EXPERIENCE OF WATER USER ASSOCIATION PARTICIPATION IN IRRIGATION MANAGEMENT (CASE STUDY: SOUTH SULAWESI)

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ABSTRACT

In South Sulawesi, the democratic way for operation the irrigation system has been implemented. Decision making to decide the pattern and cropping used to discuss in the community ofwhich presented by the stake holders. For example, in Bugis area well known as *Tudang Sipulung*, in Makassar Area; *Empo Sipitanggari* (Jeneponto) and *A Palili* (Gowa).

The operation and management system during the last few decades make the farmers think that every activity concerning operation and management of the irrigation system is the government responsibility, because booming of oil money at that time, create so many projects, even for operation and maintenance system, y neglected the farmers. At last, the farmers thinks that government must be responsible for all the irrigation aspects, and the farmers became spoiled, because everything must be done by project, and it means money, even, that's for their own benefit.

This paper will try to analyse the situation about operation and maintenance system, before and after the reformation era. Especially, after introducing to the farmers about participatory irrigation management through several stagings. Besides introducing the participatory irrigation management, the government of Indonesia also has been preparing several regulation concerning water, Operation and management; ie Law of the Republic of Indonesia Number 7 of 2004 concerning Water Resources, Government Regulation number 20 of 2006 concerning Irrigation, Ministry of Public Work regulation number 30 of 2007 concerning Development and Management of Partisipatory Irrigation system, Ministry of Public Work Regulation number 31 of 2007 about irrigation commission, Ministry of Public Work Regulation number 32 of 2007 about operation and maintenance guidance. Ministry of Public Work Regulation number 33 of 2007 about empowering water user association.

Several model of farmers participation has been implemented, i.e; empowering WUA by involved them from planning, design and to some extend even WUA has been acting indirectly as contractor. All of these implemented under the Small Scale Irrigation Hand Over (1987-1991), Farmed Management Irrigation System (1997-2000).Water Resources and Irrigation Sector Management Program (2006-2010), Partisipatory Irrigation Sector Project (2006-2011). Every model has it's own benefit. Finally, this paper will try to review and recommended the most suitable model to be implemented in South Sulawesi.

Key Words: Water User Participation, Democtaric way in O&M system

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Introduction

Like many other provinces in Indonesia, South Sulawesi Province also has a long history in irrigated agriculture. Irrigation based agricultural heritages has long been implemented in this area by relying on the togetherness principle under the coordination of informal leaders (Gany, 2004).

In South Sulawesi, the democratic way for operation the irrigation system has been implemented. Decision making to decide the pattern and cropping used to discuss in the community of which presented by the stakeholders. For example, in Bugis area well known as *Tudang Sipulung*, in Makassar Area; *Empo Sipitanggari* (Jeneponto) and *A Palili* (Gowa).

After the independence, especially through the REPELITA *(Rencana Pembangunan Lima Tahun)* program, of which the government developed many large and technical irrigation area, it seems almost all of the activities in irrigation system has been take over by the government. So, after several decades the farmers think that the responsibility about irrigation is in the government hand. And this mindset make the farmers became careless even about the operation and maintenance system in tertiary system. On the other hand, with all the new infrastructure, the government became difficult to prepare all the budget for O & M.

Participation Concept Approach

The consequence of the intervention of the government for these decades in irrigation management system, while the farmers has been neglected, of which make them has a new mindset, that the operation and management system of the irrigation system, even in the tertiary system is the responsibility of the government as the authority.

When the quantity of water became not sufficient as result of the decreasing service capability of the infrastructure, the farmers just waiting for the government to repair, even just for the tertiary canal or cleaning the canal, while the tight money policy after the economic and financial crisis, the government become more difficult to handle these matter. As the result, so many people speak about the failure of the government in agricultural system, which means the *SWASEMBADA BERAS* (prepare own rice) has been failed. Thus the government must import rice. To avoid this situation, idea about farmers participation rise up.

At the beginning, participation concept approach, starting with the result of a study, that the farmers not antusias to participate and to take the responsibility, because the infrastructure ofwhich has been built not suitable to the needs of the farmers. So the recommention said, that the farmers must be involve since planning & design, implementation and operation&maintenance systtem in order to get the participation from the farmers. Actually right, because when they involve in the work they will have the sense of belongings, and than they will participate in O&M system, especially at the tertiary system.

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In 1982, the Directorace General of Water Resources, Ministry of Public Work has been starting the participatory approach for the small scale irrigation system under 1,000 Ha, with the so call HPSIS (High Performance *Sederhana* Irrigation System) in Madium 1983 – 1988. *Proyek Pola Bantuan Irrigasi Tradisional* (Traditional Pattern Irrigation Aid) in Lahat 1986 -1990, as a pilot project. After that, *Proyek Penyerahan Irigasi Kecil* (Small Scale Irrigation Hand Over Project) in 1987 – 1992. And, Water User Association Organizer Program in Small Scale Irrigation Management Project in 1990 – 1994. In this era, the farmers has been involve in the stage of planning & Design, and the Water User Association has been introduced.

In 1997, when Indonesia enter to a new era, called reformation era. The government also conducted reformation in water resources sector. With several policies to reform the institutional in the water resources sector, ofwhich government has been faced some obstacle.

In 1999 the government has been published the President Instruction (Inpres Nomor 3/1999) as the beginning of the water resources reform, and then with the Peraturan Pemerintah Nomor 77 Tahun 2001 (Government Regulation) about the sustainable Irrigation. And then, the Indoensia-Law on Water Resources number 7 of 2004, with more about the participatory approach in Government Regulation (Peraturan Pemerintah No. 20 Tahun 2006) about Irrigation.

The management of irrigation system has been regulated in the Law on Water Resources number 7 of 2004, that the Kabupaten Government has the responsibility of the irrigation system under 1,000 Ha, the Provincial Government has the responsibility of the irrigation system between 1,000 – 3,000 Ha, and for the large system over 3,000 Ha is the Central Government responsibility

The development of management system in Participatory Approach has been followed up with the Keputusan Menteri PU No. 30 Tahun 2007 (Decision of Ministry of Public Work), about guidance for development and management system for participatory approach to optimize the benefit of water in irrigation conducted by the Water User Association (Union of WUA) for the efficiency and effective use of water for sustainability by empowering the WUA.

Several models have been implemented since the reform in water resources management, through IWIRIP (Indonesian Water Resources and Irrigation Reform Implementation Program) 2001 -2004. FMIS (Farmed Management Irrigation System) 1997 – 2005. WISMP (Water Resources and Irrigation Sector Project (Phase I, 2006 – 2010), and PISP (Participatory Irrigation Sector Project) 2006 – 2011.

Actually the South Sulawesi Government has published the Provincial Regulation No. 12 of 2003 about irrigation of which as the implementation of Government regulation no.77 of 2001 about irrigation, but after the revised of the law of water resources which has been changes into government regulation No. 20 of 2006, the provincial regulation also has been changed into provincial regulation No. 3 of 2009.

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Implementation of Participation Approach from Time to Time

The new paradigm in irrigation management as a part of the management in water resources, is a consequency of several phenomenon in all over the world, such as; human right with the democratic process, the right to have access to fresh water, the demand of fresh water, quantity and quality become increase while the supply become decrease.

In the Law of Water Resources Number 7 of 2004, empowering means to be implemented through education, training, development and to stand side by side. And in the Government Regulation Number 20 of 2006 about Irrigation stated that ke empowering farmers done by the Kabupaten/kota Government, by decided the strategy and program to empowering the Water User Association according the capability of the *Kabupten/kota* Government. And the Provincial Government give the technical assistance to the Kabupaten/kota Government to empowering the institution/water user association at the *kabupaten/kota* level and to develop the management system according to the *kabupaten/kota*'s needs.

And then, the central government will give the technical assistance to the provincial and kabupaten/kota government, and water user association.

The method to empowering the water user association of which has been explain in KEPMEN PU no.33 of 2007 about empowering water user association, will using the field method and classical method. The field method will be implemented systematically and countinously through socialization, motivation, field trip, technical assistance, rutin meeting, and facilitated.

Empowering the farmers will be conducting by:

(A) *Pemandu Lapangan* , as the technical assistance from the government (central or province) who work at the field with the WUA, consist of : agriculture , irrigation and kecamatan staff who will work side by side with the farmers.

(B) *Tenaga Pendamping Petani*, as the motivator and facilitator who will work according the needs at the certain period

Empowering the farmers are doing by urging them to organize themselves in The Water User Association (P3A) in tertiary system, Union Water User Association (GP3A) in secondary system, and Head of Water User \association (IP3A) in primary system or one irrigation area (daerah irigasi).

Activities which strating with doing the Survey, Investigation and Design (SID), construction work, O & M in irrigation system is a system of which every stage as a subsystem of the transfer of knowledge and technology. Technology is the technical means people use to improve their surroundings. It is also the knowledgement of using tools and machines to do tasks efficiently. Technology is people using knowledge, tools and systems to make their lives easier and better. Technology usually control by the government to manage and has the responsibility at the main system of the irrigation. The farmers just have a little very limited access to the technology using in the irrigation system. So, there is a gap between the government manage the main system and the farmers to manage the tertiary system. Sometimes this can be vey disharmony and caused chaos and anarchy. As usually people say,

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the O&M sysem used to be said very important, but not have must attention. Build –neglst – rebuild. The result of these make the decreasing the services of the irrigation system

HPSIS (High Performance *Sederhana* Irrigation System) 1984 – 1986.

This program developed the farmers participation in Operation and Manintenance simple irrigation system. The program has been executed through the cooperation of USAID and the Government of Indonesia, and LP3ES. This model placed in field (the irrigation area) one CO (community Organizer) with the task to facilitate farmers to be active in the operation and maintenance the irrigation system by developing the institution P3A. Each CO has the responsibility about 150 – 200 Ha.

Problem

- Very low attention to develop the simple irrigation system;
- The allocation budget for O&M very limited;
- The law not supported;
- The condition of the channel and structure too simple.

PIK (*Penyerahan irigasi Kecil*, under 500 Ha) Small Scale Hand Over Project (1987-1991)

Small Scale Hand-over Project (1987 -1991) through the cooperation between Government of Indoensia, The Ford Foundation and LP3ES Jakarta. In this project, the farmers starting to organize themselves in WUA, and they also involved in the survey, investigation and design to repair of the small scale irrigation system.

To develop the participation of the farmers, in field there is a TP4 (*Tenaga Penggerak Petani Pengelola Pengairan/* staff acting as the motivator for irrigation management) to facilitate strengthening the WUA as an organization by training and several others instrument in order to hand over the small scale irrigation system after repairing and rehabilitation

Problem; after the hand over, no continuity supervise and monitoring the WUA, the water become decrease and the rule of the hand over not supported.

SSIMP (Small Scale Irrigation Management Project) 1990-2013

The purpose of SSIMP is to develop the middle irrigation system with community participation. The empowering doing by placement one WUAO (Water User Association Organizer) with the covering area of 500 Ha.

WUAO in the field starting to do the community preparation (P3A) since the SID, land acquisition till the O&M. In the design stage the farmers involve by doing the proposal design (on the farm level), and then negociation between the farmers and the government (the Review Tersiery Design Team – from public works)

At the institutional level, before implementation of the construction, there is a task force of construction to do the works at the tertiary level. And establish the GP3A at the secondary system.

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Sumarry activities of SSIMP-DISIMP in South Sulawesi:

	Year	Main activities
SSIMP-I	1990 – 1994	Construction work of weir and the irrigation system of AWO Empowering P3A by cooperation of the USAID and Government of Indonesia
SSIMP-II		1995 – 1998 Construction work of irrigation system of AWO II, construction work of dam and irrigation system of Salomekko, and empowering P3A by cooperation OECF Japan and Government of Indonesia Government of Indonesia
SSIMP-III	1998 – 2003	Construction work of Irrigation system of AWO III, rehabilitiation of AWO IV drainage system, rehabilitation of Kelara Karaloe, Kiru-kiru lanrea, Kalamisu & Saddang stage I Rehabilitation of Palu weir, Construction wotk of ground water irrigation system in Bantaeng Rural Development in Gowa and Bantaeng District Empowering the P3A. (Cooperation between JBIC and GOI)
DISIMP	2003 – 2009	Construction work of irrigation system of Ponre-ponre Rehabilitation of Tabo-tabo, Lamasi, and Saddang Stage II Rehabilitastion of Kanjiro weir and the irrigation system. Rehabilitation of Kalamisu Irrigation system (result of Flood) Rehabilitation of weir dam and grounsill at Jeneberang Empowering P3A Try out the SRI (System Rice Intensive) pattern Implementation of Ground water irrigation system in Wajo (Cooperation between JBIC and GOI)
DISIMP-II	2009 – 2013	Rehabilitation of Saddang Irrigation system Stage 3-4 Rehabilitation of right Lamasi irrigation system Construction work of Bajo weir and rehabilitation of bajo irrigation system Construction work of weir and irrigation system of Tomo (West Sulawesi) Soft Component including: - Empowering P3A and strengthening the government institution - Water management on-farm level - Asset management

DISIMP (2010-on going) cooperation between JBIC and GOI

Problem: the involvement of other agencies minim, the budget for O&M very small and the continuity of empowering P3A and GP3A to be sustain not clear.

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IWIRIP (Indonesian Water Resources and Irrigation Reform Implementation Program) di Sulsel mulai 1999-2004

After the crisis in 1997, GOI has been implemented the reform in water supply sector through the Water Resources Sector Adjustment Loan (WATSAL, Loan No 4469 - IND) which done through the cooperation with the World Bank The pilot project is. Java Irrigation Improvement and Water Management Project (JIWMP, Loan No. 3762-IND) and Indonesia Water Resources and Irrigation Reform Implementation Program (IWIRIP, TF NO 027755).

Participation model

1. O&M of irrigation system hand over to P3A as in Government regulation No. 77 of 2003 .
2. Placement of farmer's escort (*TPP, Tenaga Pendamping Petani*) at GP3A level
3. To establigh the PERDA (distric regulation) suitable with the hand over paradigm . In South Sulawesi there are PERDA no. 12 of 2004, and also in Wajo and Pinrang district.
4. Rehabilitation of the irrigation system with the farmers participation
5. Project management will be running by university, NGO and others related institutions . The university doing the training for the farmers and NGO as TPP

Problem

1. At that time the law of water resources has not been published
2. Alocation of KIF (*Kabupaten* irrigation Fund) and irrigation O&M budget fin Kabupaten has not been formulated.
3. Budget to maintain for sustainable the develoment of P3A,GP3A and IP3A not allocated .

4 In Pinrang, the placement of PPI to 6 GP3A, but not running well

. **WISMP (2006-2010)**

Water Resources and Irrigation Sector Management Program – Irrigation Management Reform Implementation (WISMP-IMRI) has benn design to assist implementation of PSIP (Participatory Irrigation Sector Project), as stated in the law of water resources no.7 of 2004 that management of irrigation in chapter II about authorities and responsibilities .

Participatory Irrigation Sector Project (PISP) Tahun 2006 – 2011

Like in WISMP, the empowering of farmers with the guidance of Government Regulation No. 20 of 2006 about Irrigation. This program undertaken by cooperation between ADB and GOI through Loan ADB No. 2065-INO.

The mission of PISP is renew the policy in management of irrigation, to increase the capacity to manage the irrigation through capacity building program at the government institution at distric level, WUA, to implement the rehabilitation program of irrigation infrastructure selectively.

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The result from PISP are; the sustainability of using the irrigation system to increase the procuctivity of rice, to lengthen the economic life of the infrastructure, efficient in using the budget from the government and to involve the WUA to design the policy about the management system in O&M, so the WUA will take more responsibility in O&M.

Partisipation model

1. Role sharing among PSDA (water resources agency), BAPPEDA (planning board) and agriculture in all government level;
2. Placement of TPM ;
3. Training for staff and WUA;
4. Involving WUA since SID, construction work and O&M..

Problem

- WUA not just involve in cleaning the channel, but doing the construction work acting as contractor.
- MOU between central government, province government district government and WUA.
- Allocation of budget usually just for rehabilitation, while O&M, continuity strengthening not available.
- GP3A does not have the qualification as contractor , it's mean contradicted with KEPRES Badan Hukum GP3A

Result and Discussion

Learning from the implementation experiences about the participation of WUA in O&M system since HPSIS up till now WISMP and PISP, There is a progress in the WUA participation. The placement of CO, TPM have give much benefit because they work side by side with the farmers., but the success of every places not the same, it depends on the quality of CO/TPM and they personality, also the characteristic of the community.

In WISMP and PISP there is an increasing of WUA participation, because they can do the construction work by direct pointed. While in the Law No. 18 of 1999 of Construction and KEPPRES No. 80 of 2003 about procurement, there are so many stipulation/regulation for a contractor firm to follow the procurement staging to get a construction work.

A question must be ask is, do the WUA anthusiacm because they get much many acting as contractor and get the profit for doing the rehabilitation work? As in others program they just think that they have been used to involve in survey, investigation and design, while attending empowering program just wasting their time.

Reccomendation

To reach the target about the sustainable irrigation in the future, the farmers knowledge about agriculture and O&M system must be improve. So the empowering farmers/WUA must be done continual. Beside the capacity building, there must be trainings about agriculture and irrigation system. And the recruitment of CO/TPM must be through a selection with certain criteria because they play an important role as the motivator and facilitator.

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A very dangerous situation when the WUA get the new idea and change their mindset not as an organization of farmers together to manage their water but to become contractor.

If the involving WUA as contractor can increasing the WUA participation, the government must review all the regulation in Law No.18 of 1999, KEPRES 80 of 2003 and others regulation, as the umbrella for this program. Because in some places, so many contractor have been protested. As a professional contractor, the firm must have so many permit letter and certificate, to get a package of construction work over Rp. 50 millions must be followed the procurement process, on the others hand, WUA without all the qualification can get the package of construction work with the budget over Rp.50 millions.

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REFERENCES

1. A. Hafied A. Gany, dkk (2004) "Irrigation History Of Indonesia"
2. Annual Work Plan (AWP) Participatory Irrigation Sector Project (PISP)
3. Bank Pembangunan Asia (2008), Project Administration Momerandum (PAM), Participatory Irrgation Sector Project (PISP), Jakarta
4. Water Resources And Irrigation Sector Management Program I (2005) Project Implementation Plan.
5. *Evaluasi IWIRIP Dalam Persiapan Pelaksanaan WISMP*.
6. Indonesia Water Resources And Irrigation Reform Implementation Program (2005) Provinsi Sulawesi Selatan
7. *Refleksi Pengalaman LEPPSEM dalam pengembangan P3A di Sulawesi Selatan,1999*
8. Sudar D. Admanto (2004), *"Kebijakan Setengah Hati dalam mewujdkan Kesejahteraan dan Kemandirian Petani, LP3ES.*
9. *Susanna E.Siskal dan S.R Hutapa (1995) "Irigasi di Indonesia, Peran serta Masyarakat " LP3ES, Jakarta.*
10. *Unit Pusat Data dan Sistem Informasi Sumber Daya Air Dinas PSDA Provinsi Sul –Sel (2009), "Kumpulan Perundang – undangan tentang Sumber Daya Air Bidang Irigasi, Makassar*

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