

EXECUTIVE SUMMARY

EDMS (Hong Kong) Ltd was commissioned by Environmental Protection Department (EPD) of the Hong Kong Special Administrative Region in June 2007 to review the international Water Resources Management (WRM) policies and actions, and the latest practices in their Environmental Evaluation (EE) and Strategic Environmental Assessment (SEA).

WRM policies and actions are considered to be of far-reaching repercussions to the environment. The SEA practices of these policies and actions, however, vary among different countries and jurisdictions around the world. It is thus considered noteworthy to review the latest developments of the international practices and explore if they can be adopted in Hong Kong for conducting SEA and EE.

In this Study, the latest WRM policies and actions, the latest practice of EE / environmental scrutiny / SEA for Policy / Programme / Plan (PPP) proposals in general and the WRM policy proposals specifically were reviewed. The policy EE and the SEA process reviewed includes both the statutory and the non-statutory systems, as well as both the evaluation tools such as those as mentioned in the HK SEA Manual and the overall process (e.g. Fig. 18 of the HK SEA Manual). Countries and jurisdictions reviewed include Austria, Australia, Canada, Denmark, Finland, France, Germany, Japan, Korea, Macau, Mainland China, the Netherlands, New Zealand, Norway, Pakistan, Portugal, Singapore, South Africa, Thailand, United Kingdom (including Northern Ireland, Scotland, Wales, and England), USA, plus four development co-operation, namely, the World Bank, the Asian Development Bank, the Inter-American Development Bank, the United Nations Development Programme and the United Nations Environmental Programme. Examples on WRM policies as well as their EE/SEA were included to reveal the latest development of the WRM sector and how the EE/SEA process and evaluation tools were applied and the outcome of the application (similar to Chapters 10 and 11 of the HK SEA Manual);

This Final Report presents the latest WRM policies and actions, and the latest practice of SEA for PPP proposals and the WRM policy proposals. For each of the reviewed countries/development co-operations, the review contents were organised as follows:

- (i) WRM Policies and Actions
 - Presentation of the latest WRM policies and actions for each country / development co-operation
- (ii) EE / SEA in the country / development co-operation
 - Description of the latest practice of environmental scrutiny / SEA for general PPP proposals specifically
- (iii) EE/SEA on WRM Polices and Actions
 - Description of the latest EE/SEA on WRM policy proposals
 - A summary table of WRM policies and actions and SEA status of the country / development co-operation was also included
- (iv) Analysis and Conclusions
 - Evaluation of the strengths & drawbacks of the country/development co-operation's EE/SEA on WRM policies and actions
 - Comparison with Hong Kong system

- (v) Examples of WRM Policies/Actions or their EE/SEA
 - Relevant examples of WRM policies/actions or their EE/SEA were included where applicable for each country/development co-operation

The international WRM policies/actions and their EE/SEA status are summarised in the following table.

Among the reviewed countries/development co-operations, their WRM policies/actions have some common key issues. Firstly, most of the countries concern on water conservation in their WRM policies by restricting the use of water so as to save and protect their water resources. In particular, permits should be applied before drawing surface water or groundwater under the Water Law in Mainland China. Besides, some countries apply the “User-pay” or “Polluter-pay” principles in their WRM policies in order to raise the public concern on water conservation and protection. All details of the international WRM policies/actions can be referred to the subsequent chapters of the report.

Regarding their latest EE/SEA status, most of the European countries, e.g. United Kingdom and Finland, have been transposed the EU Directive 2001/42/EC (SEA Directive) into its own legislations. Besides, most of the reviewed countries and development co-operations have developed their own EE/SEA systems, e.g. EIA for plans in Mainland China. All details of the latest EE/SEA status can be referred to the subsequent chapters of the report.

This Final Report was prepared by EDMS to the best of our knowledge, based on the information as published on relevant websites and publications available at the time of preparation. The information as obtained was edited and compiled into this Report based on our previous relevant experience with reasonable professional skills and judgment. EDMS was commissioned to be the prime consultant to be responsible and accountable for undertaking this Review Study and preparing the Final Report.

Summary Table of International Water Resources Management Policies and Actions and Environmental Evaluation / SEA Status

Countries/ Development Co-operation	(a) Water Resources Management Policies and Actions			(b) Environmental Evaluations / SEA Status in Water Resources Management Policies and Actions						
	Water Resources Management Policies	Water Resources Management Actions	Guidance/Legislations for Water Resources Management	Type of Assessment	Requirement Mechanisms	Legislation for Environmental Evaluation / SEA	Applications			SEA Examples reviewed
							Policy	Plan	Programme	
Asia Pacific										
Mainland China	Policies: • 取水許可制度實施辦法 (1993)	Actions: -	• Water Law (中華人民共和國水法) (1988)	EIA for plans	Statutory	National Environmental Impact Assessment Law (2003) (EIA Law)	-	√	√	N/A
Macau SAR	Policies: • In Macau, water resources management policies are built based on the "Pressure-State-Response" framework	Actions: • Save Water	-	-	-	-	-	-	-	N/A
Japan	Policies: • The Comprehensive National Water Resources Plan (2000) • The Basic Environment Plan (1994)	Actions: -	• For the Comprehensive National Water Resources Plan (2000), it is stipulated in the Comprehensive National Land Development Act (1950) and approved by the Prime Minister's cabinet. • For the Basic Environment Plan (1994), it is forced by the Basic Environment Law (1993)	SEA	Administrative	Basic Environmental Plan (the third plan) (2006)	√	√	√	N/A
Korea	Policies: • Water Environment Management Master Plan (2006)	Actions: -	-	Prior Environmental Review System (PERS)	Statutory	Framework Act on Environmental Policy (FAEP) (2003)	-	√	√	N/A
Thailand	Policies: • Integrated Water Resources Management Plan • The Ninth National Plan (2002-2006)	Actions: -	-	SEA	Administrative	-	√	√	√	N/A
Singapore	Policies: • Singapore Green Plan 2012 (SGP2012) (1992)	Actions: • Water Efficient Homes (WEH) Programme (2006) • Water Efficient Buildings (WEB) Waters Programme (2006) • Active, Beautiful and Clean (ABC) Waters Programme	-	-	-	-	-	-	-	N/A
Pakistan	Policies: • National Environment Policy (2005)	Actions: • Clean Drinking Water for All (2004) • Pakistan Wetlands Programme (PWP) (2005)	-	SEA	Administrative	National Environmental Policy 2005	√	√	√	N/A
Australia	Policies: • National Water Initiative (2004)	Actions: • Australian Water Resources 2005	-	Strategic Assessment	Statutory	Environment Protection and Biodiversity Conservation Act (1999)	√	√	√	N/A
New Zealand	Policies: • Sustainable Water Programme of Action (2003)	Actions: • Water Efficiency Labelling Scheme (WELS) (2007)	-	SEA	Statutory	Resource Management Act (1991)	√	√	√	N/A
North America										
USA	Policies: • Strategic Plan for 2006 - 2011	Actions: • Sustainable Wastewater Infrastructure Strategy • Strategic planning for the Civil Works programme	-	Environmental Impact Statement	Statutory	National Environmental Policy Act (NEPA) (1969)	√	√	√	• Final Environmental Impact Statement (EIS) for the Jackson County Lake Project (2000) • Platte River Recovery Implementation Programme Final Environmental Impact Statement (2006)
Canada	Policies: • Federal Water Policy (1987)	Actions: -	-	SEA	Administrative	Cabinet Directive (1999)	√	√	√	N/A

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							Policy	Plan	Programme	
Europe										
UK - England	Policies: <ul style="list-style-type: none"> Directing the Flow - priorities for future water policy (2002) Implementation of EU Water Resources Directive (2000) 	Actions: <ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 	SEA	Statutory	Environmental Assessment of Plans and Programmes Regulations 2004	-	√	√	N/A
UK - Wales	Policies: <ul style="list-style-type: none"> Directing the Flow - priorities for future water policy (2002) Implementation of EU Water Resources Directive (2000) 	Actions: <ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> The Water Environment (Water Framework Directive) (England and Wales) Regulations 2003 	SEA	Statutory	Environmental Assessment of Plans and Programmes Regulations (Wales) 2004	-	√	√	N/A
UK - Northern Ireland	Policies: <ul style="list-style-type: none"> Water Resource Strategy 2002 - 2030 Implementation of EU Water Resources Directive (2000) 	Actions: <ul style="list-style-type: none"> Water Quality Monitoring Strategy in Northern Ireland 	<ul style="list-style-type: none"> The Water Environment (Water Framework Directive) (Northern Ireland) Regulations 2003 	SEA	Statutory	Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004	-	√	√	N/A
UK - Scotland	Policies: <ul style="list-style-type: none"> Implementation of EU Water Resources Directive (2000) 	Actions: <ul style="list-style-type: none"> - 	<ul style="list-style-type: none"> The Water Environment and Water Services (Scotland) Act 2003 	SEA	Statutory	Environmental Assessment Act (Scotland) 2005	√	√	√	<ul style="list-style-type: none"> Scotland: Strategic Environmental Assessment of the Draft National Sludge Strategy
Finland	Policies: <ul style="list-style-type: none"> Water Protection Policy Implementation of EU WFD Protocol (2000) 	Actions: <ul style="list-style-type: none"> Introduction of Dry composting toilets Sewage charges 	<ul style="list-style-type: none"> Water Act (1962) Environmental Protection Act (2000) 	SEA	Statutory	Act on the Assessment of the Impacts of the Authorities' Plans, Programmes and Policies on the Environment (200/2005)	√	√	√	<ul style="list-style-type: none"> Ex-ante Evaluation and Strategic Environmental Assessment of the Central Baltic Cross-border Programme 2007-2013
Denmark	Policies: <ul style="list-style-type: none"> Implementation of EU Water Resources Directive (2003) 	Actions: <ul style="list-style-type: none"> Action Plan for the Aquatic Environment III (2004) Water Fund (1997) Designation of "Particularly valuable water abstraction areas" 	-	SEA	<ul style="list-style-type: none"> Administrative for policy level Statutory for plans and programmes. 	<ul style="list-style-type: none"> For policies, it is governed by the Prime Minister's Office Circulars (1998) For plans and programmes, it is statutory under the Act on Environmental Assessment (2001) 	√	√	√	N/A
Norway	Policies: <ul style="list-style-type: none"> Implementation of EU Water Framework Directive (2004) Fees in the municipal water sector 	Actions: <ul style="list-style-type: none"> Protection Plan for Water Resources Water Resources Assessment Water Quality and Aquatic Ecosystems 	<ul style="list-style-type: none"> Water Resources Act (2000) 	<ul style="list-style-type: none"> It is required to conduct "Environmental Assessment (EA)" for policies It is required to conduct SEA for plans and programmes 	Statutory	<ul style="list-style-type: none"> Regarding EA for policies, it is required under "Instructions for consequence assessment, submission and review procedures in connection with official studies, regulations, positions and reports to the Storting" Regarding SEA for plans and programmes, it is required under the Planning and Building Act (1990) 	√ (EA)	√ (SEA)	√ (SEA)	N/A
The Netherlands	Policies: <ul style="list-style-type: none"> A Different Approach to Water and Water Management Policy in the 21st Century Implementation of EU Water Framework Directive (2000) 	Actions: <ul style="list-style-type: none"> Water test Room of Water The Netherlands Lives with Water 	-	<ul style="list-style-type: none"> E-test Strategic Environmental Impact Assessment (SEIA) 	<ul style="list-style-type: none"> For E-test, it is an administrative requirement For SEIA, it is a statutory requirement 	<ul style="list-style-type: none"> For E-test, it is required under the Official Gazette 1995, No.15 For SEIA, it is regulated by the Environmental Management Act (2006) 	√ (E-test)	√ (SEIA)	√ (SEIA)	<ul style="list-style-type: none"> SEA for the National Policy Plan for Industrial and Drinking Water Supply (1990) SEA on the Routing the River Meuse (Zandmaas/ Maasroute) (2005)

Countries/ Development Co-operation	(a) Water Resources Management Policies and Actions			(b) Environmental Evaluations / SEA Status in Water Resources Management Policies and Actions						
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							Policy	Plan	Programme	
France	Policies: • “Public water policy in France” (2007)	Actions: • Water improvement and management master plans (SDAGE) (2005)	• The 1984 Fish Act • The 1964 and 1992 Water Act	SEA	Statutory	Statutory under Strategic Impact Assessment (SIA) (1990) for policy level (the corresponding act is not available) Statutory under Environmental Code (2004) for plans and programmes	√	√	√	N/A
Germany	Policies: • Implementation of Agenda 21 (1992) and EU Water Framework Directive (2000)	Actions: -	• Federal Water Act (2002) • Wastewater Charges Act (1976)	SEA	Statutory	• Federal Building Code (2004) • Federal EIA Act (2005)	-	√	√	N/A
Austria	Policies: • Implementation of EU Water Framework Directive (2003)	Actions: -	• Austrian Water Act (2003)	SEA	Statutory	The requirements in SEA Directive (2001) have been implemented in Austria within the framework of various material laws at federal and provincial levels	-	√	√	N/A
Portugal	Policies: • PEAASAR 2007-2013	Actions: • Bathing Water Quality Improvement Programmes (2007)	• Water Framework Law (2005)	SIA for land-use/spatial plans and programmes	Administrative	• Guidance on SIA of land-use/spatial plans • National Directorate General for Land-Use Planning & Urban Development (2003)	-	√	√	N/A
Africa and Development Co-operation										
South Africa	Policies: • The National Water Policy (1997) • National Water Resource Strategy (NWRS) (2004)	Actions: • National water resources classification system (2004) • Water use licenses (2004) • Water pricing (2004)	• The National Water Act (1998)	SEA	Administrative	National Environmental Management Act (NEMA) (1998) – stipulates a range of environmental management tools, which includes SEA for the proactive integration of environmental issues at the policy and planning level	√	√	√	• Strategic Environmental Assessment for Water Uses in South Africa (1999-2000)
World Bank	Policies: • Operational Policies on Water Resources Management (OP4.07) (2000)	Actions: • Water Week 2007 • Water Forum: Sustainability and Growth (2007)	-	Sectoral / Regional Environmental Assessment	Administrative	Operational Policy / Bank Procedure (OP / BP 4.01) (1999)	√	√	√	• Philippines - Water Districts Development Project Environmental Assessment Summary (1977)
Asian Development Bank	Policies: • Water For All - The Water Policy of the Asian Development Bank (2003)	Actions: • Water Financing Programme (2006-2010)	-	SEA	Administrative	-	√	√	√	N/A
Inter-American Development Bank	Policies: • Strategy for Integrated Water Resources Management (1998) • Basic Environmental Sanitation	Actions: • Provide financing and technical cooperation for basic environmental sanitation projects	-	SEA	Administrative	Environment and Safeguards Compliance Policy 2006	√	√	√	N/A
United Nations Development Programme	Policies: • Integrated water resources management	Actions: -	-	SEA	Administrative	-	√	√	√	N/A
United Nations Environmental Programme	Policies: • Water Policy and Strategy	Actions: -	-	SEA	Administrative	-	√	√	√	N/A

Remarks:

“N/A” represents “Not available in this study”. For those countries with no SEA examples available, examples on the water resources management policies/actions have been further elaborated.