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AMNAJ SUDTO : INFORMATION SYSTEM FOR SUPPORTING OIL SPILL COMBATING STRATEGIES. THESIS ADVISOR : SURA PATTANAKIAT, M.Sc., KASEM KULPRADIT, M.Sc., PORNSOOK CHONGPRASITH, Ph.D., PAKORN PRASERTWONG, M.Sc. 109 p. ISBN 974-661-622-6 .

The Oil Spill Combating Information System (OSCIS) and the Rayong's geographical information are developed to accomplish the responsibilities of Pollution Control Department, which is set out in the National Plan. The OSCIS provide the oil spill response information for the Operating Unit. The input data is retrieved from the relevant data gathered from the concerned agencies and from field survey in Rayong province. Rayong province is chosen as the case study area because it has high diversity of natural resources and is high risky area to oil spill. Geographical Information System for Rayong province becomes a part of oil spill mathematical model, which contains geo-referenced information from the OSCIS. The spatial characteristics of resources in Rayong province are provided identify impacted resources. Analysis system and database development are the tool for developing the OSCIS. The information in the OSCIS consists of the general management, specific management, biological resource, physical resource and land use management, respectively. Microsoft Access97 is the tool for developing this application and creating on efficient user-interface section to input, edit and enquire data. When oil spill occur in Rayong province, PCD can provide the information from the OSCIS and Rayong's geographic information together with the oil spill mathematical model for supporting to the Operating Unit. This data will lead to set up the strategies for prevention and combating of oil pollution in order to minimize impact of oil pollution on environmental and improve better collaboration among response organizations an evaluation is done by users. Views on the system by users are indicated. In conclusion, this system can improve efficiency on supporting information to the Operating Unit. The designed data is completed for oil spill response. However, the information of natural resource's Rayong province should be updated and input to the system in order to complete the OSCIS. The limited available input data is a main problem. The Oil Spill Combating Information System created under this study is found to be benefit to the oil spill response in Thailand, especially for PCD and it should be further developed by the users. Beside Rayong province, the OSCIS is also the master system for the other provinces so that the information system for oil spill response could be completed for the whole areas of Thailand in the future.