

INFORMATION ACCESS SURVEY
VIETNAM
DECEMBER 2003

Malene Felsing and Nguyen Song Ha

This work was commissioned by the STREAM Regional Office, Network of Aquaculture Centres in Asia-Pacific (NACA), Bangkok, Thailand.

Reference: Felsing M and Nguyen, S H (2003) *Information Access Survey: Vietnam*. Published by STREAM/NACA. 46 pp.

ISBN 974-91887-6-4

CONTENTS

Boxes and Table	iii
Acknowledgements	iv
Acronyms	vi
Executive Summary	vii
1. Introduction	1
1.1 Overview of Vietnamese Society in relation to communication	1
1.1.1 Politics and State	1
1.1.2 Education and Literacy	2
1.1.3 Religion	2
1.1.4 Ethnic Groups and Languages	2
1.1.5 Customs	3
2. Communications Media	4
2.1 Radio	4
2.1.1 Public Address Systems	4
2.1.2 Use of Radio in Extension	5
2.2 Television	6
2.2.1 Use of Television in Extension	7
2.3 Telecommunications	7
2.4 Printed Media	7
2.4.1 Use of Printed Media in Extension	8
2.5 Performing Arts and Mobile Cinema	9
2.5.1 Use of Performing Arts in Extension	9
2.6 Literature	10
2.7 Personal Communication	10
3. Information Exchange within the Fisheries Sector	11
3.1 State Fisheries Sector	11
3.1.1 Within the State Sector	11
3.1.2 Between the State Sector and Other Stakeholders	11
3.1.3 Fisheries and Aquaculture Extension by the State Sector	12
3.2 Vietnamese NGOs and Mass Organizations	14
3.2.1 Vietnamese NGOs	14
3.2.2 Vietnamese Mass Organizations	14
3.2.3 Within and Between Mass Organizations and NGOs	15
3.2.4 With Other Stakeholders in the Fisheries Sector	15
3.2.5 Mass Organization Extension	15

3.3 Fisheries Education and Research	15
3.3.1 Fisheries Vocational Schools	15
3.3.2 Universities	16
3.3.3 State Research Institutes	16
3.3.4 Within the Research Sector	16
3.3.5 With Other Stakeholders in the Fisheries Sector	17
3.3.6 Extension Activities by the Research Sector	17
3.4 International Projects	17
3.4.1 Within and Between Projects	17
3.4.2 Between Research and Development Projects and Other Parts of the Fisheries Sector	17
3.4.3 Information Extension to Communities	19
4. Access to Information for Rural Communities	20
4.1 Major Sources of Information in Villages	20
4.1.1 Commune Leaders and Village Headmen	20
4.1.2 Training	20
4.1.3 Mass Organizations	20
4.1.4 Farmer-to-Farmer	21
4.1.5 Mass Media	21
4.1.6 Cultural and Legal Libraries (Bookcases)	21
4.2 Fisheries and Aquaculture Information Needs	21
4.3 Preferred Ways to Access Information	22
4.3.1 Training	22
4.3.2 TV	22
4.3.3 Radio	22
4.3.4 Performing Arts	22
4.3.5 Videotapes and CDs	22
4.3.6 Farmer-to-Farmer	23
4.4 Gender Issues	23
5. Findings and Recommendations	24
5.1 Findings	24
5.2 Recommendations	25
5.2.1 Communications among Projects, Institutions and Agencies	25
5.2.2 Communications with and among Aquatic Resources Users	26
References	27
Appendices	
1. Excerpts from the 1992 Constitution of the Socialist Republic of Vietnam	28
2. Vietnamese NGOs Working in Long An, Quang Tri and Thai Nguyen Provinces	29
3. International NGOs Working in Long An, Quang Tri and Thai Nguyen Provinces	30
4. Communications Media	35
5. Information Sources for Different Aquatic Resources Stakeholders	39
6. Fieldwork Results	40

BOXES AND TABLE

Box 1	Department of Culture and Information	4
Box 2	Radio Stations	5
Box 3	TV Stations	6
Box 4	Live Agriculture Forum on Provincial TV	7
Box 5	National Newspapers	8
Box 6	Department of Health HIV/AIDS Campaign	8
Box 7	Education through Arts	9
Box 8	The Comprehensive Poverty Reduction and Growth Strategy	12
Box 9	Sustainable Aquaculture for Poverty Alleviation (SAPA) Strategy	13
Box 10	Asian Institute of Technology Outreach Project	18
Box 11	Extensionists and Fish Farmers Contest	19
Table 1	Projects Involving International Agencies in the Fisheries Sector	18

ACKNOWLEDGEMENTS

The authors would like to thank the following individuals for participating in this study:

Chu Huu Trang, Information Specialist, SUMA, MOFI, DANIDA, Hanoi
Dang Ngoc, Vice Editor-in-Chief, The Great Unity Newspaper, Hanoi
Dang Quang Thuong, Chief of Fisheries Division, VOV, Hanoi
Duy Thanh, Journalist, The Great Unity Newspaper, Hanoi
Hoang Ham, Director of Department of Economy, Science and Technology, VOV Hanoi
Mai Huong, RIA No 1 Information Centre, Bac Ninh
Mai Van Tai, Project Assistant, UNDP Environmental Management in Coastal Aquaculture
Ngo Thu Thuy, Secretary, NORAD, Bac Ninh
Nguyen Thanh Tung, Program Coordinator, CARE Vietnam, Hanoi
Nguyen Thi Bach Mai, Faculty of Fisheries, University of Agriculture and Forestry, Ho Chi Minh City
Nguyen Thi Thu Hang, Information Specialist, NAFEC, Hanoi
Nguyen Van Anh, Program Manager, CARE Vietnam, Hanoi
Nguyen Viet Vinh, Fisheries Advisor, IMA, Hanoi
Pham Tuyet Nhung, Vice Director, Fisheries Informatics Centre, MOFI, Hanoi
Pham Van Trang, RIA No 1 Extension Unit, Bac Ninh
Tran Van Vy, Aquaculture Specialist, SUFA, DANIDA

Thai Nguyen Province

Chu Thi Binh, District Agriculture Office, Dinh Hoa District
Ha Thi Nhuan, Vice Chair, WU, Dinh Hoa District
Ha Thi Thuy, District Agriculture Office, Dinh Hoa District
Ma Cong Nep, Vice Chief, Sport and Culture Division, Dinh Hoa District Culture Office
Ngo Quoc Tu, Dinh Hoa District FA member
Ngo Thi Loi, Chair, WU, Dinh Hoa District
Nguyen Thanh Binh, Chief of Office of Cultural Professions
Nguyen Van Lung, Fisheries Officer, Provincial DOARD

Phuong Tien Commune, Dinh Hoa District

Loc Thi Kieu, Commune Culture and Information Officer
Luong Van Tuan, Vice Chairman, Commune People's Committee
Mai Ngoc Ty, Chairman, Commune Farmers' Association
Mong Thi Nham, Chairwoman, Women's Union

And the following community members:

Nguyen Thi Tam, Women's Union
Phung Van Hung, Agriculture Panel
Tran Thi Hoa, Vice Chairwoman, Women's Union
Tran Tien Lam, Staff, Commune People's Committee

Hoang Ngoc Chung	Hoang Van Ta	Luong Van Lay	Mong Van Chu
Hoang Van Canh	Hoang Van Tuyen	Luong Van Yeu	Mong Van Thi
Hoang Van Cuong	Leng Van Giao	Ma Van Giang	
Hoang Van Hon	Luong Van Hong	Ma Van Nam	

Quang Tri Province

Ho Thi Kim Cuc, Vice Chairwoman, Women's Union, Dakrong District
Ho Thi Mai, Women's Union Standing Committee, Dakrong District
Le Binh, Director, DOF
Nguyen Thanh Binh, Staff, DOF FEC
Nguyen Thanh Tung, Director DOF FEC
Nguyen The Hung, Farmers' Association, Huong Hoa District

Nguyen Thi Ha, Chairwoman, Women's Union, Dakrong District
Vo Si Hien, Chairman, Farmers' Association, Huong Hoa District

Tan Lap Commune, Huong Hoa District

Doan Quang Soa, Chairman, Tan Lap Commune People's Council
Nguyen Dang Dinh, Vice Chairman, Tan Lap Commune People's Committee
Nguyen Dinh Vinh, Officer, Commune Culture and Information Panel

And the following community members:

Tran Dinh Toan, Officer, Commune Agriculture Panel

Dang Ngoc Huy	Nguyen Hien	Nguyen Quang Mai	Nguyen Van Dong
Ho Van Duan	Nguyen Hien	Nguyen Sinh	Nguyen Van Dong
Hoang Duoc	Nguyen Huu Quan	Nguyen Thi Buu	Nguyen Van Long
Hoang Van Thi	Nguyen Lai	Nguyen Thiep	Nguyen Van Tien
Hoang Van Tuy	Nguyen Ngac	Nguyen Tuong	Nguyen Van Xu
Hoang Van Ve	Nguyen Quang Bau	Nguyen Tuyen	Nguyen Xiem
Nguyen Chuong	Nguyen Quang Cam	Nguyen Van An	

Long An Province

Hoang Khac Tuong, DOARD
Le Huu Tan, Agriculture Office, Thanh Hoa District
Le Mong Tuyen, Commune Women's Union, Thanh Hoa District
Le Van Khoe, Commune People's Committee, Thanh Hoa District
Lieu Trung Nguyen, DOARD
Tran Van Hoan, DOARD
Tran Van Trong, Agriculture and Land Administration Office, Thanh Hoa District
Truong Hoang, Thang, Agriculture Office, Thanh Hoa District

My Thanh Dong Commune, Duc Hue District

Doan Van Hanh, Vice Chair, Commune People's Committee
Doan Van Thai, Commune Official of HEPR
Ho Thi Huong, Chairwoman, Commune WU
Huynh Van Su, Commune Chief Policeman
Lai Thi Gai, Secretary Assistant, Commune Committee of Communist Party
Le Thanh Toan, Commune Cashier
Le Van Loi, Official, Commune People's Committee Office

And the following community members:

Nguyen Thi Nhieu, Vice Chair, Commune WU

Bien Trong Khanh	Le Van Tuan	Nguyen Van Ne	Pham Van Thuy
Bui Ca Ban	Luong Van Duc	Pham The Sang	Phan Van Thuan
Cao Van Ky	Nguyen Thi Bay	Pham Van Hiep	Tran Thanh Tung
Doan Van Nang	Nguyen Van Cu	Pham Van Hong	Tran Thi Ly
Ho Van Minh	Nguyen Van Mang	Pham Van Lot	Tran Van Tinh

Thuan Nghia Hoa Commune, Thanh Hoa District

Bui Van Huu	Nguyen Thanh Khoa	Nguyen Van Xiem	Tran Van On
Bui Van Thanh	Nguyen Thi Trich	Pham Thi Dao	Vo Van Ben
Dang Hai Trieu	Nguyen Trung Giang	Pham Thi Dot	Vo Van Bi
Diep Van Bon	Nguyen Van Chinh	Pham Van Kinh	Vo Van Quan
Le Dinh Cu	Nguyen Van Dang	Phang Van Dua	
Le Thi Mong Tuyen	Nguyen Van Gon	Tran Phi Long	
Le Van Mau	Nguyen Van My	Tran Van Chuan	

ACRONYMS

ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
AEC	Agriculture Extension Center
AIT	Asian Institute of Technology
BBC	British Broadcasting Corporation
CLRRI	Cuu Long Rice Research Institute
CPRGS	Comprehensive Poverty Reduction and Growth Strategy
CTU	Can Tho University
DANIDA	Danish International Development Agency
DOARD	Department of Agriculture and Rural Development
DOF	Department of Fisheries
FA	Farmers' Association
FAO	Food and Agriculture Organization of the United Nations
FEC	Fisheries Extension Center
FIC	Fisheries Informatics Center
HCMC	Ho Chi Minh City
HEPR	Hunger Eradication and Poverty Reduction
IDRC	International Development and Research Centre
IFEP	Institute for Fisheries Economics and Planning
IMA	International Marinelife Alliance
INGO	International NGO
JIRCAS	Japan International Research Center for Agricultural Sciences
MOARD	Ministry of Agriculture and Rural Development
MOFI	Ministry of Fisheries
MOLISA	Ministry of Labour, Invalids and Social Affairs
MONRE	Ministry of Natural Resources and Environment
MRC	Mekong River Commission
NAFEC	National Fisheries Extension Center
NORAD	Norwegian Development Agency
RIA	Research Institute for Aquaculture
RIMF	Research Institute for Marine Fisheries
SAPA	Sustainable Aquaculture for Poverty Alleviation
SIDA	Swedish International Development Agency
STREAM	Support to Regional Aquatic Resources Management
SUFA	Support to Freshwater Aquaculture
SUMA	Support to Brackish Water and Marine Aquaculture
TUA	Trade Union Association
UNDP	United Nations Development Program
VAC	Integrated farming system (Vietnamese acronym)
VA	Veteran's Association
VOA	Voice of America
VOV	Voice of Vietnam
VSO	Voluntary Service Overseas
VTV	Vietnam TV
WB	World Bank
WU	Women's Union
YU	Youth Union

EXECUTIVE SUMMARY

Introduction

1. The Socialist Republic of Vietnam was established in 1975. The Communist Party is important in Vietnam, where mass organizations (such as the Women's Union and Farmers' Associations) exist at all levels, from central to commune. Communication from communities to government occurs mainly through established channels from mass organizations to the provincial government, and on to the central government.
2. The population of Vietnam is about 80 million people, of which 37% lived under the poverty threshold in 1998, most in rural upland areas. The Government of Vietnam has promoted a Hunger Eradication and Poverty Reduction (HEPR) Program since 1992. Aquaculture was linked into this program in 2001, with the establishment of the Sustainable Aquaculture for Poverty Alleviation (SAPA) Strategy.
3. Literacy rates in Vietnam are above 90%. Most Vietnamese are atheist, but many religions and moral teachings are practiced too. Vietnamese is the main language, but in addition several ethnic minority languages are spoken. About 84% of the population belongs to the Kinh community, but another 53 smaller ethnic minorities exist. Many of these are in remote rural upland areas, and are severely disadvantaged with low education levels.
4. Vietnam is a country of rich traditional identity. The majority ethnic groups are mainly influenced by Chinese culture, but Malay, Lao and Cambodian influences can also be detected. Family values are strong, and respect for age, traditions and duty forms an integral part of Vietnamese society.

Communications Media

5. Through its network of provincial and district officials, the Department of Culture and Information oversees all public information dissemination.
6. Household radio ownership was 47% in 1998. Vietnam's radio network – Voice of Vietnam (VOV) – has 61 provincial and 528 district radio stations. In addition to the VOV, there are a number of regional and district radio stations run by local authorities.
7. Public address systems, the broadcast of radio and news on public loudspeakers, are provided free from the state to about 5,000 remote and isolated communes, where they are managed by the Department of Culture and Information. Communal village-owned loudspeakers are present in many areas too. Town loudspeakers are considered an effective medium for mass communication, although in mountainous areas access may be lower than in the other parts of the country.
8. Within the VOV, the dissemination of fisheries information was prioritized from September 2003, where specific programming slots were allocated to fisheries programs. National broadcasting includes two programs devoted to fisheries. For a project or agency to disseminate information using VOV, they need to provide a financial donation to the station or pay for advertising.
9. In 1998, 58% of households owned televisions. Vietnamese Television (VTV) is state owned, with five channels broadcast nationally, and a number of provincial channels, which are monitored by the Department of Culture and Information. Educational programs on agriculture are often shown on local TV stations, including technical programs, demonstration shows and open forums where farmers and fishers can call in and ask questions.

10. The state-organized telecommunications system reaches nearly all areas of the country, but few villagers own telephones. Telefax machines are generally scarce. Mobile phones are common among high-income earners in cities, but are expensive to run.
11. Many national and provincial state newspapers exist in Vietnam, most of which represent different associations and organizations. In rural areas, local newspapers such as Today's Rural Area Newspaper, Agriculture Newspaper, People Newspaper and Great Unity Newspaper are the most widely read. Newspaper contents are monitored by the Department of Culture and Information. A number of magazines and journals also exist, but fisheries magazines generally have low circulation. Billboards and posters are displayed in all towns and cities, and in many official offices. Leaflets and booklets are often provided as support material for training courses.
12. At provincial and district levels, cultural events are planned and coordinated by the Department of Culture and Information. Cultural events include free and commercial festivals and performances, and entertainment for private functions. Festivals often include music, drama, dance or singing competitions between different districts. In many provinces, a provincial state-funded troupe exists, which is used for most of the festivals. For a project to arrange a local performance with an extension message, the script and lyrics should be submitted to the Department of Culture and Information, who will also attend rehearsals.
13. Performing arts are used for education, with topics including the dangers of HIV/AIDS, "social evils" and agriculture extension messages. Educational performances are sometimes recorded on video by local TV stations and broadcast on local television. The uptake of extension messages disseminated using performing arts or competitions is considered high, but informal assessment in some areas suggests that arts should be used in conjunction with other forms of awareness-creation media, and that it should be introduced relatively late in an information campaign.
14. Vietnamese people love reading. Commune post and cultural stations containing 'bookcases' have been established, as have 'legal bookcases' in the Commune People's Committees. The Department of Culture and Information supplies books on cultural issues to some communes as well.
15. In Vietnamese society, formal communication pathways should precede informal contact, and all contact should occur within official channels. Personal meetings are important for establishing first contact, after which more informal information exchange may follow using telephone or e-mail. Initial requests for collaboration or assistance should be made in a formal letter, preferably addressed to an individual with whom the person making the request has had a personal meeting. Interactions between state agencies follow strict criteria, requiring individuals to carry formal endorsements from the agency requesting the meeting.

Information Exchange within the Fisheries Sector

16. Vietnam has an estimated 300,000 ha of water bodies throughout the country, plus about 3,200 km of coastline. The Government of Vietnam promotes development of aquaculture as an important part of the fisheries sector. Aquaculture and fisheries extension falls under the responsibility of the Department of Fisheries (DOF) under the Ministry of Fisheries (MOFI), and the Department of Agriculture and Rural Development (DOARD) under the Ministry of Agriculture and Rural Development (MOARD).
17. There is close contact between central MOFI and provincial DOF offices. Day-to-day contact is most often made by telephone, but e-mail is also used, as are regular workshops and meetings. Telefax access at provincial level is often limited. Computers are available in most offices, and all offices have at least one internet connection. Communications between the MOARD-DOARD and MOFI-DOF is less frequent and efficient than within either of the two agencies.

18. Strong links exist between the state administration and mass organizations. Most individual projects and field activities occur through the Farmers' Association and the Women's Union. MOFI and DOF have strong links to the Research Institutes for Aquaculture (RIA), and collaborate with a wide range of institutions on individual projects, including national and international research institutions, NGOs, and multi- and bilateral donors. A national network for information sharing exists under the Fisheries Informatics Centre (FIC), which includes the state Research Institutes, national universities and Fisheries Vocational Schools. The FIC is currently establishing a fisheries library database, which is expected to be posted on the internet by the end of 2003.
19. The "MOFI Master Plan for Fisheries to the Year 2010" aims to ensure food security for Vietnamese people and the production of export commodities. In most provinces, aquaculture extension services are directed at poor farmers with adequate resources for aquaculture. At the provincial level, fisheries extension is carried out by Fisheries Extension Centers (FECs) of the DOF in 27 coastal provinces, or by Agriculture Extension Centers (AECs) of the DOARD in the remaining 34 inland provinces where no FECs exist. Extension materials are provided by NAFEC.
20. A decree providing the first legal status to and framework for Vietnamese NGOs was established in July 2003. Because the decree is still relatively recent, the exact conditions are still unclear, and CARE Vietnam is currently working with a network of Vietnamese NGOs to provide feedback on the implementation guidelines of the decree to the government.
21. A number of mass organizations exist at all administrative levels in Vietnam, including Women's Unions (Wus), Farmers' Associations (Fas), Youth Unions (Yus), Veterans' Associations (Vas), Trade Union Associations (TUAs) and many more. The mass organizations normally involved in aquaculture and fisheries activities are the FA and the WU, both of which are represented at four levels: central, provincial, district and commune.
22. Strong working links exist among the commune, district and provincial mass organization offices. Landline telephones are available in all mass organization offices, and many have computing facilities. When collaborating with international projects, these computers are often connected to the internet, providing e-mail access. Fax machines are normally not present in mass organization offices, and access to mobile phones is rare.
23. The commune WU carries out extension work, disseminating information on topics such as family planning. Within some externally-funded projects, WU members receive training on micro-credit management and technical aspects of agriculture or fisheries. The FA provides updated agriculture information to its members through meetings, visits and direct contact. Mass organizations commonly request extension assistance from the AECs or FECs, and frequently work with international projects, particularly those involving international NGOs.
24. Three Fisheries Vocational Schools provide technical training in fisheries and aquaculture. Through these schools, technicians can specialize in fields such as engineering, processing and culture techniques.
25. Several national universities in Vietnam teach fisheries courses. The University of Fisheries (Nha Trang) teaches only fisheries-related courses. The University of Can Tho, the University of Agriculture and Forestry (Ho Chi Minh City) and the University of Agriculture No. 1 (Hanoi) all have fisheries faculties which are active in fisheries research and teach BSc, MSc and PhD courses, although most postgraduate studies are still undertaken overseas.
26. There are three Research Institutes for Aquaculture (RIAs) in Vietnam, a Research Institute for Marine Products, and an Institute of Oceanography under the national Centre for Science and Technology. The RIAs are under MOFI, and are responsible for aquaculture and fisheries

research. RIA No. 1 has an Information and Training Department, which develops training materials for aquaculture extension and trains extension workers from DOF and DOARD, and also provides BSc, MSc and PhD level training.

27. Within the research sector, collaborative links and information exchange depend largely on personal relationships among individuals. The collaborative relationships among fisheries faculties of different universities, and between universities and RIAs are often not close, unless they are linked through externally-funded projects. Computing access at both universities and RIAs is good, and e-mail is frequently used for informal contact.
28. Most extension activities involving the research sector take place on individual projects, collaborating with DOARD or DOF (including AECs and FECs) and international agencies, but researchers are sometimes invited to participate in training activities carried out by provincial or district offices, or to form part of extension panels on live TV shows. RIA No. 1 produces a wide variety of printed extension materials, targeted at and pre-tested with farmers and extension workers. The Institute also produces TV programs for fisheries and aquaculture extension.
29. A number of international agencies work in Vietnam. Within these, communication often occurs via e-mail and through field visits. Information exchange among projects occurs mainly through distribution of project reports, and personal meetings of participating individuals at national and international conferences and workshops. An international NGO network resource center exists in Hanoi and produces a weekly e-newsletter.
30. All internationally-funded projects work with Vietnamese stakeholders. Several projects funded by international agencies work with provincial DOF or DOARD officials. Similarly, research projects work with universities and RIAs. International NGOs often work closely with mass organizations and provincial or district levels of state administration.
31. Often the status of aquaculture or fisheries extension services in a region are closely linked with the degree to which international projects have been operating in the locality. Internationally-funded projects have more funding available for extension activities than national initiatives, and often provide efficient extension to target communities. International projects often provide computing and internet facilities for collaborating mass organizations and contact frequently occurs through e-mail. Mass media campaigns are commonly used in internationally-funded health campaigns, such as HIV/AIDS or malaria campaigns executed in collaboration with the Ministry of Health.

Access to Information for Rural Communities

32. Village headmen play important roles in the socio-economic life of their community, where they are responsible for informing villagers immediately of changes to policies. The Commune People's Committee's main task is to raise people's awareness of key policies and legal documents that directly affect the community. This is normally done by sending official correspondence to villages through village headmen, and by establishing public 'bookcases', of legal documents in the Committee's headquarters.
33. Community members draw much of their information from training courses provided by government or foreign-funded extension programs. During fieldwork conducted for this survey, villagers mentioned that extension materials are sometimes difficult to understand, and that extension workers often are inadequately trained and do not speak local ethnic languages.
34. Many community groups feel they have no organized framework within which to operate, and that it is not easy for mass organizations to access information on fisheries and aquaculture.

35. Personal interaction was regarded as the best communication medium, because fellow farmers were perceived as honest and spoke in plain language. However, some farmers are unwilling to share their experiences because they fear that this may confer a competitive advantage to others.
36. Many farmers have access to TV, but the reception is not always good in the mountains. More people own radios than TVs, but most people prefer watching TV to listening to the radio. Newspapers are popular in urban areas, but less so in rural districts. Festivals and cultural competitions are popular, and performances often draw audiences of thousands of people. Not many community members access the 'legal bookcases' in the headquarters of commune officials or the commune post and cultural station 'bookcases'.
37. A number of specific information needs were mentioned during community fieldwork. These included information about markets, seed availability, loans, technical procedures, practical information and group-forming mechanisms. Communities stated that their preferred means of accessing information was through trainings, supported by training materials, combined with field visits, and taught by scientists or researchers. Printed materials should accompany training sessions, and could also be used for general information dissemination. Printed media should be adequately distributed, resistant to wear, colorful, use big font sizes, and include good quality color photographs. Text should be clear, and the addresses of service suppliers should be provided.
38. TV programs featuring demonstration or successful models relevant for local conditions should be broadcast on VTV 1 and local TV. For radio programs, farmers preferred live question and answer discussions with scientists, where they can call in and ask questions. Performing arts and competitions were thought to be good for disseminating aquaculture and fisheries extension messages, as was video. Video was also considered good for use in training.
39. Farmer-to-farmer extension was considered efficient for the transmission of information. Field visits were considered great opportunities to learn, especially when they showed successful models for poverty reduction and income generation.
40. Women are involved in fish culture activities, but only attend aquaculture training when specifically invited. Most training of men is done on the proviso that they share information with women, but often this does not occur. Women find it more difficult to access TV than men, because they often cannot go to other people's houses to watch TV in the evening like men can.

Findings and Recommendations

41. The government extension sector is limited by a lack of funding, and aquatic resources management-related information provision to individual communities is limited in areas where no projects funded by external agents exist. Both DOF and DOARD extension efforts suffer greatly from lack of funding and (adequately trained) manpower. Often the information needed by communities (and DOF or DOARD officials) is widely available but has not spread to those providing aquaculture extension. In other cases, the information needs arose from the extension of inappropriate techniques. Local communities were often not included in the planning stage of governmental extension activities, with the result that the information provided to them is sometimes irrelevant, or lacking in key aspects.
42. Government extension providers access information mainly through official channels and through interaction with internationally-funded projects. Most government offices have computers and internet access, but websites with coherent, understandable, specific information about aquaculture and fisheries in Vietnamese are rare.

43. The information sharing between individual agencies and organizations within the sector (including national and international stakeholders) is poor, as is the collaboration and communication among individual projects. Often different institutions, agencies and initiatives are unaware of the activities of others, so overall efforts are poorly coordinated, may be replicated, or may actually have adverse impacts on one another. Findings from research projects rarely reach the extension network. Many projects have limited lasting impacts because activities stop once projects are over, indicating lack of local capacity-building. The efficiency and long-term impact of extension and project activities are rarely assessed by government and external agents, and important lessons about what works and what does not are often not learnt.
44. The establishment of a coordinated network of projects within the agriculture, fisheries, aquaculture, natural resources management and environmental sectors could facilitate information-sharing and collaboration and prevent the duplication of efforts. This should be coordinated by government agencies such as MOARD, MOFI and the Ministry of Natural Resources and Environment. Through such a network, information from individual projects could be posted on the internet, possibly with links to the FIC database. For a central database to be of most use, it should be in simple language, in both Vietnamese and English, be pre-tested with intended user groups, and include specific information on project findings and recommendations.
45. To increase their communication capacity, individual projects should prioritize networking with key stakeholders, and aim to involve as many institutions as possible in activities through formal channels. Projects should plan regular workshops or meetings to facilitate communication with these stakeholders. The relevance of projects and information extended to communities should be ensured by including local aquatic resources users and other stakeholders at all levels, and in all stages, of project planning and implementation.
46. For communicating with communities, awareness-creation campaigns through TV, radio, posters, festivals and competitions, and specific information provided in the form of training courses, are recommended. The outputs of competitions should be used for further information dissemination. Mass media should be targeted at, and developed with, end-users and should be pre-tested in the intended area of use before wider dissemination. Local designers and artists should be used in the design of leaflets and posters, particularly in remote ethnic communities.
47. For training, farmer-to-farmer information exchange is efficient. Trained extension workers should provide additional information, and wherever possible should be supported by audiovisual training tools and printed training materials for distribution to farmers. Booklets and leaflets should be in color, include photographs, use simple language, and be designed to last so that community members can refer to them later.
48. Extension workers should be retrained frequently, and provided with adequate transportation and incentives to travel to remote communities. Special efforts should be made to include women in training activities. Invitations for training should stipulate that women are invited. Wherever possible, projects and extension activities should actively involve the WU. Finally, any extension strategy should aim for long-term sustainability and should include at the planning stage consideration of how the efficiency and long-term effects of efforts will be assessed.

1. INTRODUCTION

The Government of Vietnam has recently placed particular emphasis on the importance of effective aquatic resources management for poverty alleviation. A great number of national and international activities, projects and organizations currently operate within the aquatic resources management sector in Vietnam. In a country with limited resources, the importance of efficient and effective information exchange among stakeholders within the sector, and between the sector and aquatic resources users, is increasingly being recognized.

This study aims to:

- Provide a brief introduction to Vietnamese society (Section 1.1)
- Provide an overview of media currently used in Vietnam, with particular focus on use of media for extension purposes (Section 2)
- Explore access to information, and information exchange between and within stakeholder groups, organizations and institutions within the aquatic resources and fisheries sectors (Section 3)
- Investigate current access to information, and information needs, of rural communities, paying particular attention to information relating to fisheries and aquatic resources management (Section 4), and
- Summarize findings and provide recommendations for increasing the efficiency of communication among different stakeholders within the aquatic resources management sector, and from the sector to rural communities (Section 5).

The field research for this study was carried out from 12-22 November 2003, during which time key informant interviews were conducted with representatives of national, provincial and district government departments, research institutions, mass organizations, NGOs and international projects, as well as rural communities in Long An, Quang Tri and Thai Nguyen provinces. In addition, the study draws on findings presented in numerous published and unpublished reports from government agencies and individual projects. The authors believe that the results of the study provide an accurate account of the situation at the time of writing. However, as information access and media usage can change rapidly and vary greatly from area to area, it is recommended that the findings presented here are validated for individual areas and projects.

1.1 Overview of Vietnamese Society in relation to communication

1.1.1 Politics and State

After independence in August 1945 and nine years of the resistance war against the French, Vietnam was divided into two states: the Democratic Republic of Vietnam in the north, and the Republic of Vietnam in the south. The Socialist Republic of Vietnam was established at reunification in 1975. Collectivisation and central planning were abandoned in 1986, when the Communist Party, led by Secretary General Nguyen Van Linh, embarked on the *doi moi* (renovation) reforms.

About six million people are members of the Communist Party, which is important in Vietnam, where mass organizations (such as the Women's and Youth Unions, and Farmers' and Veterans' Associations) exist at all levels, from central to commune. Selected representatives from these and other mass organizations form the Fatherland Front.

The smallest administrative unit is the commune. Several communes form a district and several districts a province. The central government is based in Hanoi.

The most powerful state organs are the National Assembly and its subordinate bodies, the local People's Councils. These are the key organs in the legislation process, making laws and other crucial resolutions, and designating leaders of executive bodies. Excerpts from the 1992 Constitution of the Republic relating to the formation of the People's Councils are presented in Appendix 1.

The communication pathway from rural communities to government occurs mainly through established channels from the mass organizations to the provincial government, and on to state government. Another important mechanism is regular meetings between National Assembly members and their supporters in constituencies, through which people can provide feedback on the administration. For the last two terms of the National Assembly, live TV programs featuring direct discussions between National Assembly members and Ministers have drawn much attention all over the country.

The population of Vietnam is about 80 million people. The Ministry of Fisheries (MOFI) estimated that 37% of the population lived below the poverty threshold in 1998, a reduction from 58% in 1993 (Bryceson et al., 2000). Poverty is most prevalent in rural upland areas. The Government of Vietnam has promoted its "Hunger Eradication and Poverty Reduction Program" under the Ministry of Labor, Invalids and Social Affairs (MOLISA) since 1992. Aquaculture was only linked into this program recently with the establishment of the Sustainable Aquaculture for Poverty Alleviation (SAPA) Strategy within MOFI (Bryceson et al., 2000).

1.1.2 Education and Literacy

The primary school enrolment rate in Vietnam is high at 91%. Primary school runs for five years, from the ages of six to ten. About 60% of children go on to secondary school (Baulch et al., 2002).

The literacy rate in Vietnam is 91.4% for women and 95.5% for men (UNDP, 2002) thanks to the massive campaign against illiteracy in 1946 and current policies on compulsory elementary education. From 2000, free primary schools provided full enrolment for all children above six years of age.

1.1.3 Religion

Article 70 of the 1992 Constitution states that all Vietnamese citizens are now free to follow any religion or non-belief (Baulch et al., 2002). Religions and moral teachings practiced in Vietnam include Confucianism, Mahayana Buddhism and Taoism, as well as ancestor worship and the remnants of ancient animistic practices. At the 1999 Census, 78.8% of the population stated that they had no religion, 10.5% were Buddhist, 7.7% Christian and 3.0% followed other religions, namely Hinduism, Islam, Theravada Buddhism, *Cao Dai*, *Hoa Hao* and Catholicism (Baulch et al., 2002).

1.1.4 Ethnic Groups and Languages

About 84% of the population belong to the Kinh community, but another 53 smaller ethnic minorities exist. Most minorities live in remote upland areas. The Kinh community and the Hoa (Chinese) minority together have the highest living standards (Baulch et al., 2002).

Among ethnic minorities, the Central Highlands (in particular the Ba-na, Gia-rai and Xo-dang ethnic groups) and the Northern Uplands (especially the Dao and Hmong) are the poorest. At below 70%, the primary school enrolment rates of these ethnic minorities are lower than the national average. The enrolment rates for lower secondary school are lower for these minorities as well, at below 20%.

Vietnamese is the main language of Vietnam, but in addition several ethnic minority languages are spoken.

1.1.5 Customs

Vietnam is a country of rich traditional identity. The Kinh majority and Hoa group and a number of ethnicities in the north (e.g., Tay, Nung and Hmong) are greatly influenced by Chinese culture, while the Cham in Quang Ngai, Binh Dinh, Phu Yen, Ninh Thuan and Binh Thuan originated from Malay regions. The country also has overlapping regions in relation to ethnicity with Lao and Cambodia.

Family values are strong in Vietnam, and respect for age, traditions and duty forms an integral part of Vietnamese society.

2. COMMUNICATIONS MEDIA¹

Box 1

Department of Culture and Information

All information broadcast or published must be checked by the Department of Culture and Information through their network of provincial and district officials. The mandate of the Department is to educate people on government regulations on communication and culture, to monitor and control information published, to ensure that government guidelines are followed, and to organize public cultural events.

2.1 Radio

Household radio ownership increased from about 40% in 1993 to 47% in 1998 (from World Bank Vietnam Living Standards Survey 1993-98, <http://www.worldbank.org.vn>). The total national coverage is estimated to be 75%. In total there are an estimated seven million radio sets in Vietnam.

Vietnam's radio network Voice of Vietnam (VOV) has 61 provincial radio stations and 528 district radio stations, including 319 FM stations, plus an estimated 5,000 public address systems at village level. VOV was established in 1945, and the first broadcast was the Declaration of Independence read by the then President Ho Chi Minh. Today, VOV broadcasts 141 hours per day on six channels, four for domestic listeners, and two for foreign listeners in 11 languages, and in Vietnamese for overseas Vietnamese. VOV also produces a magazine, *VOV Weekly*, and delivers news via an on-line news website in Vietnamese and English <<http://www.vov.org.vn>>. The website records an average of 9,000 daily hits. Within VOV, under the Hanoi headquarters there are four regional bureaus in Ho Chi Minh City, Dac Lac, Can Tho and Son La.

VOV receives an estimated 500 letters daily from listeners. A survey carried out by VOV and the Central Ideological and Cultural Commission in 1998 found that 87.3% of Vietnamese listened to radio, and a 2000 survey put the listener figures in rural areas at 97%. However, Thien (1999) reports radio ownership to be somewhat lower than this, at 37% nationally, ranging from 32% in Thai Nguyen, to 44% in the northern midland and highland regions.

In addition to VOV, there are a number of regional and district radio stations run by local authorities (People's Committees). These feature local news, and the morning and afternoon VOV news which is inserted in their program. The People's Committee, and officers from the Department of Culture and Information, vet the content of district radio stations.

2.1.1 Public Address Systems

Public address systems, the broadcast of radio and news on public loudspeakers, are widely used in Vietnam. State-owned public address systems are provided free to about 5,000 remote and isolated communes in Vietnam, where they are usually managed by the Chief of the Commune Culture and Information Panel (under the Department of Culture and Information). Broadcasts include news recorded from the VOV FM station and news items written by commune leaders.

In addition to the public address systems, communal loudspeakers are present in many areas, where villagers all contribute to the cost. These are used for disseminating policy information and news by the government, and the village headman normally decides the content.

¹ See a summary in Appendix 4.

Town loudspeakers are widely considered an effective medium for mass communication, although in mountainous areas access may be lower than in the other parts of the country.

Box 2

Radio Stations

National

- VOV 1 (AM): News, current affairs, politics, economics, foreign affairs, security, national defense, legislation, science and technology – 5 am to 11 pm
- VOV 2 (AM): Cultural, social, educational, literature, arts, music programs – 5 am to 11 pm
- VOV 3 (FM): News, music, foreign language teaching programs, short news bulletins – 5 am to 11 pm
- VOV 4 (AM): Programs for ethnic minorities broadcast in Mong, Khmer, Giarai, Ede, Xedang and Bana languages; also programs in Vietnamese on and for minorities – total air time of 11 hours daily
- VOV 5 (FM): Programs for expatriates in Vietnamese, French and Russian for Hanoi, Ho Chi Minh City and adjacent areas; also programs in Thai, Cantonese, English, Khmer, Lao, Spanish, Indonesian, Russian, Japanese and French – total airtime of 15.5 hours daily
- VOV 6 (AM and SW): Programs in English, French, Russian, Spanish, Japanese, Mandarin, Cantonese, Indonesian, Thai, Lao, Khmer and Vietnamese – total daily airtime of 53 hours

There are four general news programs per day (6:00-6:30, 12:00-13:00, 18:00-19:45, 21:30-23:00), three of which are broadcast live on VOV 1, VOV 2 and VOV 3.

Regional

In addition to VOV's provincial stations, there are local radio stations in each district, run by the People's Committee.

International

- BBC (Vietnamese and English)
- Chinese Central Radio (Vietnamese and Chinese)
- RFI (Vietnamese and French)
- VOA (Vietnamese and English)

2.1.2 Use of Radio in Extension

The Fisheries Division of the Department of Economy, Science and Technology of VOV deals with fisheries information. Specific programming for this Division was only started in September 2003, when the government started prioritizing fisheries and aquaculture through recognition of the growth potential of the sector. Fisheries news is obtained from the Hanoi headquarters and regional VOV offices, each of which send one fisheries or aquaculture related interview and one report to the Hanoi office each week.

Nationally, on VOV there are two programs devoted to fisheries and aquaculture. One program for fishers is broadcast from 5:30-5:50 am.. This program does not include advertisements, and consists of shipping forecasts, fishing ground forecasts and fisheries-related news. Another program, the Vietnam's Fisheries Program, is broadcast from 9:05-9:15 am. This includes information on economic issues in the fisheries sector, and information on how to obtain loans. The program can include short advertisements.

Another program, which often includes fisheries and aquaculture information, is a live 30-minute forum broadcast weekly. Here reporters invite key government or other officials to debate issues relating to the Vietnam economy. Fisheries issues occupy about 15-20% of this program. Farmers and fishers can call in to the program and ask direct questions of the forum, about issues such as where and how to get loans and charges for overdue credit. Other items of fisheries and aquaculture news are presented in the main news or in other programs.

For a project or agency to disseminate information using VOV, they need to make contact with the Hanoi headquarters to discuss plans and ideas. If VOV agrees to broadcast information, transmission is free, but projects are asked to provide a donation to the radio. Smaller news items can be included free of charge if press releases are provided to VOV.

2.2 Television

In 2000, 88% of communes in Vietnam had access to electricity (Socialist Republic of Vietnam, 2002). In 1993, 25% of households, and in 1998, 58% of households owned TVs (from the World Bank Vietnam Living Standards Survey 1993-98, <http://www.worldbank.org.vn>).

Box 3

TV Stations

National

- VTV Channel 1: News
- VTV Channel 2: Science and education
- VTV Channel 3: Entertainment
- VTV Channel 4: Satellite channel for Vietnamese overseas
- VTV Channel 5: Ethnic minority languages

National (through cable or satellite)

VCTV: Cable TV Channel

International (through cable or satellite)

- ABC (English)
- BBC World (English)
- Cartoon Network
- CCTV (Central Chinese TV)
- CNN (English)
- Discovery (English)
- ESPN (English)
- HBO Movie Channel
- MTV (English)
- NHK Premium (Japanese)
- Phoenix Hong Kong (Chinese)
- Taiwan (Chinese)
- TV5 (French)
- YTN (Korean)

Vietnamese Television (VTV) is state owned, with Channels 1 to 5 broadcast nationally. However, reception of Channels 2 and 3 can be poor in some areas. Further, the Provincial or District People's Committees run a number of provincial and district TV channels, the content of which is monitored by the Department of Culture and Information. Often, the programs of the provincial stations are simply taped and broadcast again on the district stations. In addition, a number of international channels are available in big cities.

2.2.1 Use of Television in Extension

Educational programs on agriculture are often shown on provincial and district TV stations. These include technical programs and demonstration shows on reservoir fish, rice-fish and pond culture, workshops and training activities. Nationally, fisheries extension programs are aired on VTV 2, on the Farmers' Friend program broadcast three times a week at lunchtime and in the evening.

Box 4

Live Agriculture Forum on Provincial TV

In Long An Province, a 45-minute live TV program is aired every Thursday evening on the provincial TV station. Each week the program covers a different topic, for example pesticides, livestock and fish. Experts (researchers or extension workers) are invited onto the program to answer questions from farmers who call in. Each week about three or four calls are taken. Farmers whose questions are not answered can write to the station, which will then facilitate extension follow-up in their district.

2.3 Telecommunications

The state-organized telecommunications system in Vietnam has ensured access to telecommunications in nearly all areas of the country, although in many areas few people actually own telephones. Telefax machines are generally scarce, but are normally present in commune post offices and at the District and Provincial People's Committee offices. No statistics on telecommunications per capita are currently available.

Mobile phones are common among high-income earners in cities, but are expensive to run. Both state and private mobile networks exist, of which the state-run networks are more expensive and have lower coverage. Among mobile phone users, text messaging is not common.

2.4 Printed Media

There are a great number of state newspapers in Vietnam. Newspapers are cheap (VND 1,000 to 2,500, or 6.3 to 15.8 US cents, and more for special issues) and widely read in cities and towns. In addition to national newspapers, the People's Committee of each province produces a local provincial newspaper. Many newspapers also have on-line editions, including *Labor Newspaper*, *People Newspaper*, *People's Army*, *Vietnam News*, *VN Express* and *Vietnam Economy*.

The different national newspapers represent different parts of the Vietnamese community, for example, *Great Unity Newspaper* is the newspaper of the Fatherland Front (and thus mass organizations). In rural areas, *Today's Rural Area Newspaper*, *Agriculture Newspaper*, *People Newspaper* and *Great Unity Newspaper* are the most widely read. Newspaper circulation is not published, and information is not easy to come by because many newspapers use different publishing houses. State-funded subscriptions to relevant newspapers exist for key interest groups. For example, *Women Newspaper* is provided to the Women's Unions, *Agriculture Newspaper* and *Today's Rural*

Areas are provided to Farmers' Associations, and *Great Unity* is provided to Fatherland Front offices free of charge.

Newspapers are subject to the regulations of the Department of Culture and Information, which monitors the content of provincial newspapers. One hour prior to publication, provincial newspapers must be submitted to the Provincial or District Culture and Information Office, so that their content can be approved. Similarly, all other printed material should be presented to the Department prior to printing. For national newspapers, the Editor-In-Chief is responsible for their content.

Box 5

National Newspapers

- Nhan Dan (People)
- Lao Dong (Labour)
- Dai Doan Ket (Great Unity)
- Tuoi Tre (Young Age)
- Thanh Nien (Youth)
- Phap Luat (Laws)
- Nong Thon Ngay Nay (Today's Rural Areas)
- Phu Nu (Women)
- Tien Phong (Pioneers)
- An Ninh The Gioi (World Security)
- Nong Nghiep (Agriculture)
- The Thao (Sports)
- Gia Dinh & Xa Hoi (Family and Society)
- Cong An Thanh Pho Ho Chi Minh (HCMC Police)
- Cong An Nhan Dan (People's Police)
- Quan Doi Nhan Dan (People's Army)

In addition to newspapers, there are a number of magazines and journals covering issues such as gardening, entertainment and health. Several fisheries magazines exist as well, but these generally have low circulation and include heavy advertising to support their production. Billboards and posters are displayed in all towns and cities, and in many government offices. Leaflets and booklets are often provided as support material for training courses.

2.4.1 Use of Printed Media in Extension

Box 6

Department of Health HIV/AIDS Campaign

The Department of Health has a wide-reaching HIV/AIDS campaign, supporting billboards and posters in every commune and advertising in both national and provincial newspapers. Most of the advertising is carried out through internationally-funded projects, e.g., through the ADB or CARE Vietnam. Simple, colorful billboards, often with stark images of death and destruction, post short messages along every street about the risk of contracting HIV from adultery, unprotected sex and drug use. CARE Vietnam also arranged drawing and painting competitions for children in a number of districts, and published a wall calendar showing selected illustrations.

2.5 Performing Arts and Mobile Cinema

Traditional operas, with rich Chinese influences, play an important role in the cultural life of the Kinh people. In the south before 1975 and the north before 1954, opera troupes led their lives traveling from village to village and performing to earn a living. Semi-classical opera is still popular, but now most opera artists have joined state-owned opera houses, and opera is no longer accessible in remote areas.

At provincial and district levels, cultural events are planned and coordinated by the Department of Culture and Information. Three types of cultural events are managed by the Department:

- Free public festivals in different districts, often with educational content. In remote areas, these can draw audiences of 2,000 to 3,000 people. These include traditional ethnic festivals such as New Year and New Crop festivals. Educational performances are normally funded by organizations such as the People's Committee.
- Commercial festivals and performances, often held in more developed areas. Entrance fees range from about VND 10,000 for local artists to VND 100,000 for national star performers.
- Entertainment for private functions, e.g., the anniversary of a company.

Public and commercial festivals and performances in towns and districts must be endorsed by the Department, which then informs districts accordingly through official correspondence. Festivals often include music, drama, dance or singing competitions, and district leaders select their performers for the competitions. Audience numbers are normally higher for free performances. Mostly they include equal numbers of men and women.

In many provinces, a provincial state-funded troupe exists, which is used for most festivals. The troupe can number up to 100 people, including 60 artists. The Department of Culture and Information also manages mobile cinema teams, who travel around to different districts showing movies of cultural, educational or entertainment content. For a project to arrange a local performance or festival with an extension message, the performance should be planned with the performers and the script and lyrics submitted to the Department of Culture and Information, who will also attend rehearsals.

2.5.1 Use of Performing Arts in Extension

Box 7

Education through Arts

Topics of educational performances range from the dangers of HIV/AIDS, crime, drug abuse and other "social evils", to agriculture extension messages. Performances normally include song, drama and dance, and in remote areas songs are often performed in both ethnic dialects and Vietnamese.

Educational performances are sometimes recorded on video by provincial or district TV stations, and broadcast on local television.

Festivals and shows are advertised through local radio and TV, newspapers, street billboards and advertising cars traveling through districts and broadcasting the shows on loudspeakers and posters.

There are mixed opinions on the uptake of extension messages disseminated using performing arts or competitions. Some consider it high, because festivals attract a great deal of local attention, but informal assessments in some areas suggest that the extension message is not always remembered well when information is presented in the form of a competition. Most agree that arts should be used in conjunction with other forms of awareness-creation media, and that it should be introduced relatively late in a project, to further solidify a message already disseminated through training and mass media.

2.6 Literature

Many Vietnamese people love reading, especially poems and funny stories written in vernacular cadences (or local dialects). There is a strong tradition of poetry in Vietnam, but poetry is now mainly read by the older generations. Major cities have a vibrant reading community among intellectuals, and international novels are often translated into Vietnamese on the internet within a few days of publication.

Commune post and cultural stations have been established in the last few years in a recent government initiative to improve communication. This is a result of joint action by the Department of Culture and Information and post offices, under which the post office installs a telephone landline and the provincial Culture and Information Department provides the station with a number of cultural books ('cultural bookcase'). Each commune has at most one station (for remote and isolated regions, there may be only one station for a cluster of three to four communes). In addition, books on laws and regulations are provided by the Provincial Department of Justice to the headquarters of the Commune People's Committee. In some cases, a separate set of books is provided for women by the Resource Centre for Gender of Women. The Department of Culture and Information also supplies books on cultural issues to some communes.

If a project or organization wishes to donate books or information materials to any of these libraries, the material should be sent to the District Office of Culture and Information, who will then disseminate the material to the People's Committee and ask them to endorse the publications. Once endorsed, the People's Committee will send the material to the communes.

2.7 Personal Communication

In Vietnamese society, formal communication pathways should precede informal contact, and all contact should occur within official channels. Personal meetings are important for establishing first contact, after which more informal information exchange may follow using telephone or e-mail. Initial requests for collaboration or assistance should be made in a formal letter, preferably addressed to an individual with whom the person making the request has had a personal meeting. Interactions between state agencies follow strict criteria, requiring individuals to carry formal endorsements from the agency requesting the meeting.

3. INFORMATION EXCHANGE WITHIN THE FISHERIES SECTOR²

3.1 State Fisheries Sector

It is estimated that Vietnam has more than 300,000 ha of water bodies throughout the country, of which 48% are considered suitable for culture-based fisheries (Nguyen et al., 2001). In addition to this, the Vietnamese coastline stretches some 3,200 km, and coastal and estuarine fishing forms an important part of the economy. Small-scale pond culture and rice-fish culture are also practiced in most districts. Annual fish consumption is 12 kg per capita (Duong et al., 1998), and fish constitute about 40% of the total animal protein intake of the population.

The Government of Vietnam promotes aquaculture development as an important part of the fisheries sector. An estimated 600,000 people are involved in aquaculture, mainly freshwater culture in rural areas. The MOFI Program 773 aims to develop rural aquaculture (Bryceson et al., 2000).

Aquaculture and fisheries extension falls under the responsibility of the Department of Fisheries (DOF) under the Ministry of Fisheries (MOFI) and the Department of Agriculture and Rural Development (DOARD) under the Ministry of Agriculture and Rural Development (MOARD).

3.1.1 Within the State Sector

There is close contact between the central MOFI and provincial DOF offices. Contact occurs mainly through formal channels, with official endorsements of visits and meetings, and personal meetings preceding other forms of communication. Day-to-day contact is most often made by telephone, but regular workshops and meetings also occur. Telefax is available in central DOF offices, but access at provincial level is often limited. Computers are available in most offices, although several staff often share one machine at provincial level. All offices have at least one internet connection, and e-mail is sometimes used to communicate between national and provincial offices. Communications between MOARD-DOARD and MOFI-DOF is less frequent and efficient than within each of the two agencies.

3.1.2 Between the State Sector and Other Stakeholders

Strong links exist between the state administration and mass organizations. Most individual projects and field activities occur through the Farmers' Association (FA) and Women's Union (WU).

The MOFI and DOF have strong links with the Research Institutes for Aquaculture (RIAs). Most DOF employees are fisheries graduates from national universities, and often have strong personal links to research institutions. In addition, MOFI and provincial DOF collaborate with a wide range of institutions on individual projects. These include national and international research institutions, NGOs, and multi- and bilateral donors through research or development projects, such as the AIT Outreach project.

A national network for information sharing also exists under the Fisheries Informatics Center (FIC). This network is coordinated by FIC, and includes the Research Institute for Marine Fisheries (RIMF), the Research Institutes for Aquaculture (RIAs), the Institute for Fisheries Economics and Planning (IFEP), national universities, and Fisheries Vocational Schools No. 1 (Hai Phong), No. 2 (Ho Chi Minh City) and No. 4 (Bac Ninh) (No. 3 is no longer in existence). Within each of the participating institutions, the information division and libraries are in regular contact with the FIC. The FIC is currently establishing a fisheries library database, including Vietnamese titles and keywords of all fisheries and aquaculture articles published in national and key international journals (e.g., *Aquaculture Research*, *Aquaculture*, *Infofish* and NACA's *Aquaculture Asia*). This database is

² See a summary in Appendix 5.

expected to be posted on the internet. Other information shared within the network includes fisheries and aquaculture statistics, and information on science, technology, education and production.

3.1.3 Fisheries and Aquaculture Extension by the State Sector

The “MOFI Master Plan for Fisheries to the Year 2010” aims to ensure food security for Vietnamese people and the production of export commodities. The program expects aquaculture to contribute 60-65% of total aquatic products by 2010. This is to be achieved through the promotion with poor people of aquaculture and sustainable fisheries, in particular through improving the capacity of farmers to take up aquaculture of high-value species and to intensify aquaculture production. In most provinces, aquaculture extension services are directed at poor farmers with adequate resources for aquaculture.

The National Fisheries Extension Center (NAFEC) was established in 2000, as recognition grew of the importance of the fisheries and aquaculture sector for growth, poverty alleviation and income and export-earnings generation. Prior to 2000, fisheries and aquaculture extension was the responsibility of the DOF of MOFI. At provincial level, fisheries extension was carried out the Fisheries Extension Centers (FECs) or Units of the DOF where they existed, or by Agriculture Extension Centers (AECs) of DOARD where no FEC existed. Following the establishment of the NAFEC, more autonomy was given to Provincial FECs.

At present, provincial DOFs exist in only 27 of 61 provinces, mainly in the coastal regions. The matter is further complicated by the fact that in some provinces, FECs are called Fisheries Centers, and in some provinces (e.g., Yen Bai), only a Fisheries Center exists, but no DOF. Fisheries extension can also be carried out by Fisheries Seed Centers, or even by state-owned companies (e.g., the Son La Fisheries Company).

At district and commune levels, there are no fisheries extension officers. To carry out extension activities at this level, provincial bodies in charge of fisheries extension have to collaborate with the agriculture extension system (including District Agriculture and Forestry Extension Stations and Commune Agriculture Extension workers). In some places, collaboration occurs with mass organizations such as the Farmer’s Association and Women’s Union (e.g., in Quang Tri Province).

Extension materials are provided by the NAFEC of MOFI, and in most provinces these are adapted to suit local conditions and species.

Box 8

The Comprehensive Poverty Reduction and Growth Strategy

The Government of Vietnam, in its Comprehensive Poverty Reduction and Growth Strategy (CPRGS) (Socialist Republic of Vietnam, 2002), aims to strengthen dialogue between local government and poor communities, through the enhancement of “grassroots democracy” in rural areas. The CPRGS suggests that local people be given an opportunity to discuss and comment on development programs and projects.

The CPRGS recognizes a significant growth potential in aquaculture and offshore seafood exploitation, and recommends the intensification and focus on high-value species in both aquaculture and fisheries. An important part of this is the planned provision of “public goods such as extension services”. Important target groups for extension are poor and ethnic minority fishing and farming households, who are intended to benefit from strengthened “applied research and technology transfer” and “voluntary joint and self-managed forms of extension services in every community.”

It is recognized that AECs and FECs alike suffer from shortage of staff and information, in particular lack of experienced staff, as well as facilities for carrying out trials to adapt MOFI recommendations to local conditions. Extension officers also commonly have no means of transportation to carry them to more remote districts, which then rarely receive aquaculture extension (Carl Bro Associates, 1996). In some inland districts, shortage of staff combined with language problems force the recruitment of untrained agriculture extension officers by the AECs. Although district and provincial AECs provide training and arrange credit for farmers, they have limited capacity to assist with problems such as disease.

It has therefore been recommended that AEC staff be trained in cage culture techniques and disease control, that regular updating courses for extension staff are arranged, and that stronger links are forged between AECs and RIAs (Carl Bro Associates, 1996; Phillips, 1998). It has also been asserted that the content of aquaculture training is often not appropriate to local conditions, that training materials are poorly targeted (sometimes directly translated from other languages by extension staff), and that there are inadequate funds for the provision of sufficient training materials. Extension is often performed in a top-down manner, with little potential for farmers to influence the content and method of training, and limited opportunity for farmers to assess the efficiency of the extension service (Carl Bro Associates, 1996).

As 55-60% of the workforce, women constitute the main source of labor in aquaculture, and they also dominate processing (small-scale home processing and as employees at processing enterprises) and marketing of aquatic products in the local market. Despite this, most extension courses are currently attended by men (Carl Bro Associates, 1996).

Box 9

Sustainable Aquaculture for Poverty Alleviation (SAPA) Strategy

MOFI's Sustainable Aquaculture for Poverty Alleviation (SAPA) Strategy contributes to the goal of poverty alleviation within the government's Hunger Eradication and Poverty Alleviation Program. SAPA aims to enhance the livelihoods of poor and vulnerable people through aquaculture through:

1. Institutional strengthening, particularly local institutions and communities, to support pro-poor strategies
2. Improved access for poor people to materials, information, financial and extension services and markets
3. Increased communication among stakeholders through awareness-raising, networking and the introduction of participatory processes, and
4. The development and adoption of environmentally sustainable, low-risk and low-cost aquaculture techniques.

This is to be achieved through capacity-building, participatory development and the promotion of national and international networking, through a decentralized implementation support structure. Further awareness-raising and improved communications will be achieved through a close link with STREAM.

The SAPA Strategy was formulated in a close working relationship between the Vietnamese government and NORAD, DFID, FAO, NACA, AIT, DANIDA, ACIAR, and UNDP, WB and ADB.

3.2 Vietnamese NGOs and Mass Organizations

3.2.1 Vietnamese NGOs

Since the establishment of Ordinance No. 102/SL/L004 in May 1957, Vietnamese citizens have had the right to establish associations. However, prior to July 2003, all associations were managed under Decree No. 35, under which associations were allowed for the purposes of “Science and Technology for Research and Application” purposes only. Under this decree, Vietnamese NGOs had to demonstrate a significant science and technology focus. However, with the passing of Decree No. 88 in July 2003, associations of all kinds are now permitted, subject to obtaining government approval and meeting government reporting requirements.

The decree provides the first legal status to and framework for Vietnamese NGOs. It also means that all mass organizations – apart from the Fatherland Front, General Confederation of Labor, Youth Union, Farmers’ Association, the Veterans’ Association and Women’s Union – now fall under the same legislative framework as NGOs. Because the decree is still relatively recent, the exact reporting requirements are still vague. CARE Vietnam is currently working with a network of Vietnamese NGOs to provide feedback to the government on the implementation guidelines of the decree, and plans to seek funding to establish a network of Vietnamese NGOs.

Details of Vietnamese NGOs working in the Long An, Quang Tri and Thai Nguyen provinces are provided in Appendix 2. None of these are active in aquaculture or fisheries projects.

The Vietnam Fisheries Society was formed especially for fishers, aquaculturists and aquatic product processors. However, the Society has only been able to reach several districts and communes of 22 provinces. The Vice Secretary General of the Society felt that it is not easy for commune-level members to get new information on various aspects of fisheries and aquaculture. The Society publishes a monthly journal, *Con Tom* (Shrimp), which is circulated to provincial offices and 40 enterprises based mainly in Hanoi and Ho Chi Minh City.

3.2.2 Vietnamese Mass Organizations

A number of mass organizations exist at all administrative levels in Vietnam, including Women’s Unions (Wus), Farmers’ Associations (Fas), Youth Unions (Yus), Veterans’ Associations (Vas), Trade Union Associations (TUAs) and many more. All mass organizations together form the Fatherland Front. The mass organizations normally involved in aquaculture and fisheries activities are the FA and WU.

The FA is the largest mass organization and represents Vietnamese farmers. In 1998, the total membership of the FA was over ten million farmers, all men. The FA is represented at four levels: central, provincial, district and commune (Hung and Nguyet, 1999). The aims of the FA are to increase farming production and services, and to increase societal cohesion in rural areas. This is achieved through the initiation of and participation in farming activities, including aquaculture.

The WU was established in 1930 as a social organization representing Vietnamese women at all levels of society. Its aims are to protect the legitimate and legal rights and interests of women and to create conditions for women to further equality and to participate in development (Hung and Nguyet, 1999). About 11 million women are members of the WU, which is over 50% of women aged 18 or more. The Union has a national network, covering central, provincial, district and communal levels (Hung and Nguyet, 1999).

The Vietnam Fisheries Association was formed in 1992 by decree of the government. The aim of the Association is to unite fishers on a voluntary basis for mutual economical and technical support, and to support their legal interests. Members include individual fishers and fisheries factories and

cooperatives. The Association has established branches in some provinces, but not many individual fishers are members.

3.2.3 Within and Between Mass Organizations and NGOs

Strong working links exist among commune, district and provincial mass organization offices. Links between the mass organizations occur spontaneously at commune, district and provincial levels, and also through the Fatherland Front. Landline telephones are available in all mass organization offices, and many have computing facilities. When collaborating with international projects, these computers are often connected to the internet, providing e-mail access. Few access information other than e-mail from the internet. Fax machines are normally not present in mass organization offices, which use the local post office to receive fax messages. Some mass organization members have mobile telephones, but these are quite expensive to run, and networks are sometimes not available in rural areas.

3.2.4 With Other Stakeholders in the Fisheries Sector

Mass organizations work closely with government departments at provincial and district levels. Information exchange occurs via telephone and meetings, and through correspondence and e-mail (where available). Communication normally follows official channels, with personal meetings and correspondence preceding informal information exchange.

3.2.5 Mass Organization Extension

The commune WU recruits active individuals ('propagandists'), and train and encourage them to carry out extension activities in the form of monthly visits to different villages to disseminate information on HIV/AIDS, family planning and the promotion of income-generating activities. Under credit schemes of some internationally- or nationally-funded projects, many WU members receive training on micro-credit management and technical aspects of agriculture, forestry or fisheries.

The FA works in a manner similar to the WU, providing updated agriculture information to its members through meetings, visits and direct contact. The VA and YU are not commonly approached by projects. This is because the VA's membership is declining as the country is in peace, and the members of the YU are young and inexperienced.

Mass organizations commonly request extension assistance from AECs or FECs. They are also frequently approached by international projects, particularly those involving international NGOs, who work with mass organizations because of their strong community network (Hung and Nguyet, 1999). To ensure gender equality, many projects seek the collaboration of both the FA and the WU.

Communication with DOARDS, AECs, DOFs and FECs follows official channels, and include telephone and personal meetings, plus correspondence and e-mail (if available). Communication with international projects often occurs via e-mail, and computing facilities and internet access are often provided by the project.

3.3 Fisheries Education and Research

3.3.1 Fisheries Vocational Schools

Three Fisheries Vocational Schools provide technical training in fisheries and aquaculture, through which technicians can specialize in fields such as engineering, processing and culture techniques. Fisheries Vocational School No. 1 is located in Hai Phong, No. 2 in Ho Chi Minh City, and No. 4 is in Ha Bac (No. 3 no longer exists). Training courses are two to two-and-a-half years for primary level, and two years for secondary level. Entrants must have completed primary and/or secondary school prior to enrolment in a Fisheries Vocational School (Carl Bro Associates, 1996).

3.3.2 Universities

Several national universities in Vietnam teach fisheries courses. The University of Fisheries (Nha Trang) teaches only fisheries-related courses (including aquaculture, fisheries exploitation, fish processing technologies, fisheries mechanical engineering and fisheries economics). The University of Can Tho, University of Agriculture and Forestry (Ho Chi Minh City) and the University of Agriculture No. 1 (Hanoi) all have fisheries faculties which are active in fisheries research and teach BSc, MSc and PhD courses, although most postgraduate studies are still undertaken overseas, mainly at other Asian universities.

3.3.3 State Research Institutes

There are three Research Institutes for Aquaculture (RIAs) in Vietnam. The RIAs are under MOFI and are responsible for aquaculture and fisheries research. RIA No. 1 services the north, RIA No. 2 the south, and RIA No. 3 the central region. The strengthening of institutional capacity mentioned in the SAPA Strategy includes the prioritization of training and research carried out by the RIAs.

The Government of Vietnam has funded the institutional development of RIA No. 1 since 1983. The Institute conducts research on the environment and freshwater resources, aquaculture techniques, exploitation of wild fish, processing and conservation. RIA No. 1 also has an Information and Training Department which develops training materials for aquaculture extension and trains extension workers from DOF and DOARD. RIA No. 1 provides BSc, MSc and PhD level training, some of which forms part of the collaboration with the Asian Institute of Technology (AIT) and a NORAD-funded project aimed at building advanced research, education and extension capacity of RIA No. 1. The present enrolment is 20 BSc students, five MSc students and two PhD students.

RIA No. 2 was established in 1993 and mainly covers the technical and research needs of the aquaculture sector in southern Vietnam. The Institute provides training for fisheries technicians through short training courses. RIA No. 3 was established in 1993 to cover the developmental needs of the aquaculture industry in southern central Vietnam. RIA No. 3 is also involved in technical training.

In addition, there is also a Research Institute for Marine Products in Hai Phong, established in 1983. The Institute conducts aquaculture research, extension activities and education programs at different levels, including post-graduate training. There is also an Institute of Oceanography under the national Centre for Science and Technology in Nha Trang.

3.3.4 Within the Research Sector

Collaborative relationships among fisheries faculties of different universities are not close, and information exchange is often limited to interaction at national conferences. The working relationship between universities and RIAs is close, where they are linked through externally-funded projects. In such projects, workshops or meetings occur on a regular basis.

Within the research sector, collaborative links and information exchange depend largely on personal relationships among individuals graduating from the same university department, for example. However, because the fisheries and aquaculture sector is relatively small in Vietnam, many researchers within the field know of each other.

The communication between universities and research institutes follows official channels, with official meetings and formal correspondence preceding telephone or e-mail contact. Computing access at both universities and RIAs is good, and e-mail is frequently used for informal contact. Fisheries faculties at universities normally do not have their own fax machines, but can receive faxes from post offices or other university departments.

3.3.5 With Other Stakeholders in the Fisheries Sector

Both RIAs and universities collaborate with individual fisheries projects initiated by DOARD or DOF and with international projects. When interacting with provincial DOF or DOARD (including AECs and FECs), contact occurs through official channels. Communication with international collaborators occurs through meetings and frequent e-mail contact.

3.3.6 Extension Activities by the Research Sector

Most extension activities involving the research sector take place on individual projects, collaborating with DOARD or DOF (including AECs and FECs), but researchers are sometimes invited to participate in training activities carried out by provincial or district offices, or to form part of extension panels on live TV shows. RIA No. 1 produces a wide variety of printed extension materials such as books and manuals, targeted at farmers and extension workers. These materials are pre-tested with demonstration farmers, and modified according to their comments. The Institute also produces TV programs for fisheries and aquaculture extension. These are broadcast on the VTV 2 program *Farmers' Friend*, and programs are also sent to provincial TV stations.

3.4 International Projects

A number of international agencies work in Vietnam. The most important recent projects involving international agencies in the fisheries sector are shown in Table 1. Little information is available on the activities of NGOs within fisheries and aquatic resources management in Vietnam. A number of NGO directories exist for both international and Vietnamese NGOs, but there is no document that details their activities.

A detailed list of international NGOs working in Long An, Quang Tri and Thai Nguyen provinces is presented in Appendix 3, which also lists aquaculture-related activities of international NGOs on a nationwide basis.

3.4.1 Within and Between Projects

Within internationally-funded projects, communication often occurs via e-mail and through field visits. Information exchange between different internationally-funded projects occurs mainly through distribution of project reports, and personal meetings of participating individuals at national and international conferences and workshops. Close links exist between AIT and FAO, and also between FAO and NACA-STREAM.

An international NGO network Resource Centre (VUFO-NGO Resource Centre, Vietnam) has its offices in La Thanh Hotel, 218 Doi Can Street, in Hanoi. The network includes most international NGOs working in Vietnam. Within the network, several interest groups have been set up for specific issues, for example, sanitation and landmines. These meet regularly. The Resource Centre also produces a weekly newsletter, where networks and NGOs make announcements, advertising their activities and findings, and training and job opportunities.

3.4.2 Between Research and Development Projects and Other Parts of the Fisheries Sector

All internationally-funded projects work with Vietnamese stakeholders. Several projects funded by international agencies work with provincial DOF or DOARD officials, and many of these are employed on international projects on a part-time basis, e.g., with Mekong River Commission (MRC) and Asian Institute of Technology (AIT). Similarly, research projects work with universities and the RIAs. International NGOs often work closely with mass organizations (e.g., the FA and WU), and provincial or district levels of state administration. Communications between international projects and their collaborators often occur in English. Initial contact is always made through official channels

such as meetings between high-ranking individuals from participating institutions. Once a project is established, more informal contact occurs via e-mail, correspondence, telephone and fax.

Table 1 Projects Involving International Agencies in the Fisheries Sector

Period	Funder	Objectives
1986-1997	UNDP/FAO	Strengthen research capacity, develop an extension network for the promotion of low-cost aquaculture to small-scale farmers
From 1995	AIT, funded by SIDA	Extend on-farm research to integrated agriculture-aquaculture systems in Red River Delta
From 1997	AIT, funded by SIDA	Support dialogue with the northern mountain provinces to introduce potentials of aquaculture technologies for poverty alleviation
From 1999	UNDP/FAO	Participatory approach to aquaculture in three northwest highland provinces
From 2000	AIT, funded by SIDA	Following UNDP approach above
From 1998	NORAD	Capacity-building support for rural coastal area poverty alleviation
From 2000	DANIDA	Provide broad support to the fisheries sector, with poverty alleviation as one core objective
From 2000	NACA, DFID, FAO, VSO	STREAM Initiative, aquaculture and aquatic resources management for poverty alleviation, regional networking
From 2000	ACIAR, IDRC, others	Small-scale research projects on small-scale aquaculture

Box 10

Asian Institute of Technology Outreach Project

The Outreach Project of the Asian Institute of Technology (AIT) has been conducting on-farm research trials in five provinces of southern Vietnam since 1994. The project aims to develop fish culture for small-scale households in the southeast region of southern Vietnam, through farmer-managed on-farm trials. Another aim is improve the efficiency of aquaculture extension service of the provincial Agriculture Extension Centers and to produce extension materials suitable for their use.

To this end, the project works closely with the Faculty of Fisheries at the University of Agriculture and Forestry in Ho Chi Minh City. The project works with Agriculture Extension Centers to train farmers in aquaculture techniques in Farmer Field Schools, which provide a forum for contact between extension staff and farmers. A network of extension volunteers working at commune level has been established, and these were trained in fish culture techniques. Extension materials were produced and pre-tested with audiences as part of the project.

Source: Tu and Giang (1998)

3.4.3 Information Extension to Communities

Often the status of aquaculture or fisheries extension services in a region is closely linked with the degree to which international projects have been operating in the locality. Internationally-funded projects have more funding available for extension activities than national initiatives, and as a result they can often provide efficient extension to target communities. As outlined in Table 1, several international projects specifically target extension activities. Extensive training with printed support materials within these projects is common, as is pre-testing of extension materials with end-users, and farmer-to-farmer extension activities through field visits and workshops. International projects often provide computing and internet facilities for collaborating mass organizations, and contacts frequently occur through e-mail. Mass media campaigns are commonly used in internationally-funded health campaigns, such as the HIV/AIDS or the malaria campaigns executed in collaboration with the Ministry of Health.

Box 11

Extensionists and Fish Farmers Contest

Under the UNDP project “Aquaculture Development in Northern Uplands” (VIE/98/009/01/NEX), an impressive festival was held from 26-27 October 2001. The festival had more than 100 participants, and the competitions were witnessed by Dr Nguyen Viet Thang, Deputy Minister of Fisheries, RIA No. 1 leaders, and the Project Management Board. This event followed a series of previously organized contests for farmers and extension workers in all the project districts and provinces, through which the best candidates had been selected for each locality.

At all levels, the two-night contests were divided into two parts: a test of technical and extension knowledge in a written and spoken “question and answer” session (separately for commune and district/provincial levels), and a competition of performing arts. For the latter, candidates sang traditional songs with new lyrics, danced or performed dramas. In each district, the contest drew large audiences, thanks to the careful arrangements of the organizers, the strong support to the aquaculture sub-sector in the mountains from ethnic minorities, and the fact that few such events were usually held for these remotely located communities. Several hundreds of poems and lyric pieces were written and were contributed to the contest voluntarily by fish farmers, showing the happiness and contentment of people with the success of household aquaculture.

4. ACCESS TO INFORMATION FOR RURAL COMMUNITIES³

4.1 Major Sources of Information in Villages

4.1.1 Commune Leaders and Village Headmen

Village headmen play important roles in the socio-economic life of their small society. They do not have any income sources from the State, but are funded by the people. Usually, a retired officer, teacher or veteran considered a “prestigious person”, is elected by villagers to the post. He or she must be knowledgeable, sensitive to all mandates and policy changes, and responsible for informing villagers immediately of those changes.

Historically speaking, for a long period from the beginning of feudalism to the birth of the Republic in 1945, the old saying “*phep vua thua le lang*” (roughly translated as “royal regulation is bound to village rule”), coupled with the rather independent social structure of Vietnamese villages, influenced the way that village people regarded state policies. As a result, in many areas, village headmen were influential.

Similarly, commune leaders gain much respect from ordinary people if their decisions and actions are effective and transparent. Thus, people are free to select their leaders and express their opinions on the quality of their leaders’ work, directly deciding his or her political fate. The Commune People’s Committee’s main task is to raise people’s awareness of key policies and legal documents that directly affect the community. This is normally done by sending official correspondence to villages through village headmen, and by establishing public libraries, known as bookcases, of legal documents in the Committee’s headquarters for people to read.

4.1.2 Training

Community members draw much of their information from on-site training courses provided by government or foreign-funded extension programs, for which teachers are usually drawn from provincial or district agriculture, forestry or fisheries agencies.

Although the literacy rate is high among Vietnamese, ethnic minorities living in upland communes show low functional literacy, thus many can read a text without understanding the content. Communities also mentioned as a problem that most provincial and district fisheries officers are of the Kinh majority and they can only communicate fluently in just two or three of the 53 minority languages. This was perceived as problematic in technical training, where many terms were used which people with limited education found difficult to understand.

Communities also mentioned the poor quality of training of some fisheries extension staff, mainly where untrained individuals from ethnic minority groups had been mobilized to provide fisheries extension by the Department of Agriculture.

4.1.3 Mass Organizations

The fieldwork revealed that, although a number of community clubs have been set up related to HIV/AIDS campaigns, family planning, agriculture, forestry and fisheries extension, many of these have no organized framework to work within. Many felt that it is not easy for commune-level members of mass organizations to get new information on various aspects of fisheries and aquaculture.

³ See a summary in Appendix 6.

4.1.4 Farmer-to-Farmer

Personal interaction was regarded as the best communications medium. For this reason, fellow farmers could be an important source of information for others. In communities, demonstration farms and successful farming households were often thought to provide honest recommendations, providing practical motivations for their neighbors and anyone else visiting them.

However, in the community meetings it was also put forward that Vietnamese people traditionally feel hesitant to share information, especially technical know-how that contributes to a family's success and reputation. In rural societies dominated by small-scale farming, people often hide their experiences, to ensure that no potential competitors can arise.

4.1.5 Mass Media

The fieldwork also showed that today many farmers have access to television, and 70% of households were reported to own TV sets. The reception is not always good, however, particularly in the mountains. The VTV 1 and VTV 3 channels were accessible in most communities. In southern and central provinces, the provincial TV stations were often more accessible, because of the flatter topography.

Radios are cheaper than TVs, and as a result more people own radios than TVs. In the communities visited in this study, on average approximately 87% of community members had access to radio. Most people preferred watching TV to listening to the radio. Community members spent half an hour to an hour in the early morning listening to agriculture news on radio. In northern mountainous provinces, VOV 3 FM is the frequency most easy to catch.

Newspapers are popular in urban areas, but less so in rural districts. Leaders of local mass organizations and administrative officers commonly read subsidized magazines and papers.

Festivals and cultural competitions are favored among farmers. In the hard working lives of farmers with limited sources of entertainment, traditional festivals (e.g., *Long Tong* of the Tay, New Year of all ethnicities, New Harvest of the Thai) are usually important events for minorities and mountainous communities. In the areas with better transport facilities, performing (music, circus and drama) troupes organize commercial performances at reasonable entry prices, which are much attended by communities. *Cai luong* (semi-classical opera) is popular and attended by audiences of thousands each night in southern rural areas.

4.1.6 Cultural and Legal Libraries (Bookcases)

Not many community members access the legal bookcases in the headquarters of commune officials. The exception is officers who need to look up provisions to deal with legal issues, such as land management, small disputes, and birth and residence certificates. Farmers did not commonly access the commune post and cultural station bookcases either, but school children sometimes made use of the reading facilities.

4.2 Fisheries and Aquaculture Information Needs

A number of specific information needs were mentioned during community fieldwork. These included:

- Market information: Price of seed, feed and other products
- Service information: Where can people get therapeutics, good quality fry and fingerlings?

- Loan information: Where can community members get loans from? At what interest rates? What is the loan cycle?
- Legal information: What are the legal issues surrounding aquaculture?
- Technical information: Information on water treatment, pond size, stocking density, cultivable species, husbandry, nursery techniques, disease treatment and prevention
- Practical information: Models of success and failure cases and reasons
- Group-forming information: How to establish a fisheries self-help group or cooperative? What form should it take to ensure efficiency?

4.3 Preferred Ways to Access Information

4.3.1 Training

Communities stated that their preferred means of accessing information was through training, supported by training materials and combined with field visits, taught by scientists or researchers. Each training course should include 20 to 40 trainees. Courses should be held every six months in the north and south and quarterly in the central region. The course duration should be one week.

Printed materials should accompany training sessions, and could also be used for general information dissemination. Posters (10 x 20 cm to 60 x 90 cm), booklets, leaflets and distributed newspapers were all mentioned as good information sources. Printed media should be colorful, use big font sizes, and include good quality color photographs. Text should be clear and the addresses of service suppliers should be provided. They should be circulated in a number adequate to supply interested people. Leaflets and booklets should also have thick cover pages to minimize handling damage.

4.3.2 TV

TV programs featuring demonstration or successful models relevant for local conditions should be broadcast on VTV 1 and local TV. Many interviewees said they knew VTV 2 was a good channel with interesting programs on agriculture, but it only reaches lowland farmers near Hanoi. Programs should be of 30 minutes length, and be broadcast on a weekly basis at 20:00 (after the evening news).

4.3.3 Radio

Farmers preferred live question and answer discussions with scientists, where they can call in and ask questions relevant to their problems. Preferred broadcasting times varied, from 4:30 to 5 am (in the south) to 10:30 am (in the north).

4.3.4 Performing Arts

Community members in the north would like aquaculture extension messages incorporated into festivals and cultural competitions. They suggested competitions to find the most “excellent fish farmers”, and comic drama about aquaculture activities.

4.3.5 Videotapes and CDs

Farmers considered videos efficient for general awareness creation, and for use when teaching specific techniques. These should be shown at training sessions or at village or group meetings.

4.3.6 Farmer-to-Farmer

Farmer-to-farmer extension was considered efficient for the transmission of information, and many stated they liked to be taught through interaction with other farmers because the language used by other farmers was familiar and easily understood.

Field visits were considered great opportunities to learn, especially when they showed successful models for poverty reduction and income generation.

4.4 Gender Issues

Women are actively involved in fish culture activities, because it is lighter work than pig raising or rice growing. However, women only attend aquaculture training when it is specifically stated in the training invitation letter that women should attend. This is because they are generally busier than men, and therefore have less time to spare for training, but also because men are the heads of households and therefore traditionally attend public meetings.

Most training of men is done on the provision that they share information with women, but in practice women are not informed about the advice of the extension workers, e.g., when it comes to feed mixtures, fish stocking density, lime and fertilizer application. One way to reach women in the community could be to raise the percentage of female staff working on projects or in extension, and to train extension workers in gender awareness (Hai and Hanh, 1999).

Women also find it more difficult than men to access media such as TV. This is because they have less time available for watching TV and also because in households where there is no TV, the men often go and watch TV at other families' houses. It is reportedly more difficult for women to go to other people's houses in the evening than it is for men, and sometimes doing so causes conflict within the home.

5. FINDINGS AND RECOMMENDATIONS

5.1 Findings

Most of the interviewees, especially the ones working as civil servants, agreed that the government extension sector is limited by lack of funding and the aquatic resources management-related information provision to individual communities is limited in areas where no projects funded by external agents exist. The Master Plan for Fisheries prioritizes the promotion of high-value aquaculture and fisheries, and a pro-poor focus. On the ground, this translates into a focus of extension efforts to coastal provinces, which are the only areas where provincial DOF offices and Fisheries Extension Centers (FECs) exist. In inland provinces, where extension efforts are directed through the DOARD and Agriculture Extension Centers (AECs), fisheries and aquaculture extension is often given low priority.

Both the DOF and DOARD extension efforts are greatly limited by lack of funding and (adequately trained) manpower. Because coastal provincial DOFs often focus on the support to coastal higher-value aquaculture such as shrimp culture, it does not seem that inland communities in coastal provinces with an FEC receive more aquaculture information than those in inland communities supported by an AEC. In fact, all communities met during the fieldwork had more or less the same information needs, whether supported by an FEC or an AEC. Some of the information needs voiced by farmers were specific, such as instruction in a technique they had heard of, or how to treat a disease.

Often the information needed by communities (and DOF and DOARD officials) is widely available, and has even been tested in research or development projects within Vietnam, but it not always known to those providing aquaculture extension. In other cases, the information extended may be inappropriate, such as aquaculture systems for poor people with high stocking densities requiring a great deal of inputs, which are not available or affordable in rural areas. Local communities are often not included in the planning stage of government extension activities, with the result that the information provided to them is sometimes irrelevant, or lacking in key aspects. This might include the promotion of aquaculture in inland ponds, with little concurrent support in terms of disease prevention, or the promotion of high-value species where no seed are available, or seaweed culture in areas where there are no markets for the product.

Government extension providers access information mainly through official channels and through any interaction with external agents such as on internationally-funded projects. For information to be of use to government extension workers and the community members they teach, it needs to be presented in simple language in Vietnamese. Most DOF, DOARD, FEC and AEC offices have computers and internet access, but websites with coherent, understandable, specific information about aquaculture and fisheries in Vietnamese are reportedly hard to come by. Some mass organizations have computers and internet access too, but rarely search the internet for information.

In a country with limited resources for information provision about aquatic resources management, it is important that those resources available are used as efficiently as possible, and that efforts are coordinated and findings shared. Unfortunately, in Vietnam, the information sharing between individual agencies and organizations within the sector (including national and international stakeholders) is poor, as is the collaboration and communication among individual projects. Often different institutions, agencies and initiatives are unaware of the activities of others, so overall efforts are poorly coordinated, may be replicated, or may actually impact adversely on one another. Findings from research projects rarely reach the extension network, and therefore often only benefit farmers directly involved, instead of adding to the general local pool of knowledge. This has clearly been the case for some time, and was mentioned as a major concern in the DANIDA situation analysis in 1996 (Carl Bro Associates, 1996). Although a national network exists for international NGOs, not all of

them participate in it, and the network does not collaborate with projects coordinated by the government, or with international projects not working with international NGOs.

Furthermore, many stakeholders felt that projects (both those funded by government and by external agents) rarely had lasting significant impacts, because activities would stop once projects were over. This indicates that local capacity-building, a key component of most projects, could do with improvement. The efficiency and long-term impact of extension and project activities is rarely assessed by the government and external agents such as donor agencies and international NGOs, and so important lessons about what works and what does not are often not learned.

Vietnamese NGOs have until recently had an uncertain legal status, and as a result have not figured greatly in the extension scene within the aquatic resources management sector. However, with their new-found rights, Vietnamese NGOs are likely to become more important in the future. Mass organizations are important and have extensive networks at provincial, commune and village levels, and as a result almost all existing projects work with them, mainly the Farmers' Association (FA) and the Women's Union (WU).

Within Vietnam society, it is important to follow established channels for interaction and involve all relevant stakeholders, particularly government at all levels. Information sharing among stakeholders could also benefit greatly if individual projects made an effort to involve as many other stakeholders (other projects, international and Vietnamese NGOs, mass organizations) as possible in their activities, both those working in the same region and nationally.

At a local level, working with district and provincial government departments, and with mass organizations, is recommended. The WU provides a great opportunity to facilitate women's involvement. Information from training is not well exchanged between men and women within households.

5.2 Recommendations

5.2.1 Communications among Projects, Institutions and Agencies

At national and local levels there is a great need for collaboration between, and coordination of, individual aquatic resources management efforts. The establishment of a coordinated network of projects within the agriculture, fisheries, aquaculture, natural resources management and environmental sectors could facilitate information sharing and prevent duplication of efforts. Many stakeholders expressed a great need for such a network, which most agreed should be coordinated by government agencies, including the Ministry of Agriculture and Rural Development (MOARD), the Ministry of Fisheries (MOFI), and the Ministry of Natural Resources and Environment (MONRE). STREAM could play a key role in facilitating the establishment of such a network.

Such a network could become accessible to a great number of stakeholders if information regarding its activities and members was published on the internet. Many stakeholders expressed a need for a central internet service with an attached database providing information on individual projects and their activities by region or topic. The network could be linked to the international NGO network and to the Vietnamese NGO network that is currently being established. If possible, such a site could provide links to, or integrate, the fisheries and aquaculture database library and information service developed by the Fisheries Informatics Center (FIC), which is planned to be posted on the internet at the end of 2003. For a central database to be of most use, it should be in simple language, in both Vietnamese and English, and include specific information on project findings and recommendations. Such information could include advice on how to seek credit, disease treatment, basic husbandry guidelines and fishing laws, as examples. This would enable computer literate DOFs, FECs, DOARDS, AECs and mass organizations to access information on the internet that they otherwise find it hard to come by. If such a website is developed, it is essential that it be tested with the intended

users and modified until the information presented and the presentation format meet the needs of users.

To increase their communications capacity, individual projects should prioritize networking with key stakeholders, and aim to involve as many institutions as possible in activities through formal channels. Projects should plan regular workshops or meetings to facilitate communication with these stakeholders in their local area of operation.

The relevance of projects and information extended to communities should be ensured by including local aquatic resources users and other stakeholders at all levels and in all stages of project planning and implementation. To ensure the sustainability and lasting impact of projects, special attention should be paid to capacity-building and intensive efforts in networking should be made.

5.2.2 Communications with and among Aquatic Resources Users

To reach communities, it is recommended that a variety of media be used. These could include awareness-raising campaigns on TV and radio, using posters, festivals and competitions, and specific information provided in the form of training courses. Performing arts and competitions are effectively used to generate enthusiasm about a topic or idea towards the end of an information campaign using other media, but should not be used on their own. Wherever possible, the outputs of competitions should be used for further information dissemination. This can be achieved by showing video recordings of artistic performances in rural communities by distribution to the district TV channel or by using mobile cinemas and by printing calendars using art supplied in painting competitions (such as the HIV/AIDS awareness children's drawing calendar produced by CARE Vietnam).

Mass media could target, and be developed with, the end-users and should be pre-tested in the intended area of use before wider dissemination. Local designers and artists could be used in the design of leaflets and posters, particularly in remote ethnic communities where local traditions and customs (and with them suitable communications media and delivery) change greatly from area to area. Such local development of information material will ensure that the language and illustrations used are appropriate and as effective as possible.

For training, farmer-to-farmer information exchange is widely regarded as being efficient, because farmers understand and trust other farmers. Such efforts should be carefully planned to ensure that the farmers participating are willing to share their information. Trained extension workers could provide additional information, and wherever possible should be supported by audiovisual training tools and printed training materials for distribution to all farmers. Booklets and leaflets could be in color, include photographs, use simple language, and be designed to last so that community members can refer to them later. Training could also include hands-on practice, and many extension workers felt that the greater the active participation in the training, the more the information is retained.

To facilitate communications in rural areas extension workers could be retrained more frequently, and provided with adequate transportation means and incentives to travel to remote communities.

Special efforts could be made to include women in training activities. Invitations for training should stipulate that women are invited, otherwise male heads of households attend. It should not be assumed that information will pass from men to women, or from women to men, within the household. Wherever possible, projects and extension activities should actively involve the Women's Union.

Finally, any extension strategy or project could include at the planning stage consideration of how the efficiency and long-term effects of efforts and projects will be assessed. International projects should aim for long-term sustainability, and include in projects the specific assessment of this.

REFERENCES

Action Aid 2002 *What Do the Catfish Farmers Say?* Report of an Interaction with Catfish Farmers in the Mekong Delta of Vietnam. Action Aid, Vietnam Fisheries Society, Vietnam Farmers Association, Oxfam HK and VASC Orient On-line News. August.

Baulch B, Chuyen T T K, Haughton D, Haughton J 2002 *Ethnic Minority Development in Vietnam: A Socioeconomic Perspective*. United Kingdom: Institute of Development Studies, University of Sussex.

Bryceson I, Andreassen L, Nho N and Tang V T 2000 *Mid-term Review of the Project "Building Advanced Research and Education Capacity for Research Institute for Aquaculture No. 1"*. SRV-033.

Carl Bro Associates 1996 *Socialist Republic of Vietnam Geographical, Social and Socio-economic Assessment of the Fishery Industry in Vietnam*. Glostrup, Denmark: MOFI and DANIDA Fisheries Master Plan Sub-Project II.

Duong L T, Nhan D K, Rothuis A, Quang P M, Giau T Q, Chi H H, Thuy L T, Hoa N V and Sinh L X 1998 *Integrated Rice-fish culture in the Mekong Delta of Vietnam: Problems, Constraints and Opportunities for Sustainable Agriculture*. Japan International Research Center for Agricultural Sciences, Can Tho University and Cuu Long Rice Research Institute.

Hai N T and Hanh L T 1999 *Gender Analysis in Rural Extension for Aquaculture Development Project in Tien Giang Province*. Social Development Research and Consultancy for the Mekong River Commission.

Hung D V and Nguyet L M 1999 *Report on Credit for Small-scale Aquaculture Development in Tien Giang Province*. Rural Extension for Aquaculture Development in the Mekong River Delta Project (Phase I) Cambodia and Vietnam.

NGO Resource Centre 2002 *Vietnam INGO Directory 2001-2002*. Hanoi: NGO Resource Centre.

Nguyen S H, Bui A G, Le L T, Nguyen T T T and De Silva S S 2001 *The Culture-based Fisheries in Small, Farmer Managed Reservoirs in Two Provinces of Northern Vietnam: An Evaluation Based on Three Production Cycles*. *Aquaculture Research* 32, 975-990.

Phillips M 1998 *Freshwater Cage Culture Development in the Reservoirs of the Central Highlands of Vietnam*. Bangkok: Mekong River Commission.

Socialist Republic of Vietnam 2002 *The Comprehensive Poverty Reduction and Growth Strategy (CPRGS)*. Document No. 2685/VPCP-QHQT. Hanoi.

Thien T M 1999 *Livelihood Status and Needs of Inland and Coastal Communities in Relation to Aquaculture*. Ha Bac, Vietnam: Research Institute of Aquaculture No. 1.

Tu N V and Giang T T 1998 *Improving the Efficiency of Aquaculture Extension Activity in the Southeastern Provinces of Southern Vietnam*. Chiang Mai, Thailand: Fifth Asian Fisheries Society Forum.

UNDP 2002 *Human Development Report 2002*. New York: United Nations Development Program.

Appendix 1 Excerpts from the 1992 Constitution of the Socialist Republic of Vietnam

Article 119 The People's Council is the local organ of State power; it represents the will, aspirations, and mastery of the people; it is elected by the local people and is accountable to them and to the superior State organs.

Article 120. On the basis of the Constitution, the law, and the formal written orders of superior State organs, the People's Council shall pass resolutions on measures for the serious implementation of the Constitution and the law at local level; on the plan for socio-economic development and the execution of the budget; on national defense and security at local level; on measures for stabilizing and improving the people's living conditions fulfilling all duties entrusted by the superior authorities and all obligations to the country as a whole.

Government Decree No. 81 cp, 1 August 1994, providing details for the implementation of the law on the elections to the people's councils (amended)

Article 13. The drawing up of the list of candidates as defined in Chapter V of the Law devolves on the Fatherland Front Committee at all levels which has the responsibility to do this job within the scheduled time and in a democratic manner without coercion or command. This process comprises concrete jobs to be done under the guidance of the Central Committee of the Vietnam Fatherland Front.

The administration at all levels has the responsibility to help the Fatherland Front Committee at various levels to conduct efficient consultations for the nomination of the candidates to the elections to the People's Council.

Article 14. After making public the list of candidates, the local administration should coordinate with the Fatherland Front Committee and its member organizations at various levels in arranging contacts between candidates and voters in the election unit. Candidates may answer questions of voters and present their projects they intend to carry out if elected to the People's Council. Candidates are entitled to campaign for themselves. Mass and social organizations may campaign for their candidates according to prescriptions of law.

Appendix 2 Vietnamese NGOs Working in Long An, Quang Tri and Thai Nguyen Provinces⁴

Note: Certain districts were involved with DFID-ARMP and SAPA for livelihoods analysis in 2001. These were Due Hue and Thanh Hoa in Long An, Huong Hoa and Da Krong in Quang Tri, and Dinh Hoa and Vo Nhai in Thai Nguyen.

Long An

None indicated

Quang Tri

NGO	District	Program
Centre for Natural Resources and Environmental Studies		From 1990-95, worked with MOSTE on sustainable use of natural resources
Centre for Rural Development in Central Vietnam		From 1997-99, worked with provincial government in training provision and rural development consultancy
Consultative Institute for Socio-economic Development of Rural and Mountainous Areas		From 2002-06, working with GTZ/GFA on VIE33301-01 "Improved Livelihoods for the Central Area"
Institute of Ecological Economy	Trieu Van	From 1993-98, managed an ecological village program with poor farmers
Research and Training Centre for Community Development	Huong Hoa	In 1998, with ICCO funds, implemented an integrated program (education, health, agriculture, and infrastructure) in five communes In 2000, together with the Danang Red Cross, ran courses on trainer training, primary health care, and health monitoring and evaluation

Thai Nguyen

NGO	District	Program
Centre for Gender Research and Community Development	Dinh Hoa	From January-April 2001, worked with District Women's Union on training to improve gender awareness and building a library for women in two communes (funds provided by SIDA and DANIDA)
Consultative Institute for Socio-economic Development of Rural and Mountainous Areas	Dinh Hoa	From January-April 2000, worked with District Women's Union on project to improve gender awareness and building a library for women in two communes (funds provided by SIDA and DANIDA)
Institute for Asia-Pacific Science-Technology Research Cooperation		In 2000, conducted evaluation of the animal raising situation
Research and Training Centre for Community Development		From January-March 2002, worked with Save the Children US to assess the feasibility of replicating lessons from a nutrition program

⁴ Information taken from NGO Resource Centre (2002). The situation may have changed since publication of the Vietnam INGO Directory 2001-2002, and the NGO Resource Centre is currently updating the book.

Appendix 3 International NGOs Working in Long An, Quang Tri and Thai Nguyen Provinces⁵

Note: Certain districts were involved with DFID-ARMP and SAPA for livelihoods analysis in 2001. These were Due Hue and Thanh Hoa in Long An, Huong Hoa and Da Krong in Quang Tri, and Dinh Hoa and Vo Nhai in Thai Nguyen.

Long An

INGO	District	Program
Aide Ontologique International	Can Giuoc, Moc Hoa, Tan Tru, Thu Thua	Health education
Birdlife		Conducted rapid study for biodiversity conservation through protected area planning and development
CARE International		Hospital boats, health disaster preparedness on the Mekong, working with AIDS
Caritas Australia		Community-based savings and credit programs with Provincial Women's Union
Church World Service	Tan An, Can Giuoc, Duc Hoa, Duc Hue, and Tan Thanh	Environmental studies, women's studies and social work scholarships for women to attend Open University in HCMC Capacity-building for rural health care cadre, minor equipment for community clinics, water and sanitation; assisting water and sanitation in crèches, kindergartens and medical clinics
CIDSE	Tan Tru, Thu Thua	Supporting health newsletter publication; health education at province, district, commune and village levels Loans to poor women, group formation, creation of savings habit, technical assistance and training in microfinance, training in income generation techniques, and social and community issues
Fund for Development Cooperation (FOS)	Tan Thanh, Thu Thua	Credit through mutual guarantee groups
Pearl S Buck International	Ben Luc, Tan An, Thu Thua	Inclusive education for deaf and hearing-impaired children

Quang Tri

INGO	District	Program
Birdlife		Completed feasibility study for proposed Da Krong Nature Reserve
Christian and Missionary Alliance	Hai Lang	Build nurseries and elementary schools
Compassion International		Improvement of orphanage facilities, operations for Orange Agent babies (in Taiwan), regular medical care for sponsored orphans in Quang Tri town
Deutscher Caritasverband		Community-based rehabilitation program for handicapped people; vocational training for rehabilitation workers, and credit scheme for families with handicapped members
Development Workshop		Disaster preparedness at both community level and for local authorities

⁵ Information taken from NGO Resource Centre (2002). The situation may have changed since publication of the Vietnam INGO Directory 2001-2002, and the NGO Resource Centre is currently updating the book.

Quang Tri (continued)

INGO	District	Program
DKT International		HIV/AIDS prevention social marketing
11th Engineers – Vietnam Revisited		Health equipment and supplies
Family Health International		HIV/AIDS
Gruppo di Volontariato Civile (GVC)		Micro-economic activities focusing on training for small enterprise development
Handicap International – Belgium Section	Dong Ha	Develop referral general rehabilitation centers: surgery, physiotherapy, orthopedic devices
Interchurch Organization for Development Cooperation (ICCO)		Support for NGOs such as IDE (treadle pump program), RTCCD (community development in Huong Hoa district), capacity-building of staff (CRD)
International Federation of Red Cross and Red Crescent Societies (IFRC)		Capacity- and institution-building of branches of the Vietnam National Red Cross
Medisch Comite Nederland Vietnam (MCNV)	Dong Ha	Reproductive health and primary health care
Mines Awareness Group	Gio Linh	Mine and UXO clearance, environmental rehabilitation
Oxfam Hong Kong	Da Krong, Gio Linh	Landmines and UXO issues advocacy, participatory management in irrigation projects, study tours for partners, disaster relief and rehabilitation, disaster preparedness, school construction and teacher training, agrochemicals and pesticide use training, environmental studies, drinking water supply, traditional medicine, agricultural extension, microfinance and veterinary services
PeaceTrees Vietnam	Dong Ha	Landmine and UXO clearance, Friendship Village construction, Danaan Parry Landmines Education Center as landmine-safe haven for children and families and landmine/UXO education
Plan International	Cam Lo, Gio Linh	Agricultural training for farmers, seed and fertilizer provision, horticulture and fruit tree training, horticultural inputs, livelihood feasibility study and evaluation, community-managed project training, community development plans, gender awareness, habitat-related feasibility study on landmines, child-to-child health and events, construction and upgrading of bridges and vocational training center, education, health and nutrition including reproductive health, housing, local funds, irrigation, vocational training, water and sanitation
Save the Children US	Hai Lang	Community empowerment and nutrition
	Da Krong	Maternal health and child nutrition
SNV Netherlands Development Organization	Da Krong, Vinh Linh, Huong Hoa	Microfinance, vocational training and off-farm enterprise development, rural energy
Solidaritaetsdienst SODI	Cam Lo, Dong Ha, Trieu Phong	Planting of rubber trees on UXO-cleared land, medical and food support for hospitals, UXO clearance for resettlement of families, micro-credit for cow and pig-raising, support for vocational training centers
Vietnam Veterans Memorial Fund	Trieu Phong	Mines awareness, emergency medical services and rehabilitation, landmines clearance and resettlement
World Vision Intl	Trieu Phong and Vinh Linh	Nutrition, micro-finance, education, disaster preparedness, children's programs, and agricultural training and extension

Thai Nguyen

INGO	District	Program
Adoption Centre - Swedish Society for International Child Welfare		Supporting hospitals, maternity wards and medical centre for pre- and post-natal care
Allianz Mission	Vo Nhai	Baseline survey on child health
Canadian Centre for International Studies and Cooperation (CECI)	Dong Hy, Thai Nguyen town	Diversification of agriculture, integrated pest management, alternative and appropriate technologies; environmental impact assessments, community development planning; project management, monitoring and reporting, financial management, participatory development methodologies, democratization of decision-making processes
CBM International		Treatment of cataract, trachoma, xerophthalmia, glaucoma, refractions and other eye problems; blindness prevention
Cooperation Internationale pour le Developpement et la Solidarite (CIDSE)	Dinh Hoa, Phu Luong, Vo Nhai	Agricultural extension, training, soil and water conservation, information, livestock, training to strengthen service capacity of extension agencies
	Dai Tu, Dinh Hoa, Dong Hy, Pho Yen, Phu Luong	Integrated pest management in tea, supporting farmer field schools, training of trainers, formation of tea IPM farmer groups, field-based studies, establishment of 'clean' and organic tea areas, marketing studies
	Dinh Hoa, Phu Luong, Vo Nhai	Supporting reforestation, forest protection and enrichment activities
	Phu Luong, Thai Nguyen town	Training in HIV/AIDS prevention for health workers and community
	Dinh Hoa, Phu Luong, Vo Nhai	Farmer-based irrigation, training for technicians and members of water users' association, assistance with repair and upgrading of degraded systems; loans to poor women, group formation, creation of savings habit, technical assistance and training in microfinance, training in income-generation techniques and social and community issues
	Dinh Hoa, Pho Yen, Phu Luong	Establishment and training of village health volunteers and community health workers, particularly on maternal care; health education at province, district, commune and village levels; training, technical assistance and loan funds to improve village-level water and sanitation
Eau Agriculture et Sante en Milieu Tropical (EAST)	Vo Nhai	Primary health care, sanitation education in schools, water supply and sanitation in 60 schools
English Language Institute		English language training for university school year and summer camp
Fauna and Flora International		Primate conservation program
Fund for Reconciliation and Development		US-Indochina Educational Exchange Enhancement Program
Helvetas		Poverty alleviation and natural resources management
International Mission of Hope		Sponsorship of food center; monthly aid for upgrading orphanage building; donation of funds to build youth center

Thai Nguyen (continued)

INGO	District	Program
Netherlands Leprosy Relief		Strengthening leprosy control program
Pearl S Buck International	Phu Binh	Inclusive education for deaf and hearing-impaired children
SNV Netherlands Development Organization	Dai Tu, Pho Yen, Thai Nguyen town	Vocational training, off-farm enterprise development, support for provincial policy-making department on environmental regulations, agricultural extension and research
Volunteers in Asia	Thai Nguyen town	English training and exchanges

The following overview was produced for STREAM by Barbara Fortunato, a STREAM-VSO Volunteer.

International NGOs involved in VAC culture (NGO Resource Centre, 2002):

- Australian Foundation for the Peoples of Asia and the Pacific, in Phu Tho and Yen Bai provinces
- Brot fuer die Welt (BfdW), in Can Tho
- Catholic Relief Services (CRS), in Thanh Hoa
- Cooperation Internationale pour la Developpment et la Solidarite (CIDSE), in Bac Can
- Gruppo di Volontario Civile, in Bac Giang
- Ieder Voor Allen (IVA), in Can Tho
- Oxfam Belgium, in Nghe An

Other relevant involvements:

- Environmental Development Action in the Third World (ENDA) states it works with poor fisherfolk in Hue
- Groupe de Recherches et d'Echanges Technologiques (GRET/PFR) states it is involved in fish farming systems in Bac Can, Hai Duong, Phu Tho and Vinh Phuc
- Nordic Assistance to Vietnam (NAV) supports aquaculture in Thua Thien Hue (communities in Tam Giang Lagoon)
- Norwegian Mission Alliance's (NMA) work with leprosy village development in HCMC includes fishpond promotion

From meetings and interviews, these are also known:

- Action Aid has taken on a lead role in raising awareness on the catfish trade conflict between Vietnam and the US as part of its campaign against trade protectionism (Action Aid, 2002)
- CARE International works in villages that have access to water resources in Phu Yen Province, where farmers raise fish in ponds and fish cages in rivers and reservoirs. CARE helps by subsidizing the cost of fingerlings for poor families, providing technical training in water management, disease prevention, cost-benefit analysis of fish varieties and marketing information.
- International Marinelife Alliance (IMA) has, as its vision, "A well managed and conserved coral reef and associated coastal ecosystem ensuring food security, poverty reduction and livelihood enhancement for those who depend upon these resources." Towards this end, IMA is implementing a three-year (2001-04) project entitled "Trao Reef Locally Managed Marine Reserve" which has been established and is jointly managed by the local government and community. The reserve is in Van Phong Bay, Khanh Hoa Province, with Trao Reef as a Permanent Protected Area, three kilometers from shore, protecting 40 ha, with a core zone of 27 ha and Tuong Reef as a Seasonal Protected Area, covering 40 ha. IMA is also cooperating

with various agencies in conducting extensive research into the live reef fish trade in Vietnam to develop a sound policy contributing to sustainable coastal resources management. The research is carried out in Hai Phong, Quang Ninh and Khanh Hoa provinces.

- Oxfam Great Britain's program in the southern province of Tra Binh started with mangrove reforestation and later expanded into agriculture and aquaculture extension in one commune, but building capacity at the provincial-level agriculture and aquaculture extension centers. They introduced low-input shrimp farming integrated with mangroves, which they claim to have demonstrated is a sustainable model, and they are looking into designing similar projects. In line with this, in June 2001 Oxfam GB hosted a workshop on the rehabilitation of mangrove forests in shrimp farming areas.
- World Conservation Organization (IUCN) is currently implementing the Hon Mun Marine Protected Area (MPA) Pilot Project covering six villages in Nha Trang. The project aims to conserve a representative example of internationally significant and threatened marine biodiversity. The project focuses on development objectives to enable local island communities to improve their livelihoods and, in partnership with other stakeholders, effectively protect and sustainably manage the marine biodiversity at Hon Mun as model for collaborative MPA management in Vietnam.
- The Vietnamese partners of ICLARM's Freshwater Resources Research Program are from the Can Tho University Department of Environment and Natural Resource Management. Several of their staff have been trained by Dr Parvin Sultana (based in ICLARM's Malaysia head office) who is working on a DFID-funded project called "Understanding Livelihoods Strategy Dependent on Inland Fisheries" which covers the Mekong region and Bangladesh. Dr Sultana specializes in participatory methods such as community-based management approaches, participatory research and monitoring and evaluation, participatory action plan development, livelihoods strategy analysis, poverty analysis and social capital analysis.
- ICLARM is also working on fisheries co-management in cooperation with the MOFI Institute of Fisheries Planning and Economics.
- Since September 2002, ICLARM also works with RIA No. 1 on two projects: genetic improvement of species (project manager is Dr Thien) and rice-fish farming (project manager is Dr Dan). FAO has committed to assign technical consultants to the project.
- ICLARM used to have a project with IRRI to promote rice fish farming in flooded areas.
- World Wide Fund for Nature (WWF) Indochina has a Marine and Coastal Program which, in Vietnam, includes national-level advocacy on conservation, capacity-building for staff of the Con Dao National Marine Park, support for the marine turtle conservation program of the Nui Chua Reserve, and participation in the global Reef Check.

In the *Directory of Vietnamese NGOs Working for Hunger Eradication, Poverty Reduction and Community Development in Vietnam*, the following NGOs listed aquaculture as one of their concerns:

- Center for Bio-Agricultural Research
- Center for Bio-products Research and Production
- Center for Material Environmental Technology and Community Development
- Center for Rural Development in Central Vietnam
- Consultative Institute for Socio-economic Development of Rural and Mountainous Areas
- Economic Development and Investment Consultancy Center for Small and Medium Trading, Danang City
- Institute for Asia-Pacific Science and Technology Research Cooperation
- Science-Technology Union for Rural Development

However, this directory does not provide detailed information about the organizations' involvement in aquaculture. In some cases, it appears that the NGO had only been involved in one-off aquaculture training in the past. IMA and ICLARM appear to be the only NGOs in Vietnam that fully concentrate on aquatic resources management.

Radio and Audiotapes

Advantages: Access to radio good, about 97% in rural areas. Can get local programming, in ethnic languages if needed. Need for good collaborative working relationship with VOV might foster close links.		Disadvantages: Many people prefer watching TV to listening to the radio, so although accessible, radio may not have great listener figures. Difficult to control when and what is presented on state-owned radio. Need for good collaborative working relationship with VOV.		
Price for audiotape production from UNDP project: Audio tapes (500) – recorded messages in local folk songs: US\$ 1,000				
Radio stations in Vietnam: all under VOV Headquarters at 58 Quan Su – Hanoi, http://www.vov.gov.vn ; http://www.vov.org.vn				
Audio Centre 39-41-43 Ba Trieu – Hanoi Tel 04 8244348 Fax 04 8262174	Rep. Office in Son La 158 Truong Chinh, thi xa Son La – tinh Son La Tel 022 855199 Fax 022 853 509	TV & Radio Highschool No.2 75 Tran Nhan Tong – Quan 5 TP Ho Chi Minh Tel 08 8352881 Fax 08 8391244	TV & Radio Highschool No.1 Thi xa Phu Ly – tinh Ha Nam Tel 0351 852341	Ban Van Hoa Xa Hoi 41-43 Ba Trieu – Hanoi Tel 04 8266807 Fax 04 9343734
Audio Technology Department 5 Thi Sach – Hanoi Tel 04 9432325 Fax 04 8255661	Rep. Office in Da Nang 40 Pasteur – Da Nang Tel 0511 810396 Fax 0511 821658	Rep. Office in Ho Chi Minh 7 Nguyen Thi Minh Khai Quan 1 – TP Ho Chi Minh Tel 08 8220807 Fax 088299382	BDC Company 61-63 Tho Nhuom – Hanoi Tel 04 852 4771	Ban Bien Tap Dan Toc 58 Quan Su – Hanoi Tel 04 8255667
News Department 41-43 Ba Trieu – Hanoi Tel 04 8256812 Fax 04 8255765 E-mail: ttin.vov@hn.vnn.vn	Rep. Office in Can Tho 102 Ly Tu Trong – TP Can Tho Tel 071 833199 Fax 071 833191	Rep. Office, Central Highlands 101 – 103 Ly Thuong Kiet, Buon Ma Thuot, Dac Lac Tel 050 853052 Fax 050 853053	Secretariat and Editing Board 58 Quan Su – Hanoi Tel 04 8256189 Fax 04 9344317 E-mail: tkbt.vov@hn.vnn.vn	Cong Ty Emico 5 Thi Sach – Hanoi Tel 04 9784271
International Cooperation Department 45 Ba Trieu – Hanoi Tel 048257870 Fax 04 8266402 E-mail: btdn.vov@hn.vnn.vn	Literature & Arts Department 41-43 Ba Trieu – Hanoi Tel 04 8252425	Audience Department 58 Quan Su – Hanoi Tel 04 8266402 Fax 04 9361565 Hotline: 0913228535 04 8256520 (303)	Economy Department 41-43 Ba Trieu – Hanoi Tel 04 8253171 Fax 04 9342818	Ban Am Nhap 58 Quan Su – Hanoi Tel 04 8265064 Fax 04 9348453

Television

Advantages: In many rural areas, TV is preferred over radio.	Disadvantages: Reception of national channels bad in some rural areas. Difficult to control content.
News coverage can be obtained by sending press releases to the television station, or more effectively, by establishing a relationship with the local provincial AEC or FEC, and tapping into their existing extension programs. Local TV coverage can also be purchased, but it was not possible to obtain price estimates. Contents of programs will have to be approved by the local office of the Department of Culture and Information.	

Newspapers

Advantages: Some newspapers far-reaching even in remote areas; where they do reach, they are normally read.	Disadvantages: Difficult to control content of news articles, need strong networking with local press to get material published; functional literacy rates not high in many disadvantaged areas. Access in remote areas not so good.
News coverage can be obtained by sending press releases to the newspaper office, or by inviting journalists to cover specific events. Pricing for advertising depends on the newspaper. The example below is for a middle-priced newspaper with an annual circulation of 40,000, which reaches widely in rural communities. Contents of advertisement will have to be approved by the Editor-in-Chief.	
Great Unity Newspaper, Vice Editor-in-Chief: Dang Ngoc, So 66 Ba Trieu, Hanoi, Tel 04 8228301, Fax 04 8228547, E-mail: daidoanket@hn.vnn.vn Full color advertisement on front page: VND 12 million for full page, VND 8 million for half page Full color advertisement on center page: VND 10 million for full page, VND 6 million for half page Two color advertisement: VND 8 million for full page, VND 4 million for half page	

Training

Advantages: Most community members prefer practical instruction. Can invite women specifically to ensure they have access to information presented.	Disadvantages: Costly and time consuming. Necessary to invite both men and women to ensure that information is disseminated broadly.
Pricing: One day field visit, about VND 2 million (US\$ 150) for 40 people (Trần Văn Trống, Vice Chief, Agriculture and Land Administration Office, Thanh Hoa District) Price from UNDP project: Workshops and meetings of international and national experts, users – 18 participants – US\$ 400 per workshop; equipment and materials – US\$ 1,000 for six workshops	

Performing Arts

<p>Advantages: Culturally sensitive, work closely with the Department of Culture and Information, generates interest, can reach all in remote communities.</p>	<p>Disadvantages: Difficult to control content.</p>
<p>Pricing: Per performance: US\$ 8,000 for 90 minute-performance using professional artists; US\$ 2,000 for 90-minute performance using provincial troupe. It would be possible to take advantage of already arranged festivals and performances, where aquaculture information could be inserted between two performances. This would cost about US\$ 200 for a song or drama. If the song is new (has to be composed) it would cost more, about VND 5 million to compose it, and in addition you would have to pay for the microphone and loudspeakers, so the total would be VND 10 million. If a new drama would have to be produced, then it would cost VND 25-30 million for a 20-minute drama. Payment is less for provincial artists than for artists from cities. There is a state-decided scale of pay, with maximum pay per performance at VND 50,000. VND 1 million for a commune competition where 200 people attend (estimated by Pham Van Trang, RIA No.1 Extension Unit)</p>	

Video, Overhead Projector, CD

<p>Advantages: Can be broadcast on local TV stations and during training and information sessions. CDs are especially cheap to mass-produce.</p>	<p>Disadvantages: Electricity sometimes not available in disadvantaged areas. Has to be targeted to audience, which among ethnic groups can change drastically from location to location. Computer availability (for CDs) low in disadvantaged areas, even among DOARD or DOF.</p>
<p>Pricing: Estimates from Nguyen Thi Thu Hang, Information Specialist, NAFEC, Hanoi: Technical video, featuring demonstration farm, produced by VTV: VND 18 million production costs, VND 35,000 per CD copy after that Price from UNDP project: Seven video films of 10-15 minutes duration each (U-Matic or digital system): US\$ 7,000 Sets of OHP, slides on technology packages (30 sets): US\$ 400</p>	

Leaflets, Booklets, Posters, Magazines

<p>Advantages: Country-wide literacy high. People can retain information and refer to it later. Good as support for training. Efficient if material is prepared as locally as possible.</p>	<p>Disadvantages: Functional literacy sometimes low in disadvantaged areas. Material must be adequately pre-tested (which is costly) to ensure efficiency.</p>	
<p>Pricing: Estimates from Nguyen Thi Thu Hang, Information Specialist, NAFEC, Hanoi: 13 × 19 cm black and white: VND 180-280 per page 13 × 19 cm cover page color: VND 2,000 each 13 × 19 cm color 8-page leaflet: VND 1,800 per leaflet</p>		
<p>Example of cost of extension from UNDP project: Personnel for development of manuals and training tools</p>	<p>Rate (US\$ per month)</p>	<p>Materials and price</p>
<p>Artist (three full-time months per year for two years)</p>	<p>800</p>	<p>Manuals for extension officers and trainers</p>
<p>Technical specialists (three months full-time per year for two years) Aquaculturist for integrated farming systems and polyculture 1.5 month full-time Aquaculturist for cage culture system 0.5 month full-time Aquaculturist for rice-fish culture system 0.5 month full-time Credit expert 0.5 month full-time Gender expert 0.5 month full-time Fish health management expert 1.0 month full-time Water quality management expert 0.5 month full-time Extension expert 0.5 month full-time Pond design and construction expert 0.5 month full-time</p>	<p>800</p>	<p>Draft, 25-30 pages: US\$ 1 per copy Final version, 30-40 pages: US\$ 1.50 per copy + cost of technical tools (e.g., slides, OHP)</p> <p>Manuals for extension workers, demonstration farmers, micro-credit operators (text will cover less than half of the manual while the rest will be illustrations) Draft, 30-35 pages: US\$ 1 per copy Final version, 30-35 pages: US\$ 1.30 per copy</p>
<p>Editors (two months full-time per year for two years) Artist editor 1 month full-time Technical editor 3 months full-time</p>	<p>800</p>	<p>Booklets on technology packages for farming households (illustrations to cover over 80% of the space) Draft, 10-12 pages: US\$ 0.50 per copy Final version, 10-12 pages: US\$ 0.40 per copy</p>
<p>Assistant (part-time) 3 months full-time per year for two years</p>	<p>200</p>	<p>Final version, 10-12 pages: US\$ 0.40 per copy</p>
<p>Local staff assistance for field testing of draft manuals and materials and collection of feedback (six persons working part-time for 2 months full-time each in two years)</p>	<p>100</p>	<p>Booklets on specific technical packages Draft, 10-12 pages: US\$ 0.50 per copy Final version, 10-12 pages: US\$ 0.40 per copy</p>
<p>+ cost of DSA and travel for sub-contract staff for two years</p>		<p>Posters, charts, flash cards, flip-charts, game cards: average US\$ 10 per set</p>

Appendix 5 Information Sources for Different Aquatic Resources Stakeholders

Stakeholders	Fisheries and Aquatic Resources Management Issues	General
Women's Union	International projects, FECs, AECs, government	TV: VTV 1 and 3 Radio: VOV Newspapers: Women's Newspaper, Today's Rural Areas, local newspapers Communist Party
Farmers' Association	Training (AEC, FEC) Radio: VOV Rural Development Program daily morning TV: Today's Rural Areas and Che Sang program twice weekly; VTV 1 evening and weekend Newspapers: Agriculture Newspaper, Gardening Newspaper	TV: VTV 1 and 3 Radio: VOV, BBC Newspapers: local newspapers, Today's Rural Areas, Agriculture Newspaper Communist Party
Government departments, NAFEC (national offices)	Training (RIA No. 1) Journals and magazines: <i>Aquaculture</i> , <i>Aquaculture Research</i> , NACA's <i>Aquaculture Asia</i> , <i>Infofish</i> Internet	TV: VTV 1 and 3 Radio: VOV Newspapers: Labor Newspaper, People's Newspaper
Government departments, AEC, FEC (provincial)	Fisheries Magazine, Shrimp Magazine (from Vietnam Fisheries Society), Fisheries Extension Magazine, Science and Technology Newsletter of the University of Fisheries. Training from MOFI and National Fisheries Extension Centre	TV: VTV1, 3 Newspapers: People's Newspaper, Agriculture Newspaper
Universities	Books (Vietnamese and English) National and international journals (Vietnamese, Chinese, English, French, Portuguese, Spanish (from Cuba)) Internet (Vietnamese, Russian, Chinese, English, French, senior lecturers and research staff) Conferences and workshops (national and international) International fellowship study tours (mainly to Germany, France, US, Denmark, Norway, Singapore)	TV: VTV 1, 2, 3 Internet (Vietnamese, Russian, Chinese, English, French) Newspapers: Youth Newspaper, Women's Newspaper personal interaction Communist Party
NGOs and donor projects	Internet Conferences and workshops (national and international) Books and journals (national and international) Personal contacts	TV: VTV 1, 2, 3, BBC World, Sports Channels Radio: VOA, BBC World, VOV Internet (VN Express News) Newspapers: Labor, People
Community	For men: FA, training (FEC, AEC, international projects) For women: WU, training (international projects) TV (district, provincial, VTV 1 and 3) Radio (local and VOV) Personal communication	TV: district, provincial, VTV 1 and 3 Radio (local and VOV), village loudspeakers Newspapers: provincial

Access to General Information in Long An Province

Media	Ease of Access and Why	Favorite Channels and Programs, Newspapers and Columns	How Often? When?
TV	Easy; 95% possess TV sets, easily track the channels of Tay Ninh, HCMC TV 7 and 9, Dong Thap, Long An, VTV 1, VTV 3. Local TV not as interesting as HCMC and central ones.	Sports, news, films (women prefer films, men prefer sports); Rural Area program (20:00 pm every Monday on VTV 1, or 19:45 pm every other Thursday on provincial TV), Farmers' Bridge, evening news (19:00 on VTV 1); health, fisheries extension, laws and life	Daily: 5:30-7:00, 12:00-13:00, 17:00-21:00
Radio	50% in My Thanh Dong of Duc Hue and more than 80% in Thuan Nghia Hoa of Thanh Hoa own radio. But on average, only 40% usually listen.	Agriculture program (HCMC) at 4:30 am and 20:00 pm, Rural Area program (VOV), Saturday program on fisheries, Response to Readers program, drama, sports, Story Telling at Night, socio-culture	4:30-5:00
Public address system	Easy, every village is supplied with an address station with four loud-speakers	District news, and national news from VOV	5:00-6:30, 17:00-18:30
Newspapers	There are numerous newspapers, but it is not easy for farmers to buy because newspaper shops are usually far from home, so officials have better access	Long An, People, Communism Magazine, HCMC Police, Women, Youth, Today's Knowledge, Gardeners' Association, Science and Life Favorite columns: criminal trials, young talents, kind people and good behaviors	Leisure time
Performing arts	Usually on TV; live shows at commune (once a year) lure a lot of audience	Semi-classical opera (more preferred by women), music, circus, comedies	Monday: Long An TV (Channel 34) Saturday: HTV9 TV Weekend: Tay Ninh TV
Video tapes and CDs	20% of households own video cassette and CD players	Tapes and CDs of music and songs	Spare time
Word of mouth	Easy, through experienced aquaculturists		Sometimes
Billboards	Easily accessed, thanks to use of big font size; often put in public places	Traffic safety, and socio-cultural items	Daily, when passing by public places
Telephone	Few people own telephones. In Duc Hue district, proportion of telephone owners per population is 43/7,000	Mainly for contact with relatives	
Commune Post and Culture Station	Little access, since there is only one station in each commune, and villagers live far. School children and commune officials are usual readers.	Legal bookcases, containing legal documents and regulations by government(s)	Rarely
Leaflets	Often found at administrative headquarters, health-care stations or public places	Family planning, malaria prevention, regulations on cultural life	Rarely (for households)
Village gatherings	Direct and effective, at presence of household participants	Discussing policies and orientations by the governments on various aspects of agriculture activities and socio-culture	Monthly

Fisheries and Aquaculture Information Needs in Long An Province

Information Needed	Details
Price	Seed, feed, market for products
Services	Where to sell products? Feed suppliers?
Techniques	Water treatment, pond size and standards, stocking density, nursery of good quality seeds Pond excavation, feeding Disease prevention and treatment
Loans	Agencies and projects that give loans, interest, reimbursement deadline, loaning procedures
Policies and regulations	Local plans on aquaculture development
Demonstration	Both successful and failed models, with explanations of success and failure
Species	High-value species (ideally in rainy season, from December to April)
People's Organization	Establishment procedures, models of commercial self-help groups or cooperatives

Access to Fisheries and Aquaculture Information in Long An Province

Information Sources	Information Received	How?
Agriculture Extension Center	Fish farming techniques, disease prevention and treatment methods	Trainings, leaflets, manuals, demonstrations
Farmers' Associations	Fish farming knowledge, experiences	Village meetings (on monthly basis)
Word of mouth	Practical fish farming experiences	Direct talks
TV	Information on various aspects of agriculture and fisheries	Farmers' Bridge (HCMC TV), Agriculture (Long An provincial TV every Thursday)
Radio	Information on various aspects of agriculture and fisheries	Rural Area program (VOV)
District Veterinarian Station	Fish and shrimp treatment medicines, usual diseases in fish and shrimp	Introduction of the uses of medicines
Occupational societies	Technological information for production	Newspapers, including Science and Life, and the newspaper of Gardener's Association

Preferred Way to Access Aquaculture and Fisheries Information in Long An Province

Preferred Media	Preferred Presentation	Preferred Time
TV	On VTV 1, HTV 9, Long An, Tay Ninh, Dong Thap No advertisement and ideally, it should be live programs or comic drama	One or two times a week, at 18:30-20:00 (but not simultaneous with the evening news from 19:00-19:45)
Trainings	On-site and in-focus training, taught by fisheries specialists; 20-30 trainees per course; printed materials should be circulated	Six-monthly
Radio	Technical know-how for aquaculture, live discussions with scientists	Morning 5:00-6:30 am, or incorporated in the Agriculture Program from 4:30-5:00 am Afternoon 17:00-18:30
Gatherings	Village meetings on advanced techniques of production	Quarterly or six-monthly
Field visits	Field visits to successful models for both poverty reduction and income generation	
Booklets	Containing as many colorful drawings and photographs as possible, clear letters	
Posters, leaflets	10 x 20 cm to 60 x 90 cm size of big font Leaflets should also include contact details of service providers Colorful photographs and simple text	
Newspapers	Fisheries magazines and papers	Weekly
Videotapes and CDs	Featuring fish culture techniques, with hands-on demonstration at aquaculture sites	

Access to General Information in Quang Tri Province

Media	Ease of Access and Why	Favorite Channels and Programs, Newspapers and Columns	How Often? When?
TV	More than 60% of households own TV and antenna; in general easily accessible, but broadcasting time is not long. VTV 2 could not be tracked, VTV 3 and agriculture, forestry, fisheries extension programs are not always on	VTV 1, VTV 3, Quang Tri (provincial), Huong Hoa (district) News, agriculture, family planning, sports, program for children, music, films, comedies, agriculture and forestry extension, economy, Today's Rural Area; live TV shows of conferences, meetings and festivals	Daily, at 5:00-8:00 and 19:00-22:00
Radio	30% of households own radio, but only 20% listen, since all day they have to do upland farming, and partly because of weak transmission	News, music, audio performing arts, Stories of Security Warnings, In response to Readers' questions (on FM VOV); agriculture program of HCMC Radio at 4:30 am	Not usually, because most families have TV already; 5:00-7:00 am, 7:00-11:00 pm
Public address system	There is only one loudspeaker for the commune as a whole, and it is at low volume		Rarely
Community learning centers	Newly established, furnished with few facilities	Centers currently used for training in livestock and cultivation	Not usually
Gatherings	Easily accessible	Economy, security, health care	Twice a month (for mass organizations) and once a month (for households)
Newspapers	Not many newspapers are delivered to the commune, and people are always so busy that they do not have time to read	The Agriculture, Today's Rural Area, Sports and Culture, Security, Labor, Laws, Pioneers Economy, market prices, criminal cases	Not usually; people could not afford to buy papers as frequently as they want
Performing arts	All are commercial, an entry ticket costs 5,000-8,000 VND. Many people come and see.	Circus, music	Sometimes
Leaflets		Health-care, repression of social evils	
Videotapes and CDs	10-20% of households own videotape and CD players. The remaining households could not afford to buy, though they want	Films, music Plant cultivation, and animal husbandry (but not available)	Not usually
Telephone	Only one telephone per village, so this does not meet people's demand		
Commune Post and Culture Station	Not inaccessible, but the station attracts few	Make phone calls and buy newspapers	Not usually, due to busy work
Word of mouth	Easily accessible, since it is easier for farmers to talk to each other	Agriculture experiences	Not fixed

Fisheries and Aquaculture Information Needs in Quang Tri Province

Information Needed	Details
Techniques	Training in farming methods, disease prevention and treatment (e.g., red-spot disease in grass carp), treatment of contaminated water Introduction and advice on the culture of new species that bring in high income, such as colossoma, giant water prawn and sex-reversed tilapia
Services	Suppliers of seeds in good quality and plentiful quantity (colossoma and sex-reversed tilapia are often expensive in local markets); medicines; addresses of agents that sell malachite green
Consumption market	Where to sell colossoma and sex-reversed tilapia at the price that enables fish farmers to get enough revenue to balance the costs
Credit	Suppliers who give long-term and low-interest credit loans, so that farmers could invest in aquaculture right from the beginning of stocking season and reimburse after harvesting

Access to Fisheries and Aquaculture Information in Quang Tri Province

Information Source	Information Received	How?
Quang Tri DOF, District Agriculture, Forestry Extension Station	Culture and disease prevention techniques	Training
Experienced farmers	Farming and disease-prevention techniques	Direct talks
Mass organizations	Caretaking, pond preparation and disease control methods	VTV 1 channel and newspapers

Current problem: Although farmers have been trained in several courses and consulted the District Agriculture and Forestry Extension Stations, and correctly applied the recommendations by extensionists and extension materials, many fish continue to die. The most serious time is after the first rain in wet season, and the highest mortality occurs from July to September.

Preferred Way to Access Aquaculture and Fisheries Information in Quang Tri Province

Preferred Media	Preferred Presentation
TV	At 20:00 am on VTV 1 (after the evening news), lasting for 30 minutes, featuring species, caretaking techniques, and successful cases
Training	Four times a year, each time four batches, each batch 40 trainees, combining methodological and practical explanations; trainees should be given opportunities to get materials and go on field visits to developed localities and successful households
Videotapes and CDs	Should be circulated to hamlets, to be shown at meetings or similar events
Printed media	Fisheries-related newspapers (if available); big leaflets with color photographs of species, should be disseminated sufficiently to all people
Word of mouth	Direct talks between both experienced and inexperienced fish farmers

Access to General Information in Thai Nguyen Province

Media	Ease of Access and Why	Favorite Channels and Programs, Newspapers and Columns	How often? When?
TV	70% of households own TV, but only the images of VTV 1 channel are clear	VTV 1 Farmers' Friend, News, Stories of the Country, examples of veterans who succeed in doing business	Daily, at 11:00-12:30 and 17:00-22:00
Radio	100% of households own radio. It is not difficult to track the news on FM frequency, but hard to track on others	VOV FM Morning news, socio-economic news, Great Family of Vietnam's Nationalities; agriculture and fisheries extension, examples of effective household economy models	5:30-6:00 am
Newspapers	There is a small number of newspapers, which are mainly sent to officials and leaders	People, Thai Nguyen, Socio-economy, Family and Society, Ethnic Minorities and Mountainous Areas	Commune officials and village headmen receive these regularly
Performing arts	Easily accessible; some troupes perform for free, the others charge 2,000-4,000 VND per ticket	Interactions between folks and artists on various aspects of production activities and cultural life	Monthly (on average)
Leaflets	Scarce	Leaflet contents are usually on tuberculosis and malaria prevention, family planning, agriculture production, and cultural lifestyle	Not usually
Training	Convenient and easily accessible	Training by Gardeners' Society, Farmers' Association on cultivation of rice, maize and tea, livestock and rice-fish farming	8-10 courses per year for 400-500 people
Traditional festivals	Easily accessible	Cultural and sport activities, such as football, <i>tung con</i> (throwing traditional shuttlecock), tug of war	Usually (but more in the spring)
Propagandists	Suitable for women (since propagandists are all leaders of village women)	Birth control, caretaking of children, family planning	Every month, by household visits or women's group meetings
Correspondence and telephones	15/830 households own telephones; the delivery of letters is not insured in time		
Commune Post and Culture Station	Little far from the home (the commune is too large)	Mainly for phone calls	

Fisheries and Aquaculture Information Needs in Thai Nguyen Province

Information Needed	Details
Techniques	Species that are easily cultivable, grow quickly, to consumers' taste and disease-resistant Seed nursing techniques for grass carp, silver carp, mud carp, common carp and sex-reversed tilapia Treatment of toxically contaminated and pesticide-affected ponds Pond preparation, polyculture stocking density, care-taking, feeding and disease prevention
Product harvesting and maintenance	Partial harvest techniques, handling techniques of harvested fish, fishing nets of various kinds
Services	Loaning agencies, seed supplies, medicines

Access to Fisheries and Aquaculture Information in Thai Nguyen Province

Information Source	Information Received	How?
TV	Fish farming methods	Audiovisual programs
Word of mouth	Fish farming methods	Visits and talks
Middlemen	Seed price and species	Advertisements and introductions of on-sale products
Aquaculture officials	Rice-fish farming techniques	Trainings

Preferred Way to Access Aquaculture and Fisheries Information in Thai Nguyen Province

Preferred Media	Preferred Presentation
On-site training	Every six months, including field-visits, 30-40 trainees per course, each course should last for a week
Word of mouth	Experienced farmers disseminate their experiences to others through household group meetings
Manuals and leaflets	Simple-text and colorful hard-copies should be circulated widely for farmers
TV	Weekly, 30 minutes each, at 20:00 pm, showing aquaculture techniques demonstrated at a farm of the same conditions as local households
Radio	At 10:30 am, introducing caretaking and disease-prevention measures
Performing arts	Fish farmers contest, comedies and drama on aquaculture