

Network of Asian River Basin Organizations

The Fourth General Meeting IWRM Seminar on Exploring Keys for Success in IWRM in the River Basins Wednesday, 10 November 2010 Ujung Pandang-Indonesia.

Keys for Success in IWRM in the Bengawan Solo River Basin

Ir. Harianto, Dipl HE
Director of Technical Planning and Development



JASA TIRTA I PUBLIC CORPORATION Brantas and Bengawan Solo River Basin Organization

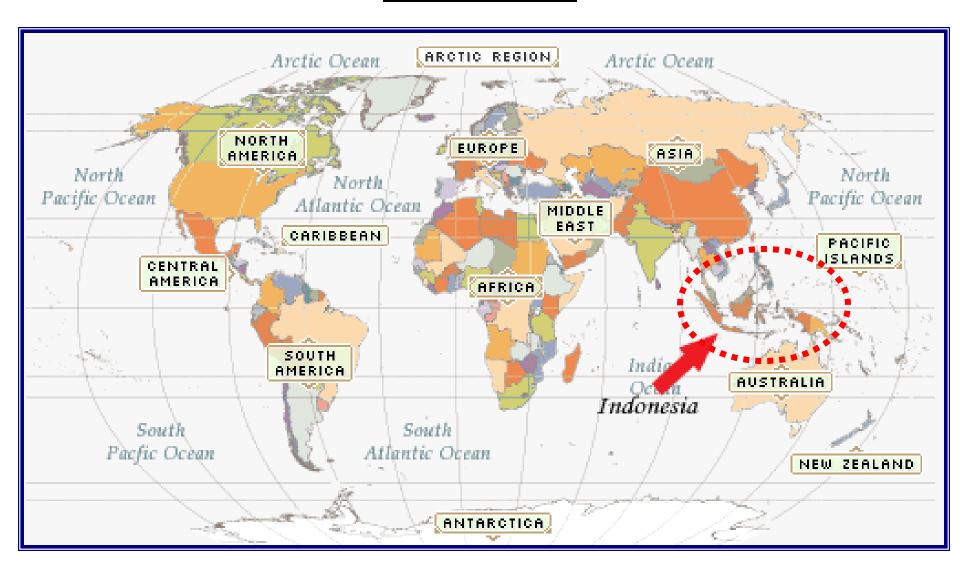
Jl. Surabaya 2A, Malang – 65115 Indonesia Ph. 62 341 551971, Fax. 62 341 51976 http://www.jasatirta1.co.id



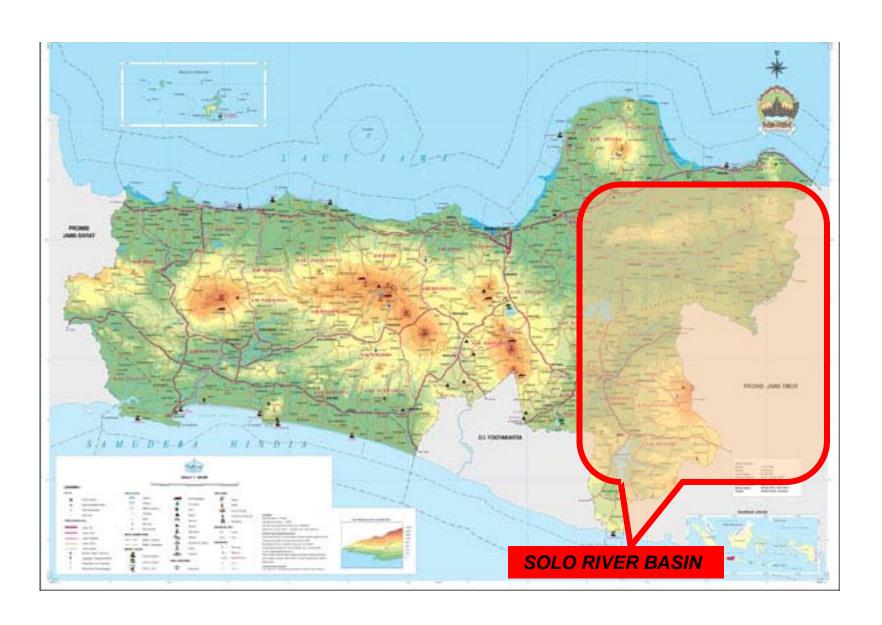


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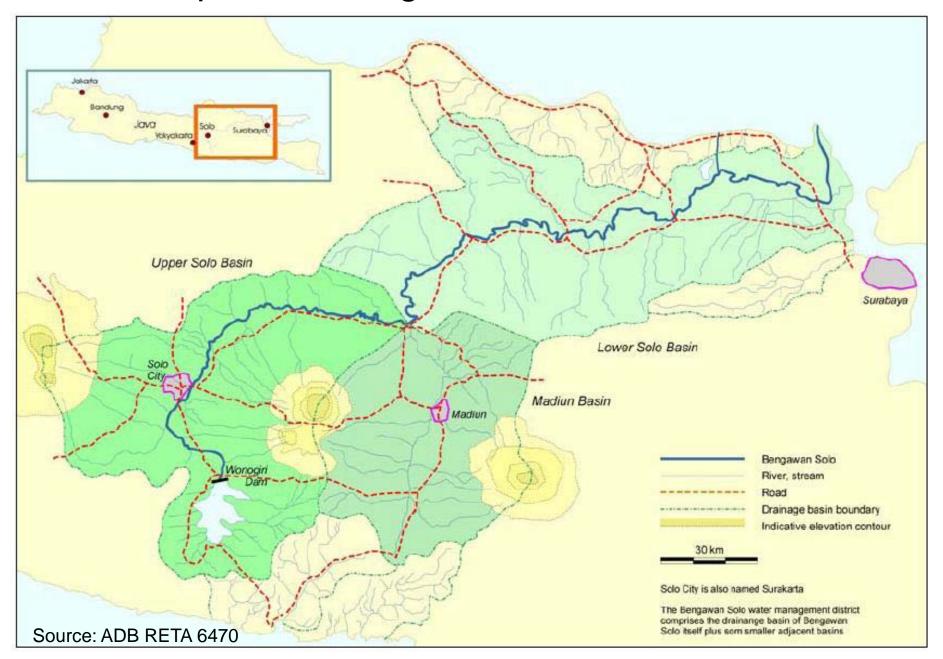
GLOBAL MAP



MIDDLE AND EAST JAVA



Map of the Bengawan Solo River Basin



About the Bengawan Solo River Basin

- The Bengawan Solo River Basin is the largest river basin on the island of Java, Indonesia.
- The basin is located in two provinces, Central Java and East Java (Crossed Provinces River Basin).
- The basin drains a watershed area of around 20,000 km² in total, discharging into the Java Sea, in the north of Surabaya City after travelling about 600 km from its spring.
- Agriculture is the largest economic sector in the Bengawan Solo River basin, generating 29% of GRDP and 53% of the employment.



Problems in the Bengawan Solo River Basin

- During the rainy season, the Bengawan Solo River inundates its corridor which causes disaster to the inhabitants.
- Drought during the dry season poses another problem for most of the river system area. During dry season, droughts sweeps over 80% of the irrigated paddy field in the basin (545,000 ha).
- Recent flood happened on December 26-27, 2007 extended into 2008. Inundation was present until early February 2008.
- Land use in the Bengawan Solo River Basin is much characterized by dormant and active volcanoes.

WR infrastructures in the Bengawan Solo Basin



Babat Barrage



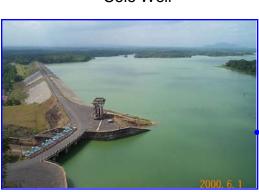
Jabung Outlet



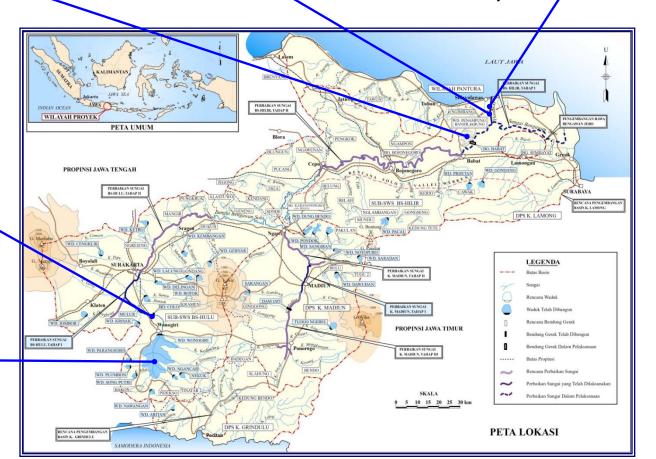
Floodway Inlet



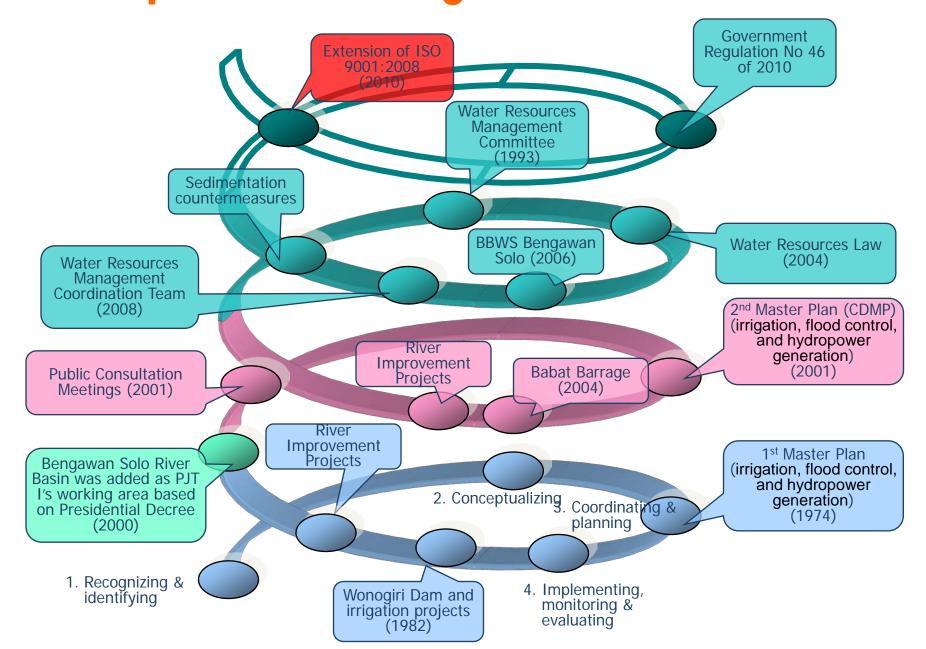
Colo Weir



Wonogiri Dam



IWRM Spiral of the Bengawan Solo River Basin



Key for Success in IWRM in the Bengawan Solo River Basin

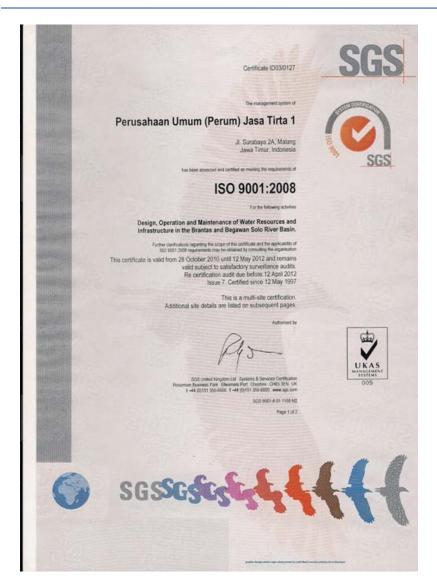
- The comprehensive plan as national priority and as river basin wide priority
 - Master Plan I (1974): Survey and Study for the Development of Solo River Basin
 - Master Plan II (2001): Comprehensive Development and Management Plan (CDMP) for Bengawan Solo River Basin
- Public participation and bottom-up approaches in water resources planning
 - Public consultation meetings (PCMs) held under the Comprehensive
 Development and Management Plan (CDMP) Study for Bengawan Solo River
 Basin Under Lower Solo River Improvement Project completed in 2001.
- Coordination among sectors and all stakeholders
 - The Water Resources Management Coordination Team provides a permanent platform for active participation by key public and private stakeholders
- Application of management system to achieve stakeholder satisfaction
 - As commitment to achieve stakeholders' satisfaction through continuous improvement of the system and responsive actions on stakeholders' complaints

MANAGEMENT COMMITMENT

Top management shall provide evidence of its commitment to the development and implementation of the quality management system and continually improving its effectiveness by:

- a) Communicating to the organization
- b) Establishing the quality policy
- c) Ensuring that the qulity objective are established
- d) Conducting management review, and
- e) Ensuring the avaibility of resources

Extension of ISO 9001:2008 Implementation in the Bengawan Solo River Basin (5 November 2010)







Quality policy

Top management shall ensure that the quality policy:

- a) is appropriate to the purpose of the organization
- b) includes a commitment to comply with requirement and continually improve the effectiveness of thequality management system
- c) provide a framework for establising and reviewing quality objectives
- d) is communicated and understood within the organization, and
- e) is reviewed for continuing suitability.

CUSTOMER FOCUS

 Top management shall ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction

RESPONSIBILITY AND AUTHORITY

 Top management shall ensure that responsibilities and authorities are defined and communicated within the organization



1.0 PROSES OPERASI HARIAN WADUK UNTUK WADUK WONOGIRI

No Dok : QP/BS5/01 Tgl. Terbit : 24/8/2009 Status/Tgl : "Q"

	Urajan		Ka. Sub Divisi Jasa ASA	
No.	Kegiatan	Pengamat PP	V/1	ВРРО
1	Pola Operasi waduk yang berlaku	Mulai Pola Operasi Waduk		4
2 ت	Dalam kondisi normal pengamatan dilakukan setiap jam	Monitoring elevasi Hitung Qo dan Q in		
3	Apabila TMA < pola maka operasi PLTA Q in = Q out	Elevasi > T pola ?	Menginformasikan ke PLTA Qin = Qout	
4	Apabila PLTA gang- guan maka kebutu- han air di hilir dilaya- ni melalui HJV/Spill way gate	PLTA siap onerasi?	T Kebutuhan air di hilir dilayani melalui HJV/spillway gate	
5	Bila TMA > pola, maka PLTA dapat dioperasikan max.	PLTA Operasi sesuai dengan pola		
6	Apabila TMA waduk > 136.00, membuat laporan ke BPPO	TMA > 136.00	Membuat laporan ke BPPO	Mengevaluasi kondisi TMA waduk

EXAMPLE:

PROCESS OF DAILY RESERVOIR OPERATION

- •CUSTOMER FOCUS
- •RESPONSIBILITY AND AUTHORITY



PROSES PENGENDALIAN BANJIR WADUK WONOGIRI

No Dok : QP/BS5/03

Tal. Terbit : 30 - 9 - 2009

Status/Tol: "O"

34	SA TIRTA I			Status/Tol: "O"	
No	Uraian Kegiatan	Pengamat	Ka.Sub. /Ka.Divisi	ВРРО	
1	F	Mulai Monitoring TMA, Qin flow. Quot Tinggi muka air mencapai 135.30 T Y PLTA dioperasikan secara maksimal / pintu spillway dioperasikan			
4	Melaporkan ke BPPO-BS bahwa kondisi muka air waduk siaga I ,II, III	Membuat laporan	Menandatangani laporan	Mengevaluasi data Selesai	

EXAMPLE:

PROCESS OF FLOOD CONTROL WONOGIRI –BENGAWAN SOLO RESERVOIR

- •CUSTOMER FOCUS
- •RESPONSIBILITY AND AUTHORITY



1.0 PROSES OPERASI HARIAN BENDUNG COLO

No Dok : QP/ 0S5 / 02

Tgl. Terbit : (6 - 12 - 09)

Status/Tgl : "O"

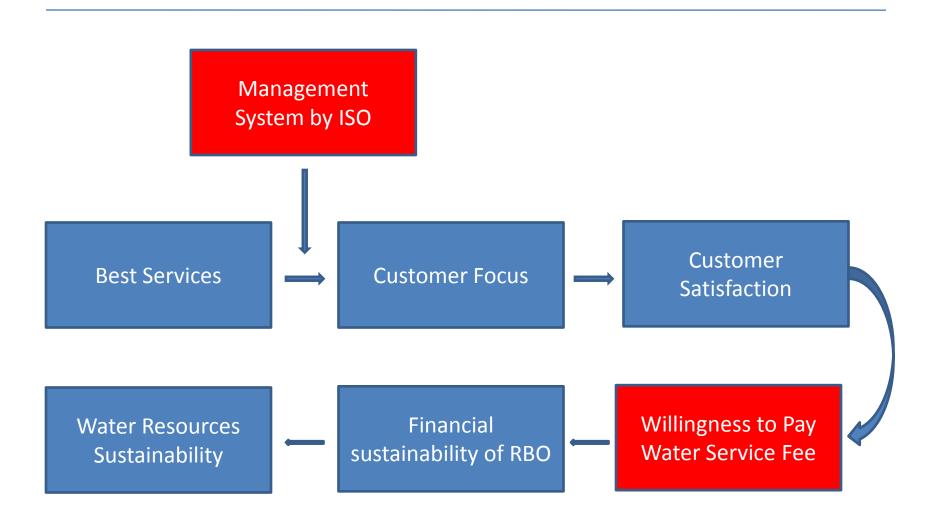
	SATIMAT		Status/1g1 ; "O"	
No.	Uraian Kegiatan	Pengamatan PP	Juru Pintu	Ka. Sub DJA V/2
1.	Pola Operasi Bendung yang berlaku	Pola Operasi Bendung (POB)		,
2.	Dalam kondisi normal pengamatan dilakukan setiap jam	Montoring elevasi, hitung Qout & Qin		
3.	Intake dioperasikan sesuai POB, apabila TMA < POB maka operasi intake sesuai dengan ketersediaan air atau instruksi Ka Sub DJA/ Ka. DJA	Elevasi < y pola ?	Operasi intake sesuai ketersediaan air Intake dioperasikan sesuai POB	
4.	Pintu dioperasikan dengan sistem elektromekanis, apabila elektromekanis rusak maka pintu dioperasikan secara manual.		Intake dioperasikan dengan elektromekanis Intake dioperasikan secara manual	
5.	Membuat laporan harian (formulir QP/BS5/02-01) dan bulanan (formulir QP/BS5/02- 02)	Membuat laporan		
6.	Laporan diverivikasi dan disahkan oleh Kasub DJA		L	Verivikasi &Tanda tangan laporan
7.	Apabila terjadi PTS, maka dilakukan pengendalian PTS sesuai dengan QP/PJ/44 dan QP/PJT/46	Laporan		T Terjadi PTS? Y Pengendalian PTS Solesai

EXAMPLE:

PROCESS OF DAILY WATER ALOCATION COLO BARRAGE-BENGAWAN SOLO

- •CUSTOMER FOCUS
- •RESPONSIBILITY AND
- •AUTHORITY
- •CUSTOMER SATISFACTION

Benefit from the Implementation of ISO



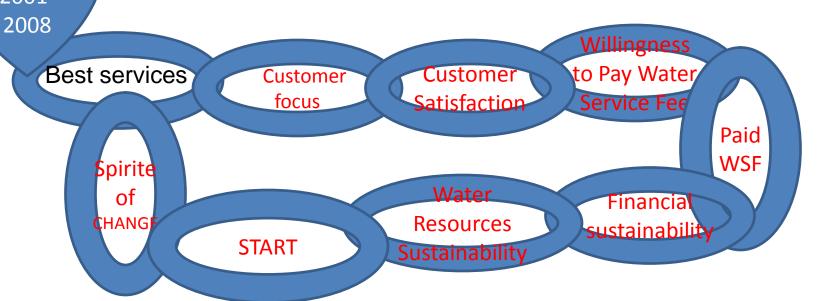
Conclusions (1/2)

- Water is a value as an economic goods, many past failure in water resources management are attributable to the fact that water has been and is still viewed as a free goods, or at least that the full value of water has not been recognized.
- Some keys for success in IWRM have been identified in the Bengawan Solo River Basin.
- In order to sustain water resources management and to address effective water governance in the Bengawan Solo River Basin, by the President degree 129/2000 and Government Regulation 46/2010, Government of Indonesia has established and strengthened River Basin Organizations (RBOs) namely Jasa Tirta I Public Corporation (PJT I) as neutral and professional institutions who apply in balance between healthy corporation principles and accountable public service norms on water resources supported by stakeholders participation.

Conclusions (2/2)

- Some issues faced by PJT I identified in technical, financial, social, organizational, and institutional and legal aspect, especially in "flood control and water allocation.
- To cope these issues, PJT I done some action for each relevant issues.
- ISO 2001-2008 FOR DESIGN, OPERATION AND MAINTENANCEOF WATER AND INFRASTRUCTURES ESPECIALLY FOR FLOOD CONTROL AND WATER ALLOCATION is one of the institution development strategy.
- SINERGY WITH BBWS BENGAWAN SOLO (Government RBO), Jasa Tirta I Public Corporation with ISO 2001-2008 shall ensure that the qauality policies are met with " CUSTOMER SATISFACTION".

The "CHAIN" of Success Factors by ISO 2001-2008 on BENGAWAN SOLO-RBO 2001-



By: Harianto-pjt1 Indonesia, 10 November 2010.

