DRAFT

Information Access Survey
Mangroves Viet Nam

Hanoi and Nam Dinh, December 2006

INFORMATION ACCESS SURVEY

MANGROVES VIET NAM

DECEMBER 2006

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FIGURES AND TABLES

ACKNOWLEDGEMENTS

ACRONYMS

ADSL	Asymmetric Digital Subscriber Line
AIT	Asian Institute of Technology
BPG	Better Practice Guidelines
CERE	Centre for Environmental Research and Education
CORIN	Coastal resource Institute of the Prince of Songkla University
DOARD	Department of Agriculture and Rural Development
DOFI	Department of Fisheries
DONRE	Department of Natural Resources and Environment
DVD	Digital Video Disc
EBA	Essential Bird Area
ha	Hectare
IAS	Information Access Survey
IBA	Important Bird Area
ICZM	Integrated Coastal Zone Management
ISP	Internet Service Provider
IT	Information Technology
IUCN	World Conservation Union
Km	Kilometre
MCD	Centre for Marinelife Conservation and Community Development
MERD	Mangrove Ecosystem Research Division
MERS	Mangrove Ecosystem Research Station
MOARD	Ministry of Agriculture and Rural Development
MOFI	Ministry of Fisheries
MONRE	Ministry of Natural Resources and Environment
MOU	Memorandum of Understanding
MPA	Marine Protected Area
NACA	Network of Aquaculture Centres in Asia-Pacific
NADAREP	National Directorate of Fisheries Resources Exploitation and Protection
NAFEC	National Fisheries Extension Centre
NGO	Non Government Organisation
NP	National Park
PRA	Participatory Rural Appraisal
SIDA	Swedish International Development Agency
STREAM	Support to Aquatic Resources Management
SWOT	Strengths, Weaknesses, Opportunities and Threats
TV	Television
USD	United States Dollar
VEPA	Viet Nam Environmental Protection Agency
VND	Vietnamese Dong
VOV	Voice of Viet Nam
VTV	Viet Nam Television
VNU	Viet Nam National University, Hanoi
WWF	World Wide Fund for Nature

EXECUTIVE SUMMARY

Viet Nam's mangrove forests have been severely impacted by human interventions, with a reduction in national mangrove forestation from 408 thousand ha in 1943 to a low of 150 thousand ha in 2000. A large percentage of these forests have been destroyed through years of warfare, agricultural and aquaculture expansion, timber exploitation, fires, coastal erosion and general human urbanisation. Over 2 thousand km of sea dikes have been constructed in recent decades to protect the expansion of urban development and primary industry along the coastal fringe.

The following study provides an overview of the information needs and communication issues surrounding people living in mangrove regions of Viet Nam. It is hoped that this study will help to raise the awareness of issues surrounding mangrove environments and improve the accessibility to information, for all stakeholders, through quality and targeted communications.

Introduction

Viet Nam's coastal zone is situated in the tropical monsoon region, where water discharges from 6 countries through 114 river mouths and estuaries. Over 880 billion cubic metres of water and 250 million tons of mud and sand are discharged from these rivers. Viet Nam's aquatic environments support over 11 thousand species, with over 1.5 million tons harvested per year, 80% of which is marine. The average temperature of coastal Viet Nam ranges from 27.2 $^{\circ}$C in the south to 22.6 $^{\circ}$C in the north (Thanh, 2006).

The coastal fringe supports over 21 million people, accounting for approximately 27% of the population. There are 12 large urban areas, 90 ports and harbors and hundreds of fishing docks. In 2006, the Ministry of Fisheries (MOFI) estimated the annual wild catch and aquaculture productivity to be in the order of 3.7 millions tons (2.0 million tons and 1.7 million tons respectively), producing an export revenue of USD 3.3 billion. Aquaculture production is dominated by shrimp farming, where brackishwater ponds have been excavated in environments where mangrove forests once used to stand. Besides fishing and aquaculture, the coast of Viet Nam also supports a number of other large industries. In 2004, 3 billion tons of oil were extracted while 100 mineral mines operated along the coastal fringe (Thanh, 2006).

Communications Media in Mangroves

Communication can only be regarded as effective when the sender and receiver understand the same information as a result of the communication activity(s). Effective communication in isolated communities, such as mangrove environments, requires a good understanding of the community's information needs as well as the constraints and issues that may limit their accessibility to different media/communication types. To be effective, the sender must clearly understand what their message is, what audience they are sending it to, and how it will be perceived.

There are also other circumstances surrounding communications, such as situational and cultural context, that must be taken into account. It is important to know the audience (individuals or groups to which the message will be delivered). Failure to

understand who the target group is will result in delivering messages that are misunderstood. Barriers that inhibit the effectiveness of communications must be identified and broken down. Understanding different cultural aspects will assist in a message being understood by people from different backgrounds. Messages that are too lengthy, disorganised or contain errors will be misunderstood as will offering too much information too fast, if in doubt - less is often better.

Access to Information for People Living in Mangrove Regions

For a number of reasons, people living in rural and isolated communities face many problems when it comes to accessing information. Often projects are started without assessing the practicability of the program with respect to the local people's needs and constraints. It is important to understand the main issues that people are facing and the types of information/assistance they require, and to be able to deliver that information in a preferred and accessible medium. Through this study, the three main information needs required by people living in mangrove environments were identified as:

- Developing alternative livelihoods
- Addressing community health
- Improving natural resource management

Of these three information needs, developing alternative livelihoods was regarded as the most important due to the current lack of information available.

The preferred media for accessing information was TV, with workshops and public events also being highly regarded. Other relatively effective methods included information centres and the use of commune radio and public address systems. Programs that focus on educating primary and secondary school children were also identified as being largely effective in disseminating information and raising public awareness of specific issues.

Information Exchange Between Government

The government of Viet Nam has a strong culture of formal communication processes, largely as a result of the Communist hierarchy. Although many government agencies work in and around the management of mangroves in Viet Nam, communication between the different agencies remains adhoc and largely inefficient. Improvements in IT based infrastructure will be an important step in the government becoming more effective. When communicating with central government agencies, formal introductions and/or requests are required before discussions can take place. This often takes a significant amount of time and may require more direct follow-up strategies such as telephone and email to keep the process moving. The main agencies with a role in the management of mangroves include;

- Ministry of Fisheries (MOFI)
- Ministry of Natural Resources and Environment (MONRE)
- Ministry of Agriculture and Rural Development (MARD)

In early 2007 the national assembly met to discuss the government's future operating environment. After a series of discussions it has become likely that the 27 Ministries

in Viet Nam will be rationalised to some degree, with 5 being absorbed. Included in this reshuffle, it is likely that MOFI will no longer exist as a stand alone agency and will rather be incorporated into the portfolios of MONRE and MARD.

The majority of government departments interviewed agreed that practical demonstrations and workshops/meetings were the best way to communicate with local groups. The government framework supports the use of "extension officers" in this approach, with the central government training and supporting local "extension officers" in communicating their key messages. These "extension officers" then hold workshops, trainings, study tours or other types of demonstrations to communicate information to local people.

Information Exchange Between Other Stakeholders

There are a large number of local and international organisations that have activities of some form based in and around mangrove ecosystems and or the livelihoods of people that live within these ecosystems. Most of these organisations implement projects funded by international aid partners towards livelihood development whilst supporting the sustainable development of Viet Nam's various industries and environment.

The majority of stakeholders interviewed agreed that face to face meetings/interactions were the most effective method for communicating and disseminating information to local people. These interactions include workshops and meetings, public events and competitions as well as supporting the development of clubs/groups. A number of stakeholders also place significant importance on the use of printed media (posters/pamphlets) and radio or public address systems.

For communicating with other organisations and government, intranet and telecommunications were regarded as the most effective tools, although initial contact with central level government does require formal approaches.

1. INTRODUCTION

1.1 EU Mangrove Project

The European Union "*Sixth Framework Program for Research and Technological Development*" has funded a three-year project (2005-2008) to investigate and develop knowledge-based approaches for the co-management of mangroves in Southeast Asia. The project is entitled "*MANGROVE: Mangrove ecosystems, communities and conflict: developing knowledge-based approaches to reconcile multiple demands.*"

Project updates can be found on the STREAM website:
www.streaminitiative.org/Mangrove/index.html

1.1.1 Objectives of the Mangrove Project

- Develop action plans to reconcile multiple demands placed on mangroves and adjacent coastal zones in Southeast Asia
- Communicate findings about effective approaches for developing action plans to agencies responsible for coastal zone management
- Conduct a multidisciplinary situation analysis of mangrove ecosystem resources, functions and management in Indonesia, Thailand and Viet Nam
- Develop a participatory monitoring and evaluation system to assess the impacts on mangrove ecosystems
- Pilot action plans and assess their impacts on ecosystems, livelihoods and institutions using a participatory monitoring and evaluation system
- Identify high-potential strategies for promoting policy change
- Develop appropriate policy initiatives

1.1.2 Role of the Information Access Survey (IAS)

This study provides an overview of the information needs and communication issues surrounding mangrove environments in Viet Nam. This study will be used to guide how outputs from the MANGROVE project are communicated to target groups and wider audiences. The study will also be incorporated into the Viet Nam IAS developed by STREAM, which explores information accessibility and the information needs of broader aquatic resource users throughout Viet Nam. It is hoped that this document will provide a valuable resource to anyone who has an interest in communicating with people and organisations playing a role in the use and management of mangrove environments.

The field research for this study was carried out from December 2006 to January 2007, during which time a number of interviews and workshops were conducted. In addition, the study draws on numerous reports from key agencies and individuals working within the area of mangroves and/or communications. The authors believe that this report provides an accurate account of the situation at the time of writing. However, as information technology/communications evolve rapidly, it is recommended that the findings presented here are only used as a guide and that specific information is validated for use in individual areas.

1.2 Overview of Mangrove Environments in Viet Nam

1.2.1 General

With over 3444 km of coastline, a large portion of Viet Nam's 82 million people derive essential food and income from the coastal fringe. Marine fisheries and aquaculture combine to form one of the most important industries in Viet Nam. However as exploitation of marine resources has remained relatively unchecked, the aquatic environment has experienced permanent and long-term damage. Important coastal ecosystems, such as mangrove forests, that play a critical role in the lifecycle of many species and in protecting against the harmful effects of natural disasters, have become seriously degraded. Large areas of mangrove forest have been destroyed through years of conflict, urbanisation of the coastal fringe, construction of residential areas, sea dykes, sea ports and in particular the excavation of shrimp ponds. The emerging issue of global warming and expansion of shrimp farming areas threatens to further degrade these areas.

Nevertheless the Government of Viet Nam and a number of key local and international organisations have been working towards mitigating these harmful impacts and improving the management of these important ecosystems. STREAM realises that practical solutions and simple technologies are needed to empower poor aquatic resource users to improve the sustainability of their activities. By creating awareness of aquatic resources management, developing livelihood alternatives, facilitating knowledge sharing and improving extension support, more effective policy initiatives with environmental outcomes can be achieved.

1.2.2 Spatial Distribution

Due to the latitudinal range of Viet Nam, 8°02' to 23°23' North, with a total length of 1,650km the country offers a range of climatic conditions suitable for a variety of mangrove species. Three-quarters of the mangrove forests in Viet Nam are made up of *Rhizophora* sp. and *Bruguiera* sp., while *Ceriops* sp. and *Lumnitzera* sp. are also found (Granich et al., 1993). The most heavily forested region occurs around the Mekong Delta, with 85% of the total mangrove area .

Prior to the 1960's, it is estimated that over 400 thousand ha of mangrove forests existed in Viet Nam. However due the use of chemical defoliants during the American war and increasing pressures of rural development and urbanisation, the extent of mangrove forests has been reduced to approximately half this level. The following figure shows the trend in mangrove extent in Viet Nam over the past 60 years.
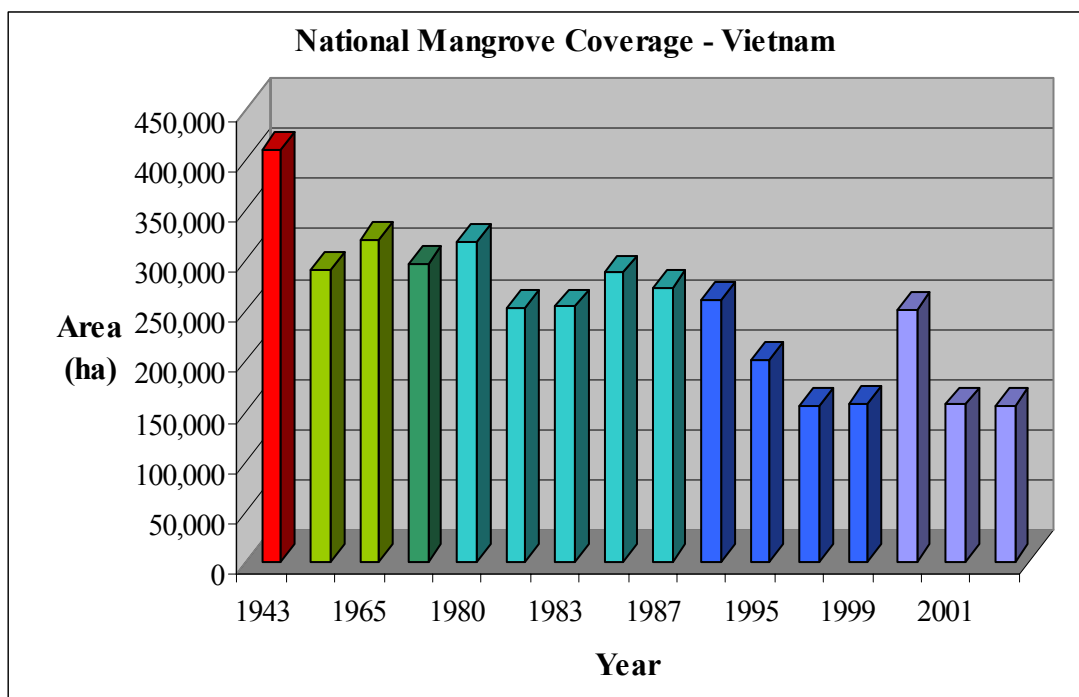
Figure 1: Total mangrove coverage (hectares) in Viet Nam from 1943 to 2005 (adapted from FAO, 2003 and VEPA, 2006).

Over recent years Viet Nam has worked towards preserving important ecosystems through the development of National Parks (NP). The following list, taken from Wikipedia 2006(a), outlines all of the NP currently established in Viet Nam, with **bold** indicating NP that incorporate mangrove wetlands:

1.   Hoang Lien NP (Lao Cai Province)
2.   Ba Bể NP (Bắc Kạn Province)
3.   **Bai Tu Long NP (Quang Ninh Province)**
4.   Xuan Son NP (Phu Tho Province)
5.   Tam Dao NP (Province of Vinh Phuc, Thai Nguyen and Tuyen Quang)
6.   Ba Vi NP (Ha Tay)
7.   **Cat Ba NP (Hai Phong**
8.   Cuc Phuong NP (Ninh Bình, Thanh Hóa, Hòa Bình)
9.   **Xuan Thuy NP (Nam Định)**
10. Ben En NP (Thanh Hóa)
11. Pu Mat NP (Nghệ An)
12. Vu Quang NP (Hà Tĩnh)
13. Phong Nha-Ke Bàng NP (Quảng Bình)
14. Bach Ma NP (Thua Thien-Hue)
15. Chu Mom Ray NP (Kon Tum)
16. Kon Ka Kinh NP (Gia Lai)
17. Yok Don NP (Dak Lak)
18. Chư Yang Sin NP (Dak Lak)
19. Cat Tien NP (Đồng Nai, Lâm Đồng, Bình Phước)
20. Bu Gia Mat NP (Bình Phước)
21. Con Dao NP (Bà Rịa-Vũng Tàu)
22. Lo Go Sa Mát NP (Tây Ninh)

23.   Tram Chim NP (Đồng Tháp)
24.   U Minh Thuong NP (Kiên Giang)
25.   Phu Quoc NP (Kiên Giang)
26.   Nui Chua NP (Ninh Thuận)
27.   Mui Ca Mau NP (Cà Mau)

1.3   Case Study: Xuan Thuy National Park

See **Appendix 2** for a presentation on Xuan Thuy NP, delivered by the NP Director, Mr Nguyen Viet Cach, at the opening of the IAS Workshop.

With an area of 12,000 ha, the Xuan Thuy wetlands were nominated as Viet Nam's first Ramsar site in 1988. In 1993 the region was assigned as a nature reserve and then 20 years later, in 2003, the management category of Xuan Thuy was revised from nature reserve to NP. Xuan Thuy NP is also recognised as an Important Bird Area, with a number of globally threatened species frequenting the NP. Xuan Thuy NP currently has 6 staff members based at the Management Board building along with the NP Director. The NP Management Board is held under the Nam Dinh Provincial Department of Agriculture and Rural Development (DARD).

In 2001, the province of Nam Dinh had a total of 3,012 ha of mangrove forests and 5,800 ha of shrimp ponds. Located in Nam Dinh is Xuan Thuy NP, which encompasses the mouth of the Red River Delta, an estuarine environment made of three main islands and a network of mud flats that are vegetated by mangroves. The site is situated at 20°15'7" North and 106°28'32" East with a maximum elevation of 3 metres above sea and the deepest channel reaching 6 metres below sea level (UNEP, 2006). The dominant mangrove species found in Xuan Thuy NP is *Kandelia candel*, while *Aegiceras corniculatum* and *Acanthus ilicifolius* have spread naturally into the region and a number of *Sonneratia caseolaris* have been planted.

Rice farming remains the dominant local industry, however fishing, aquaculture and illegal hunting of animals provides a considerable source of income, earning locals an estimated 30-40 billion VND per year. The fishing and aquaculture industries are primarily based on shrimp and clam production/collection while crab, mollusc and a variety of other fish species produce a combined yield over 10 thousands tons per year. A fisher can earn 20-30 thousand VND per day through the sale of aquatic products and may harvest mangrove forests for firewood, causing long term damage. Solving this conflict between livelihood strategies and environmental protection remains the main challenge for the NP Management Board. Park Officials have commenced a 5 year plan to develop the NP as an eco-tourism destination, however with insufficient funding, infrastructure and knowledge - this strategy may not be

realised for years to come. Construction of a NP Management Building has almost been completed and includes a museum and some temporary accommodation.

When discussing the current management of Xuan Thuy NP, local residents (workshop participants) provide the following feedback:

Well Managed:

- There is good coordination between the District People's Committee, Internal Affairs agencies and other local authorities
- Some functional sectors work very effectively in communicating with local people, such as: the Department of Fisheries, the Department of Natural Resources and Environment, the Department of Education, radio and TV stations
- The Party's Committee, Commune's People's Committees and other functionary sectors are good in the dissemination of information
- Overall the awareness of local people in specific issues is raised thanks to this dissemination work

Poorly Managed:

- Irregular management of the NP
- The coordination between sectors and levels is un-integrated and unclear
- There are financial constraints that lead to problems due to an insufficient allocation from the state budget
- Sanctions are not specific
- There are no incentives for communities to become more proactive
- Advocacy work is irregular and only covers small number of issues
- Loose management of the NP, security guards have limited operating budgets and policies are insufficient
- People's awareness of NP issues is limited, there is still much conflict over the use of land/mangrove forests
- The allocation of land for people is not clear and quite complex - changing on a regular basis
- Regulations on forest protection is unspecific and complex
- No jobs have been created for people displaced by/living in the buffer zone

1.4   Role of Communications in Livelihoods Development

1.4.1   Politics and State

A political system was established in 1945 with the rise of the Democratic Republic of Viet Nam. The **Communist Party of Viet Nam** is the leading force behind this political system, in which the **State of the Socialist Republic of Viet Nam** is the central organisation.

The Constitution: the current Constitution (1992 Constitution) was adopted by the 8th National Assembly in 1992 and was supplemented and amended in 2001. The 1992 Constitution is Viet Nam's fundamental legal document exercising the highest legal power. The Constitution is structured with a preamble, 7 chapters and 147

articles clearly stipulating the country's Political Regime, Economic System, Culture, Education, Science-Technology, Fundamental Rights and Duties of the Citizens, National Assembly, State President, Government, People's Councils and Committees, People's Supreme Court and Supreme Procuracy, the National Flag, Emblem, National Anthem, National Day, the Capital and Constitution Amendment.

The Constitution clearly indicates that the State power is in the hands of the people, "*the State is of the people, by the people and for the people*". The people use the State power through the National Assembly and People's Councils. These agencies are elected by the people and represent the will and aspiration of the people.

The Constitution endows all citizens (men and women alike) with equal rights in all political, economic, cultural and social areas as well as in family affairs; the right to freedom of choice, the right to follow or not to follow a religion, the right to freedom of movement and residence in Viet Nam and the right to go abroad and return home as stipulated by laws.

National Assembly and local People's councils are people-representative and legislative organisations, deciding the fundamental domestic and foreign policies, the socio-economic tasks, national defense and security issues, the major principles governing the State machinery, the social relations and activities of citizens. Their members are directly elected by the people for a 5 year term. Normally, the National Assembly is convened biannually. In the intervals between sessions of the National Assembly, the National Assembly Standing Committee works as the standing organisation. The People's Council is headed by a Chair and Vice-Chairs.

The State President is the Head of State, elected by the National Assembly to represent the State in domestic and foreign affairs.

Central Government and local People's Committees are executive bodies of legislative organisations. The Central Government has the same term of office as the National Assembly, and consists of Prime Minister, Deputy Prime Ministers, Ministers and other members. The People's Committee is headed by a Chair and Vice-Chairs.

People's Courts: The Supreme People's Court, local People's Courts, Military Tribunals and the other tribunals established by law are the judicial organisations of Vietnam. Under special circumstances, the National Assembly may decide to set up a Special Tribunal. The Supreme People's Court is the highest judicial organisation that supervises and directs the judicial work of local People's Courts, Military Tribunals, Special Tribunals and other tribunals.

People's Procuratorates oversee the enforcement of the law by Ministries, Ministerial–level organisations, other Government agencies, local administration, economic entities, mass organisations, people's military organisations and citizens. They exercise the right to prosecution, ensuring serious and uniform implementation of the law.

1.4.2   Education and Literacy

According to UNDP, the adult literacy rate (2002) is 91% and the human development index ranked 108 out of 177 countries in 2005.

1.4.3   Religion and Beliefs

Viet Nam is a country of many religions and beliefs. The Vietnamese people have a time-honoured tradition of practicing their beliefs. Different ethnic groups in Viet Nam have different beliefs linked to their own material and spiritual lives.

Traditional beliefs: With the perception that every object has a soul, since the ancient time, the Vietnamese worshiped a large number of gods, especially those related to agriculture; including the sun, moon, land, mountain, river and forest for good luck. Each ethnic minority in Viet Nam has its own way of practicing such beliefs, which is still maintained by some ethnic groups such as Tay-Thai, Hmong-Dao, Chinese-San Diu-Ngai, Cham-Ede-GiaRai and Mon-Khmer.

In addition, the most popular and time-honoured custom of the Vietnamese and some ethnic minorities is ancestor worship and commemoration of death anniversaries. Every Vietnamese family has an altar to worship their ancestors and attach importance to the commemoration of death anniversaries and acknowledgement of the service rendered by the predecessors. Besides ancestor worship in each family and each clan, many villages have a communal house and a temple to worship the village Deity. The custom of worshiping the village Deity and the communal house are the unique features of Vietnamese villages. The village Deity worshiped in the village's temple or communal house can be a Deity or an outstanding figure who rendered great services, such as the forefather of a traditional handicraft or a national hero who recorded glorious feats in nation building and in the wars against foreign aggression. The Vietnamese people also worship different gods such as the kitchen god and the god of soil for example.

Religions: Viet Nam has a diverse mix of major religions with a large number of followers and religious figures, such as Buddhism, Christianity and Muslim and some indigenous religions such as Caodaism and Hoa Hao.

Buddhism: There are two sects of Buddhism: Mahayana and Theravada (Hinayana). Mahayana Buddhism was introduced in Viet Nam in the 2nd century B.C, and Theravada was introduced in Viet Nam in the 2nd century A.D. After the 10th century, Buddhism developed very quickly in Viet Nam and became the national religion under the Ly-Tran dynasty. At present, there are 10 million Buddhist followers, 20 thousand pagodas and 38 thousand Buddhist monks and many schools offer Buddhist training.

Catholicism: Catholicism was introduced in Viet Nam in the 15th century by European missionaries. Catholicism was first popular in coastal provinces such as Thai Binh, Nam Dinh, Ninh Binh, Thanh Hoa and Nghe An, then spread throughout the Red River delta and cities. At present, there are 6 million Catholics, 6 thousand churches and 15 thousand Catholic priests in Viet Nam.

Protestantism: Protestantism was introduced in Viet Nam in the late 19th and early 20th centuries. However, it was not until 1920 that Protestantism became popular all over the country. At present, there are 1 million Protestants and 500 Protestant churches in Viet Nam.

Muslim: the Muslim religion was introduced in Viet Nam by the Cham people in the 10th and 11th centuries. At present there are 100 mosques, 70 thousand Muslim followers and 700 dignitaries in Binh Thuan, Ninh Thuan, An Giang, Tay Ninh, Dong Nai provinces and Ho Chi Minh City. There are two schools of Muslim in Viet Nam: orthodox Muslim with followers who are Cham people from Chau Doc, Ho Chi Minh City, Tay Ninh and Dong Nai provinces; and non-orthodox Muslim (or Cham Ba Ni) with followers who are Cham people from Binh Thuan and Ninh Thuan provinces.

Caodaism: Caodaism is an indigenous religion, created in Tay Ninh province in 1926. Caodaism worships three Supreme Beings namely Buddha, Jesus Christ and the Cao Dai God. At present, there are 2.3 million Cao Dai followers, 7 thousand dignitaries and 6 thousand temples in Viet Nam. The centre of Caodaism is Tay Ninh province.

Hoa Hao: Hoa Hao, also called Hoa Hao Buddhism, another indigenous religion, was created in 1939 in Hoa Hao Village, Tan Chau District, An Giang Province. This religious sect is concentrated in the Mekong River delta and its membership is estimated at about 1.2 million.

Religious practice: At present, there are 20 million religious followers, nearly 62.5 thousand dignitaries, monks and over 22 thousand worshiping places in Viet Nam. Training establishments for different religions have grown in number. Currently, Viet Nam has 10 religious universities, 3 Buddhist academies, 6 Christian grand seminaries, 1 Institute of Bible and Theology under Viet Nam's Confederation of Evangelical Churches and 40 schools training religious dignitaries at different levels. Religious publications, especially bibles and books are published at the request of religious organisations in accordance with the law.

1.4.4   Ethnic Groups, Customs and Languages

Ethnic groups and customs

Viet Nam is a multi-ethnic country with 54 ethnic groups, among which the Kinh people account for 86% of the population. Among ethnic minorities, the most populous are Tay, Thai, Muong, Hoa, Khmer, and Nung with a population of around 1 million each, while the least populous are Brau and Odu with several hundred people each. The Kinh people mainly inhabit the low land and delta areas. The majority of the other 53 ethnic groups are scattered over mountainous areas and the midland spreading from the North to the South. Most ethnic groups co-exist in the same regions, particularly the ethnic minorities in Northern and Central Northern regions.

The ethnic minorities have varied levels of development. In the Northern midland and mountainous regions, ethnic groups such as Muong, Thai, Tay, and Nung engage in paddy farming techniques. They also grow upland rice and raise cattle and poultry. Some go hunting, fishing and collecting while others make sophisticated traditional

handicrafts. Ethnic minorities living in the South are more separated. Except for the Champa, Chinese and Khmer people living in the Central coast and Southern Viet Nam which are reasonably sophisticated in their development, most ethnic minorities living in the Central Highlands reside in clusters of hamlets and subsist mainly on natural resources. All ethnic groups have their own diverse and unique cultures. Beliefs and religions of Vietnamese ethnic groups are also disparate.

Languages

In addition to their unique cultures, 54 ethnic groups in Viet Nam have different languages. 24 ethnic groups have their own scripts such as Thai, Mong, Tay, Nung, Khmer, Gia Rai, Ede, Chinese and Cham. The scripts of 7 ethnic minorities, i.e. Thai, Chinese, Khmer, Cham, Ede, Tay-Nung, Coho and Lao languages, are used at schools.

The Kinh group's language, spoken by 87% of population, has been selected as the common Vietnamese for the education system, communication and state management for all ethnic groups in Viet Nam.

Replacing Chinese characters in the past, the written Vietnamese language used today has its origin dated back to the 17th century when a group of European missionaries headed by priest Alexandre de Rhodes introduced in Viet Nam a system of Latin-based scripts. Since then, the written Vietnamese language has evolved into a complete writing system and became the official script of Viet Nam early in the 20th century.

2.   COMMUNICATIONS MEDIA IN MANGROVES

All media in Viet Nam is tightly controlled by the government, with any public broadcasting having to be reviewed by provincial or district officials from the Ministry of Culture and Information. Under a 2006 Decree, any media type can face large fines for transgressions that "*deny revolutionary achievements*" , "*spread harmful information*" or include "*reactionary ideologies*" (BBC News, 2006).

2.1   Radio

Viet Nam's national radio system, the Voice of Vietnam (VOV), broadcasts 6 channels on AM, FM and shortwave bands. As of 1999, Viet Nam's radio system has been based on AM 65, FM 7 and shortwave 29 bands throughout Viet Nam and the rest of the world. In 2004 it was estimated that VOV stations were reaching 90% of households in Viet Nam, Wikipedia (b). The 6 radio stations include:

-   VOV1 *AM and shortwave*   News, Current Affairs and Music
-   VOV2 *AM and shortwave*   Cultural and Artistic
-   VOV3 *FM*   Ethnic Minority
-   VOV4 *AM*   Ho Chi Minh City Originated Broadcasts
-   VOV5 *FM*   News and Music
-   VOV6 *Shortwave*   World Service, 11 Foreign Languages

In addition to VoV, there is Dai Tieng Noi Nhan Dan in Ho Chi Minh City and most other cities and provinces have their own radio stations. Radio is regarded as a good source of information, particularly for isolated areas that do not have the infrastructure or capital to afford a television, such as the southern mangrove regions of Viet Nam. Radio provides a source of timely and accurate information and is available through a number of networks from local right through to national programming.

It is estimated that only around 20% of people living in Xuan Thuy NP own or have access to a radio. This low prevalence of radio use reflects a change in media preference of local people towards television or other media types. As with all electronic equipment, another disadvantage of the radio is that it relies on battery power or electricity to function.

Radio programming is available at a local level, with most communes having specific programs for their region, managed by the districts People's Committee. While national radio stations often feature regular programs on specific topics, such as fisheries management and production.

2.2   Television and Video

Viet Nam has two national broadcasting stations, Viet Nam Television (VTV) and Ho Chi Minh City Television Station, and since 1991 international television has been permitted through satellite programming. VTV's programming is relayed nationwide

through a series of regional and provincial television stations while Ho Chi Minh City Television Station is broadcast over a wide area of the Mekong Delta. VTV has 6 main regional broadcasting centres in Ho Chi Minh City, Hue, Nha Trang, Can Tho, Vinh and Tam Dao. In addition to these 6 broadcasting centres, there are a further 61 provincial television stations, covering Viet Nam's major cities and 64 provinces.

VTV currently has 5 channels, of which all are currently available via satellite:

- VTV1   News and Current Affairs
- VTV2   Science Technology and Education
- VTV3   Sports and Entertainment
- VTV4   International Programming, commenced in 2000 and broadcast worldwide with a "best of' compilation from VTV1,2 and 3
- VTV5   Ethnic Minority, developed in 2002 for ethnic minority communities in Viet Nam

In 2003 it was estimated that 80% of all urban households owned a television, and although the percentage was considerably lower in rural areas, most village cafes would own a television, video and DVD player that local people would have access to.

Television has quickly become the preferred media choice for the majority of people living in mangrove regions. It is estimated that 85-90% of people living in Xuan Thuy NP own a television while 50% own a Video/DVD player. Of those that do not own a television, it is believed that 100% of people can gain access to one with relative ease. Purchasing a television requires a large initial investment, which is the main reason that there is not 100% ownership. As an information source, television provides an interactive experience with information being supported through visualisation, resulting in examples and actions being observed. For example an extension program on Better Practice Guidelines (BPG's) for shrimp farming is more readily understood by observing activities, rather than just listening to information over the radio or reading a document.

The cost of programming is high, so the use of television as a component of a communications strategy can be quite prohibitive. However, due to the high level of exposure and information uptake, these costs should be assessed accordingly.

Alternatively, the development of informational videos/DVD's can be a cost effective way of using this media type without the programming costs associated with a commercial television station.

2.3   Telecommunications

Viet Nam has placed a significant amount of effort into the modernisation and expansion of its telecommunications systems. However, current telecommunications remain troubled by insufficient planning and infrastructure and are comparatively less advanced than many other countries in the region. Viet Nam's international country code is 84 and all of the domestic telecommunication systems have been digitalised, with a central line connecting Hanoi, Da Nang and Ho Chi Minh City by fibre optic

cables and/or microwave radio relay networks, Wikipedia, 2006(b). In 2005, there were over 15 million main lines in use and almost 9 million mobile phones in use (CIA World Factbook, 2006), of which there are a number of operators including MobiFone, VinaPhone, Viettel, S-Fone and E-mobile.

As most mangrove forests in Viet Nam are in isolated coastal regions, the telecommunication infrastructure remains under-developed. As a result, most people living in mangrove regions of Viet Nam do not have access to these services. It is estimated that less than 10% of people living in Xuan Thuy NP would use telecommunications as a common tool for accessing/exchanging information and technologies such as fax machines are rarely available. However, at a Provincial level, telecommunication services are readily available and widely used.

2.4   Internet

In a rapidly developing technological environment, internet is fast becoming the main method of communication and information for the developed world. Since 1997, Viet Nam has been connected to the World Wide Web through two gateways, one in Hanoi that connects with Hong Kong and Australia and the other in Ho Chi Minh City that connects with the United States. The international country code is ".vn".

Internet usage remains low throughout Viet Nam when compared to other Asian nations, with 227,000 ADSL subscribers and 13.1 million users in 2006 (CIA World Factbook, 2006). However, the current figure of usage is likely to be much higher due to the large number of illegal connections that take place and as connectivity has improved rapidly due to a focused effort from the Ministry of Post and Telecommunications. Currently there are 5 Internet Service Providers (ISP) operating in Viet Nam: Viet Nam Data Communication Company (VDC), Corporation for Finance and Promoting Technology (FPT), Netnam Company, Saigon Post and Telecommunications Services Corporation (Saigon Postel Corporation, SPT) and Viettel Company. In 2006 there were over 12 thousand internet hosts and over 18.5 thousand internet domains

Respondents from the workshop indicated that internet was not commonly used by local people for communication or accessing information. Rather a small percentage of the rural youth use the internet for recreation activities, such as playing games. However, this is not to say that in the future, with improved local infrastructure, that internet might not become an important media and communications resource, particularly for village leaders and officials.

2.5   Printed Media

Posters, pamphlets, newspaper and magazines provide a readily available source of information and are the most common method of extension used by organisations working throughout mangrove regions. However, the use and effectiveness of various published media varies widely depending on the topic, how the information is presented and overall aesthetics.

Table 1: Current large newspapers available in Viet Nam

News Media	Business media	Society Media	Sports Media
LaoDong	Saigon Times Weekly	Nhan Dan - Communist party paper	Ho Chi Minh City Sports
Tuoi Tre - Youth, Published in Ho Chi Minh City, "Reformist" Newspaper			
Toi Bao Kihn Te Viet Nam	Viet Nam Economy		
Tri Tue Viet Nam			
Tu Van Tieu Dung		Quan Doi Nhan Dan - People's Army	
VN Express	Viet Nam Economic Times		
Thanh Nien - Youth			
Sai Gon Giai Phong - Liberated Saigon			
Tien Phong - Vanguard	Viet Nam Investment Review		
Viet Nam News - English Language Daily			
Le Courrier du Viet Nam - French Language			

Poster, pamphlets and other printed media forms are often developed by people removed from the local community. This often results in information being presented in complex formats that are overwhelming to target groups. As information can not be explained through printed media, it is often better to provide less information, but have it clearly explained. To give relevance to printed media, it is important to use of local pictures and artwork so that target groups can relate to the information being delivered.

2.6   Public Address Systems

The public address system provides a low cost method of delivering information to a wider commune audience. It provides a regular medium for communicating/transferring information and can be delivered in the local language at a level that will be easily understood. However the audio quality is often very poor making the information difficult to understand and therefore the impact could be considered as relatively low. The public address system is also subject to damage from natural conditions, resulting in the system often being out-of-order or in need of some level of maintenance. Village leaders control the use and management of public address systems and as such must be approached to discuss arrangements for usage.

2.7   Public Events and Competitions

Public events, festivals and competitions provide a novel approach for sharing information and delivering a message. Organising an event can be difficult to organise logistically and often costly to execute. Therefore, it is useful to coordinate activities with existing public/international events and leverage off the back of them.

Public and religious events/festivals attract a large number of people, often traveling substantial distances to attend. Therefore, such a gathering provides an opportunity

for extending information to a diverse group of people that might normally be spatially difficult to reach.

Competitions held at the school or community level provide an incentive based method for sharing and delivering a message. As for any competition the purpose is to win, therefore participants often find the most effective ways of sharing/delivering a message that has relevance to the local people.

The Mangrove Ecosystem and Research division (MERD) has tested a number of pilot projects to assess the effectiveness of public events; including

- Some propaganda and education activities of the exhibition program "For the green of mangroves"
- Study on some propaganda models to raise awareness about mangrove forest protection of coastal local communities
- Evaluating the propaganda and education effectiveness of "Mangrove forest clubs" in secondary schools in coastal areas"

All of these studies showed that public events gain considerable recognition and participation. These types of activities help improve public general knowledge and promote discussion between local people on issues that affect the broader region. Targeting young people at schools or through the Youth Union will be important for long term continuity, ensuring an increase in general knowledge of the issues surrounding mangrove ecosystems.

2.8   Workshops, Training and Personal Communication

Communication campaigns that require meetings, workshops and one-on-one interactions are well received by local people. The ability to ask questions directly of the facilitator(s) means that the message/information is more clearly understood and more likely to have longer lasting impacts. However these types of formal meetings should be formally endorsed by the receiving officials. It is common to offer small gifts or amounts of money to extend to those participants of a workshop, in many respects this should be regarded as a travel expense to attend the meeting and take time away from normal business/livelihood activities.

Demonstration sites or training sessions are also very effective methods for sharing information. The impact of such methods can be quite high as the people attending such sessions are largely motivated to learn more about a particular subject/topic. However, demonstrations can be time consuming and costly to extend to a large groups of people.

Local organisations, clubs, associations are often the most proactive groups in specific areas of interest. These local bodies can provide a strong vector for delivering a message with explanation and context. Communication strategies that link a network of information flow between these groups are likely to have a greater and longer lasting impact.

Personal communication is the most common method for sharing information at the local level. People are constantly interacting with each other during their normal working day. Although this informal method of information dissemination is quick and requires no financial support, the quality of information can often be poor and at times - misleading.

2.9   Information Centre

An Information Centre, or Cultural Centre, provides a centralised source of information for anyone to access. Not all commune's or villages will have a Cultural Centre, and often if they do have one, the Centre is poorly serviced and information is out dated. However, if utilised effectively, Cultural Centres can be an extremely effective method for communication, attracting over 300 people per month.

The Mangrove Ecosystem Research Division (MERD) has developed a Mangrove Ecosystem Research Station in Xuan Thuy NP. This centre provides a base for research and educational activities focused in and around the NP. The use of this centre in educating youth in the importance of mangrove forests was examined in 2001 with 4 secondary schools participating in the study entitled "*The effectiveness of organising a visit for secondary students of outstanding academic performance and disadvantaged students to the Mangrove Ecosystem Research Station*". Almost all of the students participating in the study agreed that the centre provided a useful learning experience that enhanced their understanding of mangrove related issues. From this enhanced awareness, MERD feels that students leaving the facility will become more active advocates for mangrove protection in their regions. The main criticism that was raised through the study suggested that the centre required considerable effort to travel to, however it was agreed that this was a necessary inconvenience in order to see the mangrove forests.

3. ACCESS TO INFORMATION FOR PEOPLE LIVING IN MANGROVE REGIONS

The following section is based on outputs of the IAS Workshop, held in Xuan Thuy National Park on December 21, 2006.

3.1 Stakeholders

People living in mangrove environments communicate regularly with a number of stakeholders during the course of their daily lives. The following table, developed by provincial and district officials attending the IAS workshop, may not be comprehensive and should be discussed with people living in various regions of Viet Nam.

Table 2: List of stakeholder groups that people living in mangrove environments communicate with most regularly (Table developed by participants of the IAS Workshop, Xuan Thuy National Park, 21 December 2006).

District level	Commune level	Cooperatives/Organisations
District's Party Committee	Party's Committee	Political and mass-organisations (Fatherland Front, War Veterans, Youth Union, Women's union, Elders, Farmer's Organisations)
District's People's Committee	Commune's People's Committee	
Internal Affairs Sectors	Police	
Regional Border Stations	Land and Administration Office	
Department of Agriculture and Rural Development	Finance Office	Religious Organisations
Department of Education	Education Office	
Department of Fisheries	Culture Office	
Department of Finance	Justice Office	Community Organisations
Department of Natural Resources and Environment	State Cooperatives	
	Leaders and Vice Leaders of villages	

3.2 Preferred Ways to Communicate with External Stakeholders

People living in mangrove regions are often isolated and have difficulty communicating with the various stakeholders that support and impact on their livelihoods. To better understand these issues and constraints, participants of the IAS workshop were asked to discuss and develop a list of how they communicate with different stakeholder groups and then develop this table into a list of how they would prefer to communicate with different stakeholder groups.

- Via local radio system
- Via meetings, workshops, clubs, projects
- Via village meetings
- Via information from schools, especially pupils
- Via religious organisations and festival
- Oral communication via working
- Via correspondence, generally telephone

Table 3: List of stakeholder groups that people living in mangrove environments communicate with most regularly and method of communication that is commonly employed (Table developed by participants of the IAS Workshop, Xuan Thuy National Park, 21 December 2006).

Stakeholder group	Methods
Communities	- Oral conversation during working - Village meetings, religious festivals - Local radio - Via meetings, clubs - Via correspondence, telephone - Formulate regulations of village
State Organisations	- Via meetings - Via emails, telephone, fax - Via information from schools - Formulate the regulations, RAMSAR regulation
NGO	- Workshops - Training courses - Meeting - Telephone, emails fax
Project	- Workshops - Training courses - Telephone, fax

3.3   Major Sources of Information

Participants of the IAS Workshop were asked to list the different types of information media they had come in contact with and undertake a SWOT analysis of these media types from their perspective.

- Radio, television, written documents
- Band, poster
- Internet
- Meeting of political/social organisations
- Contest in schools
- Contests through advocacy, meetings with a specific topic
- Personal (oral dissemination, communication campaign)

Table 4: SWOT analysis of various media types from the perspective of people living in mangrove regions (Table developed by participants of the IAS Workshop, Xuan Thuy National Park, 21 December 2006).

Method	Strengths	Weaknesses	Opportunities	Threats
Oral Communications	Quick, costless, easy to remember	Not accurate	Wide coverage	Few listeners
Village Meetings and Festivals	Crowded	Irregular	Integrated, accurate, easy to do	Unreasonable time
Radio and TV	Quick, regular	High investment	Wide coverage, accurate	Out of electricity = out of order
Meetings	Crowded	Irregular	Good access	High cost
Mail and Telephone	Quick, accurate	High cost	Few people (under 10%)	Not updated
Village Regulations	Built by communities	Un-integrated	un-widely	Few villages to prepare it
Workshops and Training Courses	Much of new information	People know less about it	High quality	Need time and budget

3.4 Preferred Ways to Access Information

To improve the dissemination of information to people living in mangrove regions, IAS Workshop participants were asked to discuss their preference for different types of media.

Table 5: Media effectiveness and preferences (Table developed by participants of the IAS Workshop, Xuan Thuy National Park, 21 December 2006).

Media Type	Rate of Owners	Strengths	Weaknesses
TV	85-90%	100% households get access to	Few time, not diversified contents
Video	50%		
Loudspeakers	Village loudspeakers	Low cost	Easy to be damage due to objective impacts (when storms come)
Radio	20%	Easy to listen in remote areas	Less people use
Exchange meeting, advocacy contests		Lots of stakeholders can join	High cost
Village culture center	300 viewers/month	Good awareness raised	Less people interested

3.5 Fisheries and Aquaculture Information Available

To gain an understanding of the types of information that are available to local people, participants of the IAS workshop were asked to list the various types of information that they had accessed or been in contact with over the past two years.

- Aquaculture and capture fisheries
- Protection of fisheries resources
- Protection of mangrove forests
- Conservation of sanctuaries for important bird species in Cồn Lu
- Family planning (population up)
- How to catch birds at night in the buffer zone around the NP

- Massive death of tiger shrimp
- Deforestation of mangrove forests
- Mangrove forests
- Using electric fishing
- Increase in social evils
- Environment polluted due to wastes
- Credit fund
- Imbalanced mangrove forest ecology
- Civil conflict in areas for mollusc farming
- Plant of rice and cash crops – winter crops
- How to create jobs for improved livelihoods
- Education

3.6 Fisheries and Aquaculture Information Needs

To understand the importance of various types of information to local people, participants of the IAS Workshop was asked to outline the key information needs in order to improve their livelihoods.

Table 6: Types of information available compared with actual information needs (Table developed by participants of the IAS Workshop, Xuan Thuy National Park, 21 December 2006).

Type of Information	% Information Available Compared to Actual Need	Information Priority (*=low, ***=high)
Protect environment, treat the waste, take care of community health	15-20%	***
Protect fisheries resources not using electric for fishing	30-50%	**
Protect and develop mangrove forest	70-80 %	***
Develop side occupations, create jobs, improve livelihoods	5-10%	***
Protect migrate birds, especially the rare and specious ones	80-90%	**
Inform the education, sanctions	Only officials know	**

4.   INFORMATION EXCHANGE BETWEEN GOVERNMENT

The following section is based on a series of interviews held throughout December 2006 with a number of government agencies involved in and around the management and conservation of mangrove environments in Viet Nam.

4.1   State (Central) Level

- *Message*

Central level organisations that are responsible for the conservation and management of aquatic resources and ecosystems throughout Viet Nam include MOFI, MARD and MONRE.

Within MOFI, the National Directorate of Fisheries Resources Exploitation and Protection (NADAREP) is involved in the management of mangrove forests, sea grasses, coral reefs, high value species and nature reserves. NADAREP occurs at all levels of government from central to local. At a central level, NADAREP is involved in the development of policies and regulations that effect natural resource protection. At a local level, NADAREP is involved in educating and improving the implementation of laws associated with natural resource and ecosystem protection. Working with the Ministry of Police and the Ministry of Culture, NADAREP is involved in developing effective policing and enforcement mechanisms for managing aquatic resource exploitation and protection.

Within MONRE, the Viet Nam Environmental Protection Agency (VEPA) is involved in the implementation of national environmental management activities. VEPA's activities include environmental monitoring, improvement, conservation, technology promotion and public awareness raising.

- *Media type used*

NADAREP focuses on grass roots awareness raising, with the main strategy of communication being the training of local officers to spread informed messages. One trainee at a local level can then become a trainer and affect a large number of people, explaining the implications and requirements of various legislative decisions. Pamphlets and posters are also used for grass roots awareness raising while newspaper and magazine articles are used for contacting a wider audience base.

VEPA has achieved the best results in awareness raising through use of radio programs and newspaper articles. Direct meetings with people have also been productive, but they require more time and well trained extension officers to deliver factual information.

- *Awareness raising*

NADAREP has developed a long term communications plan in education and awareness raising. Although the budget for communication activities is relatively small, a plan has been developed that has 6 expected outputs:

1. MOFI/NADAREP to establish an information centre
2. VTV 1 collaboration, NADAREP develop a short message (3-5 minutes) to be broadcast after the evening weather report. This is not a commercial message and has been mandated by the government, therefore the cost is low. However, NADAREP would also like to have a TV program three times per week for 30 minutes. At present the cost of 30 million VND per week is prohibitive.
3. VOV radio, a 20-30 minute program per week costing 2 million VND per week.
4. Columns in newspapers, currently around 30 different newspapers are being used. Published communications will be further expanded through more newspapers and submitting articles to mainstream fisheries and environmental magazines.
5. Leaflets and posters with conservation messages. In 2006, 30-40 thousand leaflets were produced and distributed on 5 different topics.
6. Trainings and workshops on aquatic resource exploitation and protection for local officers, media, teachers and other officials. These trainings and workshops then enable the recipients to pass on their knowledge to the broader public on environmental and resource based issues. The purpose of including teachers is to have the information incorporated into the primary and secondary school curriculum and in the long term to higher level education. At this stage there is no budget for developing school training/education materials. Trainings can be very expensive, costing around 5 billion VND to train 50 thousand people per year.

In 2002 VEPA developed a communications strategy for awareness raising of biodiversity related issues, since then VEPA has developed a Center for Education and Awareness Raising which undertakes the following activities:

1. Coordinates stories/articles with reporters, mass media, public organisations (mainly youth union)
2. Communicate with line agencies: Provincial level departments, such as DONRE, provide the main support for activities at a local level
3. Exhibitions
4. Training (mainly for staff)
5. Work with communities, but this has been limited to projects coordinated by NGO's and International agencies
6. Drawing contests, focusing on environmental features

These activities are supported by the State budget, costing around USD200-300 thousand each year.

- *Accessibility of information to local people and other stakeholders*

NADAREP encourages each local government department to develop their own schemes on awareness raising, particularly on resource exploitation and mangrove deforestation. In addition, a website is in the process of being developed.

There are many international and local events/festivals that can be used in information dissemination. Such events provide a good environment to share knowledge/information with a large number of people. Combining competitions with such events encourages interest and participation.

In Viet Nam, the capacity of officials is essential in ensuring local people are encouraged to join in and contribute to discussions. In many circumstances, the knowledge of local people on particular topics is much better than local officials. In these instances the openness and cooperation of local people may be diminished and the transfer of knowledge fails. Political relationships, between government agencies and local people, are one of the most important factors in effective policy implementation, if consensus between local people and government can not be reached, then policy initiatives are less likely to be adhered to.

- *Communication within and across line agencies*

NADAREP develops a Memorandum of Understanding (MOU) with its key stakeholders to ensure communications are maintained. Currently NADAREP has signed MOU's with WWF, IUCN and MCD. NADAREP maintains involvement in field trips to learn and share experiences and knowledge. Most communication with other central agencies is maintained through informal processes, such as discussions and conferences. NADAREP has started using email to maintain contact with provincial departments.

VEPA has a strong relationship with a number of NGO's and international agencies, using the telephone for contacting various stakeholders in a timely manner. In order to be efficient, VEPA requires consultation with various agencies on particular topics. Most commonly, VEPA works closely with the Ministries of Agriculture and Ministry of Fisheries. However communication between these central agencies is largely ineffective for a number of reasons:

- Feedback takes a long time, often being received some weeks after critical deadlines
- The Agriculture sector covers a large and dynamic group of industries, as a result the Ministry is complex and has limited capacity to effectively address all of the issues
- Although formal documentation is often required, effectiveness is slow as officials that request/authorise such communications are often busy

4.2   Provincial and District Level

Under each ministry are provincial and district level departments that are empowered to carry out governmental directives at a local level. Under MOFI is the Department of Fisheries (DOFI), under MARD is the Department of Agriculture and Rural Development (DARD) and under MONRE is Department of Natural Resources and Environment (DONRE).

- *Message*

DOFI focuses on communicating/disseminating information that supports people in the sustainable development of aquatic livelihoods. The message promoted by DOFI reflects the strategic objectives of MOFI in promoting key and high value species for processing and export markets. DOFI regards seed production and the development of high value species as the main topics that need to be promoted and explored. As Viet

Nam has an extensive coast with a range of environmental conditions, each province needs to carefully assess the best species for production and appropriate technologies to suit their environment.

DONRE is responsible for the management of all physical resource groups in coastal areas, including land, water and minerals. The coastal zone has a number of large extractive industries, including oil and mineral. Under the common interest of supporting environmental protection, DONRE has developed MOU's with a number of mass organisations. These MOU's have been important in developing a joint effort towards facilitating coastal clean up activities and other environmental awareness raising initiatives. There has been a significant amount of effort placed on linking awareness raising activities with local and international events, such as world environment day. DONRE feels that the main target of their communications should be adults who are currently involved in primary industries. This is because DONRE focuses on the communication of policy/legislative reforms, and feels that such reforms will impact most significantly on the livelihoods of this target group.

- *Media type used*

The main media types used by DOFI are:
- Articles in newspapers and other magazines
- Radio: One main communication is the promotion of good practice, interviewing successful farmers to share their experience and knowledge with others. The radio program generally starts at 17:15 and runs for around half an hour.
- Television (TV): TV has become much more popular with local people in recent years.
- Technical training and workshops: Technical training is provided for various levels of the community. In the previous 12 month DOFI (Nam Dinh) has provided 6 training workshops for district level officers with 100-200 people per course. The rest of DOFI's training activities have been focused on commune level people, with 50-60 people attending each training session. Most training courses have focused on delivering technical information on the production of fresh water species (largely carp) in semi-intensive systems. There has also been a recent focus on the introduction of new and high values species, as directed by export markets.
- Demonstration farms: DOFI regards demonstration farms as the most effective tool for communicating with people. Currently DOFI has 16 demonstration farms at a provincial level, which are then replicated at a district and commune level. DOFI supports the demonstration farmers by providing them with seed for stocking, some feed and technical advice/assistance. Demonstration farms are used to share information and technologies with other fishers/farmers in aquaculture production - from pond preparation through to stocking, general management, harvesting and marketing. This provides a comprehensive learning experience, where people are able to gain practical experience and access the maximum level of information through personal contact. The downside is that demonstration farms are costly and time consuming to develop and maintain.
- Study tours: Study tours are regarded as the second most effective communication tool, often using demonstration farms as a focus.

DONRE uses a number of media types to communicate their messages with local people that have livelihoods based in Mangrove environments. The four media types include; competitions, training, public address systems and social activities. DONRE has found training to be the most effective method to communicate their message as it attracts knowledgeable people that actively want to improve their understanding of a particular subject. Competitions have also been very effective in communicating messages as they attract a diverse range of people, in particular youth. Social activities such as events and gatherings (clean up days) have also been very effective, especially when they are coordinated with local events and the international community. The public address system is used at a district and commune level, but its effectiveness is variable as the quality of sound, and hence impact of message, can vary to the point that it can not be understood.

DONRE has made a conscious choice not to push investment in pamphlet and brochure communications for two reasons. The first reason is that high quality published materials can be expensive to produce and the second reason is that there a many other stakeholders using this media type and DONRE does not want to reproduce the same material/message. However, DONRE does recognise that MERD has been very effective in communicating their message through high quality published materials that incorporate simple messages. In particular, MERD calendars have become highly regarded by local people.

- *Awareness raising*

Fisheries extension is DOFI's preferred approach in raising awareness. Extension activities started in 1993 whith some problems as the term 'extension' was alien to most rural people. However the term and concept is now widely recognised and understood. DOFI is spending considerable effort in promoting high values species for production such as *P. japonicus*, mud crab, bivalve, seaweed and other marine finfish species. Hatchery production of mud crab commenced around 3 years ago and has reached an annual production level of around 2.5 million seed. Around Xuan Thuy NP there is approximately 1 thousand ha of clam production. However, hatcheries can only support 100 ha of grow out with the rest of the seed stock collected from the wild, placing significant pressure on the natural population. It is estimated that 30-40% of the wild clam seed is collected locally, while the rest is collected from southern provinces.

DONRE focuses on communicating three laws: the Environmental Protection Law - 2005, Protection of Mineral Ore and Protection of Water Resources. Through the communication of these three laws, DONRE's main objective is the mitigation of harmful activities to biodiversity and the environment. Most of the local people are artisanal fishers who rely on natural resource based livelihoods for their primary income. Because of these livelihood strategies, DONRE is focusing on promoting integrated farming techniques that incorporate socioeconomic development as well as environmental protection.

- *Accessibility of information to local people and other stakeholders*

Each communication method has its advantages and disadvantages. Although training courses are attended by many local people, the uptake of information is thought to be

around 25-30%. DOFI estimates that almost 100% of local residents in and around Xuan Thuy have television access. And although most people have radios, they are not used as a primary source of information/entertainment any more.

Communication through government agencies is typically a 'trickle down" approach, with each level communicating with the one below it. Under this structure, MONRE at a central level, trains and communicates with DONRE at a provincial level. In turn DONRE communicates to officers at a district level who eventually disseminate and listen to people at a commune level. DONRE provides training to district level officers and some materials for communications with local level people. It is planned that district level departments will be linked to provincial level departments via intranet technologies within the next two years. However this might be the exception to the rule, as DONRE is well funded and resourced when compared to other provincial level agencies.

- *Communication within and across line agencies*

To communicate with central government agencies, DOFI uses official correspondence combined with intranet and telecommunications. The extension division of DOFI reports back to the extension division (National Fisheries Extension Centre, NAFEC) of MOFI on a quarterly basis, providing data on their communication activities. In the last 12 months DOFI has supported communities through the communication/dissemination of;
- 400 technical documents
- 70 TV episodes, primarily on new species, workshops, disease management, resource protection, food safety, success stories and marketing.
- 14 radio episodes on VOV
- 63 episodes on local (provincial, district and commune) radio
- 27 published articles, including the NAFEC Bulletin, Nam Dinh Newspaper and other magazines

The central government is in the process of developing a comprehensive government Information Technology (IT) system, which will eventually link all levels of government through intranet. DOFI currently has its own website, which is mainly used for administrative purposes rather than to support people at the commune level.

MONRE has funded intranet communication within and between DONRE and the central government. Although this instant communication technology exists, a clear preference is held for more formal communications, where written correspondence must be approved and signed with a government seal. Intranet and telecommunication technologies are generally used to speed up the process once formal contact has been achieved. Internally DONRE communicates predominately via email, with department managers reporting to the Director on a daily basis. In the future, effectiveness and efficiency of communications within and between DONRE and other line agencies will be based on recruiting qualified people and supporting them with appropriate infrastructure.

5.   INFORMATION EXCHANGE BETWEEN OTHER STAKEHOLDERS

The following section is based on a series of interviews held throughout December 2006 with a number of stakeholders involved in and around the management and conservation of mangrove environments in Viet Nam.

5.1   Vietnamese NGO's

The Centre for Marinelife Conservation and Community Development (MCD) is focused on improving the quality of coastal life though coherent and focused activities on poverty reduction programs, conflict prevention, addressing natural disasters and improving ecosystem biodiversity. MCD recognises the importance of good communications and puts significant effort into developing an annual communications strategy as well as directed strategies for specific projects.

- *Media type used*

MCD uses a range of media types in communicating its message to various stakeholder groups. MCD has developed a professional communications center that is responsible for all awareness raising activities. MCD focuses on personal contact, particularly at the management level (provincial, district and commune), to discuss its ideas and activities.

To contact wider stakeholder groups, MCD has developed a number of brochures, leaflets, bulletins and newsletters which are distributed to keep people informed of their various project activities. In addition, MCD is developing a website to further promote their activities in Viet Nam.

When working with local people, MCD focuses on the use of workshops and commune radio, TV and newspapers to share knowledge and information.

- *Awareness raising*

MCD's experience has found direct communication and workshops to be the best form of communication with local people as their immediate reflection can be observed and addressed. On average MCD would host approximately 8-9 workshops per year and a conscious effort is made to include a large proportion of grassroots people and not just local officials. The general size of workshops is maintained at around 25-30 people.

Although MCD has made good use of the local radio system in communicating project activities, MCD believes this media type has been largely ineffective. MCD recognises that most people are driven by economic forces, and as such, explaining the economic advantages that can be gained from conservation driven activities over the radio can be difficult to achieve, particularly when the radio program only runs for 15 minutes, 2 times per week.

In the future, MCD also plans to use traditional dance/music, Participatory Rural Appraisal (PRA) and training as methods of communicating and awareness raising.

- *Accessibility of information to local people and other stakeholders*

Radio provides local people with a cheap and easy way to access information, and although has its problems, MCD plans to continue using radio for communicating with local level people and the wider public. MCD is currently in the process of developing a radio program with VOV and an external donor.

Local people are interested in television programs and most people have good access to this media type. The downside of television is that is very expensive to produce, with each 10 minute program, broadcast twice per week costing around 20 million VND.

MCD would like to make better use of the Internet in communicating with local people, however its application remains limited to a small number of people with access to computers. For this reason, effort will remain in the use of posters, leaflets and radio as the main extension tools.

- *Communication within and across line agencies*

Direct meetings with government departments, particularly the central level, are often ineffective due to officials being absent or too busy to make an appointment. This causes serious problems for local level people who are trying to access information as it requires constant follow-up to make contact with officials.

The level of communication is generally based on the strength of relationship that MCD has with a particular stakeholder. For example, key stakeholders are contacted regularly via telephone or email while broader groups are contacted through media-releases every 3-4 months or workshops, sometimes co-hosted by local authorities.

5.2   Education and Research

- *Message*

The Mangrove Ecosystem Research Division (MERD) and Centre for Environmental Research and Education (CERE) both work closely with the Viet Nam National University (VNU) focusing on mangrove protection and development in Viet Nam. They have been involved in a number of research projects on mangrove ecosystems, natural resource access, sustainable use and management of mangroves, livelihoods and vulnerability of local communities, markets, institutional frameworks, policies and other related socio-economic issues.

As local NGO's, both organisations are funded by involvement and/or development of specific projects. Currently both NGO's are involved in the EU Mangroves project, a Dutch Integrated Costal Zone Management (ICZM) project and a number of projects assisting the Japanese in improving their management of mangrove environments.

- *Media type used*

Both MERD and CERE are small local NGO's with a limited resource base, therefore information technology and communication infrastructure is limited.

Communication on specific projects is determined by the resources and strategies outlined by the funding body. In general terms the main method of communication during specific projects is through development and distribution of leaflets and other printed media. Both organisations agree that communications should start with printed material, to provide background information and reference material, and then move towards more interactive types of communication such as competitions, radio and workshops.

CERE adopts two main approaches towards printed communications, the first targeting formal stakeholders (schools, local government and mass organisations) and the second targeting informal stakeholders (direct contact with people and farmers/fishers):

- Under the formal system, CERE develops a soft (general information) and hard (text books) information for officials/teachers to use in the development of policy/curriculum. They also provide training workshops to improve the officials/teachers knowledge of issues surrounding mangrove ecosystems.

- The informal system of communication targets local people with direct interventions. For example the development of better practice guidelines or demonstrations sites.

- *Awareness raising*

Meetings and workshops are used to communicate with a variety of stakeholders, for example local training workshops or presenting data at international conferences.

MERD provides information for 8 different provinces to be broadcast over the public address system.

Both local NGO's have used public events and competitions for communication. Public events are very effective at reaching large numbers of people, with up to 1,000 people attending events. It is important that local officials and people are included on the organising committee to ensure success of the event. Contests have been targeted at schools and mass organisations, starting at the commune level and then expanding finalists to a district and provincial level. Competitions have been based around development of songs, poems and paintings on a particular topic such as mangrove protection. It is common to provide small gifts to encourage participation. The down side of public event is that people often have to travel and stay overnight as the venue might be a long distance from their home. Interactive types of communication are the most effective in terms of impact, however the key to their success is the involvement and cooperation of local authorities.

MERD has developed the Mangrove Ecosystem Research Station in Xuan Thuy NP, which is used for research and education. Students visit the station on a monthly basis

for field work. The station is also used by schools, clubs, disadvantaged children, fishers/farmers, teachers, officials etc. The station can house around 50 people at a time and has an extensive collection of biological samples from the National Park.

- *Accessibility of information to local people and other stakeholders*

Communications must be adapted to meet the constraints faced by people from different regions of Viet Nam. People living in the coastal North of Viet Nam live in Hamlets (small communities) and therefore have greater access to information technology and communications. Generally speaking the education level of people, particularly literacy, is much higher.

People living in Southern coastal Viet Nam live separately within the mangrove system and therefore are less exposed to information and education. Communication strategies used in Southern regions should take into account the higher level of illiteracy and should incorporate simpler messages with more pictures and demonstrations.

- *Communication within and across line agencies*

As the political and social system in Viet Nam is very top-down CERE and MERD focus on strengthening the capacity of leaders and officials. In improving the capacity of officials, more relevant and effective legislative outcomes, aimed at protecting the environment, can be achieved. Communication with line agencies is a formal process where official letters must be used. However, this formal system can be supported by less formal approaches such as telephone and email.

5.3   International NGO's and Projects

- *Message*

BirdLife International, working across Indochina, seeks to promote the conservation of habitats, sites and species by working with government and non-government partners to:

- Provide support for improved planning and management of important habitats, sites and species
- Introduce and advocate new ideas for integrating biodiversity conservation into planning and policy
- Stimulate greater public interest in birds and biodiversity, and awareness of the need for biodiversity conservation
- Develop capacity for improved management of habitat, sites and species
- Provide information on biodiversity and protected areas to planners, policy makers and other interest groups

The World Wide Fund for Nature (WWF) has an international (WWF Greater Mekong) and local (WWF Viet Nam) development office in Viet Nam. Both programs focus on different areas of development and employ different communication strategies. The Greater Mekong program has developed a new initiative called the Wetlands Alliance, which will become WWF's main program working in aquatic resource and ecosystem development.

The Wetlands Alliance
Four development partners joined forces in April 2006 to works towards a common approach in building the skills needed to ensure wetland ecosystems and aquatic resources are used in a more sustainable way for the benefit of the poor, whose livelihoods and food security depend upon them. The four partners are:

- Living Mekong Program of the WWF
- The Asian Institute of Technology (AIT)
- The WorldFish Centre
- Coastal Resources Institute (CORIN) of the Prince of Songkla University

The alliance, supported by the Swedish International Development Cooperation Agency (SIDA), aims to help local government, NGOs, community networks and associations make and maintain changes that will improve the livelihoods and food security of the region's rural and peri-urban poor through sustainable management of wetlands and aquatic resources. The program will largely work across the greater Mekong region, including Cambodia, Laos, Thailand and Viet Nam

- *Media type used*

BirdLife is not a strong organisation in communications due to insufficient resources, however the following media types are being used:

Xuan Thuy: Communication activities are undertaken using printed media, such as leaflets, posters and other publications. The mass media is engaged by organising fieldtrips to educate reporters and encourage them to write more accurate articles. Local radio has also been used in coordination with MCD.

Thai Binh: The main method of communications has been through the use of leaflets and organising workshops for information sharing.

BirdLife has found the most effective communications media to be radio and meetings. In terms of getting a message across television is the preferred method,

however, due to the high cost of a unit and infrastructure required - television has limitations in some isolated regions.

WWF currently has no specific mangrove focused projects/activities in Viet Nam. However, generally speaking WWF has a number of awareness raising activities that cover wetland and ecosystem based issues. One of the main approaches is through a school education program, working with the department of education to develop curriculum based around conservation. Included in this program, is the development of school based clubs that focus on conservation issues and hosting competitions and events that promote awareness raising. WWF has signed an agreement with VTV to produce a monthly program, which is broadcast nationally. Usually specialists/experts are invited to discuss specific topics with the aim of increasing the knowledge and awareness of the general public on critical issues. Radio is also used by WWF in awareness raising, particularly in remote areas where television access is limited.

- *Awareness raising*

In Viet Nam, apart from an office in Hanoi, BirdLife has two project offices:

- Daklak project: Integrated Wetland Management & Bio-diversity 2005 - 2010
- Quảng Trị project: Improvement of Conservation of Important Bird Species in Indochina

As well as these projects, BirdLife is also running two key programs in Viet Nam focusing on habitat protection:

- Essential Bird Areas (EBA), focusing on both birds and animals
- Important Bird Areas (IBA), sanctuaries for important bird species

These two programs commenced in 2000, with the first phase focusing on identifying bird "hotspots". From 2001 up until now, BirdLife has implemented focused research projects to gain international recognition for the sites selected. Under these 2 programs, four main sites have been identified; Xuân Thủy, Tiền Hải, Dakrong and Hướng Hóa. Both programs provide approaches to support project work on mangrove forests, especially IBA sites, through the development of support groups in each region.

WWF's experience indicates that the most effective method of awareness raising is through personal contact with local people. Pamphlets and posters have a role, however they can only reach so far in explaining the complex nature of some issues and the role that people can play in developing more sustainable livelihood strategies. Working with local people to increase their knowledge and then supporting them to develop conservation groups/clubs has become a very effective method for promoting improved management of wetland ecosystems. WWF hosts a number of large awareness raising/fund raising events, recently with a masquerade ball in Hanoi. WWF and the Wetland Alliance both have websites which are intended to be used as awareness raising tools, however their effectiveness locally is limited as both are hosted in English. A quarterly news letter is produced and circulated to selected stakeholders. In supporting news letter circulation, electronic copies are sent to

individuals/organisations that request the information and/or are signed up to specific email forums and chat groups such as the NGO Resource Centre.

- *Accessibility of information to local people and other stakeholders*

Generally NP staff are not trained in how to communication with various stakeholder groups, and therefore their effectiveness as conservation advocates is limited. In terms of communicating with local people, it is important to communicate with individuals in a one-on-one environment.

WWF has four field offices in Viet Nam, all of which have intranet capabilities. A key part of improving resource management and conservation capacity is through the establishment of a system of national Marine Protected Areas (MPA).

- *Communication within and across line agencies*

With respect to wetlands, officials are the most important partners to discuss issues with because they have the power to make decisions regarding the use of local resources. To communicate with officials, it is best to arrange study tours, particularly when officials are introduced to new regions.

Communication with and between other NGO's working in wetland conservation is generally poor with no regular communication channels maintained. BirdLife has undertaken many project activities in mangrove regions of Viet Nam, however outputs from these projects are generally overlooked when other NGO's commence working in the same region.

Communication with government plays an important role in all activities, with each project requiring a government partner. WWF works consistently with MONRE, MARD and MOFI on specific projects. Communications with government departments must follow formal protocols initially, after which time more informal pathways can be used. The formal system requires official letters and meetings to commence correspondence which can then be followed up with more informal communications such as telephone and email.

6. FINDINGS AND RECOMMENDATIONS

6.1 Findings

The total area of mangrove forests in Viet Nam has been significantly reduced due to decades of human activity, from 400 thousand ha in the mid 1900's to around 150 thousand ha at present. With recent improvements in political stability and a focused movement forward that recognises conservation values, Viet Nam has started to work toward turning this trend around. Various educational and legislative mechanisms have been implemented, aimed at raising awareness and protecting these valuable environments.

Communication effectiveness varies greatly with and between rural communities, depending upon factors such as proximity in relation to major centres and strategic routes. Communes that are closer to major cities and/or are situated near major communications infrastructure are likely to experience improved communication access. Productivity of the region, generally primary production, will also have a large role to play in the ability of local people to access information through a variety of media sources. Before working with local mangrove communities, it is important to assess these communication strengths and weaknesses in order to ensure the approaches taken are likely to be successful.

6.1.1. Communications Media in Mangroves

Radio and television appear to be the most accessible media types for people living in mangrove environments. Radio and television are available to communities through national and local broadcasting services. With television ownership estimated at 85-90% and100% of people able access a television, it is regarded by local people as their preferred media for receiving information. However, the cost of using television as a communication media is very high and must be evaluated accordingly when investigating communication strategies.

Although telecommunications across Viet Nam are reasonably developed, particularly in the major centres, it is estimated that less than 10% of people living in mangrove areas are able to access these services for information exchange. The situation improves dramatically at a provincial level, where telecommunication services are readily available and widely used. Taking this into account, telecommunications is best served for communicating with provincial level officers and departments that can then disseminate the information to a district and commune level. Currently the situation is slightly worse for internet type communications, where accessibility is restricted almost entirely to the provincial level and above. This is likely to change in the next few years, with the price of infrastructure and hardware continuing to fall and the .com generation embracing the World Wide Web. Although close to 1/4 of Viet Nam's population has access the internet, it will remain difficult for individuals that reside in isolated rural communities to access this media type.

The effectiveness of printed media is highly variable, with many communication activities being poorly researched and therefore having minimal impact on the target audience. Understanding the level of detail that local people will understand, using appropriate illustrations and examples, the method of dissemination and even timing

all play a significant role in the effectiveness of printed media types. The most common issue with printed media is that local people are not able to find answers to questions that they might have and as a result the information is either misinterpreted or disregarded. Using printed media is most effective when combined with other communication strategies, particularly as a source of information to refer back to as knowledge is improved.

The public address system is a useful tool for disseminating information to a large audience instantaneously. However, the quality of audio output is often poor and as a result the information may not be absorbed. The use of public events, such as festivals and competitions, on the other hand are interactive and highly regarded among local people. Public events are useful for disseminating information to target groups, such as school children, or the broader community. Likewise personal communications and information centres are very effective methods of sharing information with large groups of people. The advantage of these media types is that the information can be discussed and questioned, resulting in a common understanding of the people attending.

6.1.2.   Access to Information for People Living in Mangrove Environments

Respondents of this study conveyed a clear message that workshops and training courses are the preferred method for gaining information, particularly when communicating with NGO's and specific project groups. In terms of communicating with government, meetings were the most common method for receiving and sharing information. The downside is that workshops/training courses require time to attend and they are often crowded. This means that when planning activities, the organisers must be aware of being flexible and coordinating the workshop/training course around the abilities and constraints of local people.

Respondents of this study identified a number of key issues that required improved knowledge and access of information. Theses issues included; improved knowledge in developing alternative livelihood strategies; information on how to protect the environment and improve public health and improved knowledge on how to protect and support the regeneration of mangrove forests. A number of smaller issues identified included improving awareness of protecting wild fish stocks and wild birds and improving local people's knowledge of legislative changes that may impact on their livelihoods.

From the information gathered through this study, the following table has been developed as guide on the costs, benefits and disadvantages of varios communication media types.

Table 7: Cost benefit analysis of communication techniques aimed at people living in mangrove environments of Viet Nam

Media	Cost	Strength	Weakness
Radio	Moderate cost, VND 2 million (USD 125) per 30 minute program	High access, up to 97% nationally. Information can be broadcast in local/ethnic language. Access in remote areas	People prefer more interactive forms of media such as TV
Television and Video	High cost for programming, VND 10 million (USD 625) per 10-30 minute program	Large audience and is the preferred media by the target group	Reception in some areas is poor, particularly for national programming. High costs for extended communication activities
Telecommunications	Moderate cost, landline and mobile telephones cost between VND 1-5 million (USD 63-313), telephone calls can be expensive if used frequently	Real time access to information, questions can be answered	Telecommunication access across rural areas can be limited, high cost of maintaining regular communication
Internet	Low cost, websites hosting and adding information is relatively inexpensive, VND 640 thousand (USD 40)	Potential audience is very large, easy to provide up to date information	Internet access and computer availability is low, especially in remote areas, requires commitment to keep information updated, need IT specialists and wide promotion
Printed Media	**Brochure, Pamphlet, Poster:** Low cost, single pages can cost from VND 200 - 1,000 (USD 0.01-0.63). One off artists/editors might cost VND 1.6 million (USD 100) **Newspaper:** Moderate to high cost, VND 4-12 million (USD 250-750) depending on half or full page articles and colour content	People can retain information and refer to it later if necessary Far reaching in terms of number of people (up to 40,000 readers) and geographic spread (entire province), including some remote areas	Difficult to control content and understanding of information provided. Literacy rate in remote areas my not be high, materials should be pre-tested which can add to costs
Public Address Systems	Low cost, the commune may ask for a small contribution for broadcasting information. If the system is not well maintained, users may be asked to contribute to general maintenance and upgrading	Regular broadcasting to a wide audience, low cost communications	Audio quality is often poor and messages may be misunderstood, clarification can not be gained through questioning. Public address systems are often poorly maintained and may not be functioning
Public Events and Competitions	**Performance:** High cost, logistical arrangements require significant time and effort. Performances of 90 minutes can cost between VND 32 million -1.28 billion (USD 2-8 thousand) depending on whether professional or	Large audience, culturally sensitive and can reach remote communities	Difficult to control content, Department of Culture and Information must be consulted, costs can be high

	local artists are used. **Competition:** Low cost, a competition involving 200 people might cost around VND 1 million (USD 63)		
Workshops, Training and Personal Communication	**Workshop:** Moderate to high cost, 1 day workshop can cost over VND 16 million (USD 1 thousand) **Training:** Moderate cost, one day field trips cost around VND 2 million (USD125) for 40 people	Local people prefer practical instructions. Gender bias can be managed through inviting males and females	Can be costly and time consuming to organise. Foreigners need permission to travel and work in rural provinces
Information Centre	High cost required for initial set up. However, use of existing structures can significantly minimise such expenditure. Costly to maintain with up to date information	General source of information where questions can be answered	Time consuming and requires promotion to be effective

Some further resources that may assist stakeholders working in the development sector include:

- The VUFO NGO Resource Centre provides a list of all INGO's registered in Viet Nam (www.ngocentre.org.vn/).

- The UNDP Development Assistance Database (DAD) Viet Nam provides a list of all INGO's and projects, past and present, operating in Viet Nam (http://dad.mpi.gov.vn/dad/).

6.2 Recommendations

Thoroughly research the communication infrastructure available to local people. Generally speaking, local people prefer to be engaged through interactive processes rather than have information simply delivered. The use of workshops and training courses appear to be highly regarded by local people, if the information is delivered at the right level and is relevant to their needs.

Innovative methods such as public competitions and festivals are also well received and enable access to target groups or a wider audience. Tools that have been successfully used include drawing competitions, poetry competitions, public theatre and musicals. These methods align well with normal social activities and can be linked to the wider/global community through coordinating events with social/international calendars, such as world environment day.

The government extension system is a resource and tool that should be strengthened sufficiently to support livelihoods development at a local level. Currently the system appears under funded and highly variable in effectiveness. The capacity of local extension services must be assessed before relying upon it in a communications strategy. In theory, the system should be a key source of information and support to local people, however in reality the lack of funding and support from provincial and central government has impeded its success.

6.2.1. Specific Recommendations for Communications

Communication strategies should be developed, monitored and reviewed throughout the life of a project. The following recommendations are made with direct reference to the EU funded Mangroves Project and should not be referred to as a general activity guide for other projects.

Local People: There is a clear preference for TV, workshops and public events over all other media types. In terms of TV, it is important to have simple messages explained in a reasonable amount of detail. The use of examples, such as case studies from local people is highly regarded. However, as TV can require heavy investment, its application as a communications medium in a project with limited funding will not be justifiable. Workshops and public events on the other hand appear to be a cost effective approach. Public address systems and information centres may also provide cost effective methods for communication of project activities and outputs.

Central Government: Communication with central government requires formal contact to be made, which can be time consuming. There is poor communication between central line agencies which results in confusion and inefficiencies across project activities. Communication should focus on face to face meetings with specific departments. The central government focuses on training of provincial officers/officials to disseminate/communicate information and relay feedback from local people. Television and radio are also used to communicate messages directly to local people. Therefore working with central government agencies to improve the quality and of training to provincial officers/officials and the content of information broadcast to local people should be a priority.

Local Government: Often regarded by local people as too busy to remain involved with addressing grass roots issues. Dissemination of information is primarily through extension (trainings and workshops), although public address systems and radio are also used. Some local government agencies have used competitions and public events with good results. Communication should be based on inviting local officers/officials to meetings and workshops so that they remain informed and pro-active. All data collection and dissemination should be discussed with local authorities prior to the event taking place.

Other Stakeholders: External stakeholders should be involved in project activities through attendance at workshops and other meetings/events. The majority of external stakeholders have internet facilities and can be kept up to date through electronic bulletins, newsletters and emails. The development of a communication network that receives regular updates would ensure wide and timely distribution of project activities and outputs. Regular website updates will assist in keeping external groups informed of project activities and outputs. Printed communications may be necessary for stakeholders that do not have intranet based infrastructure.

Project partners: The use of intranet technologies will provide the greatest efficiencies. Email based discussions, bulletins, newsletters and general correspondence should be the main form of communication. Regular updating of the website with project activities and development will assist in keeping all partners informed. Periodic in-country meetings will also aid in keeping activities running efficiently and provide an opportunity for monitoring and evaluation of progress and outputs.

Table 8: Recommended communication activities for the EU Mangroves Project

Group	Key Communication Strategies	Monitoring	Evaluation
Local People	Hosting of workshops and group meetings at project sites	Number of meetings held, attendance, occupation (livelihood strategy), gender, age	Orientation workshop held before the start of each phase for orientation. Project workshops reviewed through evaluation surveys
	Data collection should be a two way exchange, with researchers sharing information throughout the entire project	Increasing local knowledge of project activities, questions asked by local people, significant change stories	Collection of 5 significant change stories throughout each phase of the project
	Exhibitions in district/commune meeting rooms or other common public buildings, information packs available	Log book of visitors, information taken, questions asked, follow up activities	Minimum of 2 weeks per project site during start up phase
	Public address system for project updates	Number and frequency of public announcements, survey information received	Documentation of information broadcasts. Public announcements made prior to the collection of data and at the end of each phase for information dissemination
	Public event, competition on identifying drawing conflicts through art	Engaging schools, local groups to participate, number of competition entries, use of entries in public display/exhibition	At least one public event (competition) held with local people. Artwork used for awareness raising and identifying methods for mitigating conflicts
Central Government	Follow formal contact procedures	Number of formal letters sent and received	Initial contact has been made with relevant agencies
	Face to face meetings	Number of meetings held and correspondence following from meetings	Project partners meet with key government agencies during each phase to explain project activities. Frequency of contact made between central and local government regarding mangrove project activities
Local Government	Workshops and meetings	Attendance at project workshops	Local officers/officials from key departments attend all workshops and meetings
	Activity planning	Consult local officials/officers during planning of field based activities	Officers/officials endorse all project activities at a local level
Other Stakeholders	Communications network	Develop a database of key contacts and details. Circulation of bulletins/newsletters	Communications are maintained with key stakeholder throughout each project phase. Over 4 communication

			activities for each phase of the project.
	Website	Website is advertised to key stakeholders. Number of website hits. Number of informational updates	Website is updated at least every 2 weeks
	Workshops and meetings Printed media	Stakeholder attendance at workshops. Number of pamphlets distributed	Minimum of 2 key stakeholders at each workshop
Project Partners	Internet	Email correspondence includes all project partners	Lead agencies for each phase coordinate communications effectively
	In-country meetings	Number of meetings held	At a minimum, all project partners meet in-country during the start up, mid term and end of each phase
	Website	Number of website updates provided by each project partner	Lead agencies for each phase update website information within 2 weeks of being publicly available

7.   REFERENCES

BBC News, 2006. Country Profile - Viet Nam. http://news.bbc.co.uk/1/hi/world/asia-pacific/country_profiles/1243338.stm

CIA World Factbok, 2006. https://www.cia.gov/cia/publications/factbook/geos/vm.html

Development Assistance Database (DAD) Viet Nam. http://dad.mpi.gov.vn/dad/

FAO, 2003. Status and trends in mangrove area extent worldwide. Wilkie, M.L. and Fortuna, S. Forest Resources Assessment Working Paper No. 63. Forest Resources Division. FAO, Rome. (Unpublished) http://www.fao.org/docrep/007/j1533e/J1533E00.HTM

Granich, S. Kelly, M. and Ninh, N.H. 1993. Global Warming and Viet Nam, a briefing document. University of East Anglia, Norwich, United Kingdom, International Institute for Environment and Development, London, United Kingdom, Center for Environment Research Education and Development, Hanoi, Vietnam. Sponsored by Stockholm Environment Institute and Swedish International Development Authority. http://www.tiempocyberclimate.org/portal/archive/vietnam/impact8.htm

Ministry of Foreign Affairs. http://www.mofa.gov.vn

NGO Resource Centre. http://www.ngocentre.org.vn/

STREAM Website. http://www.streaminitiative.org/

Thanh, T.D. 2006. Major issues of coastal environment in Viet Nam and orientation for protection. The Role of Coral Reef and Mangrove Ecosystems in Natural Disaster Mitigation and Coastal Life Improvement. Edited by Phan Nguyen Hong. Agricultural Publishing House, Hanoi, 2006. pp. 65-78.

UNEP, 2006. World Database on Protected Areas. http://www.unep-wcmc.org/wdpa/sitedetails.cfm?siteid=166887&level=int

VEPA, 2006. Overview of mangroves in Viet Nam, Summary

Wikipedia, 2006(a). Category: National Parks of Viet Nam. http://en.wikipedia.org/wiki/Category:National_parks_of_Vietnam

Wikipedia, 2006(b). Communications in Viet Nam. http://en.wikipedia.org/wiki/Communications_in_Vietnam

8. APPENDICES

Appendix 1: IAS Workshop - list of participants, Xuan Thuy NP, 21 December 2006

No	Name	Sex	Position	Address
1	Pham Thai Cuong	Male	Border Defence Officer	Barrack No. 84
2	Dinh Manh Hung	Male	Researcher	MERC Xuan Thuy
3	Ong Ngoc Chinh	Male	Teacher	Giao Xuan Secondary School
4	Phan Nam Ha	Male	Head of Cultural Panel	Giao Lac Commune
5	Tran Xuan Truong	Male	Chief Secretary	Giao Lac Youth Union
6	Doan Trung Can	Male	Officer	Giao An Fatherland Front
7	Vu The Hien	Male	Farmer	Giao Thien Commune
8	Ngo Duc Dung	Male	Chief Secretary	Giao Thien Youth Union
9	Nguyen Thi Hue	Female	Chair	Giao Lac Women's Union
10	Ngo Thi Binh	Female	Head of Cultural Panel	Giao Thien Commune
11	Pham Thi Thin	Female	Teacher	Giao Thien Secondary School
12	Le Ngoc Vinh	Male	Officer	Giao Hai Fatherland Front
13	Dinh Thi Hang	Female	Chair	Giao Hai Women's Union
14	Tran Trung Cap	Male	Officer, Labour - Social Affairs Panel	Giao Hai Commune
15	Trinh Van Mui	Male	Officer of Resident Registration	Giao Hai Commune
16	Trinh Van Quynh	Male	Police Officer	Giao Hai Commune
17	Nguyen Van Tinh	Male	Teacher	Giao Hai Secondary School
18	Nguyen Gia Vi	Male	Vice Chair	Giao Hai Farmers' Association
19	Dinh Thi Phung	Female	Officer	Giao An Women's Union
20	Nguyen Van Thang	Male	Chair	Giao Lac Fatherland Front
21	Phung Thi Hao	Female	Chair	Giao Thien Women's Union
22	Tran Thanh Minh	Male	Teacher	Giao Thien Secondary School
23	Do van Nguyen	Male	Secretary	Giao Xuan Youth Union
24	Phung Thi Thin	Female	Chair	Giao Xuan Women's Union
25	Pham Van Thuc	Male	Fisher	Giao Xuan Commune
26	Tran Van Minh	Male	Chief Secretary	Giao Xuan Communist Party
27	Nguyen Hong Ha	Male	Officer	Giao Xuan Fatherland Front
28	Tran Van Thao	Male	Vice Chair	Giao Xuan People's Committee
29	Pham Minh Duc	Male	Officer, Cultural Panel	Giao Xuan Commune
30	Nguyen Manh Xuan	Male	Farmer	Giao Xuan Commune
31	Tran Quang Vong	Male	Vice Chair	Giao An People's Committee
32	Tran Xuan Truong	Male	Chief Secretary	Giao An Youth Union
33	Pham Ngoc Hung	Male	Officer, Cultural Panel	Giao An Commune
34	Tran Thi Diep	Female	Secretary	Giao An Youth Union
35	Vu Dan	Male	Officer	National Park Forestry Station
36	Dang Van Dai	Male	Fisher	Giao Lac Commune
37	Vu Duc Giap	Male	Secretary	Giao Lac Youth Union
38	Pham Cong Luong	Male	Farmer	Giao lac Commune
39	Bui Van Nam	Male	Reporter	Giao Thuy TV & Radio Station
40	Nguyen Thanh Tru	Male	Vice Director	Giao Thuy TV & Radio Station
41	Do Van Tu	Male	Farmer	Giao Thien Commune
42	Tran Duc Can	Male	Vice Chair	Giao Thien People's Committee
43	Nguyen Viet Cach	Male	Director	Xuan Thuy National Park
44	Nguyen Phuc Hoi	Male	Staff	Xuan Thuy National Park
45	Pham Vu Anh	Male	Staff	Xuan Thuy National Park
46	Hoang Van Hoc	Male	Staff	Xuan Thuy National Park
47	Tran Thi Hong Hanh	Female	Staff	Xuan Thuy National Park

48	Phan Van Truong	Male	Staff	Xuan Thuy National Park
49	Le Tien Dung	Male	Staff	Xuan Thuy National Park
50	Bui Duc Nam	Male	Staff	Xuan Thuy National Park
51	Than Thi Hien	Female	Project Manager	MCD (Workshop Facilitator)
52	Nguyen Phuong Linh	Female	Project Assistant	MCD (Workshop Facilitator)
53	Edward Smith	Male	Project Officer	STREAM (Workshop Facilitator)
54	Nguyen Song Ha	Male	Country Hub Manager	STREAM (Workshop Facilitator)

Appendix 2: IAS Workshop Presentation, Mr Nguyen Viet Cach (Xuan Thuy National Park Director), 21 December 2006

I. Brief history of Xuan Thuy National Park

Xuan Thuy National Park (NP) covers 7,100 ha of core zone. Its buffer zone area is 7,300 ha. The NP has some 3,000 ha of mangroves.

The NP has great potential for economic development, especially in terms of aquatic resources, scientific research and eco-tourism. It possesses a large number of sacred wild animals in a bio-diverse fauna and flora.

In January 1989, UNESCO declared the NP as a RAMSAR site (according to the Convention on conservation of wetlands of international importance, especially habitats of birds, *Ramsar, Iran, 1971*),

In 1995, the Government established the Nature Reserve of Xuan Thuy wetland.

In 2003, the Government issued a decision, upgrading the Nature Reserve of Xuan Thuy wetland to Xuan Thuy NP.

The NP is evaluated by BirdLife Vietnam as the best bird-protection region, at the same time an Important Bird Area (IBA) of Vietnam.

II. Status of conservation and management of Xuan Thuy NP

In the buffer zone of the NP there are five communes with a total population of 46,000. 50% of these are Catholic.

Most of the local communities' livelihoods activities depend on the resources of the NP.

The pressure from human activities imposed on the NP is extremely high. During the peak season of brood clam/crab collection, thousands gather everyday at the NP.

The NP Management consists of 12 staff. The Management Board is not vested in the executive or judiciary competence, so the conservation of the NP is facing complicated challenges. In order to achieve success in nature conservation of the NP, it is necessary to bring into play community support and coordination of actions among relevant stakeholders. As a result, community people must be equipped with basic knowledge of environmental and resource conservation. The educational and communications work must be brought in the centre of this effort for effective management of environment.

III. Educational and communications activities around the NP

1. Target groups of environmental education: Local communities, visitors, state decision-makers at different levels, different groups of people (e.g. farmers, women, youth and school children) and members of delegations visiting the place. Fishers and

other aquatic resource users, including Aquaculturist's and clam farmers should be given due attention..

2. Message: Introduction of bio-diverse values of the NP, benefits and responsibilities of communities in conservation of environment and resources around the NP.

3. Communications and educational methods:

a. Regular activities of the NP:

With financial support from the State Budget, the NP holds quarterly meetings with buffer zone communes' leaders to review and draw lessons in conservation and management of the NP, and set out directions for follow-up actions in the next quarter.

Signs and posters, with environmental education messages, are developed as a visual means to raise awareness for buffer zone people.

Development of agreement for joint activities with state agencies and relevant institutions towards conservation of nature and environment (such agreement has recently been approved by the Provincial People's Committee in August 2006).

b. Educational and communications activities with external agencies' assistance

1998-2000: Dutch Embassy and GEF supported an environmental fund scheme executed by Women's Union and Farmers' Association, which is now in good progress.

2001-2006: RNCF & DS (US) supported a project setting up a club for the Important Bird Area of Con Lu.

2003: British Embassy financed a project for by-curriculum environmental education at primary and lower-secondary school

2004-2006: MCD and the NP organized "beach clean-up" events.

In collaboration with universities, the NP holds communications campaigns on the annual occasion of World Environment Day to raise communities' awareness of conservation work.

IV. Conclusions and recommendations

Educational and communications activities around the NP of Xuan Thuy heavily depend on project support and there is a lack of a long-term and concerted plan. The NP does not have a particular budget line for educational and communications activities. The staff involved in such activities are neither experienced nor qualified. It is required to cooperate with partners to develop a strategic plan for environmental education and communication around the NP, and to mobilise multiple resources for implementation of such plan.