

The 6th NARBO General Meeting - Thematic Workshop 4 -

View from International Development
Organization to promote IWRM



February 24, 2017

MOWRAM & JICA TCP in Cambodia

Water Resources & River Basins in Cambodia

- ◆ Cambodia is a country that has abundant of “Water Resources” (Average annual rainfall is more than 1,500 mm. There are the regional largest lake, “Tonle Sap Lake” and the regional longest international river, “Mekong River”).
- ◆ About 85% of land is located in the Mekong Basin and only 15% outside Mekong Basin. There is about 75,000Mil. M3 of surface water and about 17,500Mil. M3 of groundwater. However, about 475,000Mil. M3 of water is discharged to the downstream across Cambodia every year.
- ◆ Continued development in agriculture sector remains an important state strategy to reduce poverty in rural communities, achieve food security, and foster equitable and sustainable social development. Therefore, enhancing water resources management to expand irrigated agriculture is one of the top priority works in Cambodia.

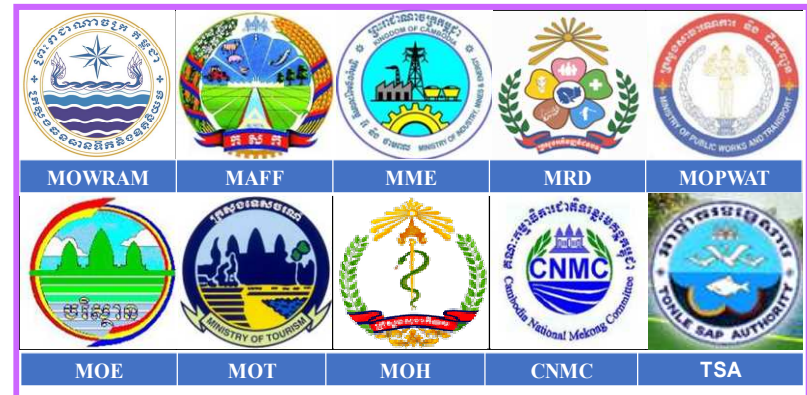


Basin Group	Code	River basin	Area (km ²)	Basin Group	Code	River basin	Area (km ²)
I	1	Prek Kampong Bay	3,018	III	30	Prek Preah	2,399
	2	Prek Toek Sap	1,529		31	Prek Krieng	3,331
	3	Prek Sre Ambel	2,653		32	Prek Kampi	1,142
	4	Prek Andong Toek	2,460		33	Prek Te	4,363
	5	Prek Trapang Rung	2,615		35A	Mekong Riverine (Downstream)	8,287
	6	Prek Tatai	1,619	Sub-Total III		19,522	
	7	Prek Koh Pao	3,109	IV	12	Stung Krang Ponley	3,033
	8	Stung Me Toek	1,043		13	Stung Baribour	3,003
Sub-Total I			18,046		14	Stung Barnak	1,116
II	27	Tonle Se Kong	5,564		15	Stung Pursat	5,964
	28	Tonle Se San	8,021		16	Stung Svay Don Keo	2,228
	29	Tonle Srepok	12,380		17	Stung Moun Russei (Dauntry)	1,468
	Sub-Total II				25,965	18	Stung Sangker
V	9	Stung Toan Han	1,765		19	Stung Mongkol Borey	5,264
	10	Stung Slakou	2,485		20	Stung Sisophon	5,593
	11	Stung Prek Thnot	7,055		21	Stung Sreng	9,931
	34	Prek Chhlong	5,599		22	Stung Siem Reap	3,619
	35B	Mekong Riverine (Upstream)	2,086		23	Stung Chikreng	2,714
	37	Mekong Delta Cambodia	8,723		24	Stung Staung	4,357
	38	Mekong TS flood plain (Spean Troas)	1,508		25	Stung Sen	16,342
	36	Tonle Vaico	6,618		26	Stung Chinit	8,236
	Sub-Total V				35,839	39	Boeng Tonle Sap
				Sub-Total IV		81,663	
TOTAL = 181,035 km ²							

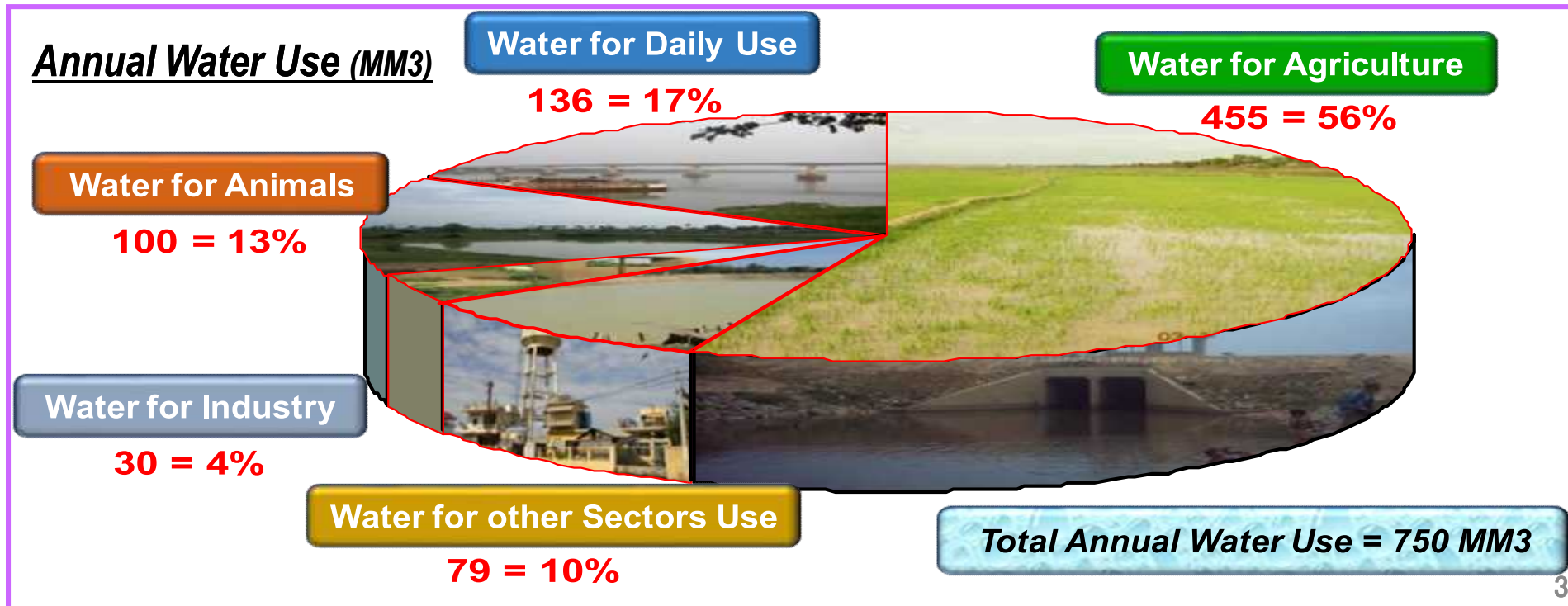
Current Water Resources Management

- ◆ MOWRAM (Ministry of Water Resources and Meteorology) is responsible for Development, Management, and Conservation of water resources (surface and ground water) in nationwide.
- ◆ Water resources are the property of the State. Water resources shall be developed and managed following an “Integrated Water Resources Management” approach.
- ◆ Everyone has the right to use water resources in an amount not exceeding the basic need for drinking, washing, bathing & other purposes, while avoiding impacts on other people.

Government Organizations related to Water Resources



Annual Water Use (MM3)



Too Much Water in Wet Season (May - Oct.)



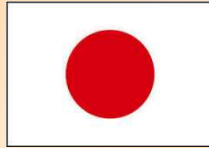
Too Little Water in Dry Season (Nov. - Apr.)



Increasing Competition for Water



River Basin Water Resource Utilization Project (1)

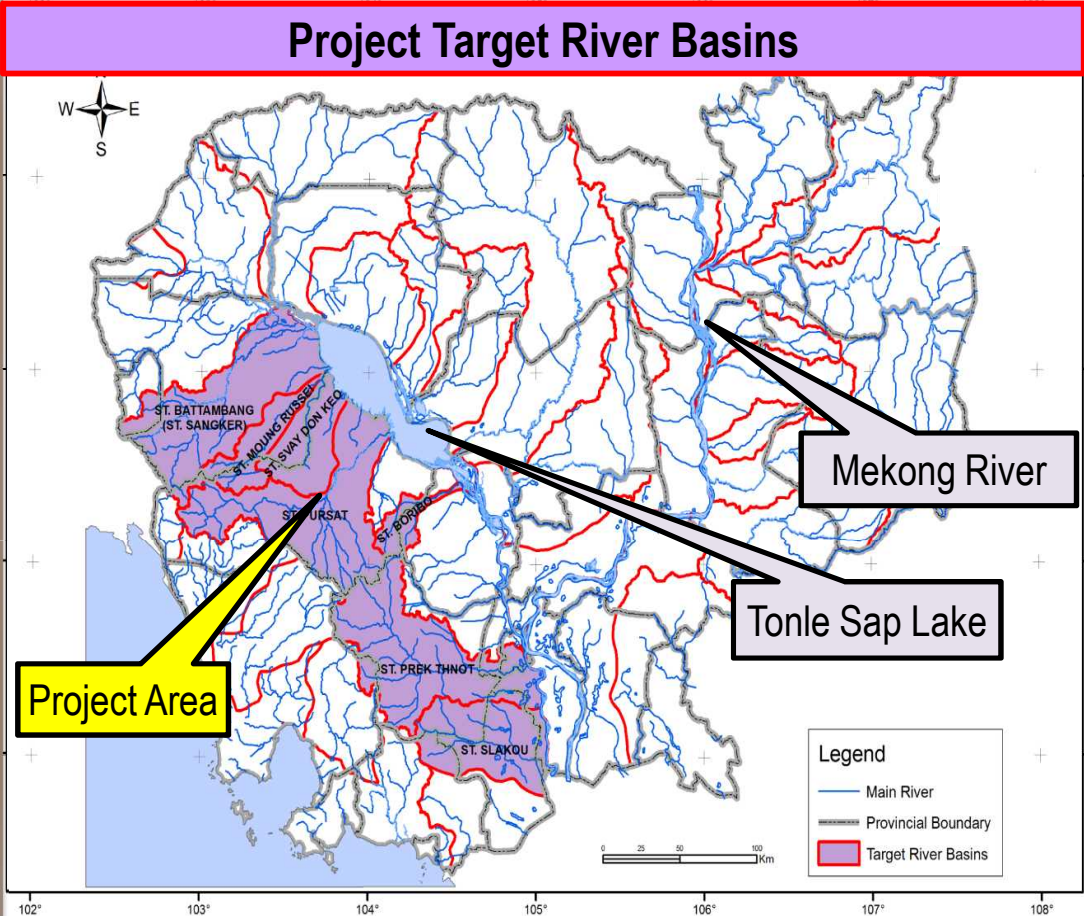


Technical Cooperation Project
Ministry of Water Resources & Meteorology
(MOWRAM)
and
Japan International Cooperation Agency
(JICA)

and

In May 2014 ~ May 2019 (5 years)

- ① Meteorological and Hydrological Data
- ② River Basin Committee & Water User Groups
- ③ Runoff & Water Balance Analysis
- ④ River Basin Planning and Operation



The Project Goal

Management and coordination mechanism for water resources use
is operated on a trial basis toward effective, equitable and sustainable water resources management in a river basin.

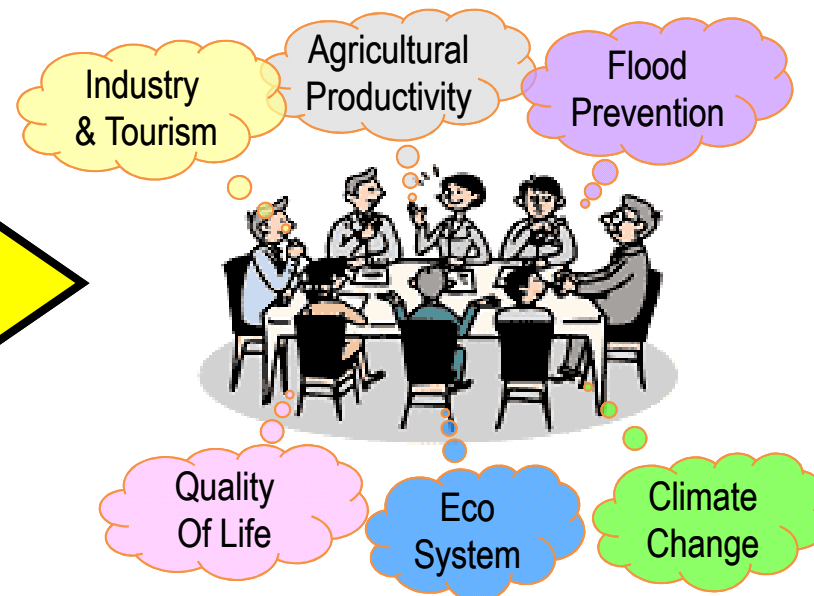
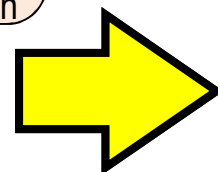
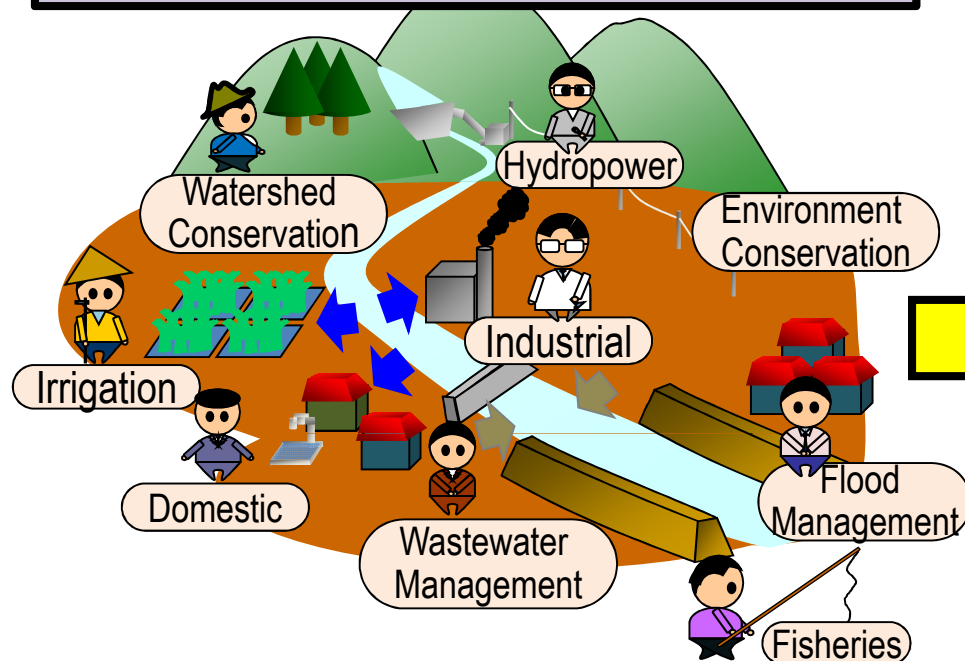
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River Basin Water Resource Utilization Project (2)

Various stakeholders in the basin

River Basin Management Committee



All data and information
on water resources !

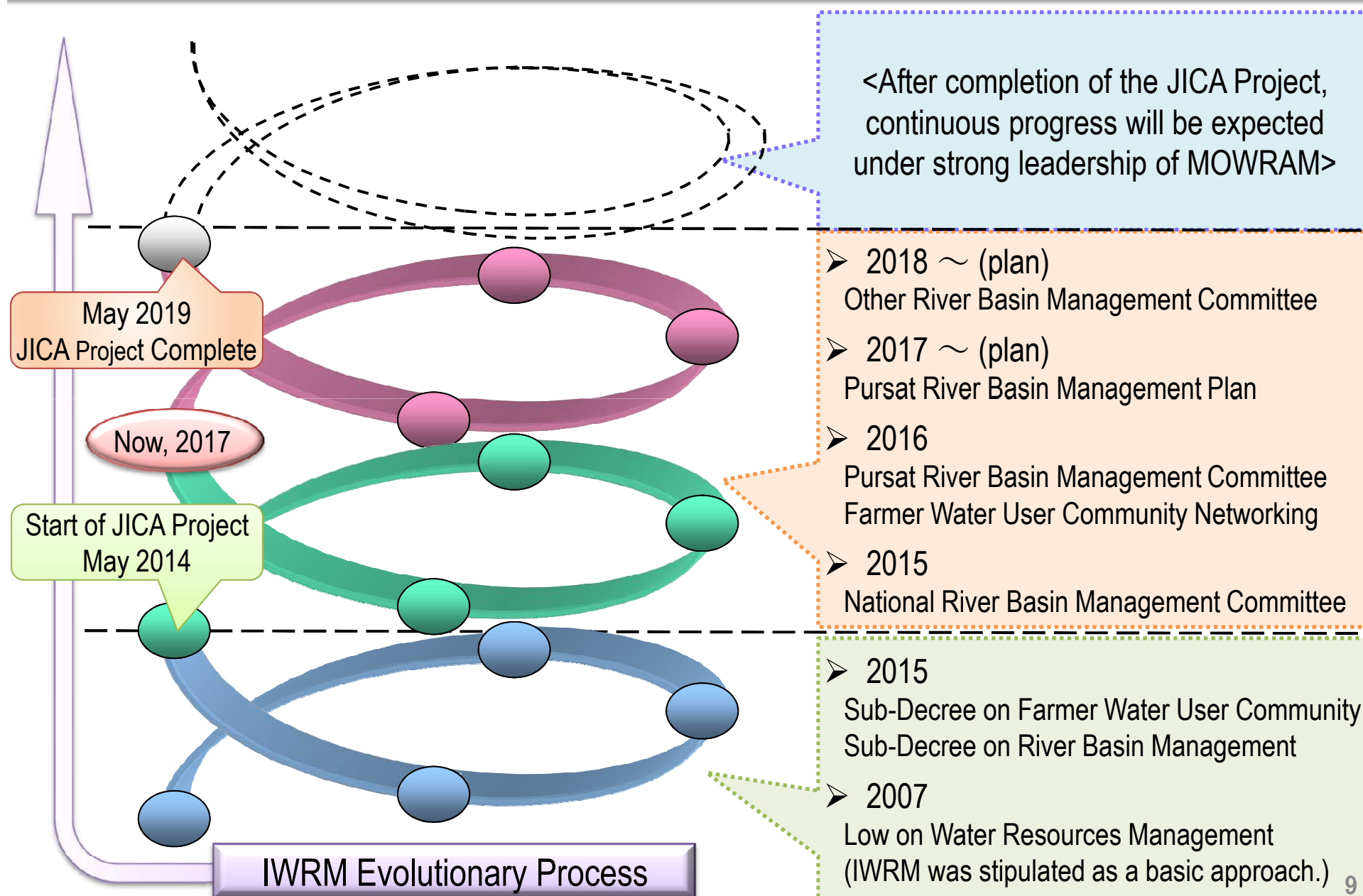
Amicable solution of
water users' conflicts !

**Toward effective, equitable
& sustainable water resources
management in the river basin**

Proper coordination
between water users !

Ecosystem protection &
regional development !

Progress of IWRM in Cambodia



Obstacles to IWRM in Cambodia

Area	Personal Findings / Speculations
Legislation	Water law and sub-decree on river basin management are in force, but detailed regulations following them have not yet been issued.
Policy	“National River Basin Management Committee” has been established, however its actual activities for policy making are still under consideration.
Institution	No specific institutional supports (incentive schemes / tools) are prepared to develop IWRM activities at national level and each river basin level.
Financial & technical support	Financial and technical supports to IWRM activities from the government are limited, mostly depending on the DP’s assistance.
Infrastructure	Infrastructures related to water resources in rural areas are so primitive and no exact plans for improving them in the future can be set.
Information & data	Some important information and data related to water resources are absent, or not properly managed and compiled for analytical use.
Manpower	Resourceful leaders/staff including NGOs and academic experts in this area are scarce, so continuous capacity building efforts are necessary.
Awareness	“IWRM” does not become widespread, so continuous awareness raising efforts on its benefits for all stakeholders in river basins are necessary.

How to promote IWRM in Cambodia

3 Key Challenges	Possible Actions
<p>(1)</p> <p>Active engagement and leading roles of MOWRAM / the government</p>	<ul style="list-style-type: none"> ❑ <u>More leading role by MOWRAM</u>, as a river basin administrator, in every aspect in collaboration with relevant ministries ❑ <u>Policy making and institutional building by National RBMC</u> to support each river basin development
<p>(2)</p> <p>Technical & financial supports to RBM activity (more IWRM evolution)</p>	<ul style="list-style-type: none"> ❑ <u>Incentive support to “river basin management” activities</u> including systematic investment to relevant infrastructures ❑ <u>Collection and provision of accurate and update data and information</u> on water resources in each river basin for their consideration
<p>(3)</p> <p>Various and continuous awareness raising efforts for relevant stakeholders</p>	<ul style="list-style-type: none"> ❑ <u>Provision of training opportunity</u> to stakeholders concerned to enhance their understanding and awareness ❑ <u>Continuous collaboration with NARBO member organizations</u> to share IWRM benefits

Desired follow-up activities by NARBO

3 Key Challenges	Desired Follow-up Activities (Request to NARBO)
(1) Active engagement and leading roles of MOWRAM / the government	<ul style="list-style-type: none"> ✓ To <u>periodically contact the focal point of MOWRAM</u> to follow up the subsequent progress and issues (if necessary, work together with JICA Cambodia Office) . ✓ To periodically (if possible, annually) <u>conduct a progress peer review between member organizations</u> and share the result and collected information with all member organizations. ✓ To invite key staff to field surveys in some selected river basins for technical exchange, and occasionally collaborate with DPs like JICA to <u>conduct the group training course in member countries</u>. ✓ To collect useful materials (educational video and leaflet related to water resources, good/bad IWRM practice, example of river basin plans and so on) from member organizations and <u>function as a regional repository</u> of such information.
(2) Technical & financial supports to RBM activity (more IWRM evolution)	
(3) Various and continuous awareness raising efforts for relevant stakeholders	