

**Challenges and opportunities for
an integrated coastal management approach in
Jakarta Bay, Indonesia**

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Integrated coastal management (ICM) has had limited success in the Asia-Pacific region where, according to the literature, only three countries have inter-agency or inter-ministerial coordinating mechanisms, including Indonesia as the only developing country. However, there is a lack of research into the practice and efficiency of these coordinating mechanisms in Indonesia and the extent to which ICM can operate in practice, particularly in areas with complex administration such as Jakarta Bay.

This research aims to investigate the applicability of an ICM approach within the existing Indonesian governance systems focusing on Jakarta Bay. The bay is adjacent to the Jakarta metropolitan area of 6,406.33 km², which is inhabited by approximately 28 million people, has some of the highest economic development in the country, is experiencing population growth, and economic development pressures related to pollution, erosion, subsidence, flooding, habitat degradation and loss of ecosystem. These diverse problems are subject to the complexities of management between different sectors and jurisdictional boundaries. It is in this context that this research investigates an integrated approach for managing coastal areas of Jakarta Bay.

The research was carried out in two steps. First, a literature study of ICM concepts, principles and successful practices in the region was conducted to explore the factors required in designing an ICM initiative and to identify the enabling factors that could be adopted in a Jakarta Bay ICM framework. Second, a detailed case study of Jakarta Bay was conducted to investigate the state of the Jakarta Bay coast, and gain a better understanding of the coastal governance provisions in Indonesia and the current management system of Jakarta Bay. The primary data for the case study was obtained through interviews and surveys of government officers and members of coastal communities. Government officers were selected from sectoral offices involved in managing Jakarta Bay at national, provincial and municipal levels. Secondary data was obtained from government documents, research reports and academic articles.

The research shows that the governance system in Indonesia has advantages and disadvantages for employing an ICM approach. A major advantage is an existing umbrella policy to conduct an integrated approach for coastal management (Law 27/2007). However, the policy has not been fully implemented, and many of the derived regulations are not finalised. The current management structure has no single agency to coordinate divergent perspectives among

sectors and different levels of government. The structure also experiences problems with inter-sectoral and inter-level connection. On the other hand, *sekda* (local government secretary) is a critical entity in the management structure that is potentially capable of mobilising sectoral offices to employ an ICM approach. The research also concludes that there is a need for an initiator or champion to drive the ICM agenda. In addition, an entry point is needed to enable access and communication with leaders and a mechanism to convince decision makers of the importance of an ICM approach.

The contributions of this research are two-fold. Firstly, it provides new insights into coastal governance in Indonesia and reveals key differences between the purpose of existing coastal legislation and policies compared with some of the problems of implementation and the reality of what happens in practice. Secondly, the research provides a framework for adopting an ICM approach for Jakarta Bay within the existing legislation and the complexities of the various management structures currently operating.

Declaration

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in any university or other tertiary institution in my name and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint-award of this degree.

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Presentations and publication

Presentations arising out of this thesis:

- *Jakarta Bay: Identifying governance issues*. LOICZ open science conference: Coastal systems, global change and sustainability. Yantai - China, 12th – 15th September 2011.
- *The footprints of anthropogenic activities in Jakarta Bay coastal area*. Academic discussion conducted by the Indonesian Student Association (PPIA – Perhimpunan Pelajar Indonesia di Australia) the University of Adelaide. Adelaide – Australia, 9th May 2012.

Publication arising out of this thesis:

Contribute to: Pelling, M. and Blackburn, S. (forthcoming) "*Megacities and the Coast: Risk, Resilience and Transformation*", Routledge. Link:

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Abbreviations

ADB	Asian Development Bank
Bapedal	Badan Pengendalian Dampak Lingkungan National environmental agency
Bappeda	<i>Badan Perencanaan Pembangunan Daerah</i> Regional planning agency
Bappenas	<i>Badan Perencanaan Pembangunan Nasional</i> National planning agency
BNP	Bunaken National Park Management Projects
BORDA	Bremen Overseas Research and Development Association
BPLHD	<i>Badan Pengelola Lingkungan Hidup Daerah</i> Local environmental management agency
COREMAP	Coral Reef Rehabilitation and Management Program
CRMP	Coastal Resource Management Project or <i>Proyek Pesisir</i>
DEM	Digital Elevation Model
DKI	<i>Daerah Khusus Ibukota</i> Special capital region
DPR	<i>Dewan Perwakilan Rakyat</i> National parliament
DPRD	<i>Dewan Perwakilan Rakyat Daerah</i> Regional parliament; province and municipal level
EIA	Environmental Impact Assessment
EICD	Economic Institution for Coastal Development
ESP	Ecosystem Service Product
GEF	Global Environmental Facility
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GRDP	Gross Regional Domestic Product
HP3	<i>Hak Pengusahaan Perairan Pesisir</i> The undertaking right
ICM	Integrated Coastal Management
IUCN	International Union for Conservation of Nature
Jabodetabek	<i>Jakarta Bogor Depok Tangerang Bekasi</i> Jakarta Metropolitan Area

Jabodetabekpunjur	<i>Jakarta Bogor Depok Tangerang Bekasi Puncak Cianjur</i> A region that includes Jakarta Province; Bogor Regency, Bogor City, Depok City, Cianjur Regency, Bekasi Regency and Bekasi City in West Java Province; Tangerang Regency and Tangerang City in Banten Province
JBIC	Japan Bank of International Cooperation
JICA	Japan International Cooperation Agency
KINMP	Komodo Island National Marine Park
KLHS	<i>Kajian Lingkungan Hidup Strategis</i> Strategic environmental assessment
MCMA	Marine and Coastal Management Areas
MCRMP	Marine and Coastal Resources Management Project
MHA	Ministry of Home Affairs
MMAF	Ministry of Marine Affairs and Fisheries
MoE	Ministry of Environment
MPW	Ministry of Public Work
MREP	Marine Resources Evaluation and Planning
Musrenbang	<i>Musyawarah Rencana Pembangunan</i> Development planning meeting
NGO	Non-Governmental Organisation
NPA	National Planning Agency
NRMP	Natural Resource Management Program
OECD	Organisation for Economic Co-operation and Development
PAH	Poly Aromatic Hydrocarbons
Pantura	<i>Pantai Utara Jakarta</i> North shore of Jakarta
PEMSEA	Partnerships in Environmental Management for the Seas of East Asia
Propenas	<i>Program Pembangunan Nasional</i> National development program
Repelita	<i>Rencana Pembangunan Lima Tahun</i> Five-year development plan
RIK 1985	<i>Rencana Induk Jakarta (1965-1985)</i> Master plan of Jakarta (1965 to 1985)
RPJM	<i>Rencana Pembangunan Jangka Menengah</i> Medium-term development plan
RPJMD	<i>Rencana Pembangunan Jangka Menengah Daerah</i> Regional medium-term development plan

RPJMN	<i>Rencana Pembangunan Jangka Menengah Nasional</i> National medium-term development plan
RPJP	<i>Rencana Pembangunan Jangka Panjang</i> Long-term development plan
RPJPD	<i>Rencana Pembangunan Jangka Panjang Daerah</i> Regional long-term development plan
RPJPN	<i>Rencana Pembangunan Jangka Panjang Nasional</i> National long-term development plan
RPPLH	<i>Rencana Perlindungan dan Pengelolaan Lingkungan Hidup</i> Environmental protection and management plan
RTRW	<i>Rencana Tata Ruang Wilayah</i> Regional spatial plan
RUTR 2005	<i>Rencana Umum Tata Ruang (1985-2005)</i> General spatial plan of Jakarta (1985 to 2005)
SAP	Segara Anakan Project
SEMP	Strategic Environmental Management Plans
SMA	Special Marine Areas
SPPN	<i>Sistem Perencanaan Pembangunan Nasional</i> National development planning system
TNC	The Nature Conservancy
TFR	Total Fertility Rate
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention on the Law of the Sea
UNEP	United Nations Environment Programme
USAID	United States Agency for International Development
UUD 1945	<i>Undang Undang Dasar 1945</i> Basic Constitution of 1945
WSSD	World Summit on Sustainable Development