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2006年 海岸規劃與管理國際研習會

The 2006 Coastline Development and Management International Symposium





內政部營建署3月10日，假國立台灣海洋大學，舉辦2006年海岸規劃與管理國際研習會（2006 International Workshop on Coastal Planning and Management），本次會議主、合辦單位包含：外交部、行政院海岸巡防署、內政部營建署、經濟部水利署、行政院農業委員會漁業署、高雄市政府、基隆市政府、國立台灣海洋大學、財團法人國土規劃及不動產資訊中心、中華民國景觀學會。此次會議宗旨包括：海岸地區包括濱海陸地及近岸海域，是生態敏感、資源豐富、人文薈萃的區域，卻也是各種使用經常競爭衝突的地帶。目前台灣的海岸法尚未完成立法，海洋與海岸管理權責分散，海域執法有待提升能量，海域多為排他性使用，海洋污染問題尚待持續努力，海岸逐漸水泥化破壞了生物棲地，使得海岸景觀醜陋、水質劣化、生態破壞、漁源減少，許多民眾親水權益也因而受阻。另一方面，海岸地區經常發生地盤下陷、海水倒灌、土壤液化及海岸侵蝕等災害，影響民眾財產生命安全甚鉅。因此，為回應行政院「挑戰2008國家發展計畫」水與綠的基本構想，以及海洋事務推動委員會「2006海洋保育年」之呼籲，海洋國土之保育管理，應有前瞻之願景，海岸地區勢必需要有整合性之規劃。本次會議邀集國內外產官學民各界，集思廣益，共同研析海岸相關議題，並思考台灣海岸未來之願景，促成海岸地區生態環境之安全，以及各行各業之永續發展。會議的主題包括：（一）台灣海岸管理的願景（Vision of Coastal Management in Taiwan）；（二）海岸地區的劃設（Delineation of Coastal Zone）；（三）海嘯與海岸災害規劃（Tsunami and Coastal Hazard Planning）；（四）海岸保護區（Coastal Protected Areas）；（五）海域功能區劃（Marine Functional Zoning）；（六）漁業及海域執法（Fisheries and Maritime Enforcement）。

大會在海洋大學黃校長榮鑑致歡迎詞，與營建署陳署長光雄、李國添教授（現任海洋大

Construction and Planning Agency, Ministry of the Interior, had staged an International Workshop on Coastal Planning and Management at National Taiwan Ocean University on March 10, 2006, with the workshop's spearheading and supporting units encompassed the Ministry of Foreign Affairs, Executive Yuan Coast Guard Administration, Ministry of the Interior Construction and Planning Agency, Ministry of Economic Affairs Water Resources Agency, Executive Yuan Agricultural Council's Fisheries Agency, Kaohsiung Municipal Government, Keelung Municipal Government, National Taiwan Ocean University, Institute for Physical Planning & Information, and Landscape Society of the ROC. The workshop's objectives encompass: Given costal areas comprising of seaside land and near coast sea areas that are regarded as eco-sensitive, resource rich and humanity-abundant areas, they are also areas prone to competitive conflicts under various forms of utilization. Currently, with Taiwan not yet moving to legislate its maritime law, the administration jurisdiction governing the ocean and coastline remains dispersed, and the island's maritime law enforcement needs to be upgraded, just as more work is need to alleviate ocean pollution being that the seas are often utilized in an exclusive manner. The artificial embankment built around the shoreline has disrupted marine habitats, marred the landscape, deteriorated the water quality, undermined the ecology, over exploited fishery resources, and deterred the public of its rightful equity to enjoy the sea. On the other hand, the over exploitation of shoreline areas often lead to a host of disasters, such as sinking stratum, seawater overflow, soil liquefaction, as well as coastline erosions. In light of which, in response to the Executive Yuan's rudimentary water and green concept stated in the Challenging 2008 National Development Campaign, and the Maritime Development Council's "2006 Maritime Conservation Year" campaign, it is prudent that an innovative vision be incorporated in the conservation management of maritime national territories, and that the coastal areas need to be streamlined under integrated development. The workshop has had invitations extended to local and foreign academic, government and industry sectors for soliciting widespread opinions, and through which collective efforts could be made to analyze relevant coastline issues, and to culminate a safe ecological environment in the coastal area and a sustainable industry development, taking into account Taiwan's vision on future coastline administration. The workshop's central themes include, (1) Vision of coastal management in Taiwan; (2) Delineation of coastal zone; (3) tsunami and coastal hazard planning; (4) Coastal protected areas; (5) Marine Functional zoning; (6) Fisheries and maritime enforcement.

The workshop opened with a welcome keynote presented by director of National Taiwan Ocean University, Huang Rong-chien, and keynotes by director of Construction and Planning Agency, Chen Kuang-hsing, Prof. Lee Kuo-tien (who serves as the current director of National Taiwan Ocean University) among others, as well as the presentation of the Coastline Con-



學校長)等貴賓致詞並頒發海岸貢獻獎後揭開序幕。

本次會議重點

本次邀請美國海岸專家Dr. James W. Good 奧勒岡州立大學名譽教授(個人網址www.jwgoodconsulting.com)與澳洲海岸專家Dr. Robert Kay西澳洲大學教授(個人網站www.coastalmanagement.com)。

研討會首先由澳洲Robert Kay博士,發表「全球海岸管理的願景」專題演講,Robert Kay博士提到近年來,全世界對於海岸管理都非常重視,海岸管理為什麼重要呢?全世界大約有60%的人口,聚集在離海岸不到兩小時車程的海岸地區內,由於海岸地區(coastal zone)提供了豐富的資源、功能、利益和機會,自古以來海岸地區即是經濟活絡、人文薈萃的區域。海岸地區同時也是生態環境十分敏感的地區,全球90%的魚貝類產量來自海岸地區,人類主要經濟活動也發生於此,但卻是海嘯、土壤液化、地盤下陷、海水倒灌等災害容易發生之處。目前各國對於海岸管理的方式,通常採取方案(project)的方式(我國如:內政部現在著手規劃的永續海岸整體發展方案),其次

tribution Awards.

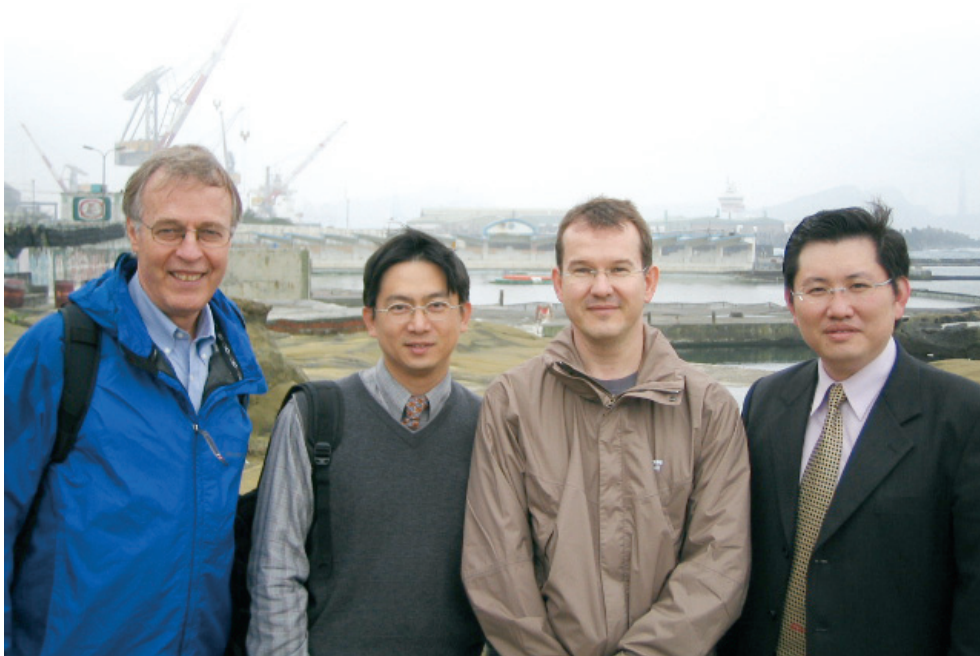
The workshop's critical focus

The workshop has had invitations extended to the American coastline expert, Dr. James W. Good, honorary professor of the State University of Oregon (his personal Website at www.jwgoodconsulting.com), the Australian coastline expert, Dr. Robert Kay, professor of West Australia University (his personal Website at www.coastalmanagement.com).

The workshop opened with Dr. Robert Kay presenting a topical lecture – Global coastal zone management vision”, in which Dr. Robert Kay mentioned that in recent years as world countries turned their attention on coastal zone management, but why would coastal zone management be important? With roughly 60% of world population congregated in coastal areas less than two hours by car, coastal zones offer a wealth of resources, functional amenities, equitable gains, and opportunities, being that costal zones had long been areas with thriving economy and humanity. Coastal zones, in the meantime, are also areas of a sensitive ecological environment, where 90% of world fishery, crustacean output had come from the coastal zone, and mankind’s main economic activities also occurred here, which however were marred by disasters of tsunami, soil liquefaction, stratum sinkage, seawater overflow and such. Currently, the management approach by world countries tended to broach toward a project-based management mode (such as in Taiwan that the Ministry of the Interior was actively developing a sustainable overall coastline development proposal), and followed by legislation, which was equally important (for instance, the Ministry of the Interior promoting the three state property management laws, draft bill of an integrated state property law, draft bill of a

◆(本次會議貴賓合照由左而右依次為:美國James W. Good博士、海巡署企劃處科員施義哲、澳洲Robert Kay博士、英國卡地夫大學博士班高瑞鐘研究生)

A group photo of honored workshop guests, from L to R, Dr. James W. Good of the U.S., Coast Guard Administration planning division section member Shih Yi-zher, Dr. Robert Kay of Australia, Cardiff University of English doctoral postgraduate candidate Kao Ruei-zhong.





立法也非常重要（如：內政部現在推動的國土三法，國土綜合計畫法草案、海岸法草案、國土復育條例草案），各國對於海岸地區的規劃是朝向多目標整合性的計畫，所以行政機關間的整合與協調機制就非常重要；除此之外，還需要有技術支援團隊（例如：內政部成立的永續海岸實施服務團隊），現行海岸管理思維的發展，是一個不斷的檢討、學習、回顧、思維過程與檢討。而且海岸經營管理，可以規劃一個很好的願景，而且是動態的過程，因此在訂定海岸管理的願景時，應該思考如何訂定清晰、長遠、實際可行的願景。他也舉例說明，整合海岸管理不應像輪子（wheel）到處跑，而應像黏膠（glue）一樣。當前海岸管理的趨勢是，以生態系統為基礎（ecosystem-based）的管理方式、各海岸相關部門形成共識（consensus building）、海岸的合適規劃（Adaptive planning）、海岸管理的指標、評估與標準（Indicators, evaluation & standards）的建立、海岸管理的架構（Frameworks）等。演講中也舉例，全世界整合海岸管理（ICZM）的標竿國家，如菲律賓、泰國、美國、歐盟與澳洲的海岸管理發展概況。他也相信，台灣未來的海岸管理是非常重要的，在發展台灣海岸管理時，應該參考國際的案例和經驗，設計一個最容易施行的海岸管理計畫，也就是說任何一個海岸管理計畫都應該是可行，有其執行性；有效的技術能量（technical capacity）並從過去的經驗當中學習。他的演講最後的結論是，整合性海岸管理（Integrated Coastal Zone Management, ICZM），是全世界共同接受的方式，也是一長期性的工作。

美國的James W. Good博士，分享美國的海岸管理經驗與願景，美國實行海岸地區管理也有30年的歷史與經驗，所以也談到非常多的海岸管理經驗，他也同意整合海岸管理是國際共同的願景，也是一個非常好的永續發展模式，美國的海岸管理經驗非常強調聯邦、州、地方的「夥伴關係」，是一種解決部門性單一行政與思考的方法。他也提到美國當初設立海岸地區管理法（Coastal Zone Management Act）

coastline law, draft bill of a state property rehabilitation law). With the management approach in coastal management sought by world countries tended to broach toward integrated, multipurpose projects, a governmental agency integration and coordination mechanism had become very important; moreover, there would be the need for a technical support team (such as the Ministry of the Interior's launching a sustainable coastline service implementation team), in that the development of the current coastal zone management thinking needed to be a process of ongoing review, learning, review and reflection. While coastline operating management could have a fine version defined, which should be an interactive process, thus it would be crucial in pondering how best to devise a clearly defined, long-term and feasible vision when it came to drafting one. He also explained by providing an example that integrating coastal management should not be running around like a wheel, but rather like sticky glue. In that the current coastal management trend focused on an ecosystem-based management mode, under which various relevant coastal departments were to form a consensus building, adaptive planning, instilment of coastal management indicators, evaluation and standards, coastal management frameworks and so forth. In the lecture, an example was given to profile the state of coastal management in yardstick countries of the International Coastal Zone Management (ICZM), such as the Philippines, Thailand, the United States, the European Union, and Australia. He believed that as Taiwan's future coastal management projects remained very important, when it came to developing Taiwan's coastal management, it would be prudent to mirror international examples and experiences in order to design a simplistic, executable coastal zone management project, meaning that any coastal management project should be feasible and executable, with technical capability and by mirroring from the past experience. He recapped his lecture by stating that an integrated coastal zone management (ICZM) had become a commonly accepted norm worldwide, and a long-term work.

Dr. James W. Good shared the U.S.'s coastal zone management experience by stating that the U.S. had implemented coastal zone management with 30 years of history and experience, and covering extended coastal management experience. He also agreed that an integrated coastal zone management had become a global shared vision, and a fine sustainable development mode, in that the U.S.'s coastal zone management experience emphasized strongly of a federal, state and local partnership relation, offering a means to resolve departmental singular administration and thinking. He also mentioned the background information on the U.S.'s moving to launch the Coastal Zone Management Act initially had stemmed from the public's awareness of the gradual environmental deterioration, coupled with the public's growing leisure hours that increased the public's contact with the coastline, and also the onset of a few major coastal pollution incidents, which had spawned the legislation of the Coastal Zone Management Act. In the aspect of maritime policy, He mentioned that the federal government had encouraged state governments to participate in promoting the coastal zone project, and offered certain incentives, i.e. the federal government would, under given circumstances, provide considerable capital and



的背景，因為民眾漸漸感到環境的惡化，加上民眾休閒的時間增長，利用海岸的次數增加，還有一些重大海岸污染事件發生，因而成立的海岸地區管理法。在海洋政策方面，他提到聯邦政府鼓勵各州的參與來推動海岸計畫，並且提供一些誘因，聯邦在若干的情況下，提供相當資金和計畫經費來支援州的計畫。海岸地區管理法，從該法的願景可以看出其大的願景，是維持世世代代的海岸資源保護，小的願景如民眾親水權、公共通行權等。另外，奧勒岡州的海岸管理計畫非常強調資源保育為基礎的方法，例如該州有一港灣建在河口地區，是一個蠻有趣的思考。

內政部營建署朱科長報告，該署所推動的「永續海岸整體發展策略」、台灣沿海地區自然環境保護計畫之檢討與國際海岸管理發展趨勢，從1975年的拉薩姆公約、1992年21世紀議

project funding to support a state's project. In terms of the Coastal Zone Management Act, the legislation's grand plan provided a glimpse of its vision, which would serve to protect the coastal zone resources for generations to come, and as little as visions for the public to be near the water, public access rights and so forth. Furthermore, the State of Ohio's coastal zone management plan emphasized highly that resource conservation being a rudimentary means; for instance how a harbor bay in the state had been built at an estuary, which was quite an interest thought.

Section head Ju of Construction and Planning Agency, Ministry of the Interior, reported that the "Sustainable overall coastal zone development strategy" promoted by the agency covering the review of natural environment protection plan for Taiwan's coastal zones and international costal zone management developing trends had arisen from the ASSAM protocol of 1975, 21 Agenda of 1992, and Bali Action Declaration in 2005, and profiled the zoning concept by costal conservation zoning. All such designs were intended to restore the costal zones to their natural state and maintain the ratio of natural coastal zones from declining, which would serve as a the highest guidance principle in various governmental departments' revising and reviewing various tangible coastal zone utilization plans before legislating the coastal management law.

◆（由左而右依次為：海大前校長黃榮鑑博士、澳洲Robert Kay博士、邱文彥教授）

From L to R, the former National Taiwan Ocean University director Dr. Huang Rong-chien, Dr. Robert Kay of Australia, Prof. Chiu Wen-yen.





程、2005年的峇里行動宣言，並介紹了海岸保育軸劃設分區概念，這些設計都是為了要回復海岸自然風貌和維持自然海岸線比例不再降低，提供未來「海岸法」完成立法前，政府各部門研修訂及審議海岸地區各項實質利用計畫之最高指導原則。

郭瓊瑩教授是海岸服務實施團隊的主持人，其發表的主題為「台灣保護區系統擬議與富裕策略」，針對台灣海域保護廊道（Protected Corridor）的概念提出各項保護計畫與策略。

結論與建議

此次座談會大會所討論的會議建議如下：

- 一、透過我國與國際性的海岸管理計畫之經驗學習，審視研議中的海岸法草案。
- 二、對於未來台灣的海岸，能夠發展清晰的、長期性的海岸管理願景，來引導國家層級的海岸管理政策。
- 三、確認海岸地區對於台灣經濟的重要性，例如：生物多樣性與人類的福祉。
- 四、定義整合海岸管理方案的範圍，包括海洋和海岸的劃界與議題。
- 五、發展國家整合海岸管理策略，協助海岸各相關機構、企業、非政府組織（NGOs）、學術機構和社區等，達成海岸地區資源的永續利用。
- 六、藉由政府財政和技術的支援，支持地方性由下及上（bottom-up）的海岸重建計畫，社區民眾也能共同參與其計畫。
- 七、設立國家級的海岸與海洋專責機關。
- 八、藉由一般的整合海岸管理會議、工作小組與教育訓練，積極投入並促

Dr. Kuo Chung-yao, the host of the coastal zone service implementation team, had presented a lecture featuring “Taiwan protected area system’s proposal and enterprising strategy”, which presented several protection plans and strategies focusing on Taiwan’s sea protected corridor.

Conclusion and recommendations

Workshop recommendations concluded through the forum are as follows,

- I. To review the draft bill for the coastal zone management act currently being drafted through Taiwan’s experience learning on international coastal zone management projects.
- II. To develop clear, long-term coastal zone management vision for Taiwan’s coastal zones in the future to steer a national coastal management policy.
- III. To ascertain the important of costal zones to Taiwan’s economy, i.e. biodiversity, human equity.
- IV. To define and integrate the scope of coastal zone management proposal, encompassing that for the maritime and coastal division and relevant topics.
- V. To develop national, integrated coastal zone management strategy by assisting relevant coastal zone management agencies, businesses and non-government organizations (NGOs), academic institutions, local communities and so forth for achieving a sustainable utilization of coastal zone resources.
- VI. To support local bottom-up coastal zone rebuilding plan through government financial and technical support, with community residents encouraged to partaking the project.
- VII. To launch a full-time national level coastal zone and maritime agency.
- VIII. To actively broach and excel the exchange of knowledge and experience on Taiwan’s coastal zone management and implementation through general integrated coastal zone management meetings, taskforce groups and education/training.

The objective of costal zone management rests on integrating sustainable resource utilization, biodiversity, natural disaster prevention, pollution control, economic development management and planning, coastal community equity enhancement, and optimal land utilization. As just the workshop consensus, the coastal zone management concept has been a long-term, innovative and ongoing work. Currently, Taiwan’s coastal habitats that have been disrupted,



進台灣海岸地區管理與實踐的知識與經驗之交流。

海岸管理的目標，包括：資源的可持續使用、生物的多樣性、自然災害的防護、污染的控制、經濟發展管理與規劃、海岸社區福祉的提升，以及土地使用最佳的整合。承如會議共識，海岸管理的理念是長期性、前瞻性和永續性的工作。現今台灣的海岸棲地遭受破壞、海域污染、景觀破壞等，都是不爭事實。為保存台灣的海洋環境，建構和發展有秩序及永續之海岸管理，可蒐集研究國外海洋海岸管理相關資訊，做為我國體制改進之參考，參照國內外文獻與經驗，檢討修正我國現行海洋與海岸管理，並加速推動海岸管理立法與落實。

（本文作者任職於海巡署企劃處）

ocean pollution, landscape disruption and so forth remain undisputed facts. To preserve Taiwan's ocean environment, and to instill and develop an orderly, sustainable coastal zone management, it is viable to gather and study relevant information on foreign maritime, coastal zone management as references in improving Taiwan's system, and to refer to local and foreign literature and experience for reviewing and amending Taiwan's current maritime and coastal zone management, as well as to speed up pushing for coastal zone management legislation and implementation.

(The author is currently with Coast Guard Administration planning division)

