



LEMBANGAN SUNGAI MUAR



SG MUAR IRBM ACTION PLANS – NEGERI SEMBILAN PERSPECTIVE



0 4 8 16 24 32 Kilometers

OUTLINE OF PRESENTATION

1 Background Of IRBM

2 SG MUAR IRBM

3 SG MUAR IRBM Pilot Project

4 Action Plans in Implementing IRBM



1. Background of IRBM

Four Stated Objectives of IRBM:



1. To Ensure Sufficient Water



2. To Ensure Clean Water

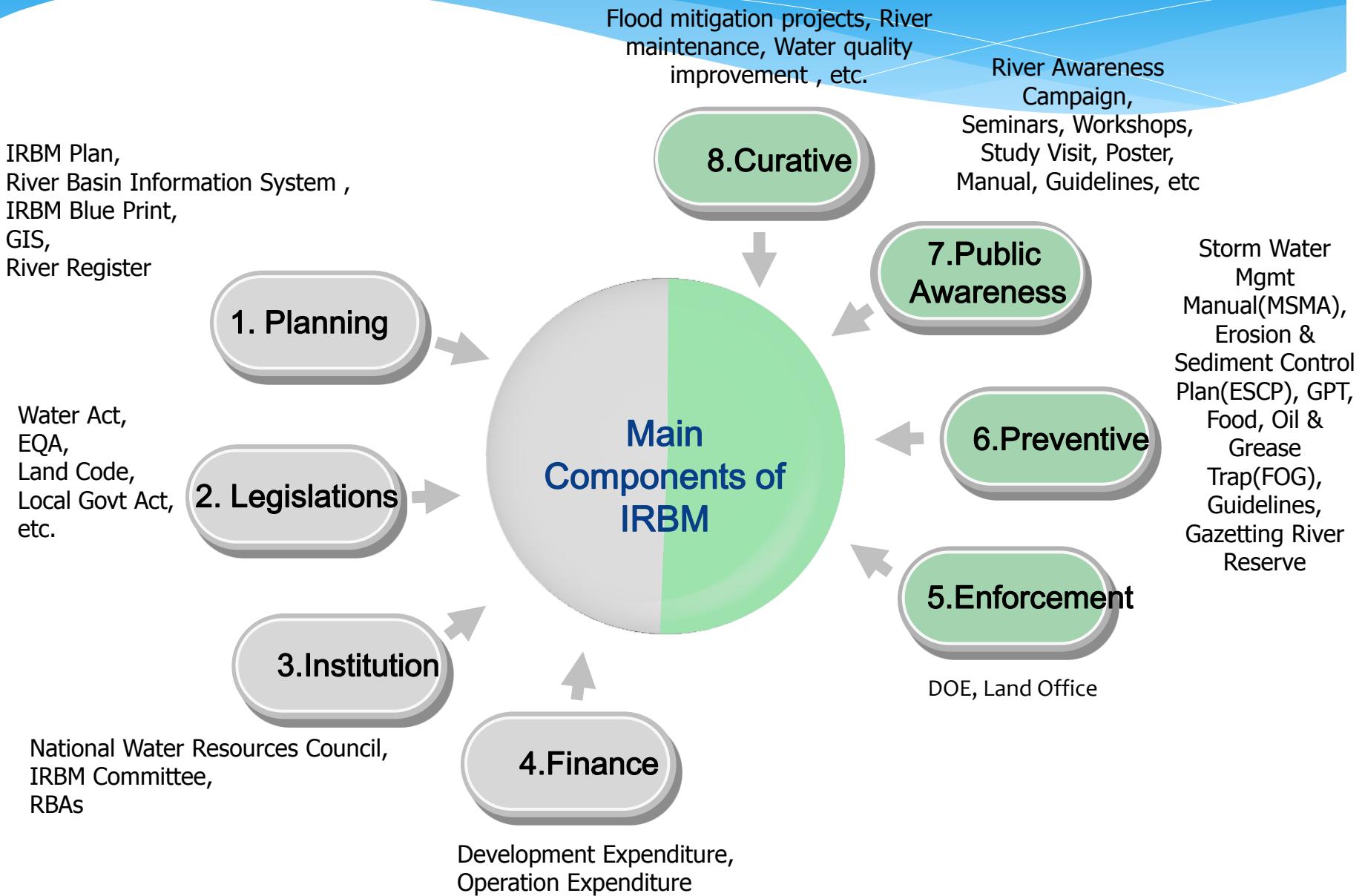


3. To Reduce Flood Risk



4. To Enhance Environmental Conservation

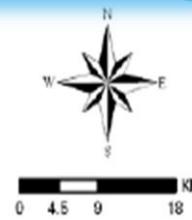
Components of IRBM





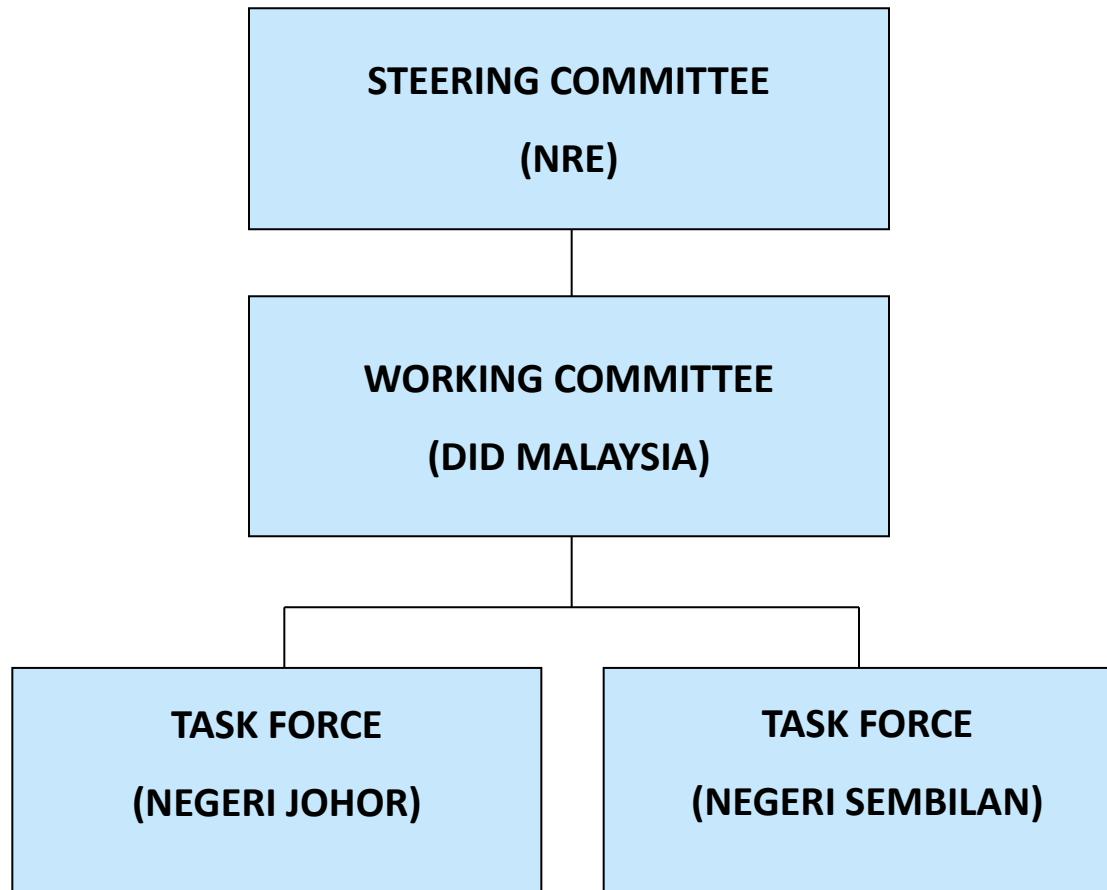
2. Sg Muar IRBM

Muar River Basin



Population 2010 *	660,000
Basin Area	Total - 6,138 km ² (Johor- 3601, NS-2407, Pahang-122, Melaka-8)
Length of River	329 km
Gradient	1/4000
Sub-basin	Sg.Gemenceh & Sg.Segamat
Landuse(2003)	15% Forest, 85% Agriculture

Sg Muar IRBM Mgmt Committee



TASK FORCE (NEGERI SEMBILAN)

CHAIRMAN: PENGARAH UPEN NEGERI SEMBILAN

SECRETARIAT: JPS NEGERI SEMBILAN

MEMBERS :

1. Pengarah Jabatan Pertanian Negeri Sembilan
2. Pengarah Jabatan Perikanan Negeri Sembilan
3. Pengarah Jabatan Kesihatan Negeri Sembilan
4. Pengarah JAS Negeri Sembilan
5. Pengarah JMG Negeri Sembilan / Melaka
6. Pengarah Jabatan Perhutanan Negeri Sembilan
7. Pengarah Tanah dan Galian Negeri Sembilan
8. Pengarah Badan Kawal Selia Air Negeri Sembilan
9. Pegawai JPP Cawangan Selatan
10. Pengarah JPBD Negeri Sembilan
11. Pegawai Daerah Kuala Pilah
12. Pegawai Daerah Jempol
13. Pegawai Daerah Tampin
14. Yang Di Pertua MD Kuala Pilah
15. Yang Di Pertua MD Jempol
16. Yang Di Pertua MD Tampin
17. Jabatan/Agensi lain yang berkaitan (mengikut keperluan)

IRBM TASK FORCE

Term Of Reference

1. Identify issues related to river basin management-related objectives and a report of the investigation;
2. Propose solutions and action plan;
3. Implement agreed action plan;
4. Evaluate the effectiveness of the implementation of the action plan;
5. Propose any changes for further improvement;
6. To carry out any other action as may be directed/required.

TASK FORCE SUB-COMMITTEE

Obj. 1: To Ensure Sufficient Water

Chairman:

Badan Kawal Selia Air

Members:

1. Sykt. Air N. Sembilan (SAINS)
2. Pejabat Tanah dan Galian
3. Jabatan Pertanian
4. Jabatan Perhutanan
5. Jabatan Perikanan
6. Jabatan Mineral dan Geosains



Obj. 2: To Ensure Clean Water

Chairman:

Jabatan Alam Sekitar

Members:

- Pihak Berkuasa Tempatan
Jabatan Kesihatan
Jab. Perancang Bandar & Desa

Obj. 3: To Reduce Flood Risk

Chairman:

Jabatan Pengairan dan Saliran

Member:

Pihak Berkuasa Tempatan

Obj. 4: To Enhance Environmental Conservation

Chairman:

Pejabat Tanah dan Daerah Tampin

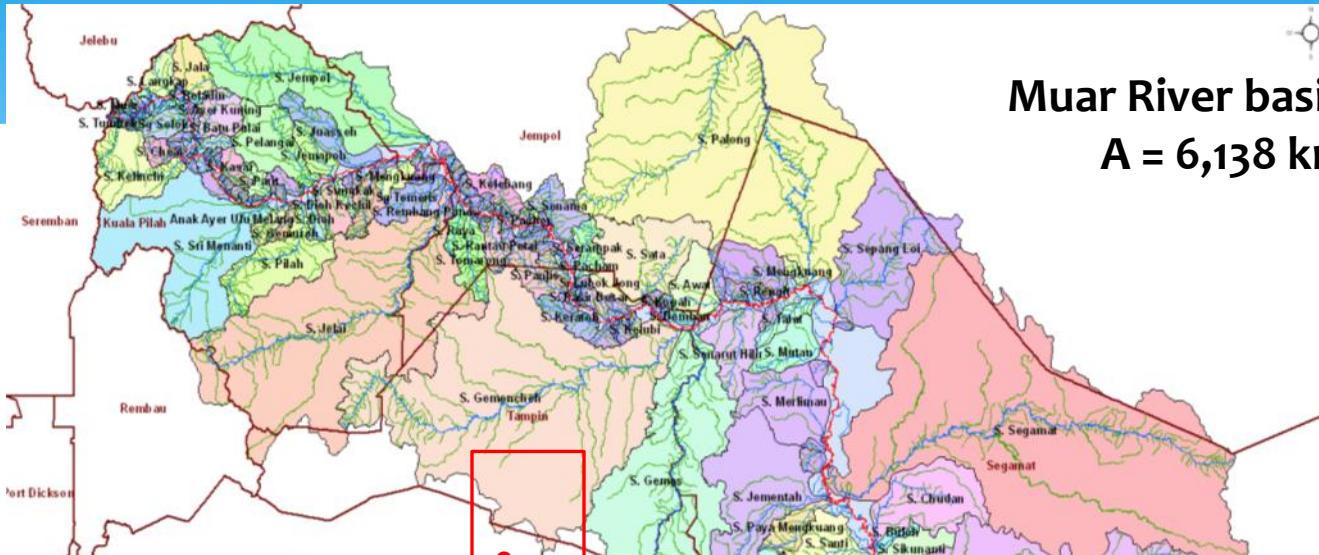
Members:

- Pejabat Tanah dan Daerah K. Pilah
Pejabat Tanah dan Daerah Jempol

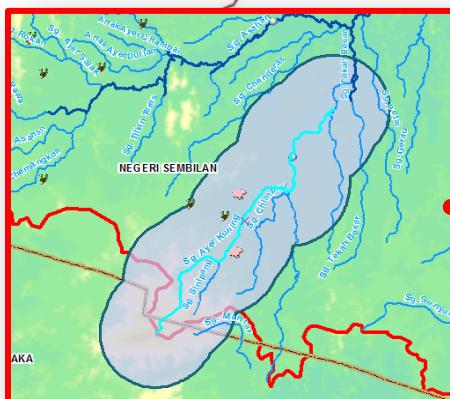


3. Pilot Project

Sub Basin Pilot Project



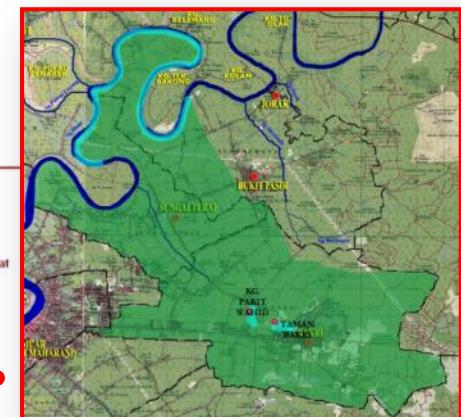
Muar River basin Area
 $A = 6,138 \text{ km}^2$



Sg. Air Kuning, Tampin,
Negeri Sembilan

$$A = 93 \text{ km}^2$$

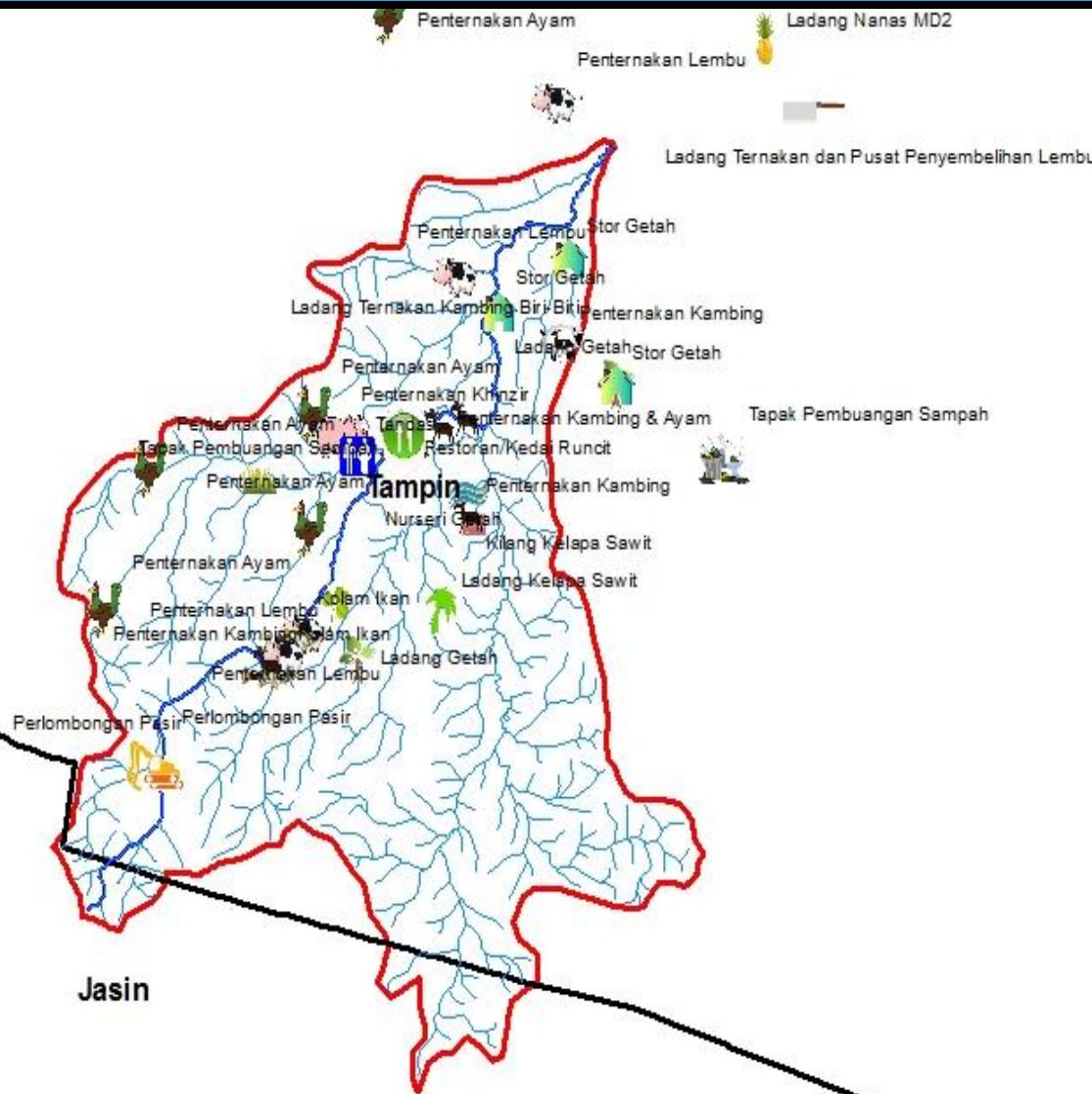
Sg. Terap (Muar, Johor)



$$A = 35 \text{ km}^2$$

Pilot Project : Sg. Ayer Kuning, Tampin, NS

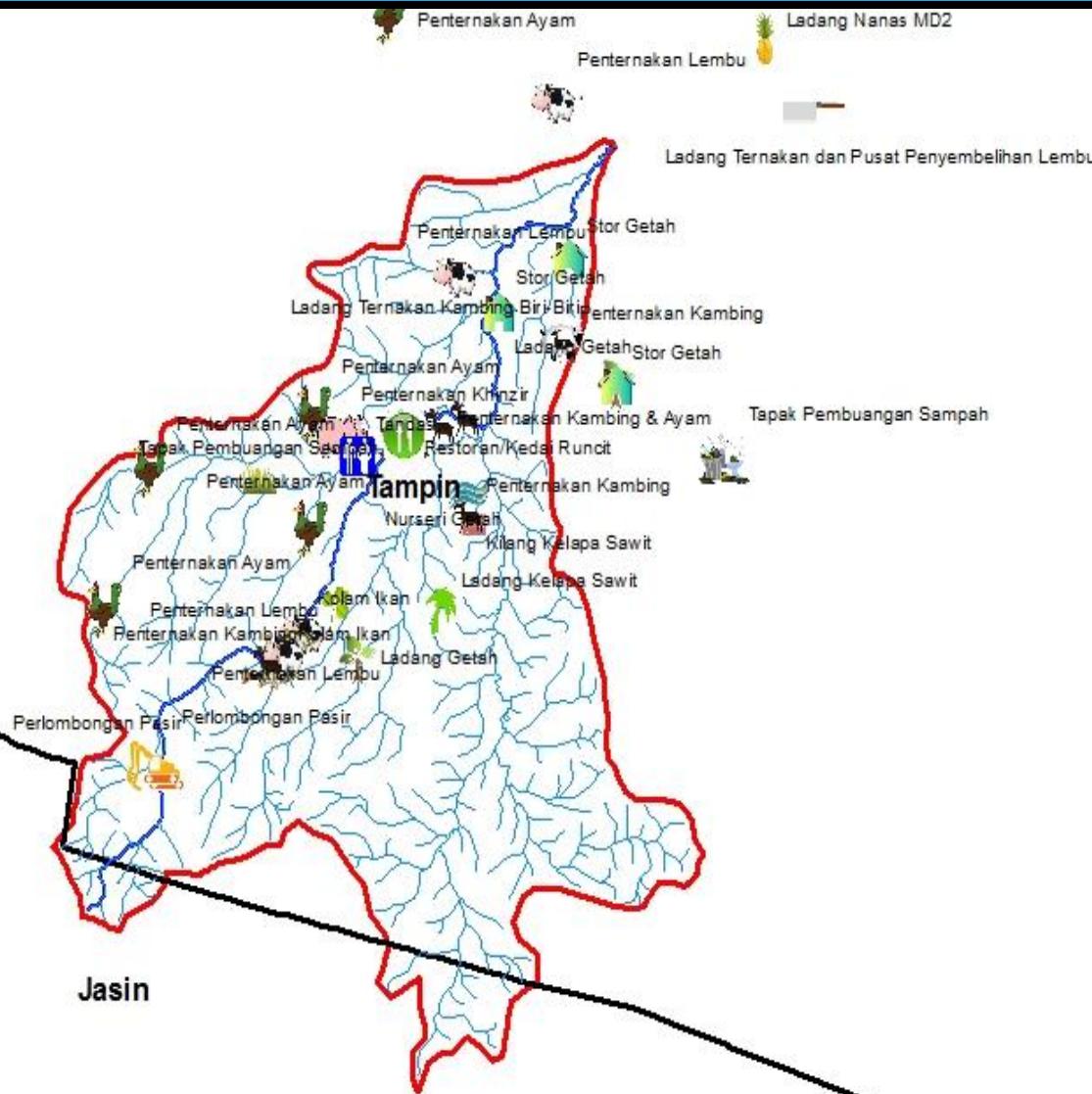
Petunjuk



	Kilang Kelapa Sawit
	Kolam Ikan
	Kolam Takungan Sisa Sawit
	Ladang Getah
	Ladang Kelapa Sawit
	Ladang Nanas MD2
	Ladang Ternakan Kambing Biri-Biri
	Ladang Ternakan dan Pusat Penyembelihan
	Nurseri Getah
	Padang Ragut Penternakan Lembu
	Penternakan Ayam
	Penternakan Kambing
	Padang Ragut Penternakan Lembu
	Penternakan Ayam
	Penternakan Kambing
	Penternakan Kambing Ayam
	Penternakan Khinzir
	Penternakan Lembu
	Perlombongan Pasir
	Pertubuhan Peladang
	Restoran/Kedai Runcit
	Stor Getah
	Tandas
	Tapak Pembuangan Sampah

Pilot Project : Sg. Ayer Kuning, Tampin, NS

Petunjuk



	Kilang Kelapa Sawit
	Kolam Ikan
	Kolam Takungan Sisa Sawit
	Ladang Getah
	Ladang Kelapa Sawit
	Ladang Nanas MD2
	Ladang Ternakan Kambing Biri-Biri
	Ladang Ternakan dan Pusat Penyembelihan
	Nurseri Getah
	Padang Ragut Penternakan Lembu
	Penternakan Ayam
	Penternakan Kambing
	Padang Ragut Penternakan Lembu
	Penternakan Ayam
	Penternakan Kambing
	Penternakan Kambing_Ayam
	Penternakan Khinzir
	Penternakan Lembu
	Perlombongan Pasir
	Pertubuhan Peladang
	Restoran/Kedai Runcit
	Stor Getah
	Tandas
	Tapak Pembuangan Sampah

Pollution Inventory @ Sg. Air Kuning

BIL	KATEGORI	BILANGAN
1	Kilang Kelapa Sawit	1
2	Kolam Ikan	1
3	Kolam Takungan Sisa Sawit	1
4	Ladang Getah	2
5	Stor Getah	3
6	Ladang Kelapa Sawit	1
7	Ladang Nenas	1
8	Nurseri Getah	1
9	Ladang Ternakan Kambing Biri-biri	1
10	Padang Ragut Penternakan Lembu	1
11	Pusat Penyembelihan Lembu	1
12	Penternakan Lembu	4
13	Penternakan Ayam	5
14	Penternakan Kambing	4
15	Penternakan Ayam & Kambing	2
16	Penternakan Khinzir	1
17	Perlombongan Pasir	2
18	Pertubuhan Peladang	1
19	Restoran/ Kedai Makan	1
20	Kedai Runcit	1
21	Tapak Pembuangan Sampah	2





4. Action Plan in Implementing of IRBM

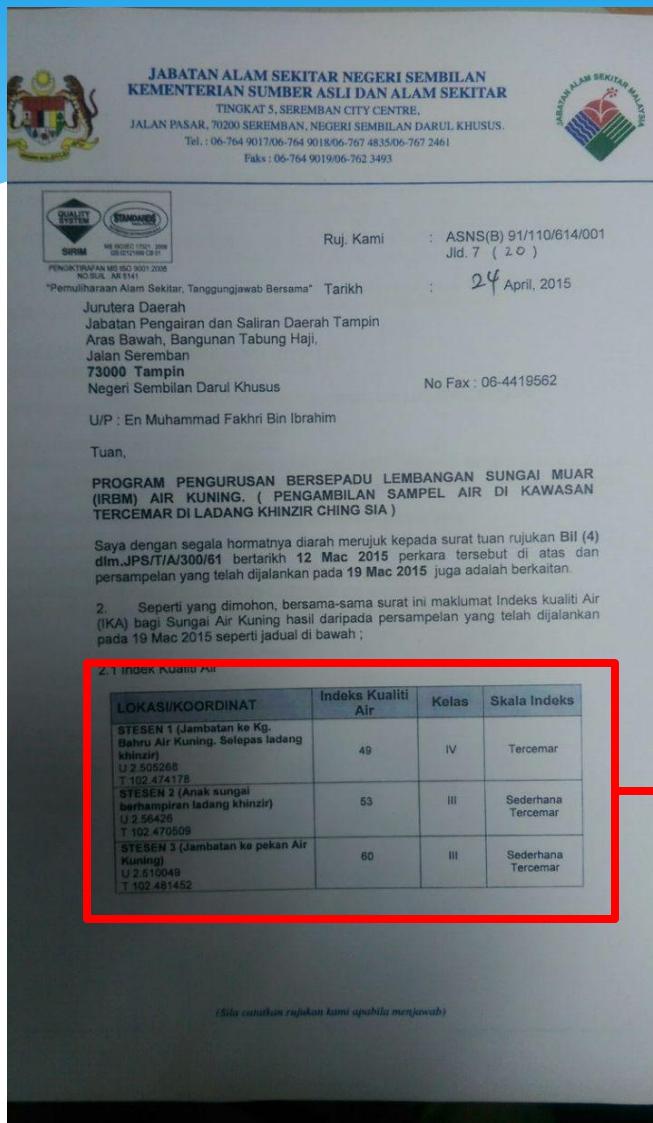
Objective 1: To Ensure Sufficient Water

NO	STRATEGY	MEASURES	KPI	ACTIONS	STATUS
1	To establish procedures for drought/low-flow analysis	1. To conduct a thorough drought and low-flow analysis and document it	The drought and low-flow analysis is documented	1. BKSA conducted a study on water resources for Negeri Sembilan Timur with SAINS 2. Raw water supply from Sungai Jelai to Gemencheh Dam, Tampin	1. Final draft 2. Cost project RM35 million (In progress)

Objective 2: To Ensure Clean water

NO	STRATEGY	MEASURES	KPI	ACTIONS	STATUS
1	To control point source pollution	1. To develop and implement a water quality monitoring	A water quality monitoring program is developed and implemented	1. 16 water quality monitoring station in Sg Muar catchment (Negeri Sembilan) 2. DOE planned to install 1 water quality station at Sg Air Kuning	1. Monitored by DOE 2. Initial Stage

RESULT



Location	Indeks Kualiti Air	Kelas	Skala Indeks
Stesen 1: Jambatan ke Kg. Bahru Air Kuning	49	IV	Tercemar
Stesen 2: Anak sungai berhampiran ladang khinzir	53	III	Sederhana Tercemar
Stesen 3: Jambatan ke Pekan Air kuning	60	III	Sederhana Tercemar

- Sampel diambil pada 19 Mac 2015
- Bersama-sama Pejabat Daerah Tampin, Jabatan Veterinar N.Sembilan dan Jabatan Alam Sekitar.

Objective 3: To reduce Flood Risk

NO	STRATEGY	MEASURES	KPI	ACTIONS	STATUS
1	To minimise flood risk to an acceptable level	<ol style="list-style-type: none">1. To establish flood warning system2. To apply suitable methods of flood protection depending on different land use	<ol style="list-style-type: none">1. A flood warning system is established2. Suitable methods of flood protection depending on different land applied	<ol style="list-style-type: none">1. There are 24 flood warning system established in Sg Muar catchment (Negeri Sembilan)2. Flood Mitigation Project<ol style="list-style-type: none">i. RTB Sg Merbauii. RTB Gemas	<ol style="list-style-type: none">1. Monitor by DID <p>RM343k (completed) RM25.5 million (In progress)</p>

Objective 4: To Enhance Environmental Conservation

NO	STRATEGY	MEASURES	KPI	ACTIONS	STATUS
1	To strengthen policy, legal and institutional framework	1. To further monitoring and enforcement	1. Monitoring and enforcement is strengthened	1. The enforcement agencies	<ul style="list-style-type: none">1. Monitor periodically2. Public Engagement
2	To establish a comprehensive land use data	1. To develop and maintain past, existing and future land use data	1. Present, past and future land use data are developed and maintained	1. One Stop Centre (Local Authority)	In progress



SEKIAN TERIMA KASIH

29 12:14 PM