their livelihoods as farmers and farm laborers with high income disparities between those who have a lot of agricultural land (farmers and landlords) and those with little or no agricultural land. have no agricultural land at all (farm laborers), while natural potentials such as natural beauty of agriculture and hills, the potential for large and stable river flows throughout the year and agragic culture have not been managed to become additional sources of income. In addition, the awareness and concern of the regional community for the environment to maintain the sustainability of the Titab-

Ularan reservoir function, especially the conservation and development of the green belt (green belt) and the reduction or elimination of the causes of silting of the reservoir needs to be increased.

Based on the agreement between the partners of the Buleleng Regency Tourism Office with the proposing team as well as suggestions from three village heads namely Titab, Ularan and Busungbiu, the priority issues that are resolved in three years are (1) the tourism aspect of the Titab-Ularan Reservoir that has not empowered the local community so that active participation of the community and its contribution to the welfare of the local community has not been felt, (2) socio-economic aspects related to creative entrepreneurship based on the potential of the area and the potential of community resources in the Titab Reservoir Area need to be increased so that it can be linked to economic activities that will be triggered by the operation of Titab Reservoir - Output as a provider of raw water, irrigation, power plants and artificial tourism, and (3) the problem of environmental carrying capacity to enable the Titab-Ularan Reservoir to carry out its functions in a sustainable manner.

## **B. SOLUTIONS**

The first problem is that the Titab-Ularan Reservoir which was inaugurated at the end of 2015 has been designated by the Buleleng Regency Government as an Artificial Tourism Destination for the Titab-Ularan Reservoir, but until now the potential for water tourism, recreation and nature tourism has not been developed and the local community has not been prepared in terms of mental, socio-economic, tourism awareness or *sapta charm* by involving the active participation of the community in this area. The solutions offered are (1) empowering the community in the Titab-Ularan Reservoir area to become a tourism-conscious community by implementing *Sapta Pesona*; (2) initiating water tourism and recreational attractions; (3) pioneering a tourism village in the Titab-Ularan Reservoir area which begins with the formation of a Tourism Awareness Group (*Pokdarwis*),

The second problem is the absence of creative efforts by the community to support the Titab-Ularan Reservoir Area to support the development of artificial tourism and natural tourism as an integral part of the aims and objectives of the construction of reservoirs for irrigation, raw water reserves and hydropower plants. Part of the population, especially the working age population in this region, still depend on farming and for their livelihoods as farmers and farm laborers with high income disparities between those who have a lot of agricultural land (farmers and landlords) and those with little or no agricultural land. have no agricultural land at

all (farm laborers), while natural potentials such as natural beauty of agriculture and hills, the potential for large and stable river flows throughout the year and agragic culture have not been managed to become additional sources of income. The solution offered is training and mentoring in efficient technology and entrepreneurship for productive prospective community groups such as youth organizations and housewives to establish home industry businesses or micro businesses based on regional potential.

The third problem is the awareness and concern of the regional community towards the environment to maintain the sustainability of the function of the Titab-Ularan reservoir, especially the conservation and development of the green belt (green belt) and the reduction or elimination of the causes of silting the reservoir needs to be improved. The solutions offered are (1) environmental counseling to maintain the sustainability of Titab-Ularan Reservoir, (2) preparation and application of environmental management models for sustainable development in the Titab-Ularan Reservoir Area, and (3) tree planting action programs. scarce in green belt areas and assistance to farmer groups to avoid the disposal of agricultural waste and / or seepage material that can silt streams and reservoirs.

The fundamental contribution of this regional partnership program is (1) strengthening awareness and cooperation between related parties in maintaining and protecting the environment along the Saba River watershed and the Titab-Ularan Reservoir Area as a vital asset for agricultural irrigation, raw water supply, power generation and water tourism and recreation; (2) providing investment and business opportunities for water tourism and recreation in the Saba Watershed and the Titab-Ularan Reservoir Area with academic studies of water sports and recreation of the natural potentials of pure nature and artificial nature in this area; (3) providing life skills and fostering an entrepreneurial spirit for the younger generation to be actively involved in the development of a sustainable tourism industry so as to contribute to improving the standard of living of the people in this region.

## **3. RESULTS AND DISCUSSION**

### **1. Activity preparation**

Before holding PKW activities, first carry out a coordinating meeting for socialization and launching the program to prepare everything, both administration that supports the implementation of the activity. The administration includes an invitation letter to the head of the LPPM to open activities, an invitation to the Head of the Buleleng Regency Tourism Office, the Head of the BWS Bali-Nusa Penida District, Seririt Sub-District, Busungbiu Sub-District Head, Ularan Village Head,

Busungbiu Village Head, Titab Village Head, Ringdikit Village Head, Head of Lokapaksa Village, Hamlet / Banjar Head of Kelodan Office of Busungbiu Village, Head of Hamlet / Banjar Service of Bhuana Kerthi Village of Ularan, Head of Hamlet / Banjar Office of Angsna Sari Village Titab, Head of KSDA, and Members of the PKW Proposal Team. Besides that, a modified tubing from semi-used fuso truck tires was also prepared as a creative effort in this activity.

## 2. Implementation of PKW

a) The implementation of PKW begins with the Socialization and Luanching of the Regional Partnership Program for the Regional Government of the Titab-Ularan Reservoir Area in the Development of Tirta Tourism and Recreation which was held on Thursday, 24 May 2018, the BWS Bali Penida Titab-Ularan Meeting Room. As for the parties involved 1) Head of Buleleng Tourism Office; 2) Head of BWS Bali-Nusa Penida, 3) Head of LPPM Undiksha, 4) Head of LPPM Panji Sakti University, 5) Head of Seririt, 6) Head of Busungbiu Sub-District, 7) Head of Ularan Village, Busungbiu, Titab, Ringdikit, Lokapaksa, Head of Hamlet / Banjar Dinas, and Head of KSDA Buleleng. The Socialization and Luanching Program of the Regional Partnership for the Regional Government of the Titab-Ularan Reservoir in the Development of Tirta Tourism and Recreation received appreciation from the Head of the Buleleng Tourism Office as the development of tourism destinations, especially the development of new tourist destinations in Buleleng Regency. From the Heads of Seririt and Busungbiu sub-districts, this activity received appreciation and support due to the empowerment of the Titab-Ularan Reservoir area community to become a community aware of tourism and business opportunities for the welfare of the local community. b) Survey of water tourism and recreation development

at Titab-Ularan Dam. Mapping of routes, meeting points and end points for water tourism, especially rafting from the Titab Bridge to the Titab-Ularan dam body, which was held on Sunday, May 27 2018, Titab Village Bridge - Titab Ularan Dam Agency. c) Survey of water tourism and recreation development at the Titab-Ularan Dam. Path mapping, meeting point and end point for water tourism, especially rafting from the Titab Bridge to the Titab-Ularan dam body which was held on Sunday, May 27 2018, Titab Village Bridge - Titab Ularan Dam Agency. d) Survey of water tourism development and recreation at Titab-Ulara Dam, especially rafting from Titab-Ularan Dam to Saba Dam in Lokapaksa Village which was held on Thursday, June 14 2018, Titab Ularan Dam - Saba Dam in Lokapaksa Village. e) FGD for water tourism development and recreation at the Titab-Ularan Dam, especially rafting, was held on Wednesday, July 11 2018, Posko PKW-Pemda Titab-Ularan: Food Stalls & Swiss Fishing Pond, Ularan Village. f) Coordination of Youth Tourism Awareness Education activities (Pokdarwis) and the formation of Watershed and Agricultural Environmental Awareness Groups (Pokdarlingdastan) held on Monday - Tuesday, 30 - 31 July 2018, Seririt Sub-District Office and Busung Biu sub-district office, office for Lokapaksa village, snake, titab, busungbiu and Ringdikit. g) Tourism awareness education for youth (Pokdarwis) and the formation of Pokdarlingdastan were held on Monday, August 13 2018, the PKW-Pemda Titab-Ularan Posko: Food Stalls & Swiss Ularan Fishing Pools h) Internship for Captain Rafting Candidates at Red Paddle Adventure, Kedewatan Ubud-Gianyar on Saturday, August 25 2018, Red Paddle Adventure, Kedewatan Ubud-Gianyar. i) FGD Potential and tourism attractions of Pokdarwis from 5 main villages, namely lokapaksa, ularan, titab, busungbiu and Ringdikit on Sunday, 26 August 2018,



Figure 3. Socialization and Luanching of the Regional Partnership Program for the Regional Government of the Titab-Ularan Reservoir in the Development of



Figure 4. Survey Mapping of routes, meeting points and end points for water tourism, especially rafting from Titab Bridge to Titab-Ularan dam body

#### Tirta Tourism and Recreation



Figure 5. Survey of water tourism and recreation development at Titab-Ulara Dam, especially rafting from Titab-Uluran Dam to Saba Dam in Lokapaksa Village



Figure 6. FGD on water tourism development and recreation at the Titab-Uluran Dam, especially rafting



Figure 7. Coordination of Youth Tourism Awareness Education activities (Pokdarwis) and the formation of Watershed and Agricultural Environmental Awareness Groups (Pokdarlingdastan)



Figure 8. Tourism awareness education for youth (Pokdarwis) and the formation of Pokdarlingdastan



Figure 9. Internship for Captain Rafting Candidates at Red Paddle Adventure, Kedewatan Ubud-Gianyar



Figure 10. FGD Potential and tourism attractions of Pokdarwis from 5 main villages, namely lokapaksa, ularan, titab, busungbiu and Ringdikit.

## 4. CONCLUSION

The conclusion of this activity is

1. Socialization and Luanching of the Regional Partnership Program for the Regional

Government of the Titab-Uluran Reservoir Area in the Development of Tirta Tourism and Recreation which was held on Thursday, May 24 2018, Meeting Room BWS Bali Penida

- Titab-Ularan.
2. Survey of water tourism development and recreation at Titab-Ularan Dam. Mapping of routes, meeting points and end points for water tourism, especially rafting from the Titab Bridge to the Titab-Ularan dam body.
3. Survey of water tourism development and recreation at Titab-Ularan Dam. Map of the rafting route from the Titab Bridge to the Titab-Ularan dam body.
4. Survey of water tourism development and recreation at Titab-Ulara Dam, especially rafting from Titab-Ularan Dam to Saba Dam in Lokapaksa Village.
5. FGD on water tourism development and recreation at the Titab-Ularan Dam, especially rafting
6. Tourism awareness education for youth (Pokdarwis) and the formation of Pokdarlingdastan
7. Internship for Candidates for Captain Rafting at Red Paddle Adventure, Kedewatan Ubud-Gianyar Red Paddle Adventure, Kedewatan Ubud-Gianyar.
8. FGD Potential and tourism attractions of Pokdarwis from 5 main villages, namely Lokapaksa, Ularan, Titab, Busungbiu and Ringdikit

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