



# NATIONAL WATER RESOURCES POLICY (NWRP) AND IMPLEMENTATION STRATEGIES

By:

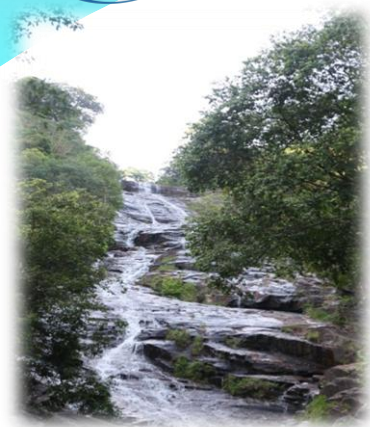
**Dato' Ir. Hj. Hanapi bin Mohamad Noor**

Director of

Water Resources and Hydrology Division

JPS Malaysia

27 November 2012





# OUTLINE PRESENTATION

- 1. Introduction**
- 2. NWR Policy**
- 3. Implementation Strategies**
- 4. Conclusions**



# INTRODUCTION



- Before National Water Resources Policy (NWRP) approved by the Cabinet, there is no comprehensive and uniform policy on water resources.
- Water management in Malaysia are also sectoral.
- There is no clear policy direction on water resources for effective requirements on water resource governance.



- Draft NWRP was prepared through the study of "Review Of The National Water Resources Study (2000 ~ 2050) And Formulation of National Water Resources Policy" which was completed in August 2011.



- NWRP draft was presented in the National Water Resources Council Meeting (MSAN) 6<sup>th</sup> which held on 6 October 2011 and the meeting agreed the creation of NWRP.
- NWRP was presented to the Cabinet on 22 February 2012. – agreed the formulation and adoption of NWRP by the Federal Government, State Government and Federal Territory.
- NWRP was launched on 24 March 2012 in conjunction with the World Water Day celebrations at Dataran Sungai Kerian, Perak.





# LAUNCHING OF NWRP







# LAUNCHING OF NWRP

## Dasar jamin bekalan air dilancar

### DSAN pastikan sumber mencukupi pada era pembangunan ekonomi negara

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**P**ARIT BUNTAR: Dasar Sumber Air Negara (DSAN) bagi tempoh 2010 hingga 2050 dalam menentukan hala tuju masa depan untuk sektor sumber air berdasarkan kajian semula sumber air negara dilancarkan oleh Timbalan Perdana Menteri, Tan Sri Muhyiddin Yassin semalam.

Muhyiddin berkata, DSAN penting ke arah merintis proses memastikan bekalan air yang terjamin pada era pembangunan ekonomi negara, khususnya sektor pertanian dan perindustrian, pertumbuhan perbandaran dan pertambahan penduduk yang pesat.

Katanya, DSAN yang disediakan berdasarkan Kajian Semula Sumber Air Negara bagi 2010 hingga 2050, turut menetapkan prinsip asas sumber air negara yang menyentuh isu air untuk makanan dan pembangunan luar bandar dengan jelas.

"Prinsip itu menekankan mengenai perlunya sumber air yang men-

cukupi untuk jaminan bekalan makanan selain membantu menaik taraf pembangunan di kawasan luar bandar," katanya berucap merasmikan dan melancarkan Sambutan Hari Air Sedunia 2012 peringkat kebangsaan bertemakan 'Air dan Jaminan Makanan' dan DSAN di Dataran Pinggiran Sungai Kerian,



*saya harap kajian serta pembangunan sistematik dan menyeluruh terhadap sumber air bawah tanah, selaras dengan kaedah pengurusan air bersepadu, dapat dipertingkatkan bagi membantu merealisasikan jaminan bekalan air seterusnya jaminan bekalan makanan negara pada masa depan*

**Muhyiddin Yassin**  
Timbalan Perdana Menteri

di sini, semalam.

Beliau diwakili Menteri Tenaga, Teknologi Hijau dan Air, Datuk Seri Peter Chin Fah Kui yang turut menyampaikan Anugerah Tesis Sumber Air dan Hidrologi kepada pemenang Dr Farah Aini Dahalan yang merangkul Anugerah Emas Doktor Falsafah Terbaik, Roslan Zairi Mostapa (Anugerah Emas Sarjana Terbaik) dan R Gillian Eve (Anugerah Emas Sarjana Muda Terbaik).

Muhyiddin yang juga Presiden Suruhanjaya Kebangsaan UNESCO Malaysia berkata, beliau berharap pelbagai langkah strategik untuk mengenal pasti dan menambah sumber air negara, termasuk sumber air bawah tanah yang dikenal pasti berpotensi menjadi sumber alternatif menampung permintaan air di negara ini.

"Laporan awal oleh Kementerian Sains, Teknologi dan Inovasi mendapati isi padu air tanah yang disimpan di Malaysia dianggarkan berjumlah 5,000 bilion meter padu yang mempunyai nilai komersial

sebanyak RM7.5 trilion.

"Sehubungan itu, saya berharap kajian serta pembangunan sistematik dan menyeluruh terhadap sumber air bawah tanah, selaras dengan kaedah pengurusan air bersepadu, dapat dipertingkatkan bagi membantu merealisasikan jaminan bekalan air seterusnya jaminan bekalan makanan di negara ini pada masa depan," katanya.

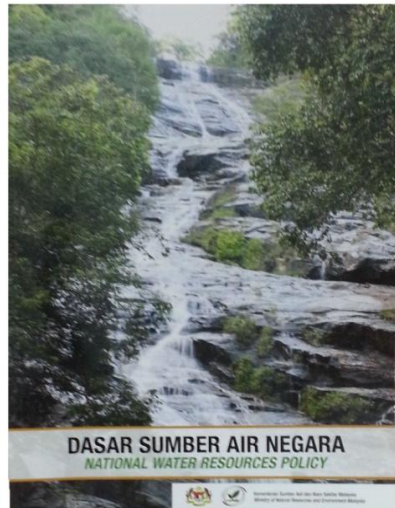
Katanya, Pertubuhan Pertanian dan Makanan Bangsa-Bangsa Bersatu (FAO) melaporkan ketika ini hampir satu bilion penduduk dunia berdepan masalah kekurangan makanan dan nutrisi.

Dalam pada itu, Muhyiddin berkata, sebahagian penduduk Perak, Pulau Pinang dan Kedah yang tinggal berdekatan Sungai Kerian akan mendapat faedah besar selepas kerajaan meluluskan peruntukan RM490 juta bagi Rancangan Tebatan Banjir (RTB) Lembangan Sungai Kerian yang kerja utamanya membabitkan pembinaan benteng sungai sepanjang 300 kilometer dan rumah pam.

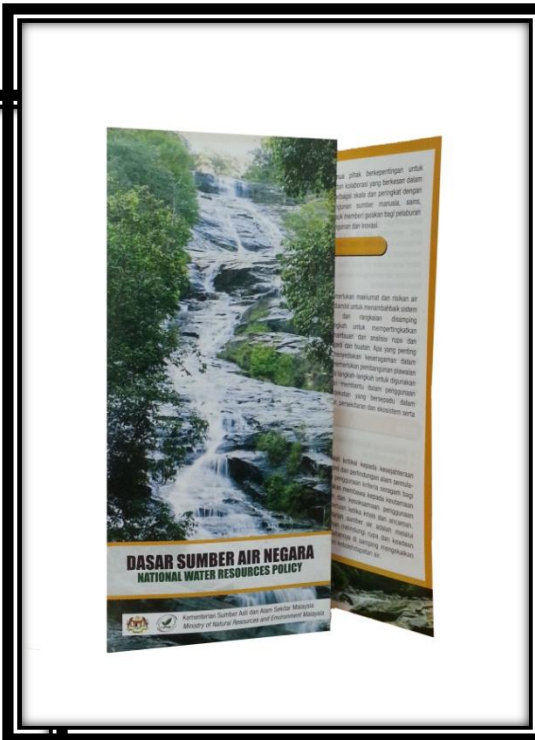




# CIRCULATION OF NWRP DOCUMENTS AND PAMPHLTS



DASAR SUMBER AIR NEGARA  
NATIONAL WATER RESOURCES POLICY



Circulation of NWRP documents and pamphlet- to related water resources agencies/department



# **NATIONAL WATER RESOURCES POLICY -NWRP**



# National Water Resources Policy

- Develop based on IWRM approach.
- Complementing existing policy direction.
- Serves as a directional focal point for all stakeholders to translate the strategic plan into action



- NWRP serves as a **comprehensive guide** in terms of water resources allocations.
- All policy actions that relates to water can be consolidated, complemented and implemented.
- NWRP does not specifically address water services but emphasizes on security and sustainability for human and environment needs.





# COMPLEMENTING EXISTING POLICY DIRECTION

**More than 50 national policies were reviewed but 17 were identified related to WR.**

**e.g. : *National Environment Policy***

***National Biodiversity Policy 1998***

***National Food Safety Policy***

***National Policy on Climate Change***

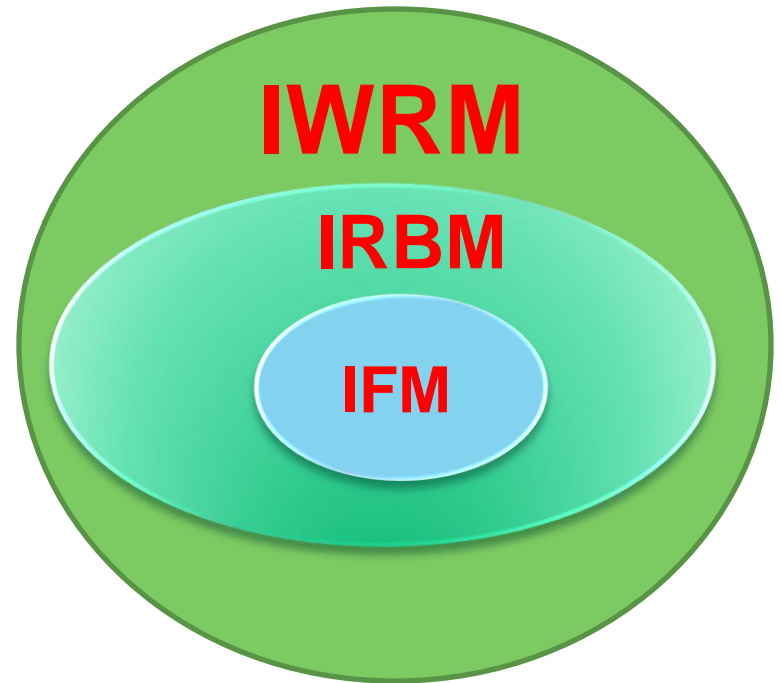


## Ministries and Policies that have bearing on the National Water Resources Policy

Ministry	Policy
Ministry of Natural Resources and Environment	<ul style="list-style-type: none"><li>✓ National Mineral Policy 2</li><li>✓ National Forestry Policy 1978</li><li>✓ National Biodiversity Policy 1998</li><li>✓ National Environment Policy</li><li>✓ National Policy on Climate Change</li></ul>
Ministry of Education	<ul style="list-style-type: none"><li>✓ National Education Policy</li></ul>
Ministry of Plantation Industries and Commodities	<ul style="list-style-type: none"><li>✓ National Biofuel Policy 2006</li><li>✓ National Timber Industry Policy</li></ul>
Ministry of Energy, Green Technology and Water	<ul style="list-style-type: none"><li>✓ National Energy Policy</li><li>✓ National Green Technology Policy</li></ul>
Ministry of Science, Technology and Innovation	<ul style="list-style-type: none"><li>✓ National Biotechnology Policy</li></ul>
Ministry of Tourism	<ul style="list-style-type: none"><li>✓ National Tourism Policy</li></ul>
Ministry of Agriculture and Agro-Based Industry	<ul style="list-style-type: none"><li>✓ National Agro Food Policy 2011-2020</li><li>✓ Food Security Policy</li></ul>
Ministry of Health	<ul style="list-style-type: none"><li>✓ National Food Safety Policy</li></ul>
Ministry of Housing and Local Government	<ul style="list-style-type: none"><li>✓ National Solid Waste Management Policy</li><li>✓ National Physical Plan</li></ul>

# INTEGRATED APPROACHES

- Integrated Water Resources Management (IWRM)
- Integrated River Basin Management (IRBM)
- Integrated Lake Management (ILM)
- Integrated Coastal Zone Management (ICZM)
- Integrated Shoreline Management Plan (ISMP)
- Integrated Flood management (IFM)



**These approaches will help structure current practices towards better water resources management**



# **NWR Policy outlines the following main aspects:**

- **Policy Statement**
- **3 Principles**
- **5 Objectives**
- **4 Key Core Areas**
  - **9 Thrust**
    - **18 Targets**
    - **28 Strategies**
    - **69 Action Plan Strategies**





# NWR Policy Statement

*“The security and sustainability of water resources shall be made a national priority to ensure adequate and safe water for all, through sustainable use, conservation and effective management of water resources enabled by a mechanism of shared partnership involving all stakeholders.”*



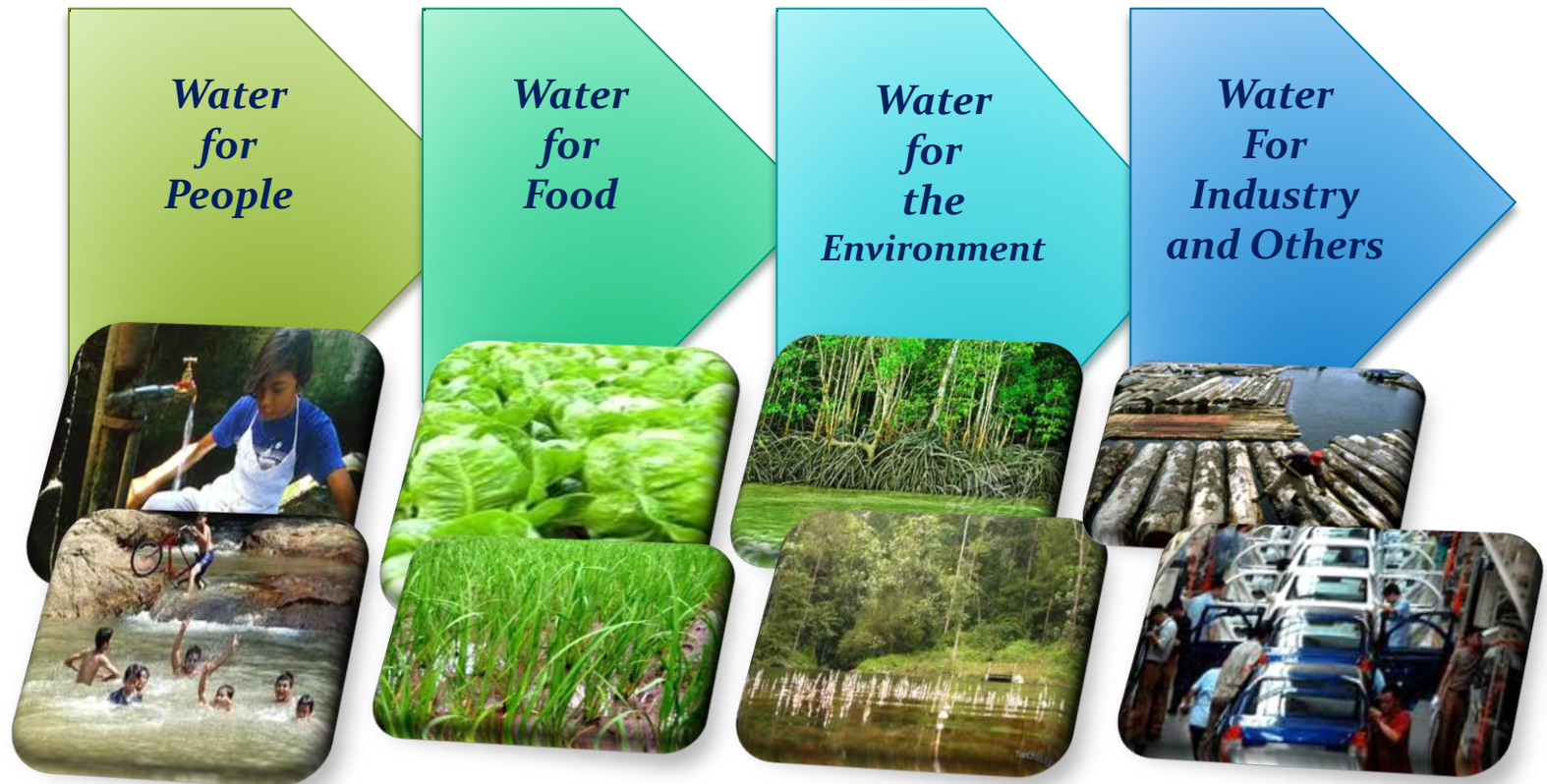
# Policy Rationale

- Setting the strategic direction and framework for strategic action to ensure water resources are used and develop in a sustainable manner.
- WRM to benefit the nation (people and environment).
- Emphasis will be made on collaborative water resources governance that advocates partnership

# NWR Policy Principles

## 1. *Water resources security*

- Water resources must be secured to meet the needs and demands of both man and nature



# NWR Policy Principles

## 2. *Water Resources Sustainability*

- Water resources should be sustained for present and future uses and Federal and State Governments will look at minimising wastage in water resources





# NWR Policy Principles

## 3. Collaborative Governance)

- Stakeholder inclusiveness and collaboration is essential towards ensuring security and sustainability of water resources





**5  
Objectives  
of NWRS  
Policy**

**To set direction and strategy to ensure water resources security and sustainability**

**To provide means and measures to complement existing policy directions to ensure sustainable and equitable use of water resources**

**To provide platform for water resources intelligence and streamlining of practices and approaches**

**To set out means and measures for water resources conservation plans**

**To build capacity of all stakeholders in water resources governance**



***Water Resources Security***  
***4T+8S+14St+30PT***

***Water Resources Sustainability***  
***2T+6S+8St+18PT***

**Key Core Areas**

***Partnerships***  
***2T+2S+3St+13PT***

***Capacity Building and Awareness***  
***1T+2S+3St+8PT***



# **IMPLEMENTATION STRATEGIES**



- 69 strategic action plans need to be implemented to ensure water resources can be managed in a holistic manner in line with the principles of IWRM.
- Detailed strategic action plan have been provided to ensure the objectives outlined in the NWRP realized.
- The integrated involvement of agencies / departments are essential in line with their roles and responsibilities through their expertise and specific task.





- Consultative process in detailing Action Plan for the Implementation of the NWRP was held on 30-31 May 2012 in Penang.
- The workshop was attended by 83 participants from various agencies / departments related to water management.
- Details of a strategic action plan that outlined in the NWRP have been discussed during the workshop to ensure effective implementation



# WORKSHOP ON STRATEGIC ACTION PLAN NWRP





# A PART OF PROPOSED IMPLEMENTATION OF FOCUS AREA 1: WATER RESOURCES SECURITY



TERAS	SASARAN	STRATEGI	PELAN TINDAKAN STRATEGI	CADANGAN PELAKSANAAN	AGENSI PENERAJU	CADANGAN PENGUKUR PENCAPAIAN	TEMPOH PELAKSANAAN					
							'13	'14	'15	S	P	
MAKLUMAT DAN RISIKAN SUMBER AIR	MEMBANGUN SISTEM MAKLUMAT KOMPREHENSIF SUMBER AIR	MELAKSANAKAN PENGUKUHAN DAN PENGEMASKINIAN DATA-DATA SAINTIFIK DAN TEKNIKAL SEDIA ADA SECARA BERKALA	KENAL PASTI DATA-DATA SAINTIFIK DAN TEKNIKAL SEDIA ADA YANG BERKAITAN DENGAN AIR, SUMBER AIR , PENGGUNAAN DAN PENGGUNA	<p>F1CP1</p> <p>Wujudkan pasukan petugas khas penyelarasan sains dan maklumat sumber air dengan terma rujukan, antara lain:</p> <ul style="list-style-type: none"> <li>▪ mengumpul maklumat atau mengenal pasti sumber maklumat, bentuk dan sistem penkatalogan yang digunakan; mengenal pasti tatacara untuk penyelarasan sumber maklumat sedia ada dan penubuhan jaringan kerjasama serta komunikasi antara pihak berkepentingan;</li> </ul>	<p>Jawatankuasa Penyelaras Pelaksanaan dan Pemantauan DSAN Pasukan Petugas Penyelaras Sains dan Maklumat Sumber Air (PPPSMSA)</p>	F1CPP1 Pewujudan Pasukan Petugas	/	/				
			KENAL PASTI PENYIMPAN DAN TEMPAT SIMPANAN			F1CPP2 Kertas Kerja penubuhan Pusat Rujukan Sumber Air Negara	/	/				
			F1CPP3 Profil maklumat sumber air Negara (jenis; sistem; pihak berkepentingan penyelenggara/ pengkatalog/ pengumpul)			/	/					
			F1CPP4 Penyediaan program pembangunan keupayaan pegawai agensi terlibat untuk memperkasakan kemahiran, kepakaran, kefahaman dan perkara lain yang berkaitan untuk membantu pelaksanaan tugas dengan berkesan			/	/					



## A PART OF PROPOSED IMPLEMENTATION OF FOCUS AREA 2: WATER RESOURCES SUSTAINABILITY



TERAS	SASARAN	STRATEGI	PELAN TINDAKAN STRATEGI	CADANGAN PELAKSANAAN	AGENSI PENERAJU	CADANGAN PENGUKUR PENCAPAIAN	TEMPOH PELAKSANAAN				
							'13	'14	'15	S	P
5. KRITERIA BAGI PERINCIAN SUMBER AIR 6. PEMULIHA-RAAN DAN PERLINDUNGAN SUMBER DAN JASAD AIR SEMULA JADI DAN BUATAN	9. MENGGUNA PAKAI KRITERIA KEBANGSAAN BAGI PERINCIAN DAN PIAWAIAN SUMBER AIR	15. MEWUJUDKAN LANGKAH-LANGKAH, TERMA, PIAWAIAN DAN GARIS PANDUAN YANG SERAGAM	31. SERAGAMKAN TERMA-TERMA BAGI MENENTUKAN CIRI-CIRI SUMBER AIR; DAN	F2CP1 Pasukan Petugas Penyelaras Sains dan Maklumat Sumber Air (PPSMSA) membangunkan secara bersama dengan agensi berkepentingan kriteria, piawai dan standard berkaitan sumber air secara komprehensif	Pasukan Petugas Penyelaras Sains dan Maklumat Sumber Air (PPSMSA)	F2CPP1 Kriteria, piawaian kebangsaan sumber air komprehensif	/	/	/		
			32. KAJI SEMULA, PROFIL DAN SELARAS PELBAGAI PIAWAIAN BERKAITAN SUMBER AIR.								
	10. MENENTUKAN KEUTAMAAN PENGGUNAAN SUMBER AIR, KHUSUSNYA PADA MASA KRISIS ATAU ANCAMAN	16. MEMBANGUN KRITERIA UNTUK MENENTUKAN KEUTAMAAN PENGGUNAAN SUMBER AIR.	33. KENAL PASTI PENGGUNA DAN KEGUNAAN UTAMA;	F2CP2 Bangunkan profil pengguna dan penggunaan air serta kawasan sumber air utama	Pasukan Petugas Penyelaras Sains dan Maklumat Sumber Air (PPSMSA)	F2CPP2 Profil pengguna, penggunaan dan sumber air serta kawasan sumber air	/	/	/	/	
			34. KENAL PASTI KAWASAN UTAMA PENGGUNAAN SUMBER AIR; DAN								



## A PART OF PROPOSED IMPLEMENTATION OF FOCUS AREA 3: PARTNERSHIP



TERAS	SASARAN	STRATEGI	PELAN TINDAKAN STRATEGI	CADANGAN PELAKSANAAN	AGENSI PENERAJU	CADANGAN PENGUKUR PENCAPAIAN	TEMPOH PELAKSANAAN				
							'13	'14	'15	S	P
7. KETERANG-KUMAN DAN KETERLIBATAN PIHAK BERKEPEN-TINGAN	15. MEWUJUDKAN MEKANISMA PERUNDINGAN RASMI DAN TIDAK RASMI BERKAITAN SUMBER AIR	23. MENGENALPASTI PIHAK BERKEPENTINGAN DAN MEMPERJELASKAN PERANAN-SERTA TANGGUNG-JAWAB	49. KENALPASTI DAN TAMPILKAN PIHAK BERKEPENTINGAN	F3CP1 Wujudkan pasukan petugas khas antara agensi di bawah Kementerian Sumber Asli dan Alam Sekitar (PASUKAN PETUGAS GOVERNANS SUMBER AIR - JPS sebagai urusetia) yang mempunyai terma rujukan antara lain untuk membangunkan profil pihak berkepentingan diperingkat kerajaan, swasta dan masyarakat berserta peranana, kepentingan dan potensi sumbangan; mengenalpasti saluran komunikasi jaringan yang menghubungkan pihak berkepentingan; mengenalpasti mekaniSma kolaborasi dan rundingan diperingkat Negara, negeri dan tempatan.	Jawatan-kuasa Pe-mantauan DSAN	F3CPP1 Pewujudan pasukan petugas khas peringkat negara yang disokong pasukan petugas khas di peringkat negeri dan tempatan.	/	/			
				F3CP2 Sediakan profil interaktif dan mudah dikemaskini pihak berkepentingan diperingkat kerajaan, swasta dan masyarakat berserta peranan, kepentingan dan potensi sumbangan	Pasukan Petugas Khas Governans Sumber Air	F3CPP2 Profil komprehensif pihak berkepentingan, kepentingan dan peranan peringkat negara, negeri dan tempatan	/	/	/		





## A PART OF PROPOSED IMPLEMENTATION OF FOCUS AREA 4: CAPACITY BUILDING AND AWARENESS



TERAS	SASARAN	STRATEGI	PELANTINDAKAN STRATEGI	CADANGANPELAKSANAAN	AGENSI PENERAJU	CADANGANPENGUKURPENCAPAIAN	TEMPOHPELAKSANAAN					
							'13	'14	'15	S	P	
9. PEMBINAAN KEUPAYAAN DAN KESEDARAN	17. MEMBINA KEUPAYAAN PIHAK-PIHAK BERKEPENTINGAN AIR UTAMA	26. MENGENAL PASTI KEPERLUAN PEMBINAAN KEUPAYAAN DAN OPSYEN	62. MENGENAL PASTI KEPERLUAN PEMBINAAN KEUPAYAAN DAN DIPADANKAN KEPADA JENIS, SKALA DAN PERMINTAAN	F4CP1 Wujudkan pasukan petugas khas antara agensi di bawah Kementerian Sumber Asli dan Alam Sekitar (PASUKAN PETUGAS PEMBANGUNAN KEUPAYAAN DAN KESEDARAN - JPS sebagai urusetia) yang mempunyai terma rujukan antara lain untuk mengenal pasti keperluan untuk membina keupayaan dan kesedaran, memfokus antara lain kepada kefahaman dan kepakaran serta penyediaan program pelaksanaan berkala mengikut keperluan dan permintaan	Jawatankuasa Pemantauan DSAN	F4CPP1 Pewujudan pasukan petugas khas peringkat negara yang disokong pasukan petugas khas di peringkat negeri dan tempatan	/	/				
			63. MELABUR DALAM PROGRAM-PROGRAM PENYELIDIKAN DAN PEMBANGUNAN	F4CP2 Tubuhkan jawatankuasa penyelidikan dan pembangunan jaminan dan kelestarian sumber air Negara yang mempunyai terma rujukan untuk mewujudkan konsortium penyelidikan yang melibatkan institusi pengajian tinggi tempatan dan institusi penyelidikan tempatan	NRE/JPS	F4CPP2 Jawatankuasa Penyelidikan dan Pembangunan Jaminan dan KelestarianSumber Air	/					



# **PROPOSED SET UP OF 'JAWATANKUASA PENYELARASAN DAN PEMANTAUAN DSAN SERTA PASUKAN-PASUKAN PETUGAS KHAS'**

**The objective of setting up this committee is to ensure that the goals, strategies and strategic plans outlined in NWRP can be implemented.**



# SCOPE OF WORK

1. Coordinate and monitor the implementation and monitoring the achievement of NWRP.
2. Formulate implementation measures of NWRP.
3. Receive feedback on issues related to improve the implementation and review NWRP from time to time and
4. Establish task forces to assist the implementation NWRP.



# MEMBERSHIP

It will be chaired by the Secretary General Ministry of Natural Resources and Environment (NRE). Membership of the Committee is as follows:

Chairman: Secretary General  
Ministry of Natural Resources and Environment (NRE).

Secretariat: Division of Water Resources, Drainage and Hydrology, NRE

Members:

1. Deputy Secretary General 1 (Natural Resources and Environment ), NRE
2. Secretary General of Treasury, Ministry of Finance
3. Secretary General, Ministry of Energy, Green Technology and Water (KeTTHA)

Continue...



4. Secretary General, Ministry of Agriculture and Agro-Based Industry Malaysia
5. Secretary General, Ministry of Federal Territories and Urban Wellbeing
6. Secretary General, Ministry of Health Malaysia
7. Secretary General, Ministry of Housing and Local Government Malaysia
8. Secretary General, Ministry of Rural and Regional Development Malaysia
9. Secretary General, Ministry of Science, Technology and Innovation.
10. Secretary General, Ministry of Works
11. Secretary General, Ministry of Plantation, Industries and Commodities
12. Director General of the Economic Planning Unit, Prime Minister's
13. Director General of the Implementation Coordination Unit, Prime Minister's
14. Director General, Department of Irrigation and Drainage
15. Law Officer of Ministry of Natural Resources and Environment
16. Department / other agencies - based on needs
17. SUK for all states





# SPECIAL TASK FORCE TEAM

## Proposed Formation of Special Task Forces Team

Special task force proposed is based on a strategic action plan. Special task forces proposed are as follows:

i. Task Force Team on 'Penyelarasan Kajian dan Maklumat Sumber Air'

Chairman: Director General of DID  
Secretariat: Water Resources Management and Hydrology  
Division, JPS Malaysia

ii. Task Force Team on 'Pembangunan Keupayaan Dan Kesedaran'

Chairman: Director General of DID  
Secretariat: Water Resources Management and Hydrology  
Division, JPS Malaysia

iii. Membership to include relevant government departments and agencies.



## Scope of work

- i. Identify and collect all the information of water resources;
- ii. Coordinate sources of information networking and communication between stakeholders;
- iii. Develop systems and maintenance comprehensive information procedures of water resources at all levels;
- iv. Identify opportunities for the creation of a sharing and access system to information;
- v. Identify opportunities for the establishment of the National Water resource reference, maintenance procedures, archiving, research and reference;



# Task force on Capacity Building and Awareness



## Scope of Work

- i. Develop a stakeholder profile, roles, interests and their potential contributions at government, private and community level.
- ii. Formulation and implementation of programs collaboration and shared responsibility, consciousness periodically and gradually at the National, State and local level.
- iii. Create a research consortium involving local institutions of higher learning and research institutions.
- iv. Implement workshops with institutions of higher learning and research centers to identify local training needs in developing the skills and expertise of regular training program, focused and measures, including specific programs of study and graduation.



# CONCLUSIONS

- NWRP will benefit the people and environment through the principles of security, sustainability and collaborative governance.
- Well managed WR serve as catalyst for social and economic development of the country.



# THANK YOU

