

Report of the
Inaugural Workshop of The Project GCP/VIE/029/ITA
Integrated Management of Lagoon Activities - IMOLA

Hue, 30 September 2005



Food and Agriculture Organization of the United Nations

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PREPARATION OF THIS DOCUMENT

This document contains the report of the Inaugural Workshop of the IMOLA Project (Integrated Management of Lagoon Activities in Thua Thien Hue Province, Central Vietnam), which was held on 30th September 2005, in the Conference Hall of Saigon Morin Hotel in Hue. The Conference was co-organized by the IMOLA Project Management Board, under the sponsorship of the United Nations Food and Agricultural Organization (FAO) and the People's Committee of Thua Thien Hue Province, and the Department of Fisheries of Thua Thien Hue Province. Technical guidance was obtained from the FAO Fisheries Department.

The aim of the workshop was to set the stage for soonest inception of IMOLA Project operations. To do so sessions were organized in such a way as to acquire and offer the most complete and up-to-date information on lagoon activities, on the basis of which then to open the floor for discussion. Session 1 represents a mere presentation of the project organization and objectives. Session 2 offered a brief overview of the lagoon and surrounding hinterland physical and hydro-biological context. Session 3 called upon individual contributions from past and ongoing project representatives, to offer a state-of-the-art synthesis of their activities and research in the Tam Giang - Cau Hai lagoon area. Last but not least, Session 4 offered an in-depth overview on what issues the IMOLA Project will develop and how, and to what extent each of these issues will be "integrated" into a coherent management scheme.

A large representation of public administrators, stakeholders, local institutions plus a number of selected international guests participated in the workshop. This provided an opportunity for a large range of contacts, favouring an in-depth and thorough discussion of matters of greatest concern. The outcome of the workshop is reported in this publication.

Further information on IMOLA Project background, publications and activities are available at www.imolahue.org.

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Distribution:

Participants at the workshop

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LIST OF ACRONYMS

AVI	Australian Volunteers International
CBCRM	Community-based Coastal Resources Management Project
CBM	Community-based Management
CECI	Center Canadien d' Etude et de Cooperation Internationale
CNR (Italy)	Center of National Research of Italy
CTA	Chief Technical Adviser
DANIDA	Danish International Development Agency
DARD	Department of Agriculture and Rural Development
DOFI	Department of Fisheries
DOLISA	Department of Labour, Invalids and Social Affairs
DONRE	Department of Natural Resources and Environment
DOST	Department of Sciences and Technologies
DPI	Department of Planning and Investment
FAO	Food and Agriculture Organization of the United Nations
FSPS	Fisheries Sector Programme Support
GIS	Geographical Information System
ICZM	Integrated Coastal Zone Management
IMER (Hai Phong)	Hai Phong Institute for Marine Resources and Environment
IMOLA	Integrated Management of Lagoon Activities Project
IUCN	International Union of Conservation of Nature
IUU	Illegal unregulated and unreported
LAPROCOF	Lagoon Projects Coordination Office
LICCP	Livelihood Improvement In Central Coastal Provinces Vietnam
MCD	Center for Marinelife Conservation and Community Development
MOFI	Ministry of Fisheries
NAV	Nordic Assistance to Vietnam
NPM	National Project Manager
PPC	Provincial People's Committee
RIA	Regional Institute of Aquaculture
SNV	(Stichting Nederlandse Vrijwilligers) Netherlands Development Organisation
TE	Technical Experts
TOT	Training of Trainers
VNICZM	Vietnam Integrated Coastal Zone Management Project

Sarti, M., N.V. Vinh and H.N. Viet, Editors,

Report of the Inaugural Workshop of the Project GCP/VIE/029/ITA “Integrated Management of Lagoon Activities” (IMOLA), Hue, Vietnam, 30th September 2005.

ABSTRACT

The First Inaugural (kick-off) Workshop of the IMOLA Project (Integrated Management of Lagoon Activities) was held in Hue on 30th September 2005, two months after the project inception. The workshop was designed to convene into the provincial capital city a large number of local and national stakeholders (scientists, politicians and public administrators), plus a group of international experts to evaluate the current situation of the largest lagoon area in South East Asia. The aims of the conference were: i) to assess the nature and the urgency of the problems affecting the site; ii) to establish priorities for those who possess an impending impact on fisheries; iii) to identify and understand the goals and objectives of major ongoing activities in the Tam Giang - Cau Hai lagoon area, and to seek better coordination; iv) to present and describe activities, goals and objectives of IMOLA, v) to compare experiences/strategies with other ongoing projects or other countries that face wetland management problems; vi) to redesign IMOLA strategies and vii) to prepare for IMOLA Project partnerships. The Conference was attended by 95 representatives of national and international agencies, including the Ministry of Fisheries of Vietnam (MOFI), Thua Thien Hue People’s Committee, Polytechnical University of Marche, University of Siena (Italy), Hai Phong Institute for Marine Resources and Environment, Thua Thien Hue Provincial Departments (DOFI, DARD, DOSTE, DOLISA), Thua Thien Hue communes and districts, ongoing coastal management or rural development projects in Vietnam (VNICZM, CBCRM, LAPROCOF, LICCP, CECI, SNV, AVI), Commune Fisheries Associations, mass media (newspapers and radio) and international organizations (FAO, IUCN, MCD).

The Conference participants obtained an overview of the current status of fisheries resources management in Tam Giang - Cau Hai from national and international experts. They participated in two round-table discussions where the most impending and urgent matters concerning participation of local communities in management (community-based management and co-management models) and modernization of planning practices and methodologies using ICT tools (GIS, remote sensing, etc.) were discussed.

Community based co-management of fisheries was considered by all participants the most suitable solution for the current problems, however, such management should be based on an appropriate legal framework, include participation of all stakeholders (also other sector’ stakeholders), and with better coordination and cooperation between the stakeholders. In the transition from the current management system to a community-based fishery management it was seen as important that pilot demonstration projects be established. Issues such as closure of certain areas for fishing; establishment of marine protected areas; enforcement of regulations with regards to destructive fishing methods; search for alternative employment opportunities for fisherfolk; and re-education of them to enable them to find jobs in other sectors, etc. were considered as necessary elements for inclusion in the provincial strategy. A better understanding of the lagoon system functioning principles; elements of vulnerability; the state of ecosystems and nursery grounds for the purpose of rehabilitation; hydrological modelling and pollutant dispersal; natural disasters and their mitigation etc. were considered issues of primary importance for environmental planning.

Keywords: Responsible fisheries; coastal fisheries, Tam Giang-Cau Hai, integrated management; coastal wetlands; Vietnam; South East Asia

INTRODUCTION

After obtaining all clearances from the central and provincial governments of the Socialist Republic of Vietnam, a US\$ 1.5 million Italian Government funded, FAO project was launched on June 6th 2005, at the presence of H. E. the Vice Chairman of the People's Committee of Thua Thien Hue Province, Mr Nguyen Ngoc Thien, H.E. the Ambassador of Italy, Mr Alfredo Maticotta Cordella and numerous other government dignitaries and representatives of Thua Thien Hue Province institutions. This project, which is entitled "Integrated Management of Lagoon Activities in Thua Thien Hue Province", is now already better known as the IMOLA Project.

Project operations started on August 5, 2005, with the formal entry on duty of the CTA. The project has a long history as the problems it should address were already identified in 1998. At the inaugural workshop, an international forum was established to debate all major issues concerning this vast and complex wetland, the widest in South East Asia.

In recent years the coastal and Tam Giang lagoon fisheries resources in Hue have been decreasing rapidly. Illegal unregulated and unreported (IUU) fishing and illegal aquaculture practices are widespread. These practices are causing coastal degradation, decreasing wild fish stocks and increasing poverty within coastal fishing communes. Fishing communes are already highly vulnerable to natural disasters and to other shocks. Employment opportunities outside the fisheries sector are minimal. The population dependent on the lagoon system for its living and the local government with the support of the Ministry of Fisheries decided that something has to be done urgently to stop further deterioration of the lagoon environment and at the same time secure long-term sustainable use of the lagoon resources. This Italian funded project aims to increase the capacity of local fisherfolk and aquaculture farmers in community-based fisheries management, aquaculture and fisheries technologies, business planning, marketing, conflict management and many other issues that still have to be identified. Together with local and national institutions the project aims to train more than 20.000 lagoon-dependent people, over a three-year period. The training and advice given by the project will be based on well-structured research of the aquatic resources, environment and the livelihoods of the people.

The inaugural workshop of the project was held in the prestigious Saigon Morin Hotel in Hue and was attended by over 90 people, among others, the Vice-chairman of Thua Thien Hue People's Committee, Mr Nguyen Ngoc Thien and officials from the Ministry of Fisheries, FAO and National Research Council of Italy.

HISTORY AND ACTUAL STATUS OF THE IMOLA PROJECT

History of IMOLA

The project has a long history as the problems it should address were already identified in 1998. In recent years, the coastal and Tam Giang lagoon fisheries resources in Thua Thien Hue Province have decreased rapidly. Illegal, Unregulated and Unreported fishing and aquaculture practices are widespread, causing environmental degradation, decreasing wild fish stocks and increasing poverty within coastal fishing communes. Fishing communes which are already vulnerable to natural disasters and other shocks recognize the need for better management planning and the opportunity of adopting wise practices. These practices should be safe for the ecosystem and safe for people, sustainable and people-centred, socially just and able to generate food, work and money. The population dependent on the lagoon

system for its living and the local government, with the support of the Ministry of Fisheries, decided that something has to be done urgently to stop further deterioration of the lagoon environment and at the same time secure long-term sustainable use of the lagoon resources.

In 1998, the first official request to FAO was made to assist in the management of the lagoons in Thua Thien Hue province. A project proposal was prepared by the Ministry of Fisheries (MOFI), the People's Committee of Thua Thien Hue Province (PPC Hue) and FAO, together with NACA in 1999. Initially, the project wanted to include many activities, so that in 2000 the PPC Hue, MOFI and FAO jointly decided to invest more resources and effort in the formulation of a larger and more ambitious project.

In 2001 the Minister of Fisheries made an official request to the Government of Italy and FAO for support in the lagoon and in the same year the project proposal was finalized.

In 2002 the project proposal was officially submitted to the Italian Government for funding and in the subsequent year the project proposal was discussed at the Consultative Committee meeting, but not approved (it competed with a companion project of market-oriented agroforestry and lost).

The Polytechnical University of Marche (formerly University of Ancona) assisted in updating the project proposal and presenting it again to the Government of Italy.

In July 2004, the FAO/Government of Italy Consultative Committee on Development Cooperation endorsed the project and in October 2004 the project document was officially approved after which in March 2005 approval was obtained from the Vietnamese Government.

Recruitment of staff started in July 2005 and the first activities took place in August 2005.

Future prospects

IMOLA is an ambitious project which aims to formulate and prepare for the implementation of an Integrated Lagoon Management Plan. The actual implementation of the management plan and the set-up of all legislative tools necessary for the purpose are beyond the scope of IMOLA and therefore are postponed to a timeframe successive to the current triennium (the IMOLA Phase 2). For IMOLA Phase 2, the fund raising activities need to be initiated early (towards the end of 2006), in order to ensure continuity.

The current project Phase 1 has a large number of activities scheduled and even within the current timeframe and allocated budget there may be insufficient resources. There are high expectations among local authorities, government officers and the population which IMOLA can not ignore. IMOLA operates in a critical time of vigorous economic development of the country and many of the pending problems cannot be delayed further. Urgent and efficient solutions are demanded, which IMOLA is committed to provide. The budget which seemed appropriate during the project formulation (2000) reveals its inadequacy six years later, when prices of commodities and services have significantly increased. For these reasons, it is advisable to investigate the possibilities of refinancing IMOLA, possibly through the same donor Governments, during the current year 2006 or, as a second measure, to interface IMOLA with other existing complementary projects operating in the area.

The issue of integration and collaboration between IMOLA and other past and ongoing projects is crucial as so many activities are being entertained or planned in the lagoon communities. As far as past projects are concerned, IMOLA will take the lead in organizing

information and disseminating it to the interested agencies. Human resources from past projects will be utilized to ensure continuity of actions or learn lessons from past experiences.

As far as ongoing projects are concerned, IMOLA will seek coordination and offer collaboration in order to avoid overlaps and align strategies and goals. Future projects will be considered as IMOLA partners from their start and strategies will be adjusted according to the changing scenarios.

OBJECTIVES OF THE WORKSHOP

The workshop was designed to convene into the provincial capital city a large number of stakeholders (scientists, politicians and public administrators), plus a group of international experts to evaluate the current situation of the major lagoon area in South East Asia. The aims of the conference were: i) to assess the nature and the urgency of the problems affecting the site, ii) to establish priorities for those problems which appear to have an impending impact on fisheries; iii) to identify and understand the goals and objectives of major ongoing activities in the Tam Giang-Cau Hai lagoon area, to seek better coordination, iv) to present and describe activities, goals and objectives of IMOLA, v) to compare experiences/strategies adopted by other projects or other countries that have similar problems in wetland management issues; vi) to redesign IMOLA strategies; vii) to preparing for IMOLA Project partnerships.

ATTENDANCE (See Appendix A)

The conference was attended by a total number of 93 invited participants plus, a small number of observers. Among these, 21 were representing national government and provincial organizations (MOFI, PPC TTHue, DARD, DOFI, DONRE, DOST, DPI, Dept. of Tourism etc.); 22 were representing the local government (communes and districts); 5 were from international agencies (FAO, IUCN, CECI Canada) and there were 3 representatives of NGOs (SNV and MCD). 5 participants came from national and international research institutions (RIA N°3, Nha Trang, IMER, Hai Phong and CNR of Italy); 14 came from national and international universities (University of Hue, College of Sciences and College of Agriculture and Forestry, Polytechnical University of Marche and University of Siena, Italy) and 13 of them represented past and ongoing projects. Journalists from local and national television and newspapers (HTV, VTV Vietnam Television, Hue Television, Vietnam Agricultural Newspaper, etc.) totalled 9. The conference obtained a high media coverage.

PROCEEDINGS

Opening remarks and welcome speeches (See Appendix B)

The conference began with an opening speech by the National Project Director of IMOLA, Mr Hoang Ngoc Viet, introduced by the Master of Ceremony, Mr Nguyen Quang Vinh Binh, Vice Director of IMOLA. Mr Hoang Ngoc Viet addressed the participants with words of welcome and expressed appreciation for the start of the IMOLA Project, a major achievement of DOFI and the PPC of Thua Thien Hue Province. He took the opportunity to summarize the status of fisheries in Thua Thien Hue Province and the governance role his Department (DOFI) plays in this important sector. He also emphasized the great expectations IMOLA Project generated within local governmental agencies and among the population, and the responsibility he and his staff bear in bringing the project to a successful end.

Mr Hoang Ngoc Viet then proceeded to introduce the conference programme, topics dealt with in the four thematic sessions and wished lecturers and participants a fruitful and successful work.

Then, H.E. Mr. Nguyen Ngoc Thien, Vice Chairman of the People's Committee of Thua Thien Hue Province addressed the floor with a speech emphasizing the role played by the IMOLA Project in the frame of the provincial strategies. He stressed the fact that from the workshop discussion, scientists, administrators, managers, and local communities will find interests and potentials for cooperation. Moreover, he expressed the wish that new methods, instruments, techniques employed for management of lagoons in both economic, technical and social aspects, will meet the demand of gradual modernization of management methods. Many of the Tam Giang - Cau Hai lagoon problems were treated in the past in a mono-sectoral way and this proved to be unsatisfactory in the light of the meagre results achieved: he encouraged IMOLA to integrate disciplines and methods, to practice coordination among agencies, past and ongoing projects for the sake of achieving the best and fruitful results.

At last, it was the turn of H.E. Mr. Vu Van Trieu, of the International Cooperation Agency of the Ministry of Fisheries of Vietnam to conclude the round of the opening remarks, with a brief history of the IMOLA Project, how it was conceived, formulated, brought to the attention of international agencies like FAO and finally to that of the donor Government of Italy who considered it for financing. He expressed great appreciation and gratitude for the commitment from the Government of Italy to bring this major venture to successful completion. He emphasized the importance of Tam Giang - Cau Hai lagoon in the economic system of the Socialist Republic of Vietnam, putting this wetland into a national perspective.

Presentation of the workshop programme (See Appendix C)

The workshop programme included four thematic sessions and two roundtables. Session 1 opened the workshop and was a presentation of the IMOLA Project; Session 2 was an introductory session on the lagoon which dealt with issues concerning the natural coastal environment of Hue, a territory of strategic importance for the Province; Session 3 was a review from other past and ongoing projects in the region and Session 4 illustrated in more details the IMOLA Project strategies and objectives. The roundtables aimed to discuss, first, the role of high technology and information technology in IMOLA and second, the significance of community-based management and co-management in developing a general management plan in the complex context of the lagoon.

Session 1 included four talks. The first, by Mr. **Nguyen Quang Vinh Binh**, of the Department of Fisheries of Thua Thien Hue Province, Deputy Director of the IMOLA Project, on **fishery activities in the Tam Giang - Cau Hai lagoon, from an institutional framework perspective**. Mr. Nguyen Quang Vinh Binh provided an overview of fishery and aquaculture activities in the lagoon, by the way fishing gears are deployed, the density of gear deployment in the different sectors of the basin and development of the sector over the years. He commented on the yearly catch in the past 40 years, the interval of marked decrease in the production, which happened in the eighties and nineties as a consequence of over-fishing, habitat deterioration and unfavourable climatic events.

Then followed a presentation by Mr. **Raymon Van Anrooy** of the FAO Headquarters Fisheries Department in Rome, Italy, on the **IMOLA Project history (early conceptions and future prospects)**. The presentation by Mr Raymon Van Anrooy provided a FAO global perspective on fisheries, framing the IMOLA Project in the context of improving the performance of this important economic sector in developing countries. After explaining the

reasons why this project was conceived, under auspices of the Government of Vietnam, some six years ago, he went on with the history of formulation and financing by the Government of Italy, then concluding on major changes in the scenario from the years of early conception and a prospect for the future. We included this general background information on IMOLA in our introductory chapter.

Mr. **Nguyen Viet Vinh**, National Project Manager of IMOLA summarized **the project management structure** in the way of personnel, organization, partner institutions and functional bodies within the organization responsible of carrying out activities and fulfilling objectives. The Chief Technical Adviser, **Mr Massimo Sarti**, concluded Session 1 providing an **overview of frame activities of the project**, operational scheme, strategies and long-term objectives. The CTA opened the presentation discussing the concept of integrated management and providing his own perspective on the issue: he emphasized the fact that in the management of environmental resources there are two equally important components interacting in a complex way, the human and natural components. In wise environmental management practices, the functioning principles of the natural system cannot be overlooked, as these must determine management and planning choices. The CTA continued illustrating project components and their management structure (topic, task force, reference institution as a guarantor for result standards and operational tools), the use of high technology tools to perform actions in the data acquisition phase, in the model testing and in the implementation phase of the lagoon management plan and subsequent environmental monitoring. He concluded emphasizing the role of training in the different phases of the Integrated Management Plan preparation.

As far as the training is concerned, the CTA illustrated his own view. The issue of training is of utmost importance for the IMOLA Project for three reasons: first, training of expert technical staff will help in performing highly competent and technically complex activities of the project; second, training of expert personnel will be a prerequisite to perform further training activities at a lower level of education and on a wider numerical basis (Training of Trainers, TOT); third, training performed at the community level will be an important prerequisite for augmenting the awareness of the population on environmental, economic, sanitary issues and therefore increase their participation in planning and management.

Training will therefore be performed at different levels of education, for different purposes (immediate and long-term) and at different times, depending on the scope of the activity.

Training of expert technical staff is among the scopes of the IMOLA Project. It is important to invest in human resources for prolonging beneficial effect in time, after completion of project activities. The term “technical” refers to all application of high-technological content pertaining to the fields of instrumental data acquisition, data processing, model testing and continuous monitoring of environmental and socio-economical parameters.

The target groups of this technical staff are in cascade trained junior university researchers or teachers, technical staff from local departments, personnel from other ongoing projects operating in the region which might be interested in sharing training opportunities.

Training of Trainers. One of the objectives of the project is to train staff for further training activity. This is complementary to that of training technical expert and not in conflict with it. The professional staff trained to become trainer represent a less elaborate profile of technical expertise. All technical experts (TE) might ultimately act as TOT while performing project tasks but a wider group might be trained to perform specific teaching at the community level.

The use of TE would make modern data acquisition and processing technology more accessible to larger and larger groups of users so that allowing a reasonable amount of time, activities can be decentralized and made more efficient from restricted (university

laboratories, governmental department laboratories, project offices) to wider range of operational units (political institutions, districts, communes and fishermen).

Training at the community level. The efficiency of training at the community grass-root level depends on the efficacy and professional expertise of the trainers. Training could be performed as a single project activity or might efficiently be seen as a cross-project activity, depending on the scopes and objectives and on the availability of professional experts.

Local universities and inter-university partnerships (including international institution and research units) might take the lead in this line of project activities because of their institutional scopes and experiences in educational issues. Additionally, university-teaching programs might interface with project activities and successfully interact for the achievement of common goals. Doctoral curricula, because of their high technological content and highly qualified experts and students involved, might be considered as instrumental in preparing TEs and TOTs. University teaching programs and doctoral curricula might be seen as potential external contributors (including financial) to project implementation. Professional associations (*e.g.* fishermen associations, aquaculture associations, women union), on the other hand, might be involved to some extent in performing teaching assistance on specific training courses or provide IMOLA-assisted teaching activities on some practical fields.

Continuing education and maintenance of training programs. One issue of major concern in implementing and adopting training programs of high technological content is continuing education and maintenance of training tools. Continuing education means ensuring regular update on modern techniques, use of tested methodologies of data acquisition and processing and instrument improvement for trained staff; this to ensure optimal performance in line with the modern international standards.

Session 2 consisted of two presentations of scientific content. Mr. **Tran Duc Thanh**, Director of the Institute of Marine Environment and Resources of Hai Phong, presented a thorough **historical resumé on scientific investigations in the lagoon**, outlining the major problems to date (inlet stabilization, water body stratification, saline intrusion etc.). **Silvia Giuliani**, from the Institute of Marine Sciences of the National Research Council of Italy, Bologna, provided a topical presentation on the **lagoon water body and its past and present threatening agents**. Silvia Giuliani illustrated the results of more than a decade of investigation on contaminant dispersal and concentration in sediments, mainly as far as heavy metals, dioxin and PCB are concerned. The issue of pollutant (mainly organic pollutant from aquaculture and agriculture) and heavy metal contaminants is of major concern for the lagoon activities and future prospects for rehabilitation: the overview by Silvia Giuliani tackled a problem of importance for IMOLA. Of even more concern is the issue of sediment and pollutant dispersal in the basins (see the second presentation by Giuliani).

After tea break, Session 3 included a suite of six presentations from major past and ongoing projects in the region. Mr **Peter Moore** of the International Union of Conservation of Nature (IUCN, Hanoi) described the **activities of IUCN in Vietnam**, together with partner institutions and thematic programmes (among which are those on biodiversity conservation, marine and coastal resources conservation, wetlands and water resources conservation, etc.). Then, he passed to review those programmes which have importance in Thua Thien Hue Province, in particular the Huong River Basin Management Project and the Economic valuation of Tam Giang Cau Hai lagoon, which are of direct interest for IMOLA. Of these two projects, Mr Peter Moore outlined their history, goals, partners and present status, financing and steps in the implementation. Of particular interest was the discussion on MPAs in Vietnam for their potential application in the Tam Giang Cau Hai lagoon area as a tool to

promote aquatic resources conservation and at the same time improve the socio-economic status and livelihoods of the lagoon communities.

Mr. Le Van Thu, of the Dutch-funded Integrated Coastal Zone Management Project, Hue, reported on integrated management issues in Thua Thien Hue coastal areas in relation to the general management plan of Tam Giang – Cau Hai lagoon. Mr Le Van Thu introduced the results, strategies and goals of a decade of integrated coastal zone management in Vietnam. He described the ICZM strategy for Thua Thien Hue province, introducing the general context of the coast and wetland (threats, opportunities and perspectives); he then described the content of the ICZM strategy (focused on environment protection and capacity building of the population of self managing and evaluation of their own coastal resources), the organization for strategy implementation (institutional framework) and the overall mandate. Mr Le Van Thu concluded his presentation setting forth some interesting propositions for Thua Thien Hue's lagoon management plan development, with auspices of close cooperation among ongoing projects and the perspective of promoting coordinated interventions.

Mr. **Truong Van Tuyen**, of Hue Agriculture and Forestry University and Director of the Community-based Coastal Resources Management Project (CBCRM) funded by IDRC (Canada) illustrated the scope and objectives, achievements and results of the **CBCRM Project, an interesting assessment on past experiences of community-based management of the lagoon fishery activities**. Mr. **Ton That Phap** of the University of Hue, College of Sciences illustrated the **project funded by the Region Nord Pas de Calais for the realization of the "Atlas des Lagunes de la Province de Hue"** a tool to promote protection of the lagoon environment and to provide support to the PPC in building institutional capacity. It is a project which presents a scientific approach opening to the perspective that methods of scientific investigation may be instrumental in resolving the very sensitive issues of sustainable use of the natural environment. The University of Sciences and its foreign partner put the issues of Thua Thien Hue wetland conservation and management into the right track of sound scientific background knowledge. Their outcomes on water chemistry monitoring and geodynamics (read coastal dynamics) are interesting as well as those on biodiversity and research applied to the development of aquaculture.

The **DANIDA Program, with reference to the activities and outcomes in Thua Thien Hue Province** was illustrated by **Mr. Davide Fezzardi**, Senior Advisor of DANIDA/MOFI and FSPS. The second phase of FSPS was detailed, including the implementation of a very specific set of activities ranging from adaptive fishery co-management, tracking and tracing of fishery products to health and disease control through surveillance and improved extension systems. The partnership of FSPS II was described. At last **Ms Alice McDonald**, of the Centre of Marinelifelife Conservation and Community Development illustrated **the experience of NGOs in co-management of coastal resources**, in the specific case of the Trao reef community in central Vietnam.

The fourth and last session was fully dedicated to the IMOLA Project, with the aim of developing in detail some of the issues of major concern, which will be strong points for IMOLA strategies, namely, the application of GIS and remote sensing techniques, the hydrological modelling of water masses, the mitigation of natural disasters, the rehabilitation of ecosystems as a tool to improve biological productivity and the legal issues of co-management.

The session was opened by Prof. **Paolo Conti**, Centre of Geotechnologies, University of Siena, Italy who illustrated the **application of GIS relational databases, thematic cartography, remote sensing analysis and high precision, satellite-driven surveying in fisheries and territorial management**. The report by Conti was a comprehensive listing of all possible applications of geotechnological tools in environmental management, from acquisition and interpretation of satellite and aerial imagery to high-precision geodetic

surveying. There is no planning activity nowadays in the world that does not take full advantage of information technology and the vast range of remotely operated sensors which provide users from whatever region on Earth geographic data in practically real time. The development of the sector is vigorous and adequate training is a must. Prof. Paolo Conti is a member of the advanced Centre of Geotechnologies of the University of Siena, Italy, who serves as a consultant for a number of international and Italian territorial agencies. The Centre of Geotechnologies is a partner of IMOLA as far as the implementation of data-management, thematic cartography, web-interfaced cartography and remote sensing analysis activities are concerned.

Dr Silvia Giuliani from the Institute of Marine Sciences of the National Research Council of Italy, Bologna, in her second talk of the day illustrated the techniques and methods of **hydrological modelling** (Water-masses Chemistry and Dynamics: The Input of Hydrological and Chemical Modelling to Management) for better comprehension of natural mechanisms and future evolution. She emphasized the potential of such a tool in building hydrodynamic models for sediment and pollutant dispersal, for tracking and predicting movement of water masses and ultimately for providing practical and accessible conceptual instruments for water resources management. Interestingly, Ms Giuliani illustrated the application of such conceptual tools to an analogue of the lagoon in Thua Thien Hue Province in Venice, Italy. **Prof. Fausto Marincioni** of the Polytechnical University of Marche, Italy brought to the attention of the floor the issue of **natural disaster mitigation and strategies for population preparedness**. He preliminarily discussed the increasing impact of natural disaster in the world and in Vietnam, providing figures of the economic dimension of the phenomenon. He then pointed out how cultural and social aspects are involved in the perception of a disaster, together with objective facts related to the nature of the hinterland and climate. He stressed the beneficial effect of enhancing awareness, educating people to hazards, building upon lessons learned from past disasters, encouraging the dissemination and use of traditional knowledge, promoting community-based disaster management and urging people to take responsibility in disaster prevention. He concluded his talk with some recommendations, which IMOLA will adopt in addressing the issue of mitigation of recurrent floods and typhoons. The preparation of vulnerability maps will aid in the planning process. The community-based management of natural disasters and hazards will be integrated in the activities aimed to enhance community management skills. The talk by **Dr Do Cong Thung**, (Institute of Marine Environment and Resources of Hai Phong) focused on **hydro-biological resources of Tam Giang - Cau Hai lagoon and potential increase in the perspective of ecosystem rehabilitation**. He reported on the thorough analysis of environmental parameters acquired over ten years of investigation and concluded that understanding of the potential of the lagoon water masses in term of productivity and exploitation capacity is a key issue in setting up an efficient management scheme. Mr. **Nguyen Viet Vinh**, National Project Manager of IMOLA Project, presented an analysis of present **fishery policies and the urgent need of developing and pilot-testing a co-management** scheme for the lagoon, which is one of the key goals of IMOLA.

The fourth session was followed by a discussion during which the floor posed questions to the lecturers and formulated comments on the issues raised during the presentations; the workshop was adjourned to the afternoon with Session 5, consisting of two roundtable discussions.

Reports from the roundtable discussions

Roundtable discussions 1

The experience of community-based management in fishermen communities of Tam Giang - Cau Hai lagoon: lessons learned, achievements and feedbacks for future IMOLA Project activities.

Chairmen: Mr. Nguyen Viet Vinh (NPM IMOLA) and Mr. Le Van Hoang (former Vice Chairman of People's Committee of Thua Thien Hue Province).

The top-down management model, with resolutions and instructions has proved to be of little effect, particularly in management and exploitation of agricultural, forestry and fishery resources. As an alternative, the community-based management (CBM) is considered to be a new solution with better effect. The objective of this roundtable discussion was, first to give an overall assessment of ongoing management models in Vietnam and Hue and their strengths and drawbacks and, second to provide advice for the community-based management model IMOLA will be promoting.

The moderators opened the discussion; ideas and comments from the floor were brought up. Participants explained that in Vietnam various community-based management models, in different fields and economic sectors, are being applied. However, many of these models have not stimulated voluntary participation from people and thus, are operating with little efficacy. Clear-cut criteria are required to define a community-based management model.

The principles of community-based management are soundly founded and appealing in their simplicity: the concept of taking advantage of local traditions, costumes and resources and allowing a community to design its future, to choose its management scheme is just, fair, democratic and respectful of community rights. Much of these principles, however, reside in the sphere of ideals and wishful thinking rather than in the complexities encountered in the real world. These principles and models that in theory seem logical often meet no success when put into practice. Obviously, the range of models for community-based management by no means mirrors the complexities of human society and therefore blind application may imply risks. Community-based management is successful in some places in Vietnam, such as small communities that share the same interest, e.g. Trao Coral Reef community in Van Ninh commune of Khanh Hoa province. Community-based management is also applied in larger and more complex contexts, e.g. the Tam Giang- Cau Hai Lagoon area with some accomplishment, as in Quang Thai and Quang Loi communes: evidently, the more the community is diversified, the more likely it is that conflicts develop and that may be one of the reasons why some community-based management models failed to activate people's participation. Questions which prominently arise are: which are the reasons of failure?; is the community-based management model fully understood?; is the community-based model correctly applied?; is the application of community-based management model-driven rather than community-driven?; are community-based management models critically applied and eventually tailored onto the characteristics of the communities instead of being blindly applied? is there sufficient socio-economic study of the community and effort to understand, before application? And moreover, the mother of all questions, isn't the bottom-up community-based management proposed too much top-down, in other words are the communities ready to understand the usefulness, the benefits, the advantages of such a system?

There was common notion that the conception of community-based management is not always fully understood and the lessons learned, success stories and failures are not widely disseminated.

A number of prerequisites must be completed and put into practice before any sustainable community-based management scheme can be successfully adopted. These are: i) developing

a legal framework at the commune-level so that people may rely on authentic control of water-surface area, ii) raising people's awareness and developing a sense of belonging to a community, iii) cooperating with competent agencies and multi-level concerned authorities in building community regulations and improving management capacity; in other words, formulating a co-management model in which rights and responsibility are equally shared between the people and their governments, iv) supporting for and providing people with sustainable and environment-friendly livelihoods.

Comments and Conclusion. There was a common notion among all participants that the top-down approach proved of little effect and should be replaced with one in which people have direct participation. The roadmap to achieve full community control of the environment and sustainable use of natural biological resources, not to speak of managing all matters concerning property titles and conflict resolution, should include:

- Make a critical assessment of existing and applied models in Vietnam
- Understand the community structure
- Perfect the legal framework on fisheries management, the prerequisite for community-based management sustainability,
- Raise awareness at the grass-root level and within the administration,
- Organize communities and support them in building participatory regulations, taking advantage of traditional management models and village conventions to fill in the eventual gaps of national fisheries laws,
- Build capacity at commune level and provide training in organizational skill in fishery management
- Develop training materials, piloting implementation to perfect these materials,
- Pay due concern to people's livelihoods,
- Provide review and assessment of small management models for replication.

It was concluded that the foundation of community-based management is people's voluntary participation. IMOLA Project should take into consideration the following issues: first, which conditions are necessary and sufficient for community-based management to promote people's participation, and second, which criteria should be adopted to evaluate the effectiveness of community-based management.

Roundtable discussion 2

Application of GIS relational databases, thematic cartography, remote sensing analysis and high precision, satellite-driven surveying in fisheries and territorial management.

Chairmen: Prof. Massimo Sarti, Chief Technical Adviser of IMOLA Project; Prof. Paolo Conti, Center of Geotechnologies, University of Siena, Italy

The issue of technology enhancement and development of planning and management, specifically on GIS database management and derived thematic cartography, remote-sensing analysis and technologically advanced monitoring, was brought to the attention of the participants of the thematic roundtable in its introductory speech by the co-chairman Massimo Sarti.

Talking about GIS databases and their potential for automatic generation of thematic maps, it should be noted that this technology is not new to Vietnam. They are used in a number of instances and for different purposes by several past and ongoing projects. However, the results appear not fully satisfactory, based on the general sense of disappointment that is perceived by those experts who actually worked in this field.

What are the potential pitfalls that a process of IT enhancement may face and which are the ways to cope with these difficulties? And, what should IMOLA do to provide a useful and persistent contribution? These are the questions that were put on the table for the discussion. There are a number of difficulties faced once you pursue an objective of technology enhancement:

- high costs of equipments and products
- obsolescence of the equipments and their upgrade
- qualified experts to routinely operate and maintain the equipment
- qualified experts that teach how to operate and maintain the equipment and provide assistance
- adequate training programmes that assist in preparing a generation of technical experts and scientists which ultimately become scientifically independent and prepared for becoming trainers themselves
- At last, a community downstream which fully understand the use, the need, the meaning and the potential of the method and its products.

The issue of equipment cost and maintenance is of limited concern as more and more sophisticated equipments and software are accessible at reasonable prices worldwide. The costs of remote-sensing images are still high but searching the market and processing capabilities may offer interesting solutions. The obsolescence of equipments and software is also an issue of concern as it requires continued investments and training efforts, which might be easy to achieve in the case of supporting projects or agencies but be difficult on ordinary laboratory/agency budgets. The idea of centralized (provincial or national) agencies which provide assistance in system management and data storage is an interesting one allowing the optimisation of the resources. In view of the lack of commercial service in the field, government departments and agencies have to establish their own minimal laboratory, with possible cooperation with universities and research institutions (both national and international). These may offer their qualified expertise, professional staff and training programmes through collaborative action. IMOLA is attempting to set forth a programme envisioning the participation of international research centres and universities in the field.

The issue of personnel operating the equipments routinely and maintaining them (e.g. system managers) and professional training is often overlooked. Another matter that is of major concern and cause of decrease of performances in a number of previous projects which attempted technology enhancement is the maintenance of the laboratory implements/professional expertise after project termination. This important matter was raised for discussion at the roundtable. IMOLA Project aims to set up a long-term programme with institutions and universities (e.g. the Centre of Geotechnologies of the University of Siena, Italy) that may assist with dedicated training programmes and continued education beyond the extension of the project. The reason why so much emphasis is assigned to universities, is that these structures are institutionally designed to provide highly qualified and advanced training and possess institutional instruments (PhD grants, projects, training programmes etc.) to support training programmes. Universities are in a better position to access international funds or promote international fund raising at those agencies that support developing countries.

GIS and remote sensing techniques, like many IT methodologies of investigations, may be utilized at different levels of competence and for a wide range of uses, from basic application to highly sophisticated use, in combination with a number of data acquisition implements and, above all, interactively through the worldwide web of Internet. That's to say, that through the web, cartography and interactive geographic databases may be disseminated to a wide range of potential users, for a large number of potential purposes. IMOLA recognizes the need to disseminate information and increase the awareness of policy makers, public administrators,

politicians, planners and government officers on GIS; the use of the web will be beneficial for this purpose.

The floor raised the question whether GIS should be earlier taught at high schools, to prepare the cadre of tomorrow: this is an interesting perspective for the long term and IMOLA should play a role.

Other issues discussed included the possible interaction with the Second Phase of ICZM Project when it comes into effect and provided indeed an interesting opportunity for sharing experiences and efforts in mapping sensitive sites on coastal lagoon areas of Thua Thien Hue.

A concern raised by the Representative of IUCN in Vietnam, Mr Peter Moore, is related to the use of technology and the potential dangers of blind application.

Mr. Nguyen Luong Hien (former director of DOFI) provided a governmental perspective for IMOLA, that's to emphasize that the project should stick to its objectives and prospected outcomes. He added that GIS as well as other IT methodologies should find their collocation in the broad frame of the amelioration and planning of the fishery sector.

The discussion was officially closed at 16.30.

Closing remarks by Hoang Ngoc Viet (See Appendix D)

At 16.50, after briefing the Roundtable Session chairmen, Mr Hoang Ngoc Viet, National Director of IMOLA, addressed the floor with a brief summary on the outcomes of the working groups, a thanksgiving message and a salute to the participants.

In the brief overview, he emphasized the importance of the participation as a factual contribution to IMOLA implementation. The presentations by the international experts provided broader perspectives on the significance of IMOLA, not only as a project of local importance but a venture of major impact in the planning process of coastal areas and wetlands of the country. A number of solicitations for support came to IMOLA from members of other provinces. International experts pointed out also how IMOLA has a methodological impact in the planning process of other countries, especially those that possess a lowland coastline. Representatives of other projects offered important comments and interesting presentations, and future collaborations and partnerships were discussed. Representatives of national research institutions of Vietnam testified their interest in the project and its objectives and hence declared themselves available to contribute to the achievements of these objectives.

This choral participation positively impressed Director Hoang Ngoc Viet, who mentioned it as a very constructive attitude from all potentially involved contributors.

The meeting was declared officially closed at 17.30 of Sept. 30th 2005.

APPENDICES

Appendix A: List of participants.

No	Full name	Agency/Organization
1	Nguyen Luong Hien	Provincial Fishery Association, Chairman
2	Duong Van Khanh	Dept. of Agriculture and rural development, TTHue Province
3	Representative	Dept. of Agriculture and rural development, TTHue Province
4	Representative	Department of Tourism, TTHue province
5	Duong Cong Thiep	Department of Fishery, TTHue province
6	Dang Si Thanh	Department of Fishery, TTHue province
7	Tran Van Chuong	Department of Fishery, TTHue province
8	Nguyen Huu Quyet	Department of Natural Resources and Environment, TTHue Province
9	Do Nam	Department of Sciences and Technology, TTHue province
10	Le Dinh Khanh	Department of Planning and Investment, TTHue province
11	Nguyen Thi Chieu	Farmer Association, TTHue province
12	Vo Thi Tuyet Hong	Fishery Extention Center, Thua Thien Hue province
13	Nguyen Viet	Hydrometeorology Center, TTHue province
14	Vu Van Trieu	MOFI (Ministry of Fishery)
15	Nguyen Giang Thu	MOFI (Ministry of Fishery)
16	Nguyen Ngoc Thien	People's committee of TTHue province
17	Representative	People's committee of TTHue province
18	Le Huu Minh	People's committee of TTHue province
19	Nguyen Van Ngoc	People's committee of TTHue province
20	Le Van Hoang	People's committee of TTHue province
21	Le Van Binh	Sub-dept of Fishery Resources Protection, TTHue province
22	Stefano Albisinni	FAO, Hanoi
23	Raymon Van Anrooy	FAO, Rome
24	Ly Minh Dang	IUCN, Hanoi
25	Peter Moore	IUCN, Hanoi
26	Gaby Breton	CECI (Center Canadien d' Etude et de Cooperation Internationale)
27	Alice Mc Donald	Center for Marinelife Conservation and Community Development, Hanoi
28	Mr. Tuan	NAV (Nordic Assistance to Vietnam)
29	Nguyen Thi Duyen Anh	SNV Netherlands Development Organization
30	Nguyen Quang Vinh Binh	IMOLA (Integrated Management of Lagoon Activities)
31	Nguyen Viet Vinh	IMOLA (Integrated Management of Lagoon Activities)

32	Hoang Ngoc Viet	IMOLA (Integrated Management of Lagoon Activities)
33	Massimo Sarti	IMOLA (Integrated Management of Lagoon Activities)
34	Le Van Thu	Integrated Coastal Zone Management Project (VNICZM), Hue
35	Repr. LAPROCOF	LAPROCOF (Lagoon Projects Coordination Office)
36	Ghulam Kibria	Livelihood Improvement in Central Coastal Provinces of Vietnam ADB TA 4292-VIE
37	David Thompson	Livelihood Improvement in Central Coastal Provinces of Vietnam ADB TA 4292-VIE
38	Pham Thi Dieu My	Management Board of Song Huong Projects
39	Nguyen Dinh	Management Board of Song Huong Projects
40	Davide Fezzardi	DANIDA (Danish International Development Agency)
41	Phan Thanh Hung	Natural Disaster Mitigation Center
42	Antoine Erout	Region Nord Pas de Calais
43	Nguyen Thi Bich Ngoc	Regional Institute of Aquaculture 3 (RIA3), Nha Trang
44	Nguyen Thi Xuan Thu	Regional Institute of Aquaculture 3 (RIA3), Nha Trang
45	Silvia Giuliani	Institute of Marine Sciences, National Research Council, Italy
46	Do Cong Thung	Institute of Marine Environment and Resources (Hai Phong)
47	Tran Duc Thanh	Institute of Marine Environment and Resources (Hai Phong)
48	Le Van Mien	University of Sciences, Hue
49	Nguyen Quang Linh	University of Agriculture and Forestry, Hue
50	Tran Van Minh	University of Agriculture and Forestry, Hue
51	Le Van Thang	University of Sciences, Hue
52	Nguyen Van Hop	University of Sciences, Hue
53	Le Manh Thanh	University of Sciences, Hue
54	Le Cong Tuan	University of Agriculture and Forestry, Hue
55	Vo Thi Kim Thanh	University of Agriculture and Forestry, Hue
56	Nguyen Phong Hai	Aquaculture University, Nha Trang
57	Stacy Lockerbie	University of Sciences, Hue
58	Ton That Phap	University of Sciences, Hue
59	Truong Van Tuyen	University of Agriculture and Forestry, Hue
60	Paolo Conti	Center of Geotechnology, University of Siena, Italy
61	Fausto Marincioni	Polytechnical University of Marche

Appendix B: Welcome Speeches and Opening remarks

Opening speech by Mr Hoang Ngoc Viet, Director of Department of Fisheries of Thua Thien Hue province and National Project Director of IMOLA Project.

Your Excellency, Mr Nguyen Ngoc Thien, Vice-Chairman of the PPC of Thua Thien Hue Province,
Mr Raymon Van Anrooy, from the Fisheries Department of FAO in Rome,
Your Excellency Mr. Vu Van Trieu, from the Ministry of Fisheries of Vietnam,
Ladies and gentlemen.

In the name of IMOLA, it is my great delight to send you all our warmest and most thankful regards for coming here to this beautiful, graceful city of Hue, to be present at the IMOLA Kick-off Workshop. Your presence today is our great honour; your opinions and contribution, which are an indication of your whole-hearted devotion to the lagoon areas of Thua Thien Hue, we will receive with thankfulness and regard.

The past few years have seen lots of remarkable achievements in the fisheries of Thua Thien Hue, with considerable economic contribution to a host of 300.000 people, that is one third of the province's population. The many solitary villages around the lagoon are changing in a positive fashion and the rundown homes, which were common in the past, have went down into the past.

However, the fisheries of Thua Thien Hue, exploitation in particular, are coping with numerous issues concerning sustainable development. This is a tricky issue. The sector of fisheries holds the key responsibility for all activities and projects going on in the lagoon areas. However, without the assistance from other relevant sectors, the issues of fisheries cannot be settled.

With this reason, IMOLA is an Integrated Management project. The coastal aquatic resources are managed in such a way that sustainable development goes in accordance with the requirements of socio-economic system and production of the province as a whole. IMOLA is also concerned with the prevention of natural disasters, changes of shorelines, environmental conservation, the application at a practical level of GIS and remote sensing.

This workshop has as its objectives, scientific discussion and assessment of IMOLA action plan, and the establishment of cooperative relationships for the time to come.

Ladies and Gentlemen, many projects are going on in the lagoon of Thua Thien Hue. And we have here as our counterpart the representatives of those projects, which is good fortune for us. We hope that the scientific research done by these projects will give us an overall look of our situation, that repetition will not be made by us in any way as regards scientific issues, and that our project will serve for the whole sake of the people in the lagoon areas.

We once again express our whole-hearted appreciation and thankfulness for your coming here. We expect friendship and cooperation to be made in this workshop. Good luck to you all, good luck to the workshop.

Thank you very much.

Opening speech by H.E. Mr. Nguyen Ngoc Thien, Vice Chairman Of Thua Thien Hue PPC

Distinguished guests, scientists, ladies and gentlemen.

The Integrated Management of Lagoon Activities Project has officially operated for nearly two months and fulfilled the tasks of staff recruitment, office arrangement and working facilities purchasing, etc. Today, at this kick-off workshop of the Integrated Management of Lagoon Activities Project, I would like to be on behalf of provincial leadership to warmly welcome you all, distinguished guests, scientists, colleagues, friends, and representatives to the workshop.

Ladies and gentlemen,

The main objective of the Kick-off Workshop of the Integrated Management of Lagoon Activities (IMOLA) Project is to prepare for the implementation of project activities. This is an important step to move the project forward. Through the presentations and objectives presented at this workshop, scientists, administrators, managers, and local communities will find interests, and potentials for cooperation. Those stakeholders will jointly voice the concerns and share the common resources for the sustainable development of lagoons and gradual improvement of spiritual and material life of local communities whose livelihoods depend on lagoons.

At this workshop, we hope to share new methods, instruments, techniques employed for management of lagoons in both economic, technical and social aspects, meeting the demand of gradual modernization of management methods, ensuring the combination and development of traditional approaches and harmonious application of advanced technology and techniques. This would create an integrated strength which aims at solving basically existing problems of lagoons in the fields of economic development, sustainability for environment and natural resources, food security and social stabilization.

So far, a number of projects have been implemented in lagoons with weak coordination, independent objectives, and mono-sectoral approach. The implementation of IMOLA Project would offer us a chance to review and incorporate existing research data and at the same time to conduct further surveys on all related sectors and aspects of lagoons to achieve integrated management for lagoons. We hope that the expertise for lagoon management from Italian experts and recruited project experts, and experience sharing during project implementation are likely to drive the project greatly successful with fruitful outcomes.

On behalf of provincial leadership, I would like to solemnly declare the opening of the workshop. I would like to wish you all good health and great success for the workshop.

Thank you for your attention.

**Welcome remarks by H.E. Mr. Vu Van Trieu International Cooperation Agency,
Ministry of Fisheries, Hanoi, Vietnam**

Dr Nguyen Ngoc Thien, Vice Chairman of Thua Thien Hue People's Committee,
Mr Raymon Van Anrooy, FAO Office in Rome,
Mr Massimo Sarti, CTA of IMOLA Project,
Distinguished guests, ladies and gentlemen.

On March 02, 2005, Prime Minister signed the document No. 215/TTg-QHQT on approval of the project on "Integrated Management of Lagoon Activities in Thua Thien Hue Province" amounting to US\$1.5 granted by Italy through Food and Agriculture Organisation (FAO), United Nations, which functions as an executing agency.

Tam Giang Lagoon plays an important role in livelihoods for lagoon-dependent people such as aquaculture and catch fishery. Development and integrated management of lagoon activities in Tam Giang Lagoon which involve various stakeholders to achieve sustainable management of aquatic resources and livelihood improvement for communities, present an urgent need.

Therefore, upon the formulation of the project initiative, the Ministry of Fisheries, which started with listing it as FAO-funded projects for fisheries sector in 1999 to submit to the Central Government, has extended special attention to the project via discussions with FAO-UN, and Italian Embassy in Hanoi to request Italian Government to include this project in the agenda of Consultant Committee on cooperation and development between Italian Government and FAO in July 2002. At the same time, the Ministry proposed to the Italian Government to fund this project.

The Ministry of Fisheries hopes that project activities with access to the approach of integrated management will contribute to sustainable management of resources, increased security of food and foodstuff for local communities. Experience obtained from the project shall be disseminated by the Ministry of Fisheries over the whole country.

Taking this opportunity, the Ministry of Fisheries would like to express our sincere thanks to the Italian Government for funding this project. Our thanks also come to the productive cooperation and support by FAO in project formulation and operation. We do believe in the success of the project thanks to the efficient performance of the Department of Fisheries and related agencies in Thua Thien Hue Province under the provincial leadership.

Thank you for your attention.

Appendix C: Workshop Agenda**IMOLA Project Inaugural Workshop, Hue, September 30, 2005**

Time	Topic	Speakers and chairmen
07.20-07.50	Registration	
07.50-08.00	Welcome speech to delegates and introductory remarks	Mr. Hoang Ngoc Viet (Director IMOLA Project)
08.00-08.10	Opening speech	Mr. Nguyen Ngoc Thien (Vice chairman of the Provincial People's Committee)
08.10-08.20	Welcome remarks	Mr. Vu Van Trieu (International Cooperation Agency, MOFI)

Session 1	The IMOLA Project	Chairman: Mr. Nguyen Ngoc Thien
08.20-08.30	The Fishery Activity in Tam Giang Lagoon: Institutional Framework	Mr. Nguyen Quang Vinh Binh, Department of Fisheries and Deputy Director IMOLA Project
08.30-08.40	The IMOLA Project History: Early Conceptions and Future Prospects	Mr. Raymon Van Anrooy, FAO Fisheries Department, Rome
08.40-08.50	The IMOLA Project Structure (Personnel, Organization, Partner Institutions, etc.)	Mr. Nguyen Viet Vinh, IMOLA National Project Manager
08.50-09.00	The IMOLA Project Objectives and Activities: The Lagoon Master Plan	Mr. Massimo Sarti, FAO Chief Technical Adviser IMOLA Project

Session 2	The natural environment of the lagoon of Hue: a territory of strategic importance for the Province	Chairman: Mr. Hoang Ngoc Viet
09.00-09.10	Historical Background of Investigation in The Lagoon	Mr. Tran Duc Thanh (Director of IMER, Hai Phong)
09.10-09.20	The Lagoon Water Body: Past and Present Threatening Agents	Ms Silvia Giuliani, National Research Council of Italy, Inst. of Marine Sciences
09.20-09.40	Tea Break	

Session 3	Review of past and ongoing projects	Chairman: Mr. Do Nam
09.40-09.50	Activities Carried out by IUCN in The Field of Water Management in Thua Thien Hue Province	Mr Peter Moore, IUCN, Hanoi
09.50-10.00	Integrated Management of Thua Thien Hue Coastal Areas in Relation with The Management of	Mr. Le Van Thu, ICZM, Hue

	Tam Giang – Cau Hai Lagoon	
10.00-10.10	The CBCRM Project: Past Experiences of Community-based Management of Lagoon Fishery Activities	Mr. Truong Van Tuyen, Hue Agriculture and Forestry University, Director CBCRM Project
10.10-10.20	The Region Nord Pas de Calais Program in Thua Thien Hue Province: An Overview	Mr. Ton That Phap, University of Sciences, University of Hue
10.20-10.30	The DANIDA Program: Activities and Outcomes of The Program in Thua Thien Hue Province	Mr. Davide Fezzardi, Senior Advisor of DANIDA/MOFI; FSPS
10.30-10.40	The NGO Experience: Lessons learned in Co-management of Coastal Resources.	Ms Alice McDonald (Center of Marine Conservation and Community Development)

Session 4	The IMOLA Project strategy and activities	Chairman: Mr. Massimo Sarti
10.50-11.00	Application of GIS Relational Databases, Thematic Cartography, Remote Sensing Analysis and High Precision, Satellite-driven Surveying in Fisheries and Territorial Management	Prof. Paolo Conti Center of Geotechnologies, University of Siena, Italy
11.00-11.10	Water-masses Chemistry and Dynamics: The Input of Hydrological and Chemical Modelling to Management	Ms Silvia Giuliani, National Research Council of Italy, Institute of Marine Sciences
11.10-11.20	Natural Disaster Mitigation Strategies for Population Preparedness	Prof. Fausto Maricioni, Polytechnical University of Marche, Italy
11.20-11.30	The Potential of Hydrobiological Resources of Tam Giang Lagoon and Their Impact on The Ecosystem	Dr Do Cong Thung, (IMER, Hai Phong)
11.30-11.40	Analysis of Fisheries Policies and Urgency of Co-management	Mr. Nguyen Viet Vinh, National Project Manager of IMOLA Project
11.40-11.50	Questions and Answers	

11.50-14.00	Lunch break
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Session 5	Thematic roundtables	
14.00-14.10	Introduction to roundtable session and review of the outcome of the morning presentations	
14.10-15.15	Roundtable 1 - The experience of community-based management in fishermen communities of Tam Giang lagoon: lessons learned, achievements and feedbacks for future IMOLA Project activities.	Chairmen: Mr. Nguyen Viet Vinh (NPM IMOLA) and Mr. Le Van Hoang (former Vice Chairman of People's Committee of Thua Thien Hue Province)

14.10-15.15	Roundtable 2 – New technologies (GIS, remote-sensing analysis, precision environmental surveys) and their use for integrated management of lagoon activities	Chairman: Mr. Massimo Sarti, FAO Chief Technical Adviser of IMOLA Project and Mr. Paolo Conti (Center of Geotechnologies, University of Siena, Italy)
15.15-15.30	Tea break	
15.30-16.30	Summary and conclusions of the workshop	Mr. Nguyen Ngoc Thien, Mr. Hoang Ngoc Viet and Mr. Massimo Sarti

Appendix D: Closing remarks**Closing remarks by Mr Hoang Ngoc Viet, Director of Department of Fishery of Thua Thien Hue Province and National Project Director of IMOLA Project.**

Distinguished Guests,
Ladies and Gentlemen.

Let me first of all in the name of the IMOLA Project express our warm appreciation for your attendance and precious contribution of ideas and comments to this workshop.

All your ideas, either verbal or textual, we hold in high appreciation and will make careful use of them. We consider your comments not only a scientific resource, but also a sign of devotion and dedication to the improvement of living condition of the people in the lagoon of Thua Thien Hue.

Under this perspective, not only the IMOLA project will provide support to the establishment of an integrated management plan in a most efficient way, for the benefit of the lagoon people, but also will have its part in the socio-economic development of the province as a whole.

The presentations today were of a wide range of topics and fields, including activities of past and ongoing projects, resource management, environment assessment and monitoring, socio-economic issues, livelihoods generation, the application of GIS and remote sensing in management, participatory and integrated management and more: this variety of issues emphasizes the urgency and significance of implementing IMOLA for the caring of the conditions of the lagoon system of Thua Thien Hue.

Through these presentations, we understand that a great deal of scientific work has been performed and data collected are by no means meagre, yet scattered and therefore not adequately processed for factual implications. These database, however, will provide IMOLA with advantages but also will multiply its challenges. IMOLA will put great effort to use at best these data.

Co-operation from partner projects and institutions is much expected so that IMOLA will more efficiently meet the requirements set forth by the Provincial People's Committee, which concern the concrete and practical outputs of the project, the practical application of a management model which will be beneficial to lagoon people and the possibility of replicating the model in other areas through evaluation and lesson-learning.

Regarding the co-management model, the workshop contributions were considerable in terms of strength-limitation, barriers to common agreement in interests among different occupational groups or between governmental units and the people, and right and responsibility balance. All participants agreed upon one point, that a sustainable, practical model of management must be developed in a participatory way. Therefore, a commitment is faced by IMOLA, to find the most proper solution for the achievement of project objectives, that's to say, applying modern management models which will be respectful of traditions and customs of lagoon people.

Workshop proceedings will be sent out soon, setting up a common ground for exchange of information and creating a wide and efficient network of cooperation.

Thank you very much.