



INFORMATION ACCESS SURVEY

CAMBODIA

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ACRONYMS

AIT	Asian Institute of Technology
AYA	Australian Youth Ambassador
BBC	British Broadcasting Corporation
CAA	Community Aid Abroad
CBNRM	Community Based Natural Resources Management
CCD	Community Capacities for Development
CDRI	Cambodian Development Research Institute
CFDO	Community Fisheries Development Office
CEPA	Cultural Environmental Preservation Association
CFC	Community Fishery Committee
CFDS	Cambodian Family Development Society
CMI	Cambodia Media Index
DFD	Department for International Development (UK)
DOA	Department of Agriculture
DOAE	Department of Agricultural Extension
DOAL	Department of Agricultural Extension
DOE	Department of Environment
ICALRM	World Fish Centre
IEC	Information, education and communication
FACT	Fisheries Action Coalition Team
FACI	
	Food and Agriculture Organisation Great Britain
GB	
IDRC	International Development Research Centre
IO	International organisation
IPM	Integrated Pest Management
JICA	Japan International Co-operation Agency
MAFF	Ministry of Agriculture, Forestry and Fisheries
MOE	Ministry of Environment
MOWA	Ministry of Women's Affairs
MRC	Mekong River Commission
PA	Public address
PADV	Protection Against Domestic Violence
PFD	Partners for Development
PLG	Partnership for Local Governance
PRA	Participatory Rural Appraisal
PSI	Populations Services International
RACHA	Reproductive and Child Health Alliance
RFA	Radio Free Asia
STREAM	Support to Regional Aquatic Resources Management
UK	United Kingdom
UNICEF	United Nations Children Fund
UNDP	United Nations Development Programme
VOA	Voice of America
VSO	Voluntary Service Overseas
WMC	Women's Media Centre of Cambodia
WWF	World Wildlife Fund

EXECUTIVE SUMMARY

Introduction

As the Cambodian government begins to work more closely with local aquatic resources managers from poor rural communities, increased attention is being paid to the use of communication strategies and tools. In particular, the newly established Community Fisheries Development Office (CFDO) of the Department of Fisheries (DOF) is seeking mechanisms to share information about aquatic resources co-management practices and the livelihoods of people who depend upon the resources.

The aim of this report is to identify and recommend methods of communication that are appropriate to aquatic resources management stakeholders, focusing in particular on poor rural communities. The report is divided into four sections:

- Section I provides an overview of media resources that are available in Cambodia, and identifies examples of communication strategies and tools currently used by a range of development organisations to target poor rural communities.
- *Section II* explores how aquatic resources management stakeholders currently access and disseminate information, and identifies examples of communication strategies and tools currently used in this sector.
- Section III examines how poor rural communities obtain information, focusing in particular on information related to aquatic resources management. It identifies their preferred information sources, their own communication networks, and the ways by which they access the media.
- *Section IV* concludes the report's findings and recommends specific follow-up action. Costs, contact details and specific media strengths and weaknesses can be found in Appendix A.

Research conducted for this report included consultation with the DOF, international and local NGOs, international organisations, and television and radio stations based in Phnom Penh. To identify how poor rural communities obtain their information, three two-day field studies were conducted in the villages of Dong Kooum (Kandal Province), Koh Rosei (Kampong Chhnang Province) and Soup Leu (Kratie Province). The field visits consisted of one-to-one interviews, group discussions and a range of participatory appraisal exercises that focused on communication-related issues.

The report also draws on the findings of other communication-related research. However, up-to-date media-related statistics are not widely available in Cambodia. Although a socio-economic survey was conducted in 1999, followed by a few informal media access and impact surveys by a number of different organisations, sample audiences have rarely explicitly included poor rural communities who are dependent upon aquatic resources. Finally, it is important to remember that there is much to learn about communication and extension from other sectors in Cambodia. This report draws extensively on these experiences and includes many examples from beyond the aquatic resources sector.

The Key Findings

Communication Media, Materials and Tools

• Although radio is believed to be the most accessible media in rural Cambodia, recent studies suggest that in some provinces more rural households own televisions than radios. However, radio is still a popular, economic and effective component of several government and non-governmental development organisations' communication strategies.

- Television ownership among rural households has almost doubled since 2000. Furthermore, the percentage of people who can access, but do not own a television, is increased through group viewing, which is common in rural communities. Several people believe that television is a more powerful communication tool than radio. However, there is a shortage of skilled staff and high quality production facilities in Cambodia, whilst international expertise is expensive.
- The press is not accessible to rural communities due to poor distribution and high levels of illiteracy. Although primarily an urban phenomenon, the press can be a powerful advocacy tool in support of rural communities, but should be used with care when lobbying the government.
- Video can be a useful education tool to target audiences with low literacy levels, which can be reproduced at low cost and used repeatedly in a targeted environment. To overcome unpredictable television reception and low access to TV, several organisations now use mobile video units to reach remote audiences. The use of video directly by communities to document their experiences is untested in Cambodia.
- Drama and comedy are popular forms of entertainment in Cambodia. Many believe that theatre, puppetry and soap operas on radio and television have great potential as vehicles to communicate information. "Sbek Touch" (little shadow theatre) is based on peasants' traditional daily life and is considered an appropriate medium for conveying modern issues or messages.
- Attention to colour, script and dialect, simple language, photographs and positive images are all important factors that will help to increase the accessibility of communication materials to poor rural communities.
- The landline communications system in Cambodia is out of date and unreliable, with many relying on mobile phones. The internet remains an urban phenomenon and is expensive compared to neighbouring countries. It is not widely available to government offices, particularly beyond Phnom Penh. However, NGOs often have access to e-mail and the internet.
- A number of organisations have worked with study tours, village volunteers and farmer-to-farmer training. Results have been mixed and demonstrate the need for a package of tools if a communication strategy is to be successful.

Information Exchange within the Fisheries Sector

Government

- It is difficult for staff from all levels of the DOF to access information on aquatic resources management issues from outside and within the DOF, unless supported by an external party. Low budgets, low salaries, low motivation, a lack of resources, and a highly bureaucratic and formal working environment are all contributing factors. As is the case throughout Cambodian society, informal contacts with colleagues and friends within the government hierarchy are important sources of information.
- Currently there is little co-ordination in terms of information and resource sharing between offices and departments within the Ministry of Agriculture, Forestry and Fisheries (MAFF) at the national level. Co-ordination is worse still between ministries. However, the situation is much improved at the provincial level.
- Historically the government and NGO sectors have worked in isolation. However, both parties recognise that it would be mutually beneficial if relationships improved, particularly in support of the ongoing reforms in community fisheries. Recent collaborations with the CFDO provide good examples of the benefits of working together.

- Language is an important issue. The majority of government staff can access fisheries literature that is published in English only, preventing many from understanding the information, particularly at provincial and district levels. Few examples of lessons learned in the management of community fisheries have been documented in Khmer or English.
- At the national level, DOF staff often find it difficult to access information about poor rural communities from their provincial sources, unless supported by an externally-funded (and usually managed) project. At the provincial level, communication between provincial departments and communities is usually minimal, unless supported by an NGO or IO. There is limited capacity, limited understanding of roles and responsibilities, and limited institutional and policy support.
- At the national level, the DOF has no or minimal budget for extension strategies and materials. Much of the current extension work is supported by external agencies. A number of interesting and effective extension strategies have been tested and developed in Cambodia, with support from international projects and organisations.

Civil Society

- There are several examples of effective and productive collaborative efforts between certain civil society organisations in the fisheries sector. The upside is that they have formed strong working relations and collectively are a force to be reckoned with. The downside is that this bonding may hinder much-needed collaborative relationships with the government.
- NGOs depend on established NGO networks, working groups and stakeholder meetings to access information on aquatic resources management issues. As is the case within government, informal contacts with colleagues and friends within civil society are an important source of information.
- Media advocacy is an important part of many NGOs' communication strategies and good relationships have been established with the media, particularly the *Phnom Penh Post, Cambodia Daily* and *Ramsey Kampuchea*. NGOs have found that lobbying must occur at all levels of the government decision-making process to be effective. Several incisive reports on recent developments within the fisheries sector have been commissioned, but they are mainly in English.
- Government and civil society stakeholders under-utilise existing information resources such as libraries, the internet, newsletters and reports. This is due to a lack of accessibility, a lack of awareness or a lack of incentive. Language too is likely to be an important issue. However, several NGO field workers stated that more emphasis should be placed on better utilising local resources, by involving communities more often in the development of communication materials.
- Unlike the community forestry sector, there is no network within the community fisheries sector that links all stakeholder groups together. Although a quarterly "Co-ordination and Partnerships Meeting" has recently been established to link stakeholders together at the national level, all stakeholders agree that there is an urgent need to improve vertical and horizontal communication linkages within the sector.

How Rural Community Groups Access Information

General Information

• Rural communities rely heavily on traditional information sources including the Village Chief, Commune Chief, monks and to an extent, village elders. NGOs and health centres are perceived as important and trustworthy sources of information but access to these institutions varies from village to village. Word of mouth and village meetings are still the most popular forms of information dissemination within a village. • Both radio and television are important sources of information, though they are not considered as accessible as other sources within the village (e.g., Village Chief). In common with other available evidence, in each visited village, twice as many households had a television compared to a radio. Lack of electricity is not a barrier; car batteries are used as a power source. An overwhelming majority of villagers prefer to watch television than listen to the radio.

Aquatic Resources Management Information

- The amount of contact between villagers and district fisheries officers varies enormously. Some are keenly sought out, whilst others are viewed with suspicion (fear even) and are not perceived as helpful information sources. Information from provincial government departments, including the Department of Fisheries, is valued, but lack of contact at the provincial level reduces their utility. In some cases, NGOs play an important role in facilitating communication between community and provincial levels.
- At this early stage in the establishment of Community Fishery Committees (CFC), few feel confident to disseminate information within the village. Support to understand roles and responsibilities is urgently required. It is also important to remember that poor rural communities rarely include educated, self-assured and confident people with the capacity to access and share information.

Recommendations

The key recommendations to emerge from the research are summarised below:

- Understand your audience: conduct a base-line knowledge, attitudes and practices survey before developing a communication strategy targeting rural communities.
- Increase the use of mass media, in particular television, radio, travelling theatre and puppetry. All are useful tools to support a more focused communication campaign.
- Use video sessions broadcast from a mobile broadcasting unit, and pre-recorded information and music broadcast on a village public address (PA) system to overcome issues of low access to media and poor transmissions.
- Organise practical and interactive village-focused communication activities such as facilitated information, education and communication (IEC) sessions using, e.g., posters, flip charts, picture books and farmer field training schools.
- Use village volunteers, study tours, community theatre, role-plays, t-shirts, music and songs where appropriate to complement the use of mass media and village-focused communication activities.
- Maximise the use of local resources to produce communication materials and involve communities in the development process.
- Improve stakeholder networking at national, provincial and community levels; increase accessibility of existing newsletters; prepare more case study materials; catalogue existing literature in a central resource center; and encourage informal networking and cross-sectoral communication.

I. COMMUNICATION MEDIA, MATERIALS AND TOOLS

1.1 Radio

Although radio is believed to be the most accessible media in rural Cambodia, an informal field study conducted by RACHA (2001) found that more rural households owned televisions than radios. Field work conducted for this report confirmed this finding. However, radio is still a popular communication media that is used throughout Cambodia. Radio airtime is also cheap. All public and private sector sources interviewed for this report agreed that radio is an economical and accessible media for getting messages across to poor rural communities.

Listening figures vary dramatically from province to province and can quickly change over a year or two. In addition, Cambodian radio stations do not currently possess their own listener data. Therefore, a survey that identifies the listening habits of an intended target group will be required, prior to selecting a station to implement any radio-based initiative.

Key radio-related statistics

- *Radio ownership*: 41% of rural households own a radio. This increases to 52% among urban households, and 76% among Phnom Penh households (National Institute of Statistics, 2000).
- Khmer language radio stations: One AM and twelve FM radio stations broadcast from Phnom Penh. At least four provincial FM radio stations exist, broadcasting in Battambang, Kampong Cham, Kampong Som and Siem Reap provinces. Two shortwave radio stations (Radio Free Asia [RFA] and Voice of America [VOA]) broadcast from the Thai border.
- English language radio stations: The BBC World Service broadcast a 24-hour FM service from Phnom Penh. The VOA also broadcasts a shortwave news service from the Thai border in English.
- Broadcasting reach: One radio station (AM 918) broadcasts nationally. A number of the other FM stations can be picked up clearly in the ten provinces surrounding Phnom Penh, and even further away if listeners have access to a large antenna. Provincial radio stations are limited to their respective provinces. RFA and VOA broadcast nationally. The BBC World Service FM service is rebroadcast from Phnom Penh on FM 100.
- *Peak listening times*: Rural and urban households listen to the radio most often between 06.00-09.30, 11.00-13.00 and 19.00-21.30 (CMI, 2000).
- Most popular radio stations: Overall, the most listened-to radio stations appear to be FM 95 and FM 103 (CMI, 2000; informal NGO research). In Phnom Penh, they are FM 103 and FM 105. At the provincial level, each province is different (CMI, 2000; PSI, 2001). Of the national stations, AM 918 is reported as having little popularity. FM 96 is newly established, but aims to become "a radio of the masses".
- *Most popular programmes*: Favourite programmes are song requests followed by the news (CMI, 2000). Research conducted for this report suggests that both rural and urban listeners particularly value the reading aloud of security-related newspaper articles over the radio.
- *Politics*: FM 105 and RFA are the only two stations to be openly critical of the Cambodian government.

(More detailed information and costs appear in Appendix A: Communication media in Cambodia)

1.1.1 Use of Radio in Development

With the exception of FM 102 (which is managed by the Women's Media Centre [WMC]) and FM 105 (which is a government opposition station), the primary focus of Cambodian radio is entertainment. However, radio is an important component of the communication strategies of some government departments and a number of international and local NGOs.

Examples of the use of radio in development

- The *Department of Fisheries* uses radio to announce the opening and closing of the fishing season. Many villagers interviewed for this report mentioned that they had heard these announcements, as well as news stories about conflicts in the management of the fisheries resource.
- The Office of Agriculture Extension broadcasts a 20-minute radio programme each week on AM 918. Programme content is collected from the departments and offices of the Ministry of Agriculture, Forestry and Fisheries. The programme has been running for some years. Plans have been proposed for a re-launch, which will dedicate sections of the programme to stories from different provinces, women's issues, and a radio drama series. Each of these sections will include fisheries-related issues, thereby providing an ideal opportunity for the Department of Fisheries to air fisheries-related issues.
- *Mlup Baitong* is a local environmental education NGO, which broadcasts a 20-minute environmental education programme on WMC FM 102 (Mondays and Fridays at 19.30) and AM 918 (Wednesdays at 16.00). The programme covers a different environmental issue each week and includes interviews with NGOs, government officials and villagers. Previous programmes have included fisheries-related topics. As yet, no formal evaluation has been conducted to assess programme impact.
- Health Unlimited is an international health NGO which frequently uses the media in their communication campaigns. One example is when they developed a radio drama series to raise awareness of reproductive health issues among young people. As part of their "Birth Spacing for Safe Motherhood Campaign", radio spots and radio discussions were produced, whilst relevant story lines were introduced to their radio drama series. An evaluation of this campaign in 2001 described radio as the most successful component of their communication strategy; 52% of the listening population who were questioned were able to describe with some detail and accuracy at least part of the campaign message.
- Populations Services International (PSI) is an international health NGO that has produced radio drama since the mid-1990s. Their work includes "Sopheap and Her Family"; anecdotal evidence suggests that the show was so popular in one village that the entire population regularly stopped all other activities to listen. More recently, PSI has produced "Golden Wind", a 36-episode drama that is followed by a 30-minute phone-in chat show. This is broadcast weekly on FM 91, FM 95, FM 103 and AM 918. Anecdotal evidence suggests that around 70% of rural audiences and 55% of urban audiences listen to these broadcasts. PSI has conducted a series of focus group discussions and small-scale surveys to assess the impact of these shows.
- The Women's Media Centre (WMC), a Cambodian NGO, broadcasts a whole range of donor-funded radio programmes promoting women's social issues in Cambodia on WMC FM 102.

1.2 Television

It is believed that television ownership among rural households has almost doubled over the last two years. The lack of electricity in many poor rural communities is being overcome through the use of car batteries and a rapidly developing battery recharging service. In fieldwork conducted for this report, 50% of households questioned owned a television, compared to 25% who owned a radio. Furthermore, group viewing is common in rural communities, suggesting the percentage of households who watch television is considerably higher. An informal study by RACHA supports this claim; of 270 households questioned, 55% owned a television whilst 77% regularly watched one.

In comparison to other countries, the price of television airtime in Cambodia is low. In addition, both government and NGO initiatives can benefit from substantial discounts and, in some circumstances, free airtime from most stations. To benefit from free airtime, the television station must first receive a letter from the government department chief, which endorses the public information campaign and confirms it as a government initiative. However, competition for subsidised or free airtime is high and administering "the waiting list" may lack transparency. Action IEC, for example, reported that a written agreement between them and TVK for free airtime was not honoured, and that they eventually had to pay for the airtime before the programme was aired. Commercial advertising has also increased rapidly in recent years hence subsidies may soon apply to off-peak viewing times only.

Key television-related statistics

- Television ownership: 20% of rural households own a television. This increases to 31% among urban households (83% among Phnom Penh households) (National Institute of Statistics, 2000).
- *Terrestrial television stations*: Six national TV stations broadcast from Phnom Penh. Provincial TV stations, operating either independently or as relay stations, broadcast from Battambang, Koh Kong, Kratie, Pursat, Ratanakiri, Siem Reap and Sihanoukville provinces.
- Satellite and cable television stations: Cable TV is available in Cambodia.
- Broadcasting reach: Nearly 85% of the Cambodian population are covered by terrestrial television transmission. Coverage in the northeast (Mondulkiri, Preah Vihear, Ratanakiri and Stung Treng provinces) is limited. TVK has the widest coverage (Health Unlimited, 2000). Cable TV is limited to some urban areas only.
- Peak viewing times: Rural and urban households watch television most often between 11.00-13.00 and 18.00-21.30 (CMI, 2000)
- Most popular television stations: Overall, TV5 is the most viewed television station. In Phnom Penh, it is TV3, TV5 and TVK. In some of the provinces, provincial stations are the most viewed (CMI, 2000).
- *Most popular programmes*: At the time of writing, favourite programmes for both rural and urban people are Thai or Chinese drama series (soap operas), followed by the news.
- Politics: All terrestrial television stations are controlled either directly or indirectly by the Cambodian People's Party (Indochina Research Ltd, 2001).

(More detailed information and costs appear in Appendix A: Communication media in Cambodia)

All interviewees acknowledged that there is a shortage of skilled staff and production facilities of international standard in Cambodia (the Women's Media Centre, UNICEF and Action IEC have some of the best production facilities). Named scriptwriters and technical staff were recommended from TVK (e.g., Mrs Sinet, Editor), the Directorate of Cinema at the Ministry of Culture, and the Women's Media Centre. However, there was little agreement on the subject of programme production in Cambodia:

- One programme maker recommended outsourcing production to either Thailand, where costs are less for a higher quality production, or an independent international crew, which is expensive.
- Others said that it was possible to hire local resources for video production. For example, the recently produced DOF/JICA video was much more affordable, particularly given that it is only to be used nationally.
- Production specialists from Health Unlimited and Action IEC commented, that as long as the script was well written and monitoring of the process was possible, the final product would be at least passable if not good.

All TV productions need to be authorised by the appropriate government department before they can be shown.

1.2.1 Use of Television in Development

Several people interviewed for this report believe that television is a more powerful communication tool than radio. This included communications staff from PSI, RACHA and UNICEF. A media impact survey conducted by PSI (2001), for example, suggested that more women remembered the contents of a television advertisement than a radio advertisement.

Examples of the use of television in development

- *PSI* is currently working on a soap opera to promote HIV and AIDS awareness, which will be shown to more remote audiences using a mobile video unit.
- Action IEC has recently completed a drama series on parental education for Save the Children France.
- The Women's Media Centre's media campaigns and TV departments produce numerous gender-focused, social awareness-raising programmes, broadcast three times a week on TVK, TV3 and TV 5. Programmes are also distributed to seven provinces for provincial broadcast. Since 2002, WMC has established four mobile broadcasting teams that enable remote rural audiences to access a selection of their programmes.
- The *Department of Fisheries* uses television to announce the opening and closing of the fishing season. The programme includes songs, traditional music, poems and the use of colloquial language.
- The *Mekong River Commission* has used television to air two films, "Mekong the Mother" and "Where There is Water, There are Fish", which target regional audiences.
- The Japan International Co-operation Agency (JICA) supported the local production of a film, "Please Help to Protect Fisheries Resources", which was made specifically for rural communities and broadcast twice a week on TVK during May-July 2001. JICA is currently supporting the production of a film on the management of coastal fisheries, which is due to be aired in early 2003. It is also planning to establish mobile video units to broadcast programmes in areas where access to television is particularly low.

1.3 Press

There are more than 120 newspapers and magazines licensed with the Ministry of Information in Cambodia, although only 30 are published with any regularity (Brouder, 2001). Unlike the broadcast media, the press gives a voice to the political opposition as well as to a wide range of factions within the government. Party patrons or others can give rise to political bias in reporting.

The Cambodian government bureaucracy has not been used to being open to enquiry. As a result, newspapers have limited access to information from official channels, leaving them without much scope to fulfil a role as educator or communicator to the general public. However, since the formation of the present coalition government in 1998, the position and reputation of the press has improved. Larger newspapers in particular are conducting more investigative journalism, and providing more balanced articles with quotes from officials throughout the political party spectrum. The more popular magazines feature current events, crime stories, and social trends and issues (Edman, 2000).

Access to written material obviously depends on levels of literacy, which are reported by province but have also been sampled amongst heads of fisheries households (Table 1).

Table 1: Levels of Literacy in Cambodia by Province and by Sampled Heads of Fisheries Households

Province	% of literate adults	Heads of fisheries households	Province	% of literate adults	Heads of fisheries households
National average	67.0	36.3	Stung Treng	66.8	
Phnom Penh	84.4	28.3	Koh Kong	65.3	
Kandal	72.6	30.9	Takeo	65.0	
Kratie	71.3		Banteay Meanchey	62.9	
Kampong Speu	70.8		Prey Veng	61.9	
Kampong Cham	70.7	30.6	Kampong Chhnang	58.4	34.9
Battambang	70.3	50.2	Kampong Thom	55.4	31.4
Pursat	69.0	32.2	Kep	50.6	
Kampot	68.7		Siem Reap	45.3	57.2
Svay Rieng	67.8		Ratanakiri	29.4	
Sihanouk Ville	66.9		Mondulkiri	16.6	

National Institute of Statistics, 1999

Key press-related statistics

- *Readership*: A survey published in the *Phnom Penh Post* (April 27-May 10, 2001) stated that only 4% of voters read a newspaper everyday and 62% never read a newspaper. In contrast, all government officials and Cambodians working in local or international NGOs interviewed reported reading *Rasmey Kampuchea* at least three times a week, with many reading it everyday.
- Most widely read newspapers: Rasmey Kampuchea and Koh Santepheap (CMI, 2000).
- Most widely read magazine: The Popular Magazine.
- Foreign language press: Foreign language newspapers are found mainly in Phnom Penh. The Cambodia Daily is published in English with a Khmer translation inside and daily distribution to specific outlets in 11 provinces. The bi-weekly Phnom Penh Post is also published in English. Cambodge Soir is published in French. There are also two Chinese newspapers published daily.
- *Press reach*: The press is an urban resource in Cambodia. Newspapers in the provinces are scarce, but NGO and government sources suggest the situation is improving in some areas.

1.3.1 Use of the Press in Development

There is a perception among some government sources that "Khmer people don't like to read". However, this is perhaps more related to literacy rates and access to publications rather than to choice. Whichever is true, the utility of the press for informing local communities is limited. However, articles are read out on air on various radio stations, so some stories will reach communities via this route. The opposite is true regarding the utility of the press for advocacy.

Should an article about a fisheries issue be published in a Cambodian newspaper, the appropriate office from the Department of Fisheries is obliged to respond to the Minister of Agriculture, Forestry and Fisheries. This occurs frequently in practice and provides the press considerable leverage, demonstrating the impact that negative publicity can have upon high-level officials. However, it was reported that such an approach might cause an official to "lose face", and was possibly not the best approach to use when lobbying the government. It was suggested, for example, that roundtable meetings would form part of a far more constructive advocacy strategy.

Examples of the use of the press in development

• *FACT, CEPA* and *Oxfam America* use the more popular Khmer newspapers and both the *Cambodia Daily* and the *Phnom Penh Post* as part of their media advocacy campaigns to target policy-makers and the donor community among others¹.

¹ For more information, refer to Mansfield and Macleod (2002).

1.4 Video

Video can be a useful education tool to target audiences with low literacy levels. One advantage of video is that it can be reproduced at low cost and used repeatedly in a targeted environment. Language can also be dubbed to make video suitable for ethnic minority audiences. To overcome the issue of unpredictable television reception, several organisations are using mobile video units to reach remote audiences. The use of video directly by communities remains untested in Cambodia. More detailed information and costs appear in Appendix A: Communication media in Cambodia.

Example of the use of video in development

- The Office of Aquaculture (supported by AIT) has produced training videos in basic fish farming techniques that are used during their training days.
- Partnership for Local Governance (PLG), based in Ratanakiri, use videos clips to educate and facilitate information access and sharing. The PLG Project Manager believes that when tribal people see clips of other villagers collecting non-timber products they find it much easier to relate to and are more likely to adopt the change in their own behaviour. PLG also use still cameras and video cameras to assist tribal people to articulate their problems, by providing cameras to communities to document their experiences, which often helps to stimulate discussion.
- The Women's Media Centre and Populations Services International both use, or will be using in the near future, mobile broadcasting units to air awareness-raising videos. Feedback from WMC's mobile teams are that communities are requesting more opportunities to view videos on a range of subjects and officials from those neighbouring provinces who don't have a mobile team are contacting the teams to request they visit their province.

1.5 Theatre and Puppetry

There has been a move in recent times to revive traditional Khmer theatre, puppetry and dance, activities that were forbidden during the Pol Pot regime. Traditional theatre forms include the "Ayay", "Sbek Tom" and "Sbek Touch". "Ayay" plays involve a man and woman singing a dialogue accompanied by musicians, which is traditionally comical and based on everyday scenes. "Sbek Tom" (meaning "grand or noble shadow puppet theatre") is traditionally staged during special occasions only, such as the Water Festival or the King's Birthday. Shadows representing legendary figures from ancient Khmer history are projected onto large screens. "Sbek Touch" (meaning "little shadow puppet theatre") is based around daily life and is a more appropriate medium for conveying modern issues or messages.

Villagers interviewed for this report had mixed reactions to the idea of community theatre as a method to educate people. Although many people said how much they enjoyed watching traditional plays on the television, the idea of using live theatre to entertain and educate was new. Many thought theatre a good way to discuss an issue or ask questions, especially if it was comical. More detailed information and costs appear in Appendix A: Communication media in Cambodia.

Examples of the use of theatre and puppetry in development

- *Protection Against Domestic Violence* (PADV) used "Ayay" theatre in a number of provinces in the late 1990s as part of an awareness-raising campaign. It attracted hundreds of people who travelled up to ten kilometres to see the performances.
- *Populations Services International* (PSI) has developed a reputation for their highly entertaining HIV awareness-raising puppet shows in Cambodia, which attract large community audiences. The impact of the shows has not yet been formally evaluated. However, a PSI marketing source said that they are planning to develop a way to incorporate evaluation into the shows as a means to gauge the levels of audience understanding.
- The *Mekong River Commission's (MRC)* "Management of Reservoir Fisheries in the Mekong Basin (Cambodia)" project used a community theatre group to launch a Fisheries Federation that involved five villages in Kandal Province. The performance presented sketches on related themes throughout the night. Anecdotal evidence suggests it was a highly successful method of attracting large audiences to celebrate the occasion.
- *Mlup Baitong* has experience of using community theatre to promote environmental education, by using villagers as actors and musicians. Two weeks of facilitated rehearsals prepare villages for performances. Mlup Baitong recommends this methodology because communities tend to find the performance more interesting when they know the performers. However, the process is more time consuming. Mlup Baitong also recommends evening over afternoon performances because they attract larger audiences and people tend to be more relaxed after work. They also encourage the Commune Chief and Village Chief to ask people to come beforehand.
- UNDP are currently commissioning an HIV awareness-raising theatre communication campaign involving several provinces.
- Wan Smolbag, a dynamic community theatre company from Vanuatu, has developed educational, participatory theatre that involves members of the audience as characters or props in its plays. To evaluate the impact of the production, the audience are asked questions and responses are demanded throughout the performance.

1.6 Posters, Leaflets and Booklets

Laminated posters mounted in prominent positions (sometimes used in conjunction with a facilitator) are a familiar communication tool in Cambodia. Villagers have even reported using them to decorate their houses, often complaining that never enough posters are distributed: "Often there will only be one per village, which will be put up in the Village Chief's house, where some villagers may not get to see it". Flip charts, leaflets, booklets and other training aids are used and shared by many health NGOs to provide one-to-one or group training about complicated issues.

However, rural communities often have little exposure to written and visual media, hence visual literacy is an important factor that must be researched prior to designing these materials. Symbols such as arrows and crosses, for example, are not always instantly recognisable. Interviews conducted for this report suggest that the following issues may be particularly important:

- Cambodians prefer to look at colour photographs rather than other types of visual image.
- In written media, the use of local Khmer language or the language of the ethnic minority being targeted is more effective than the more formal Khmer that is spoken in towns and cities.
- The Khmer script is important. Villagers report difficulty reading formal scripts used by the government for formal documents. Although children are learning a round script style at school now, middle-aged to elderly people learned to read a square style script and may have difficulties reading other styles.
- Colour is an important consideration. One communications source said that Khmer people didn't like red as it reminded them of the communist times and that black and white patterns

are symbols of death in the Buddhist religion (some organisations present written scripts in blue). Some commercial sources believe that red, white and blue are the best colours to use.

- Several project-based sources mentioned that designers should think more about positive messages and what people need to learn. A negative message, for example, might be a sign that states "Electro-fishing is illegal", which fails to explain why it is important not to needlessly kill fish. As one source mentioned, "People need to know why a community fishery is important, and that laws are there to protect their resource, not just to make their lives difficult".
- Successful materials are often products that not only convey the intended message but also are useful to the intended beneficiary, e.g., it includes a calendar or is a decorative item.

More detailed information appears in Appendix A: Communication media in Cambodia.

Examples of the use of posters, leaflets and booklets in development

- The Office of Aquaculture (supported by AIT) has produced colour and black and white training booklets for fish farmers and seed producers. Some are predominantly in picture format for new fish farmers; others have more script for seed producers (who are thought to have higher literacy levels). When tested with rural communities, picture-dominated books were definitely preferred.
- The Office of Aquaculture and the NGO SCALE have produced posters about aquatic resources management, aquaculture promotion and the protection of endangered species.
- *IDRC* in conjunction with others has produced a facilitator's guide to setting up a Community Fishery Committee. It is published in both Khmer and English and appears a useful guide, which is clear and simple for use by government and NGO staff.
- The STREAM Initiative produces a quarterly journal in plain English and Khmer. The STREAM Journal covers issues related to poor people whose livelihoods involve aquatic resources management, and government, non-governmental and international practitioners who work with them. Author contact details are provided for each article and early feedback suggests that this is facilitating direct links between stakeholders.
- The MRC's "Management of Reservoir Fisheries in the Mekong Basin Project" has developed a simple picture-based book for communities about community fishery set-up, focusing on processes rather than step-by-step procedures. As yet the book has not been distributed, but it is reported that community members received it well during the pilot phase.

1.7 Telecommunications

The landline telecommunications system in Cambodia is reportedly out of date and unreliable. Although people working in government, international organisations and NGOs do communicate via landline telephone, government offices in particular may only have one or two telephones that must be shared between a large team of people. This is certainly the case for provincial government departments, whilst at the district level there may be no landlines at all. As a result, many people (although frequently excluding rural communities) use mobile telephones. It is estimated that more than 75% of the total 140,000 telephone lines in Cambodia are cellular (PKI, 2001).

The internet remains largely an urban phenomenon. It is expensive compared to neighbouring countries (due to the lack of market competition and high government taxes) and of poor quality. Unlike Thailand and Vietnam, Cambodia is not connected to regional non-profit providers such as the Asian Internet Interconnection Initiative.

Although there are plenty of internet cafes in Phnom Penh, the internet is not widely available to all government offices. Most provincial government offices are not able to access e-mail. However, the NGO community does often have e-mail and internet access. Where it is possible, electronic communication between the NGO community and government offices is popular.

Examples of the use of telecommunications in development

- UNICEF is currently developing a mobile phone communication initiative that will enable rural communities to phone for health-related advice. Communities will be provided with mobile phones to access the UNICEF/Mobitel help-lines that are being established.
- The STREAM Initiative is facilitating access to regional information via the internet. The STREAM Communications Hub in Cambodia (within the CFDO) is connected via the internet to Communications Hubs in other Asia-Pacific countries. Bi-weekly netmeetings connect the Hubs and other stakeholders around the region. The Communications Hubs can also access the STREAM Initiative website, which includes many articles translated into Khmer.

1.8 Individual Communication

It is important to recognise the important role of individuals in communication. Evidence clearly indicates that communication materials are likely to be far more successful if used in conjunction with a facilitator to guide learning, rather than simple dissemination. Organisations including MRC and CCD (Community Capacities for Development) depend on the facilitator alone. However, this requires more time in the form of a regular physical presence in the community.

Village volunteers are used by a number of organisations in Cambodia. While they provide an opportunity to train individuals in specific areas and offer opportunities for peer education, several sources spoke about the difficulties in maintaining this kind of extension process. Continual monitoring is necessary to ensure volunteers are delivering the correct information. There is also an issue regarding the continued motivation of volunteers to carry out peer education.

Study tours are also a popular communication mechanism in Cambodia. During the course of this research, sources identified both positive and negative examples of the use of study tours as a communication tool. Villagers also demonstrated a mixed response to their usefulness as a learning tool.

Examples of the use of individual communication in development

- The *STREAM Initiative* employs a Communications Specialist to guide learning and communications at regional, national, provincial and community levels.
- Voluntary Service Overseas (VSO) and Australian Youth Ambassadors (AYA) provide qualified and experienced professional individuals, who act as peer educators providing regular and consistent information to government staff and NGOs.
- Partners for Development (PFD) use village volunteers as an important part of their extension strategy. PFD train village health volunteers, veterinarians and agricultural volunteers to provide basic advice and messages to the community. Another example is the "Pagoda Grannies", who are given a simple message such as, "If you are pregnant, go to hospital", to disseminate. A number of NGOs have found this to be a fairly successful method of information dissemination.
- The Integrated Pest Management (IPM) farmer field school system has proven successful. The best graduates of the 20-week district farmer field school are selected to become farmer trainers and go on to receive an intensive two-week facilitation course. Following training, they are supported financially and by a district trainer to conduct their own field schools.

(More detailed information and costs appear in Appendix A: Communication media in Cambodia.)

II. INFORMATION EXCHANGE WITHIN THE FISHERIES SECTOR

This section provides an overview of information exchange within the Cambodian fisheries sector, primarily within and among national, provincial and district-level Department of Fisheries (DOF) offices, international organisations, and local and international NGOs. More detailed information appears in Appendix B: Access to information and communication sources within the fisheries sector and Appendix C: Information Sources for Different Aquatic Resources Stakeholders.

2.1 Department of Fisheries

2.1.1 Information Sharing within the DOF

DOF staff from all levels of the government report that it is difficult for them to access information on aquatic resources management issues, unless supported by an external party. Low budgets, low salaries, low motivation, a lack of resources, and a highly bureaucratic and formal working environment are all contributing factors. This impedes information flows between government officials and slows down decision-making processes. In general, senior staff at national and provincial levels have greater access to information than the rest of office staff, in part because they are likely to be better educated, will write and receive reports, and will be invited to take part in most meetings and workshops.

Senior government staff at national and provincial levels stated that they obtained most of their fisheries-related information from reports, meetings or workshops. As throughout Cambodian society, informal contacts with colleagues and friends are also an important source of information. Formal communication processes and instruments are also in operation:

- The DOF's national office chiefs meet once a month to share information.
- The national DOF receives monthly reports from the Provincial Departments of Fisheries and report to and meet with the Provincial Fisheries Chiefs twice a year.
- The Office of Aquaculture publish a quarterly Khmer newsletter, the "Cambodian Fisheries Newsletter", on all DOF activities. It is distributed internally and externally to MAFF, the national and provincial Departments of Agriculture, Forestry and Fisheries, other government institutions, and some NGOs. The 2001 Office of Aquaculture Annual Report states that 270 copies of this newsletter were produced in the final quarter of 2001. However, no provincial staff mentioned the existence of this newsletter when asked about their information sources.

There is a library housed within the DOF that contains a small fisheries information resource, some of which is published in English. An expatriate advisor to the Office of Aquaculture/AIT has recently designed a database to catalogue the contents of the library, although government staff are yet to start using it. It was also reported that the librarian now keeps the library permanently locked, following a recent relocation. In addition, research conducted for this report indicates that, with the exception of some office chiefs and vice office chiefs at the national level, many Cambodians working in the government do not actively search for fisheries information. This may suggest that information resources currently available within the DOF library, the MRC library and others, are perhaps under-utilised. The fact that most fisheries literature is published in English only may also be a contributing factor.

All government sources interviewed at national, provincial and district levels stated that they had access to television and radio and utilised both on most days. Most sources also said they read or at least skimmed the newspaper *Rasmey Kampuchea* a few times each week. All these were used as occasional sources of information about fisheries conflicts or reports on the decline of fish catches.

Senior English-speaking national staff were also aware of international reports and newsletters, citing the MRC's *Catch and Culture*, the *STREAM Journal* and ICLARM's *NAGA* as examples.

2.1.2 DOF Relations with Other Government Ministries and Departments

Sources at the national level from the DOF and Department of Agricultural Extension (DOAE) stated that information flows between different government ministries and departments suffer from the highly bureaucratic and formal working environment. Other than activities facilitated by external agencies, there appears little evidence to suggest that the DOF shares information with other government ministries. Directors of three local NGOs, for example, commented on the lack of communication between the DOF and other ministries, in particular the Ministry of Environment (MOE).

In common with other countries in the region, the situation is much improved at the provincial level. Here, the DOF and DOAE appear to have much closer working relationships and are usually based in the same office. DOF and DOAE provincial chiefs in Kandal and Kratie, for example, meet regularly, although none of these officials mentioned meeting representatives from the MOE.

In common with all MAFF departments, the DOF has access to a national-level Office of Agricultural Extension. However, there is currently little co-ordination in terms of information and resource-sharing between the two at national and provincial levels. Support to encourage this linkage is likely to improve the sharing and co-ordination of information exchange with local communities.

2.1.3 DOF Relations with NGOs

Many NGOs have campaigned for changes in fisheries policy, in many instances bringing them into conflict with the DOF. As a result, relations between the DOF and NGOs have sometimes been tense, with little communication or co-ordination between the two parties. However, both parties recognise that it would be mutually beneficial if relationships improved, particularly in support of the ongoing DOF work to instigate sweeping reforms. To this end, in May 2002 the CFDO (with support from the STREAM Initiative and WWF) piloted the now-quarterly "Co-ordination and Partnerships Meetings", which bring together government and non-governmental national stakeholders. This is widely viewed as a positive step towards improving relations and communications.

Recent collaborations with the CFDO provide good examples of the benefits of working together, including an "Understanding Community Fisheries" training course, which was supported by Oxfam GB, Oxfam America, FAO, MRC, SADP and WWF/CBNRM; and livelihood studies that were carried out in partnership with the local NGO SCALE, and which were supported by the STREAM Initiative. In general, those NGOs that keep the DOF informed of their activities prior to implementation appear to have much better working relationships.

The secondment of DOF staff to international and local NGOs is another way in which links between the two parties are being fostered. Strategic plans developed by CFDO include provision for seconded staff to return to the department for monthly briefings, so that learning is shared more widely with other staff and the secondee is aware of the latest developments within the CFDO.

2.1.4 DOF Access to Information from Local Communities

At the national level, DOF staff access information about communities from their provincial sources and from national level government staff who work on projects run by external agencies such as the Office of Aquaculture/AIT and MRC/DOF. Government sources working with external agencies reported that they had far more opportunity to become involved in fieldwork and research at the community level.

At the provincial level, communication between the Provincial Departments of Fisheries and communities was described as minimal, unless there is an NGO or IO working to support them. In Kratie Province, for example, provincial staff have taken part in participatory rural appraisals (PRA) through support offered by CAA and SCALE. The Provincial Chief of Fisheries in Kratie Province acknowledged that communities only have the opportunity to communicate issues to the Commune Chief or fisheries officers, who, according to the community in Kratie, only visit once a year. The Provincial Chief of Fisheries also mentioned that he identified problems that communities are facing whilst attending a PRA, some of which surprised him.

The main point of contact with communities is the Commune Chief or Village Chief who may report on illegal fishing activities. If there is a Community Fishery Committee, then the Committee Chief would provide this information. The regularity of contact varies from province to province. It appears that those communities which have established a Community Fishery Committee have slightly better contact with the Provincial Department of Fisheries, although the level of contact was still reported as unsatisfactory (Table 2).

A community without a Community Fishery Committee	A community with a Community Fishery Committee
Provincial Chief of Fisheries In Kratie, the Provincial Chief of Fisheries cited meeting at least ten out of the twenty commune chiefs once a month. However, these meetings were not organised. Sometimes it is at a workshop, other times dropping in if passing the Commune Office.	Provincial Chief of Fisheries In Kampong Chhnang, the Provincial Chief of Fisheries stated that his staff visited each community fishery twice a month
The Commune Chief The Commune Chief has contact with the Provincial Departments of Agriculture, Water Resources and Fisheries on a monthly basis, but said he had far more contact with the Department of Agriculture.	The Community Fishery Committee Chief The Community Fishery Committee Chief interviewed in the village of Koh Rosei, Kampong Chhnang, said it was easy for him to contact fisheries officers at the district level via two-way radio to report illegal fishing. However, he stated that he still

Community

to do

The Village Chief

visits from NGOs

The Village Chief said he reported to the Commune Chief

once a week, but that it would be rare for him to visit a

government official at the provincial level and that a provincial

official may only visit the village once or twice a year. Other

than that, the only other visitors to the village were sporadic

didn't really understand the roles and responsibilities of the

communication with the provincial DOF. He mentioned that

the Provincial DOF had come to the village for only four hours

to explain the new situation, set up a community fishery and

elect a committee, and that he depended far more on a local

NGO (Khredo) to help him understand what he was supposed

Fishery Committee and needed

more

Table 2: Examples of Communication between Provincial DOF Offices and Local Communities

District officers have more contact with communities than anyone else in the government and are the closest in terms of accessing information about how communities live. Traditionally, district fisheries officials have also taken the role of policing the rivers and water bodies for illegal fishing and issuing fines. For this reason, this report found that community members are often scared of the district fisheries officials, hence relations between communities and district fisheries officials are not always good. However, positive perception changes on both sides were recorded following the participation of district fisheries officials in livelihoods studies of selected communities.

A particular problem for the recently established CFDO is the lack of effective communication linkages between local communities, the provincial fisheries offices and the CFDO. There is limited capacity at national and provincial levels, limited understanding of roles and responsibilities in comanagement, and limited institutional and policy support.

The STREAM Initiative is piloting support that aims to link national and provincial-level government and fishing communities through a number of activities. Case studies produced by the WWF/CBNRM learning initiative relating to community fisheries and the output from the CFDO/MRC self-review of specific community fisheries in Kampong Chhnang will also provide valuable information for use by the CFDO and other DOF offices.

2.1.5 DOF Extension Efforts

National DOF office chiefs and vice office chiefs reported that the DOF has no or minimal budget for extension strategies and materials, unless external donors support them. For example:

Fishery Domain Office

The Fishery Domain Office is responsible for introducing fishing lot reform, the production of maps, and dealing with disputes between fishing lot owners and rural communities. It has no extension budget. However:

- With support from JICA, it has produced a video about the protection of aquatic resources, targeting people who live and work around the Tonle Sap (Great Lake).
- With other external funding, two training courses have been held for provincial fisheries chiefs from each province to explain the new laws.
- Posters about the protection of fisheries resources and illegal fishing have been designed at the national level, though they depended on provincial budgets to produce them. Those provinces with no budget were unable to produce them.

Office of Aquaculture

The Office of Aquaculture remit includes all aquaculture activities in all provinces. It has links with MRC, PRASAC, World Food Programme, SCALE and Wetlands International. It currently receives support from an AIT outreach project to focus on the poorer areas of Cambodia. As a result, the Office of Aquaculture currently has a structured extension strategy in three provinces (Kompong Speu, Svay Rieng and Takeo) with an aim to include one more province in the near future. National and provincial staff from the Office of Aquaculture have developed skills in project management, planning, implementation, monitoring and evaluation. Provincial officers under the AIT project are each responsible for 5-10 seed producers and visit each one twice a month.

Extension materials funded by the project include posters and picture booklets for farmers with low literacy levels, instructional books in basic Khmer for more literate farmers, and training videos. At this stage, no formal evaluation of the extension materials and techniques has been carried out, but it is reported that all products are field-tested prior to their final production. The project also endorses field trips and study tours to spread information and train new farmers. The project uses PRA exercises to collect relevant information about communities and in 2001 organised an annual farmers workshop held in the three provinces to enable fish farmers and provincial staff to exchange information about lessons learned over the year.

MRC's Capture Fisheries and Management of Reservoir Fisheries Project

The MRC's Capture Fisheries and Management of Reservoir Fisheries Project employs selected DOF staff from national and provincial levels on a part or full-time basis. The Management of Reservoir Fisheries Cambodian Sub-component is being implemented in Kampong Cham and Kandal provinces. It aims to give stakeholders a voice in the development of reservoir fisheries management policies and to boost confidence at the field level by providing community fisheries management experience. The extension techniques employed by project staff have included:

- Inter-provincial exchanges between Kampong Cham and Kandal
- Visits to other agency-supported projects in Siem Reap and Ream National Park
- Information dissemination at the village level using word of mouth, Khmer proverbs on signs and pictures to present management plans
- A traditional theatre group acting out fisheries-related sketches

• A picture book on the set-up of community fisheries, containing short stories and examples of management plans and by-laws developed by villages involved in the project.

2.2 Civil Society

2.2.1 Information Sharing within the NGO Sector

This research found that most staff working in NGOs obtained information from colleagues working with international organisations and local and international NGOs. Reports (e.g., FACT, 2002; Gum, 2000), commissioned by various organisations on recent developments in the fisheries sector, were also seen as useful information sources. However, most of these reports were published in English and, whilst many senior Cambodian NGO workers speak English, many who work at the provincial level do not.

A small proportion of interviewees identified a handful of journals and newsletters on fisheries issues. The larger IOs and NGOs had access to the internet but many people did not currently perceive it as a good information source for fisheries issues in Cambodia. The *STREAM Journal* and website are new resources and not currently well known in Cambodia. MRC's *Catch and Culture* was the most widely known newsletter.

All of the publications cited were for regional distribution, hence there is likely to be room for a national newsletter of some description. Many NGO workers commented on the lack of information they received from the government. Although the DOF produce a regular newsletter, it was reported that few NGOs are on the mailing list; no one interviewed from the NGO sector during this study had ever received a copy.

There are also questions over the true value of newsletters. Many interviewees mentioned that they were busy and only had time to skim publications. However, when pressed, those who did read newsletters often valued their content. One source speculated that a publication driven by one institution or organisation was often less appealing to the masses as it could be driven by that organisation's agenda. A combined effort co-ordinated by numerous stakeholders could be more successful. The *STREAM Journal* offers the opportunity for all stakeholders to contribute stories and articles, but is early in the process of establishing links with contacts in Cambodia.

Given the escalating level of conflict in the fisheries sector and the lack of documented information on aquatic resources management issues in Cambodia, the NGO sector has established a number of fisheries networks and working groups as means to collect and circulate information and to collaborate on the formation of collaborative strategies on issues such as advocacy and communication.

Fisheries Action Coalition Team (FACT)

FACT is a network of NGOs specifically concerned with aquatic resources management issues, established in 2000 and supported by Oxfam America, the NGO Forum, DFID and the Environmental Justice Foundation. Members include Oxfam America, Catholic World Services, Asian Catholic Relief, Catholic Family Development Services, CEPA, Khredo and Akphiwat Srey (Women in Development). Their mission is to promote sustainable fisheries and reduce fisheries-related conflict, by conducting field-based research and strengthening communication among fishers, the Government of Cambodia, donor agencies and NGOs. Their work is focused around the Tonle Sap.

Fishery Law Working Group

The Fishery Law Working Group is essentially a meeting among civil society organisations. During the draft community fisheries sub-decree consultation process, meetings took place among the DOF, the Fishery Law Working Group and stakeholders from Kampong Cham and Kompong Tom. More

recently, some meetings have included representatives from the CFDO. Oxfam America and Oxfam GB fund the working group. Members include Oxfam America, Oxfam GB, WWF, CEPA, CFDS, CAA and FACT.

Community Based Natural Resources Management (CBNRM) Initiative

In response to the lack of documented material available on natural resources management in Cambodia, IDRC (International Development Research Centre), WWF and Oxfam America established the Community Based Natural Resources Management (CBNRM) Case Study Writing and Networking Initiative. It aims to identify CBNRM best practices that can be used in long-term strategy development, build Cambodian capacity in case study analysis and provide opportunities to reflect on lessons learned.

According to the Project Advisor, the process can be slow and requires facilitation and organised training in research and writing, especially since case studies are written in Khmer and then translated into English. It was reported that current case studies are not in a format of direct benefit to local communities, although the next phase of the project hopes to explore ways to address this issue.

Provincial-level Stakeholder Networks

It is reported that, since early 2002, co-ordination between various provincial fisheries networks has improved (Mansfield and Macleod, 2002). For example, FACT support partner organisations in the provinces around the Tonle Sap to organise stakeholder meetings, where communities, provincial-level government departments, fishing lot owners, the military and the police are invited to discuss issues in a plenary forum. These meetings are a recent development and it is too early to judge their effectiveness. It is worth noting, however, that this research identified tensions in Kampong Chhnang between the provincial DOF and the co-ordinating partner, the local NGO Khredo, with the provincial DOF feeling that NGOs should not take this role.

FACT also support the organisation of provincial fishery networking meetings around the Tonle Sap among FACT representatives, target provincial NGOs and fisherfolk. FACT members with provincial offices organise their own network meetings. CEPA, for example, organise bi-monthly fisherfolk network meetings in Stung Treng, and an annual fisherfolk forum that is attended by NGOs from nearby provinces, the provincial government and fishermen. A useful exercise would be to record all provincial fisheries network meetings that are currently taking place.

One independent source questioned whether stakeholders who attend FACT meetings actually get the information they need, and wondered whether FACT could do more by gathering information and input from people rather than simply handing out information they thought appropriate. However, a community fishery leader in Koh Rosei, Kampong Chhnang, stated that these meetings were his only source of information about community fisheries co-management, as he was unable to access information or training from the government.

2.2.2 NGO Extension Efforts

NGOs, including CCD (Community Capacities for Development), who work in partnership with the MRC Capture Fisheries Component in Kampong Chhnang, often adopt a less rigid approach to extension, allowing communities to access information and assistance as and when it is needed. Strategies tend to be based on community empowerment and depend less on specific information extension tools such as posters and billboards. Allowing communities to develop at their own pace in this way is more time consuming, but is reported to have a greater chance of sustainability.

One interviewee reported that there has been a marked increase in the availability of external fisheriesrelated media at the community level. However, the interviewee felt that such external media could be of limited value, as it usually failed to make use of local ideas and resources, and could hamper the development of local media. It is widely acknowledged that if communities participate in the design of extension materials, this not only develops their capacity but also increases the likelihood of the promoted message being accepted. Although the process is time consuming, it is likely to be a valuable learning experience for all concerned.

2.2.3 NGO Advocacy Efforts

Following the surprise decision by Hun Sen in October 2000 to reduce the fishing lot area by 56%, members of the NGO Forum Environmental Working Group (and future FACT members) developed a communication strategy to lobby the government at policy level. This is an excellent example of how civil society organisations from the fisheries sector can collaborate to support decision-makers at policy level and rural people at community level through support to consultation events. This process enabled information to flow from the bottom so that the views of local communities influenced the drafting of the community fisheries sub-decree.

Information extension strategies aimed at the policy level

Purpose

The purpose of the information extension strategy was to ensure that the views of local communities influenced the drafting of the community fisheries sub-decree.

<u>Methodology</u>

Members of the NGO fisheries network employed a two-pronged strategy to achieve the communication purpose. First, they provided financial support to the DOF to hold a consultation event. At the same time, they lobbied the DOF during the draft community fisheries sub-decree development process to ensure that the views of local communities were included in the consultation process. They also worked with these communities to gather more information and input.

The media were fully utilised to play an important role in the campaign. Television, radio and newspapers were invited on field trips to fisheries conflict areas so that they could learn and report on the issue in more detail. Later, regular updates were sent to journalists who participated in the original field trips. The media were also invited to cover provincial conferences that were presided over by high-ranking local dignitaries, the objective of which was to bring government officials to account. This seems to have been so effective that Hun Sen has now instructed officials to be careful about events they attend.

Lessons learned

Understand the legislative process

If lobbying is to succeed, it must be directed towards all departments involved in the decisionmaking process. Lobbying by the fisheries networks went only as far as the DOF, but with hindsight, the strategy should have included lobbying the Ministry of Agriculture's legal working group.

Provide opportunities for consultation among policy-makers, NGOs and communities Involving communities in the consultation process enabled the advocacy campaign to be relevant and responsive to the needs of communities.

Document evidence and research

Documented evidence (e.g., FACT, 2001) helps to identify specific problems and isolate cases that enable advocates to argue more successfully.

Foster government authorities as advocates

Whilst using the media to make officials more accountable for their words has shown to be an effective strategy, stories that exposed or criticised the government could be antagonistic. A more constructive approach may be to develop a working relationship with government, including building the capacity of government officials in advocacy.

Mansfield and Macleod (2002)

2.3 Information Exchange within the Community Forestry Sector

The community forestry sector in Cambodia is often given as an example of information exchange from which lessons can be learned and applied to the community fisheries sector. This is discussed briefly below.

2.3.1 Community Forestry Networking Meetings

Community forestry networking meetings have taken place since 1993, providing a more established networking model than the FACT stakeholder meetings. The meetings are quarterly and previously took place just in Phnom Penh, co-ordinated solely by Concern. Following a recent evaluation, the strategy has changed and meetings now take place in the provinces. Prior to the changes, it was felt the network members had too little say in meetings, which discouraged attendance. Meetings are now hosted in a different province each time, co-ordinated by a new organising committee comprising Oxfam GB, Concern, MAFF, MOE, WWF and Mlup Baitong.

Since the strategy change, it is reported that attendance has increased considerably. Concern, WWF and Oxfam GB fund a variety of participants from government, NGOs and local communities to attend. They are particularly keen to fund national and provincial-level officials to attend the meetings so that information can be passed to the national level. The meetings provide an opportunity to share information, clarify issues and discuss conflicts. Unlike the FACT provincial stakeholder network meetings, this network links stakeholders together from national to community levels. This is recognised as a current gap in the fisheries sector.

2.3.2 Community Forestry Newsletter

A "Community Forestry Newsletter" is distributed quarterly and sent to all organisations on the community forestry database, including government departments and NGOs. Provincial-level governments are responsible for distributing the newsletter to communities. Concern currently support and publish the magazine, with contributions from the Department of Forestry, the Department of Nature Conservation and Preservation, and the Forestry Network Organising Committee. At this time, contributions are not collected directly from communities.

The co-ordinating committee for the network meetings and the newsletter sits for one year, but plans are being discussed to make the Community Forestry Network a government initiative. One suggestion is to rotate responsibility between the MOE and the Department of Forestry, although the current lack of government capacity and organisation prevents roles being assumed effectively.

Several interviewees commented that currently in the fisheries sector many organisations produce annual reports but rarely document the experiences of rural communities themselves. One interviewee believed that a jointly co-ordinated newsletter or case study report that was distributed at fisheries sector network meetings had great potential. It was suggested that the communities themselves should report such case studies in their own words via a local NGO. Given the recent interest in community fisheries, cases could focus on the different ways in which community fisheries have been established.

III. HOW RURAL COMMUNITY GROUPS ACCESS INFORMATION

3.1 Introduction

To gain an insight into what information channels are accessible to and preferred by poor rural communities, this research included field visits to the villages of Dong Kooum (Kandal Province), Koh Rosei (Kampong Chhnang Province) and Soup Leu (Kratie Province), where individual interviews, group exercises and village discussions were held. Detailed results of this research are given in Appendix D: Results of fieldwork conducted in three villages.

Participants included men and women, young and old, the poorest community members and the village and commune chiefs. Separate group exercises were held for women to allow them to participate freely in the discussions. To avoid detaining people for too long, groups were asked to participate for up to a maximum of three hours each day. One full day was also used to interview district and provincial fisheries officers and chiefs, government officials, local and expatriate NGO workers and fishing lot owners in each respective province. The author designed the fieldwork, which was conducted by a team of three: the author, a Cambodian facilitator (from the NGO SCALE), and an interpreter who was also an experienced facilitator (also from SCALE).

3.2 Sources of Information in Villages

3.2.1 Word of Mouth (Friends and Neighbours)

The author observed men and women gathering in small groups to talk during the day, and people stopping and sitting at the door of a neighbor's house for a chat. People live close together; hence friends or neighbors are the main source of information about news and other events both in the village and beyond. People reported that they trust information less if it has come from a visitor from another village. If this happened, they would prefer to go and see things for themselves to verify its accuracy.

I hear about news from other villagers or from people visiting the village. Sometimes there is a village meeting. I also watch television two or three times a week at a friend's house, but I don't pay much attention to national issues; I just focus on trying to make a living.

Bo Phony, 47 year-old widow, Soup Leu, Kratie

3.2.2 Village, Commune and Provincial Chiefs

The Village Chief and Commune Chief are perceived as important and accessible sources of moral guidance. Village Chiefs organise monthly meetings and, if necessary, ad hoc meetings to disseminate information within the village. Several sources reported that the commitment of the Village Chief varies between villages, with one villager stating that their Chief was too busy to help. A Commune Chief interviewed also commented that the more developed a village is, the less people rely on the Village Chief. The Commune Chief is often less accessible than the Village Chief. Different communication networks were observed beneath the Village Chief level in each village. In one, for example, four group leaders were responsible for conveying information to and from a set number of households. Ideas varied about Provincial Chiefs. One Provincial Chief said that villagers had his phone number and they called him directly if they had a problem or wanted to ask a question.

In remote villages they depend more on the Village Chief for advice and guidance. The less remote villages with people who have businesses and shops who go to market and live more independently, don't take so much notice of the village chief.

Young people don't pay much attention or respect older people's advice, because they are so ambitious they need to catch more fish. I have no right to force them to accept my ideas, but they do listen to the Village Chief and Commune Chief who have more power.

Som Ngov, aged 62, Koh Rosei, Kampong Chhnang

Commune Chief, Soup Leu, Kratie

3.2.3 Other Key Sources of Information

The nearest health centre (commune or provincial), monks and NGO workers were all identified by villagers as important and reliable sources of information, suggesting a possible correlation between access to information and distance to the nearest health centre or pagoda. Elderly people were perceived as an important source of historic information about the village and the local environment. People recognised that elderly people were more likely to use monks as a source of advice. Although the younger generation tended to go to the pagoda only during festivals, it was clear that monks were well respected in each village.

The elderly people know which areas of we talk about our problems to the water belong to the village and which belong to the fishing lot owners. Villager, Dong Kooum, Kandal

Villagers, Koh Rosei, Kampong Chhnang

Two villages viewed teachers as important sources of information in terms of educating children, but there was no indication as to whether they were also viewed as educated sources to whom people might turn if there was a problem. Some communities used the school as a location for village meetings, while in others it was said that parents or villagers rarely visited the premises.

3.2.4 Village Police

In two of the villages, the men mentioned that the police were an important source of information. This is interesting because in all interviews conducted with national and provincial government officials and NGO workers, every one mentioned that the military and police were their least trusted source of information.

3.2.5 Provincial and District Government Departments

The value placed on information from Provincial and District Departments of Environment, Forestry, Fisheries and Agriculture varied between each village, depending upon how often the villages were visited, what and how much assistance was provided, and whether the villagers trusted the officials. In general, though, communities appeared somewhat isolated from local authorities.

The Provincial Department of Fisheries in Kampong Chhnang stated that officers visited Community Fishery Committees twice a month to offer support. It is important to recognise, however, that Provincial Departments of Fisheries have small budgets. Unless supported from donor sources, it is unlikely that they can afford to make regular community visits. The Provincial Chief of Fisheries in Kandal stated that villagers had his phone number and they called him directly if they had a problem or wanted to ask a question.

It was clear that the Provincial Departments of Agriculture and Environment had been active in one village: there had been a number of visits by government officers and some farmers had attended field schools. In this case, both departments were thought to be useful sources of information, although not so accessible.

In Koh Rosei (Kampong Chhnang) the Provincial Fisheries Chief came to the village to establish the Community Fishery Committee. The village said they were happy with the Committee but complained that the Provincial Fisheries Department did not provide enough information or support. They stated that the Provincial Fisheries Chief was at the village for only four hours, explaining why a committee was needed and holding a committee election before leaving.

Koh Rosei currently depends on Khredo, a local NGO, for guidance and more information. Khredo has organised two meetings at which the Community Fishery Committee and Provincial Fisheries Chief were present. However, the Community Fishery Committee is still unclear about its role, stating that they would appreciate more face-to-face discussions with the Provincial Department of Fisheries. Extracts of the interview conducted with the Community Fishery Committee leader are provided in Appendix E: Excerpts from an interview with Pich Hemg.

We have a Community Fishery Committee	Where Community Fishery Committees
but we don't understand what we're	(CFC) exist, they are only recently formed
supposed to do.	and support is needed to unite the efforts of
	CFCs and the district, provincial and central
Community Fishery Committee Leader, Koh	Fisheries Department.
Rosei, Kampong Chhnang	
	STREAM Communications Specialist

In many instances, district fisheries officers were perceived as "river police" who administered fines rather than important or accessible sources of information, though it is important to emphasise that this was not true in all cases. In Koh Rosei, for example, the Community Fishery Committee had a two-way radio to report illegal fishing to the district fisheries officer. Some NGO sources spoke of how certain provincial fisheries officials obstructed access to maps of fishing lots and burden books for their own personal gain. Another source was not convinced that all of the maps existed, stating that NGOs should do more to pressure the government into developing them.

A lack of capacity, confidence, fear and at times censorship, appear to prevent communities from seeking assistance or communicating problems beyond their village boundary. Some sources even reported that, prior to a visit by an official, villagers were often searched by the police to remove any letters that they might have on them requesting assistance².

² This has been reported to a field researcher by sources whose anonymity has been respected. There is no independent verification of this information.

In a few cases villagers have gone to the provincial fisheries office and if they have got no help, have gone to the National Assembly. But they are scared about what the river. They don't care if it is legal or not, will happen to them when they get home.

NGO source

They [district fisheries officers] come and ask for money from fishermen in the open season. They ask for a tax for using a net in they just ask for 30,000 Riel. They take the net away if you don't pay. We don't learn anything from them; they are not interested in our lives.

Village source

Regarding the right hand textbox³

3.2.6 Television and Radio

Each village ranked television and radio as important sources of information, perceiving them as more accessible than district and provincial government officials though less accessible than the Village Chief. One NGO source commented on how seriously Khmer villagers take information they receive from television. Not surprisingly, wealth-ranking exercises demonstrated that "the poor" and "the very poor" did not possess a television or radio. "Very poor" women without a television or radio stated that they watched television at a friend's house "a few times every week". However, "very poor" men said they never watched television, though a few "very poor" men stated that they listened to the radio. For most, meeting and talking with friends was the most important source of information. The range of communication devices that are available in each village is summarised in Table 3.

People hear about the news from the radios and the televisions. There are a lot of TVs here, many people have both, but if they are poor they may just have a radio. Village Chief, Soup Leu, Kratie	When I heard about the terrorist attacks in New York on the television and on the radio I was worried about how it would affect our lives here in Cambodia and if the terrorists would attack Cambodia. I worried about our friends and relatives outside the village.
	Pich Hemg, Community Fishery Committee Leader, Koh Rosei, Kampong Chhnang

Province	Kandal	Kampong Chhnang	Kratie
Village	Dong Kooum	Koh Rosei	Soup Leu
No. households	205	126	174
No. households with TVs	108	63	59
No. households with radios	57	25	25
No. households with tape recorders	58	21	17
No. households with TVs and radios	16	14	6
No. households with TVs and tape recorders	47	10	8
No. mobile phones	3	0	3
No. two-way radios	2	6	3
Preferred radio stations	FM 103, FM 96	FM 103, FM 95	FM 103, FM 95, VOA
Preferred TV stations	TV5	TV5	TV5
TV stations received	TV5, TVK, TV3, TV9	TV5, TVK, TV9	TV5

³ This has been reported to a field researcher by sources whose anonymity has been respected. There is no independent verification of this information.

The author noted the large amount of information each village obtained from television and radio, with people often quoting broadcasts about health campaigns, news, protection of natural resources and fishing season announcements. It appeared that women, for example, were learning as much about health-related issues from the media as they were from the health centres.

3.2.7 Business People and Moneylenders

Community members had differing levels and frequencies of contact with business people. Although business people often pass on news about food prices and other information from provincial capitals, few villagers trusted this source of information, believing that business people often lied for self-gain. In Dong Kooum (Kandal Province), moneylenders were categorised as the least important source of information. Indeed, most people stated that they preferred to keep their contact with moneylenders to a minimum.

3.3 Preferred Ways to Access Information

Most favoured extension techniques are summarised in Table 4. The playing of music, listening to radio and watching television were regular pastimes in every village and an important feature of villagers' everyday lives. Radio was generally listened to first thing in the morning between 05.00-06.00 by both men and women. Both men and women would watch television between 18.30-22.00, especially a Thai soap opera at 20.00. Some people also used radio and television at mid-morning and lunchtime. It was difficult to determine if television or radio was preferred: at group meetings, most would say they preferred television. Radio FM 103 and FM 95 and TV5 were most popular.

	Location			
Extension Technique		Kooum ndal)	Koh Rosei (Kampong Chhnang)	Soup Leu (Kratie)
	CFC	Women	Men	Men
Workshop	6			
Theatre, comedy, play	7		1	3
Training video	3		2	5
Meetings	4		5	
Training school	2			1
Village cross-visits	1			
Poster	5	4	6	
Radio		3		
TV		2		4
Word of mouth		1	4	
Book with pictures		5	3	2

Table 4: Most Favoured Extension Techniques (Based on a Ranking Exercise)

CFC = Community Fishery Committee

Color pictures are better than black and white ... if it's about a real situation happening in the village, then we will look at it more.

People like picture stories, and not much writing.

Theatre is only one way, you can't ask questions.

If we are too busy to visit another village, we can still look at a book in the house.

Stories must have a title, so you know what it is supposed to be about.

Meet people and stay longer in the village to make sure they understand.

Comments from members of three villages visited during the fieldwork

All people who were questioned stated that they were at home more often during the flooding season (August-September) and more likely to turn on the television or radio throughout the day. During the dry season, many people work away from home in the rice fields, some taking their radios with them to listen during the lunch-break. Many people said they liked listening to the newspaper articles read on air in the morning, especially if it was about a crime or robbery. People also liked listening to government officials speaking on the radio.

The purpose of this report is to identify communication channels used by stakeholders within the aquatic resources management sector, and how rural poor communities access information, in particular related to aquatic resources management. It is hoped that this will support the selection of appropriate media when targeting different aquatic resources stakeholder groups. The principal focus of the recommendations below relate to rural poor communities, with a shorter section on recommendations that relate to other stakeholders within the sector.

4.1 Targeting Poor Rural Communities

- Poverty, limited education and a lack of access to telecommunications, transport and other communication opportunities all isolate poor rural communities from the rest of civil society in Cambodia. In practice, most rural communities have limited access to general information, and even less to information specific to the management of aquatic resources. Accessing such information can be impossible without the assistance of an external third party. Even if aquatic resources management information is within their midst, pressing and immediate livelihoods needs amongst the poorest people can lead them to not take heed.
- Rural communities (especially those in remote locations) depend heavily on traditional information sources such as commune and village chiefs, monks and village elders. Whilst some communities also have access to information from health centres and NGO workers (which communities perceive as important), accessibility varies from village to village. Word of mouth is still one of the most powerful methods of spreading information at community level. That said, radio and television are fast becoming significant sources of information in rural Cambodia, both of which have considerable potential for further development as communication media.
- Perceptions at the community level about district fisheries officers and staff from the Provincial Departments of Fisheries vary. The "policing" role recently undertaken by district fisheries officers and often-reported rent-seeking behaviour are certainly factors that limit the building of trust between parties. Building this trust is crucial for information sharing and the development of fisheries co-management in Cambodia. However, other people perceived little difficulty in communicating with the district or provincial government.
- It is widely recognised that the DOF at central and provincial levels are not currently providing an effective communication function and that they would benefit from management support in this task. A lack of sufficient core funding for effective information exchange with rural communities is another key challenge.
- All stakeholders recognise broader issues about access to information by government and NGO service providers, i.e., the availability of appropriate information, and that international NGOs and organisations can significantly improve communication and information access.
- Several sources working at field level stated that there was a need for a physical presence in communities to aid behavior change. Communication media that could support better access to information includes word of mouth, regular village visits and contact with monks, village and commune chiefs, and respected personalities within the village. It is therefore recommended that:
 - Information exchange sessions and face-to-face training are provided, supported through the use of audio-visual (including mass media) and IEC materials for further clarification.
 - The information source is a trusted, regular and recognisable source, providing information that is directly relevant to rural people's lives.

- The communication process is interactive, providing an opportunity for the information provider to understand the context in which learning can occur and for verification of issues and requests for further information from both sides.
- Access to mass media is increasing rapidly in rural Cambodia. This is especially so for television, which is widely perceived as an important and credible source of information by those villagers who have access to it, and is preferred over radio. It is a particularly effective medium if one aim of the communication is to target women. Television is also an ideal medium to exploit comedy and drama as communication vehicles, which are popular among rural audiences. It is therefore recommended that:
 - Mass media is used to raise awareness of issues and to reinforce and reiterate messages that are being made at a more direct level. The use of role models, perhaps via drama, can also inspire or motivate people into action.
 - A communication campaign design should take account of the selection of appropriate communication channels, the manner in which the information is packaged, the time it is delivered and the opportunity cost incurred by the recipient.
 - A joint venture between the DOF, which has the remit (though limited resources) for face-to-face contact (through traditional extension agents), and television and radio producers, with an entertainment objective, might be negotiated to develop a combined media strategy.
 - Aside from the primary research snapshot provided by this work, much market research media data in Cambodia is several years old. Ahead of any large-scale television or radio campaign it is recommended to conduct a suitable media survey.
 - Livelihoods studies such as those carried out by the Community Fisheries Development Office with provincial fisheries and women's affairs teams together with the NGO SCALE should be consulted to identify appropriate stories, settings and broadcasting times for programmes.
 - If it is decided to hire Cambodian television and radio production facilities, close monitoring of the process will be necessary, particularly during the script-writing phase. It is also important that organisations are contacted well in advance, as limited capacity often results in their schedules being too busy to accept the contract.
- Information should be packaged to maximise accessibility to rural poor communities (Table 5). Information presented in simple, audio-visual, colorful and entertaining formats with practical examples and interactive opportunities will improve its accessibility. Comedy, drama and music are all extremely popular throughout Cambodia and could be used extensively when packaging information.

General awareness raising	Simple direct messages	Education and training	Opportunity to share information	Media with high recall rates
 Television drama and documentary Radio drama and documentary Video documentary Theatre and puppetry Meetings Network meetings Songs 	 Television advertisements Radio advertisements Posters Leaflets Community theatre T-shirts Songs Village volunteers 	 IEC materials + facilitator (flip chart, flash card, chart, poster) Training video Study tours Field schools Instructional picture books Theatre and puppetry Role-plays Video case study TV and radio drama 	 Meetings Network meetings Cassette Letters Role-plays Video case study Radio Discussions 	 Live theatre (comedy and drama) Study tours Field schools

Table 5: Media and Communication Packaging for Targeting Poor Communities in Rural Cambodia

4.2 Targeting Other Stakeholders Involved in Aquatic Resources Management

Network Meetings

No aquatic resources management network that brings all stakeholder groups together from national to community levels exists in Cambodia. A national network meeting was recently piloted by the CFDO with support from WWF and STREAM. It has now been agreed this will continue as a quarterly meeting. This is a positive step towards facilitating communication flow, although there are no plans at this stage to include other stakeholders. Everyone addressed during this research stated that there was a need for more co-ordination within the fisheries sector to facilitate greater access to information. Advocacy specialists also highlighted the importance of regular consultations among communities, NGOs and the government. A central database of all active provincial network meetings and working groups made available to all interested parties could aid networking and co-ordination from national to provincial and community levels.

Case Study Initiatives

Case studies are another important way of documenting experiences and sharing lessons learned, such as the Community Based Natural Resources Management Case Study Initiative supported by IDRC. However, case study reports related to CBNRM initiatives are not yet being used well to the benefit of rural communities. Assisting communities to share experiences with other communities via case studies has real potential. This report asks whether information such as this could be presented in a video diary or case study format which could either be played at network meetings or direct to communities.

Further Use of the Media

Most stakeholders have access to TV, radio and the more popular Khmer newspapers, although access to newspapers may be more restricted in the provinces. Organisations such as FACT, CEPA, Oxfam GB and Oxfam America have good links with the media, particularly the *Cambodia Daily*, *Phnom Penh Post* and *Ramsey Kampuchea*, which supports effective advocacy. Given the popularity and accessibility of TV, this report recommends that television be used far more to disseminate fisheries-related information to all stakeholders. Further efforts could also be made by the government and other sectors to improve media relations and, in turn, access to aquatic resources management information for the masses. Audio-visual campaigns could be backed up with more radio and press coverage to repeat and reaffirm this information.

Cataloguing Reports

Although a few libraries and resource centres have good stocks of information, during this study there was no one resource to visit where most information related to fisheries issues could be accessed. Relevant reports and information for this report were identified by a combination of research and word of mouth. The most obvious place to house this information would be at the DOF central library. A useful exercise would be to catalogue available reports and literature and to develop a system whereby NGOs, IOs and consultants forward all new relevant reports to this resource centre. Currently a database system has been developed at the DOF, but literature has not been catalogued. Investment is needed to oversee this process and to develop a fully operational library system. It is also recommended that future reports published in English at least contain a translated summary in Khmer.

Newsletters

The mailing list for the DOF newsletter should be re-evaluated and distributed to more NGOs to encourage information exchange between government and civil society sectors. Existing regional newsletters relevant to aquatic resources management issues in Cambodia could also do more to promote their existence and their accessibility amongst Khmer and expatriate stakeholder groups.
Providing further opportunities to bring information from bottom to top and vice versa by way of a newsletter is definitely a possibility that should be explored. However, careful consideration should be given to ensuring existing resources are not duplicated. The advantages of developing a collaborative product able to meet the needs of varying agendas could avoid a situation of "newsletter overload" and should encourage maximum use of the resource by all parties.

Relationship Building, Networking and Cross Sectoral Communication

Advocacy, information access and communication for development are issues relevant to all sectors. As in the Cambodian health sector, it is recommended that more collaborative efforts be made to share knowledge, experience and sample materials. Regional learning and communications initiatives supported by Oxfam America, IDRC and STREAM are all good examples of how experiences from the same sector but different countries are being shared. It is also recommended that the opportunity to meet with experts in the same field but different sectors be organised to facilitate the sharing of experiences common to all. Several sources also highlighted examples of the importance of annual events that bring together different stakeholders (particularly of Cambodian nationality) in an informal atmosphere, which allows relationships to form and friendships to develop.

4.3 Concluding Statement

Information access and communication mechanisms will only improve if a collection of stakeholders buys into a number of action points and recommendations. It is hoped that stakeholders will have the opportunity to synthesise the information and recommendations provided in this report to stimulate constructive discussion leading to positive action for the benefit of the sector. Communication is a two-way process and cannot occur without effort and commitment from all parties involved. Just as many development workers believe communities hold the answers to many of their own questions, the solutions to improve communication and information access can be found from within the sector. This merely highlights the necessity for creating more opportunities for stakeholder interaction that is constructive, relevant and useful to all parties.

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A IN CAMBODIA	
ION MEDIA IN	
COMMUNICAT	
APPENDIX A: (

Strengths • Almost the	 cacilo Strengths Almost the whole of Cambodia is covered by AM 918. Several popular FM radio stations 	18. Several po	opular FM radio stations	Weaknesses • AM 918 is unpopular l	because of a poor programming pe	rception. FM96	Weaknesses • AM 918 is unpopular because of a poor programming perception. FM96, the second national radio, does not
Airtime is ir	reach up to ten provinces outside Phnom Penh. Airtime is inexpensive. Most radio stations offer either free or heavily discounted airtime for	her free or hea	avily discounted airtime for	actually have national coverage, is nev are few national transmission options.	coverage, is new and has not yet emission options.	established a la	actually have national coverage, is new and has not yet established a large audience. Beyond AM 918, there are few national transmission options.
 public serv Radio is pc 	public service campaigns. Radio is portable. Villagers report taking it to the fields during work time and a	elds during wc	ork time and a few even said	 Radio can be inconsis to broken transmitters 	Radio can be inconsistent, with unreliable transmission in some of the to broken transmitters and a lack of funds to meet maintenance costs.	n some of the n enance costs.	Radio can be inconsistent, with unreliable transmission in some of the more remote parts of the country, due to broken transmitters and a lack of funds to meet maintenance costs.
they take it	they take it fishing with them.)		 Radio sets that are put 	Radio sets that are purchased in Cambodia can be of poor quality and do not always include the full FM	or quality and o	to not always include the full FM
In rural con	In rural communities the radio is often turned up to enable nearby neighbours	enable neart	by neighbours to listen.		frequency spectrum, meaning some stations cannot be accessed	Iccessed.	
Kadio Is ar society, in	Kadio is an intimate medium that can reflect Cambodia s traditions of an oral communication society, in which people like to receive important information by word of mouth.	iformation by	ins of an oral communication word of mouth.	VIIIagers reel televisio There are currently no Svillod Khmor smorts	viliagers reel television is a more important information source man radio. There are currently no broadcasts in minority languages. Turitor twoer sometimes conclusion and and under the source the	ource man rad	o S
Examples of cost	 Tradit to a contract mediant for a contracy with the Examples of cost Million Devices 		Momon's Modio Contor				
The annual b	the annual budget for a 20-minute programme that is aired	•	Production costs:	Airtime costs on FM 102:		1 (15-20 minute	A 30-episode radio drama (15-20 minute episodes), with full production
three times a and three per	three times a week (including recording, production equipment and three persons' salaries) is US\$ 23,000.	equipment	 1-5 minutes @ \$350 10-15 minutes @ \$450 30 minutes @ \$550 60 minutes @ \$700 	 Free for NGOs 15.00- 16.00 and 19.30-20.00 \$10 per 1-2 minute spot at all other times 	o to	ent, scriptwritin ely US\$ 9,500.	including needs assessment, scriptwriting, production, monitoring and feedback cost approximately US\$ 9,500.
Radio Stations	us						
Frequency: Coverage: Cost:	AM 918 National -	Frequency: Coverage:	FM 88 K Cham, K Chnang, K Speu, K Thom, Kandal, Phnom Penh, Prev	K Frequency: K Coverage: Prev	FM 90 As FM 88 plus Kampot and Pursat	Frequency: Coverage: Cost:	FM 95 As FM 88 plus Pursat -
Contact:	Mr Van Seng Ly		Veng, Svay Rieng, Takeo		US\$ 4/minute	Contact:	Mr Rith Cheatra
l elephone:	012 /8/-914	Cost: Contact: Telephone:	US\$ 3/minute Ms Eng Setha Mouly 023 982-265	Contact: Telephone:		l elephone:	023 363-699 C
Frequency:	FM 97 Apsara Radio	Frequency:	FM 97.5 Love FM	Frequency:	FM 98 Khemaral Phomin	Frequency:	FM 99
coverage.	Som, Koh Kong and Pursat	Cost:	US\$ 10/minute	Cost:	As FM 90	Cost:	US\$ 5/minute
Cost:	US\$ 5/minute Mr Sok Ei San	Contact: Telephone:	MIS Samoeun In Tai 023 881-040	Contact: Telephone:	US\$ 4.50/minute Mr Gen Neang Phat	Contact: Telephone:	INIF KIM BOGUN 023 212-376
Contact: Telephone:	012 949-414				023 366-061/2		
Frequency: Coverade:	FM 102 WMC 12 provinces around Phnom Penh	Frequency: Coverage:	FM 103 Municipal Radio As FM 90	Frequency: Coverade	FM 105 Sambok Khum As FM 88 nius Kamnot	Frequency: Coverage	FM 107 Khmer Radio As FM 90
	plus a relay transmitter in K Thom	Cost:	US\$ 10/minute	Cost:	US\$ 3/minute	Cost:	US\$ 2.50/minute
Cost: Contact:	- Ms Chea Sundaneth	Contact: Telephone:	Mr Kham Pu Keo Mony 023 725-205	Contact: Telephone:	Mr Mam Sonando 023 210-401	Contact: Telephone:	Ms Khun Elena 023 880-974
Telephone:	023 212-264						

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Strengths				Weaknesses		
 Only the r 	 Only the most remote parts of the country are without access to a television signal. 	levision signal.		Remote, low population areas st	till do not have	 Remote, low population areas still do not have coverage or reception is inconsistent.
 Anecdota 	Anecdotal evidence suggests that access to television sets in rural areas is increasing rapidly, whilst	reas is increasi	ing rapidly, whilst	The poorest people rarely have	televisions and	The poorest people rarely have televisions and it's difficult to know if they participate in group viewing.
group vie	group viewing enables access to community members who do not own a television.	wn a television.		Limited domestic production opt	ions of a good	Limited domestic production options of a good standard, whilst international production is expensive.
 Televisior 	Television can effectively address literacy limitations in Cambodia.			There are limited opportunities to purchase airtime during peak viewing times.	o purchase airti	me during peak viewing times.
 Airtime fo 	 Airtime for NGO and government-sponsored initiatives is provided at a reduced rate. 	t a reduced rate		It is not possible to reach ethnic	minorities unle	It is not possible to reach ethnic minorities unless programming suits their language needs.
 Substanti. 	Substantial opportunities still exist in Cambodia to air privately produced programmes.	ced programm	es.			
Examples of cost	of cost					
Action IEC		TV5			JICA/TVK	
A television	A television soap opera for Save the Children France (24 15-20	The cost of TV	/5 programme produ	t of TV5 programme production for a 30-minute production	The productio	The production of 20-minute film for television and airtime for seven
minute episc	minute episodes) over two years' production time (one year of script	(including sho	oting, production, hi	(including shooting, production, hiring team of comedians and	20-minute prir	20-minute primetime slots on TVK was approximately \$4,000 (note
	development and one year of production) cost approximately	airtime) is app	is approximately \$5,000.		that this was a	that this was a discounted price).
Television Stations	Stations					
Station:	TVK (National TV)	Station:	TV5 (Khemarak Phomin TV)	nomin TV)	Station:	TV3 (Municipal TV)
Coverage:	National (including some broadcasts in Koh Kong,	Coverage:	K Cham, K Chhnar	K Cham, K Chhnang, K Spéu, K Thom, Kampot,	Coverage:	As TV5 plus broadcasts from relay station in Siem
)	Mondulkiri and Ratanakiri))	Pursat, Prey Veng,	Pursat, Prey Veng, Svay Rieng, Takeo, and a relay)	Reap and Battambang.
Contact:	Mr Him Soung		station in Siem Rea	station in Siem Reap. Some broadcasting from Kratie	Contact:	Mr Sini
Telephone:	023 722-983		and Sihanoukville	and Sihanoukville provincial TV stations.	Telephone:	012 808-030
		Contact:	Mr Anucha Vacharatangka	atangka		
		Telephone:	023 366-061			
Station:	CTV9 (Khmer TV)	Station:	TV11 (Apsara TV)		Station:	TV27 (Bayon TV)
Coverage:		Coverage:	As TV5		Coverage:	As TV 5
Contact:	Khun Elena	Contact:	Mr Noth Bophan		Contact:	Mr Thai Norak Sathya
Telephone:	023 880-974	Telephone:	023 724-402		Telephone:	023 983-435
Video						
Strengths				Weaknesses		
Accessibl	 Accessible to people with limited literacy skills. 			High production costs for international standard productions.	ational standarc	productions.
Can be us Thorp is a	 Can be used repeatedly, hence programme information is accessible to large numbers of people. 	e to large numb	iers of people.	Few production houses in Cambodia	oodia.	
Video offe	Video offers a more targeted approach than television and can be filmed by non-professionals.	med by non-pro	ofessionals.			
 Video car 	Video can be used to document case studies that can be shown to other audi	other audiences.				
 Video can 	Video can be reproduced cheaply and dubbed into minority landuades	00				

Strengtus	Weaknesses	
 Accessible to people with limited literacy skills. 	 High production costs for international standard productions. 	ational standard productions.
Can be used repeatedly, hence programme information is accessible to large numbers of people.	 Few production houses in Cambodia. 	oodia.
There is scope to involve communities in the production and development of videos.		
Video offers a more targeted approach than television and can be filmed by non-professionals.	essionals.	
 Video can be used to document case studies that can be shown to other audiences. 		
 Video can be reproduced cheaply and dubbed into minority languages. 		
 Using mobile video units enables programme access to remote communities. 		
Examples of cost		
Researched guote (Bailleux, 2002) Women's Media Center	a Center	<u>Researched guote (Bailleux, 2002)</u>
 Two minute video production approximately US\$ 600 One to five r 	One to five minute production approximately US\$ 1,000-1,400	Produce a video with villagers acting as comedians that is to be
- Broadcast the video on TVK every day for one month	Thirty minute production approximately US\$ 3,500	shown around the villages with a mobile TV and VCR approximately
'	One hour production approximately US\$ 5,000	US\$ 100
 Fifteen minute production (including the hire of 5-6 professional (Price includes) 	(Price includes scriptwriting, production and hire of actors. For	
comedians) approximately US\$2,500-3,000	filming outside Phnom Penh, add another \$500)	
 Broadcast video on TKK once approximately US\$ 300-400 		
Mekong River Commission Video Machine Rental	Rental	Reproduction onto video or DVD
Production of film, "Mekong the Mother", to international production US\$ 10 to hire v	JS\$ 10 to hire video machine in provinces	US\$ 3 per tape of less than one hour
quality using international technical staff US\$ 125,000		

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	Theatre and hunnetry

Strengths	Weaknesses	
• Theatre and puppetry have proven useful in dealing with sensitive issues, as HIV awareness	 Performances can have limited reach. 	reach.
campaigns in Cambodia have shown.	 If hiring a professional group, c 	If hiring a professional group, costs and travel could be considerable.
Traditional theatre is a popular culturally accepted art form.	 If facilitating groups in a village 	If facilitating groups in a village, time and an experienced facilitator are required.
• Live performance can encourage interactive dialogue with the audience.	 Travel to various destinations of 	 Travel to various destinations could become long and arduous, many roads are still in bad condition
Theatre and puppet plays can be adapted into different languages to address minority audiences.	and boats are not always available.	able.
 Performances can be recorded on video to increase reach. 	 Skilled scriptwriters are needed 	Skilled scriptwriters are needed to increase accessibility of complex issues.
• Theatre can be scripted and acted by villagers, which may enhance their understanding of the play		
and the message.		
Examples of cost		
Mekong River Commission	Company	<u>Mlup Baitong</u>
Hire of community theatre group and one full evening performance Creation approximately US\$ 2,600 + US\$ 5,000 for nine	00 + US\$ 5,000 for nine	Hire of community theatre group with stage and sound system
US \$250 performances		approximately US \$300 for a one-night performance

Strengths			Weaknesses
 Can be adapted for audiences with low literacy rates. 	s with low literacy rates.		• Usually requires a third party to explain the meaning of the materials.
 Effective if used as a training aid. 	aid.		Effective distribution of materials cannot always be guaranteed.
 Longer shelf-life than radio, television or video. 	elevision or video.		
 Can be kept at home as reference material. 	ence material.		
Examples of cost			
Glossy posters laminated on one side:	le side:		<u>Action IEC</u>
			Production of four color comic books at \$2 per book (excluding research and design costs)
92 x 63 cm	75 x 52 cm	60 x 42 cm	
2,000 copies US\$ 1,100	2,000 copies US \$ 960	2,000 copies US\$ 600	
3,000 copies US\$ 1,350	5,000 copies US\$ 1,685	5,000 copies US\$ 1,060	

Field schools			
 Strengths Can be adapted for audiences with low literacy rates. Effective learning approach. Support materials have a longer shelf-life than radio, television or video and can be referred to at home. 	ates. dio, television or video and can be referred to at	 Weaknesses Farmer field schools are often outside the budget and resources of extension departments. The human resource capacity-building skills of field school facilitators are specialised. Effective schooling in farmers' fields is expensive. 	and resources of extension departments. Id school facilitators are specialised.
Examples of cost - IPM IPM National Coordinator Cambodia Training of District Trainers – 4-month intensive training course @ US\$1,500 per person (25 – 30 participants). IPM Provincial Coordinator US\$ 150 per month District Trainer paid on per diem basis (\$7.50 per day works 3 days a week, approximately)	Earmer Field School (2 District Facilitators train 30 participants) All costs equipment, food etc @ US\$ 700–750 Duration one moming a week for 20 weeks Three best graduates attend Farmer Training Orientation School	Earmer Training Orientation School (FTOS) 30 participants, 5 facilitators, residential school @ US\$ 5,000	Field Schools Run by 2 farmer trainers (graduates from FTOS) and 1 District Trainer 30 participants – 20 weeks @ \$ 700–750 When Farmer trainer is competent will run field school without District Trainer @ \$400 for 20 week course (farmer trainer \$2.50 a day)

APPENDIX B: ACCESS TO INFORMATION AND COMMUNICATION SOURCES WITHIN THE FISHERIES SECTOR

				Acces	Access to Information Source by	urce by			
	International Organisations	Local NGOs	Rural Con	Rural Communities	Fishing Lot Owners	Local Police	Gover	Government	Universities
Information Source			Men	Women			National	Provincial	
TV	High	High	Medium/Low	Medium/Low	High	High	High	High	High
Radio	High	High	Medium	Medium	High	High	High	High	High
Newspapers	High	High	Low	row	Medium	Medium	High	High/Medium	High
Community theatre	Low	Low	High	High	Medium/Low	Medium/Low	Γονν	Low	Low
PA system in villages	Low	Low	High	High	row	row	Γονν	Low	Low
Land telephone	High	Medium	Low	Low	Medium	Medium	High	High/Medium	High
Mobile telephone	High	High	Low	row	High	High	High	High	High
Fax	High	Medium	Low	Low	Low	Low	Medium	Medium/Low	Medium/Low
Post	High	High	Low	row	row	row	High	Medium	Medium
E-mail	High	High	Low	Low	Low	Low	Medium	Low	Medium
Internet	Medium	Low	Low	ΓοΜ	ΓοΜ	ΓοΜ	Medium/Low	Low	Medium

All information has been drawn from interviews conducted during the fieldwork.

APPENDIX C: INFORMATION SOURCES FOR DIFFERENT AQUATIC RESOURCES STAKEHOLDERS

Interviewees	Fisheries Issues	General
National Government Staff Chiefs and Deputy Chiefs of Offices only	MRC Newsletter, MRC website, NACA, ICLARM, IDRC Reports, <i>Cambodia Daily, Rasmey Kampuchea</i> , DOF library, internal newsletter, WWF, IDRC, FACT reports, friends and colleagues, international NGOs, communities, STREAM Journal	<i>Rasmey Kampuche</i> a, BBC World Service, CNN, TVK, TV5, TV3, TV11; Radio FM 103, 105, 97.5, 99, 104
Provincial Chiefs only	National Department of Fisheries, Friends and colleagues, Communities, University	Rasmey Kampuchea, Koh Santapeap, The Popular Magazine, TVK, TV5, FM 103, FM105, FM 90
District Chiefs only	Fishermen, Provincial Fisheries Department, communities, NGOs, colleagues	Rasmey Kampuchea, The Popular Magazine, TV5
Fishing Lot Owners	Provincial Fisheries Department, businessmen, buyers, friends and colleagues	FM 103, FM 105, FM 95, TVK, TV3, Rasmey Kampuchea, Koh Santapeap
International Organisations, International and Local NGOs (Khmer only)	International NGOs, government, internet, friends and colleagues, communities, fisheries network meetings, ADB website	Foreign newspapers, university, TV5, TVK, TV11, FM 105, FM 102, FM 103, Radio Free Asia, Voice of America, BBC World Service, news channels on cable TV
Local Police	District Fisheries Office, friends and colleagues	Radio, police, newspaper
University Senior Lecturers	Department of Fisheries, internet, AIT, FAO, PADEK, SCALE, friends	BBC World Service, CNN, FM 97.5, FM 102, foreign newspapers

All information has been drawn from interviews conducted during the fieldwork.

Information Sources and Importance of Source

Importance of Source		Women	
	Don Kooum - Kandal	Koh Rosei - Kampong Chhnang	Soup Leu - Kratie
Important	TV, word of mouth inside the village and from outside,	TV, commune council, provincial health centre, school and	Monks, TV, commune health centre, village chief,
	chief, local police, health NGO, pagoda, old people, school,	teacher, village chier, conmitte chier, village nurse, monk, festival committee, radio	government speedies on ity and radio, they updot ment, of Agriculture, Provincial Department of Environment,
	visiting government officials		villagers who visit other villages
Medium	District Fisheries Office, veterinarian	Community Fishery Committee, group leaders in village, Provincial and District Fisheries Departments	Word of mouth, radio, teacher, Department of Fisheries, village volunteers
Small	Provincial Fisheries Department, moneylenders, National	Government officials, businessmen, moneylenders	Businessmen, villagers who visit from other villages,
	Department of Fisheries, private sector, Community Fishery Committee		educational theatre
Preferred sources	1) Word of mouth from people in the village	The women in this village said they preferred TV to radio	
ranking	 Visitors from other villages Village Chief 	and spent a lot of time watching TV.	
	4) TV 5) NGO		

Importance of Source		Men	
	Don Kooum - Kandal	Koh Rosei - Kampong Chhnang	Soup Leu - Kratie
Important		Men said they didn't want to do this exercise because the	Monks, TV, commune health centre, village chief,
	village chilet, TV, word of mouth inside the village and from outside, radio, district health centre	wormen had already done it and they relt the same as the women.	government speeches on 1V and radio, NGO, Department of Agriculture, Provincial Department of Environment,
			villagers who visit other villages, police, information from fellow villagers. village volunteers. radio
Medium	Businessmen in the village, pagoda, village nurse, district Eisharies Officer		Teacher, Department of Fisheries, village volunteers
Small	Provincial Fishers Department, moneylenders, National		Businessmen, villagers who visit from other villages,
Droformod collinood	1) Word of mouth from month in the village		
ranking	 Volution information people in the vinage Visitors from other villages 		1) Mours 2) Village Chief
1	3) Village Chief		3) Commune health center
	4) TV		4) Village volunteers
	5) NGO		5) TV
			6) Word of mouth in the village
			7) Police

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Source	Don Kooum - Kandal	Koh Rosei - Kampong Chhnang	Soup Leu - Kratie
2	This exercise was not carried out in Kandal. Fourth most preferred source of information.	Awareness-raising information about birth spacing, TB, dengue fever for children, violence in the family, social security information about crimes and robberies, protecting natural resources, not cutting flooded forests, closing of the fishing season. They prefer TV to radio.	AIDS awareness, protecting flooded forests, clean water - boil your water, boxing, no news, wait until the Thai soap operas. Advertises Hun Sen's speeches.
Radio		Quizzes on women's health and birth spacing, education about the way women should dress, how women should behave, local and international news, protecting fishing resources and not cutting forests. The closing of the fishing season	Birth spacing, AIDS awareness, dengue and malaria awareness, educate people not to sell their daughters. Of medium importance: They can hear, but they can't see the pictures so can't always understand.
NGOS	Fifth most preferred source of information.	Specific to the NGO in the area, Prasac, information about credit programme, interest to pay, how to assess a loan (do they have collateral, e.g., a boat. World Vision: given rice seeds and amount of rice they could borrow and interest they had to pay, no information on how to set up a rice bank.	Specific to NGO, Haka, health and sanitation information: drinking boiled water and sterilising the water with chemicals and birth spacing.
Commune Chief		Comes four times a year. They respect him, he tells them how to protect their village and gives them rules to follow, e.g., don't carry out domestic violence, don't quarrel with your neighbour, hand over illegal fishing gear and guns, how to protect the environment.	
Village Chief	Third most preferred source of information.	Calls a meeting once a month, he advises them not to quarrel or to be violent to your family, to tell NGOs the truth when they come, to not destroy flooded forests and environment. Look after their assets, e.g., their boats and engines.	They respect him. He calls meetings if people want to extend information, tells them to keep the village clean and not to quarrel, not to go to the flooded forests and cut trees down and not to do illegal fishing, information about crop growing. Important
Government Officials		Men go and listen, the women don't know what they talk about	
Provincial DOE			Educate people not to cut flooded forests down. They come once or twice a year.
Provincial DOA			Educate farmers how to use fertiliser and pesticides, they also visit farms and do demonstrations in rice growing techniques. Important: Agriculture is important here.
Provincial DOF			They never stop here, they just pass by.
District and Provincial Fisheries Officials		They don't explain which gear is legal and which is not. They just come and ask for a tax to fish. We don't learn anything from them they are not interested in our lives.	They visit once or twice a year. They tell villagers not to fish during the closed fishing season, not to cut flooded forests. They do listen but then when the officials have gone they do it again, because they are poor and have no choice. Of medium importance: Don't come often and when they do they arrest people.
Commune and Provincial Health Centres		Commune outreach service visits the village once a month, the provincial health centre comes once a year. Some women go to the health centre. They learn from the commune health centre about birth spacing and immunisations for children, sanitation, they provide medicines and give advice on how to prevent dengue fever.	Staff from the commune health centre come once a month and give children injections and tell the village volunteers information about health so they can tell the villagers. Very important

Source	Don Kooum - Kandal	Koh Rosei - Kampong Chhnang	Soup Leu - Kratie
Group Leaders		The Village Chief's idea, group leaders are men who extend information on behalf of the Village Chief to other families on issues including the date and time of meetings, if there is a robber in the village and to be careful.	
Community Fishery Committee	Didn't understand its importance and what it was going to do.	They didn't know what it was for apart from preventing illegal fishing. They said they hadn't had a meeting yet in their village and that women weren't invited to the meeting and husbands don't always tell wives what they talk about at meetings.	They don't have a community fishery committee and didn't know what one is supposed to do.
Festival Committee		Told the villagers about the celebrations and what activities (dancing, video, karaoke) would happen during the festival, what they needed to bring, warn people not to fight if the men drink too much. The festival is a Buddhist festival to educate people not to sin.	
Moneylenders		Availability of loans, the 10% interest to pay a month, the pay- back date, and they tell them when they harvest their crops.	
Monks		Advice about Buddhism and that people should respect old people and follow their religion, the date of festivals.	Elderly people go to talk to monks more, the young only go when there is a festival. The monks tell everyone the date of festivals. Important
Businessmen		The price of agricultural products in the market, the date they will come to pick them up, any big news happening in the town like a fire or a robbery.	They tell the villagers the price of crops, pigs and rice and come to buy to take to Phnom Penh or Vietnam. They come at least three times a year. Not very important: Sometimes the information isn't always correct.
Village Health Volunteer		Prescribes medicines, and tells how to use and store them. If you have diarrhea advises you to drink boiled water.	Extends information about providing immunisations and medicines to each household on behalf of the commune health centre. They normally just visit each house and don't call a meeting. Of medium importance: Some people buy from a drug seller and it takes longer to get medicine if you ask a village volunteer.
School Teacher		Tells parents to bring their children to register at the age of 6. Asks parents to tell their children to go to school and study and not watch too much TV.	Tells the parents if their children are clever and their score in exams. They get involved if a government official comes to the village. Medium
Neighbors (word of mouth)	Preferred source of information.		Quarrels between villagers, a thief stealing chickens or pigs, talk about crop production and problems with insects and how to use pesticides. Information always travels by word of mouth. Medium: Sometimes true sometimes not. Not more important than Village Chief.
Villagers from outside the village	Second most preferred source of information.		Not so important: Villagers cannot see if what they say is true, so they don't always trust them.
Visiting other villages			Important: They can learn from others' experiences. They find out about business and agriculture, problems with rice or vegetables, if a village has had a good year for producing. They meet accidentally, at a wedding or at a party.
Theatre Show			A comedy play but about parents whose son has a drug addiction and another about a daughter falling into prostitution.

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Time of Day	Don Kooum - Kandal	
	Women	Men
04.00-11.00	Go fishing and take water out of the boat and listen to the radio. FM 103 if they have one. 05.00-06.00 Clean the house and listen to the radio (FM 103) and listen to the newspaper articles on social security issues being read out on air. If they don't have a radio, they ask their neighbour to turn theirs up so they can hear it. 06.00-7.00 Go to market to buy food. 07.00-08.00 Cook and watch TV5, TV9 or Khmer TV. They watch cartoons with the children or a Thai movie or soap opera and prime minister's statements. 08.00-09.00 Women meet and hows issues being read on the radio. 09.00-10.00 They cook and feed the animals and watch TV or listen to the radio. They prefer the radio when they are busy. 10.00-11.00 They have lunch and rest and watch TV to see the soap operas and the news. They can watch Channels 3, 5 and 9, but they prefer Channel 5.	Switch on radio and take to rice fields or on boat to fish. If they don't have a radio, they don't hear someone else's unless they are working close to someone who has. Their favourite time to listen is 05.30-06.30. From 08.00-10.00 am, they listen to local and foreign news, read from the newspapers. They listen to FM 103 and FM 96.
11.00-14.00	Fetch firewood, look after the children, clean the house, watch TV5.	They have lunch, rest and listen to the radio. A minority watch TV5 or TV11. If they own both, one man said he'd prefer to listen to the radio as he's too tired to watch TV.
14.00-17.00	Fetch water and listen to the radio FM 103 (songs and news). 15.00 Cooking	They return to the fields and take the radio and listen to FM 103 and FM 96. They listen to songs, interviews, programmes on history and health education.
17.00-18.00	Have dinner and rest.	Come home and turn on the TV and have dinner, but don't pay too much attention to TV unless there is a special announcement on the news from the government.
18.00-20.00	Watch TV	Men prefer to watch the news.
20.00-22.00	Watch TV, comedy, soap opera or news. If they don't have a TV will go to someone else's house.	Majority of men don't like to watch the Thai soap on TV so listen to the radio to song requests. In the evening if they don't have a radio, they will listen to someone else's.
22.00	Go to bed	Go to bed
Favourite programmes		Radio: News on social security issues, education programmes, interviews and songs. TV: Government proclamations, social security news issues, sport, culture, documentary and comedy.
TV/Radio		They prefer TV as they can see the pictures.
Observations	I'm not sure how many people had watches so this is probably a guide to the general run of activities in the day. However, both TV and radio seem an important element of their lives. I did witness the radio being turned up so everyone could hear.	In Kandal I saw the men living in the house I was staying watching the World Cup. I also think men were telling me they liked the more serious programmes because they felt they needed to be seen as intellectuals.

Time of Day	Koh Rosei – Kampong Chhnang	pong Chhnang
•	Women	Men
05.00-06.00		Women cook and men prepare farming equipment and they listen to the radio FM 103/ 95. 6/13 had television. 4/13 had radios. 4 people said they'd go and watch someone else's TV.
06.00-12.00		During the dry season they work on the farm, but don't take their radios. During the flooding season they stay at home and listen to the radio quite a lot (August-December).
12.00-13.00		Have lunch and watch TV 5, K or 9 or listen to the radio.
13.00-18.00		Dry season: work on the farm. Flooding season: fish and listen to the radio or watch TV.
18.00-19.00		Dinner, at the same time they listen to radio or watch TV. If they have both they watch TV.
19.00-22.00		They watch TV (if they have one), listen to the radio (if they have one), or chat with their friends
22.00		Bed
Favourite		TV: Sport, Chinese and Thai soap operas, prefer comedies, e.g., Mr Krum and his troupe.
programmes		Radio: News and programmes on Khmer culture
TV/Radio		
Observations	The women I spoke to said they prefer TV to radio and the men I spoke to said the women watch more TV than the men. I spoke to an old gentleman and someone from the poorer part of the village maither had TVs or watched TV but both listened to the radio	I heard radios being played loudly in the village and did see people crowding round to watch a neighbour's TV.
	נווס אוומסכי ווסונווט ווממ דייס טו אמטונים די סמו סטוו ווסוכונסם עי חוס וממוס:	

Time of Day	Soup Leu - Kratie	- Kratie
•	Women	Men
04.00-06.00	Clean the house and prepare food to take to the farm. Don't listen to the radio or TV as they are	Get up and listen to the radio. Listen to FM 103 and Voice of America, FM 103 has bad
	3/20 have TVs, 2/20 have radios, 15 have neither, but 10 said they would go and watch others' TVs	ובכלבונים ממווים ממלי מת מסכת מרוומון: ליס ומאל ואלי איס מתוכז, ווומס מ מברי כלכומני.
06.00-11.00	Some go to the farm everyday, some five times a week. They transplant rice and com. One	Go to the farm. 2/8 said they take their radios with them and listen, but others cannot hear as
	lady says she takes her radio to the fields, but the others say they never hear it as they are too	they are too far away. They listen to FM 95, they like the songs and music and the news read
	far away. They all agreed if they listen to the radio it's FM 103 or FM 95.	out on the radio. When they don't go to the farm they watch TV.
11.00-13.00	They cook, have lunch, feed the animals and have a nap. Six women said they watch the Thai	Have lunch and watch TV5 or listen to the radio. Those that have TV watch it everyday, those
	soaps on TV, none said they listened to the radio.	that have radio and no TV listen everyday.
13.00-17.00	Transplant rice, cooking, feeding animals, fetching water and washing clothes. One lady listens	During the dry season they work on the farm, those that have a radio take it with them, during
	to the radio, no people watch TV.	the flooding season (August-September) they watch TV every day, those that don't have a TV
		go to someone else's house.
17.00-19.00	Eat, bathe the children and put them to bed. TV owner doesn't turn on TV for the news so they don't watch it.	Dinner, and if they have TV, watch the news or if they have a radio listen to it.
19.00-22.00	Watch TV5, the Thai soap opera and talk to their husbands about tomorrow's jobs.	Watch TV5, the Thai soap opera, if they don't have a TV they all said they will go and watch someone else's.
22.00	Go to bed	Bed
Favourite		TV: Sport, Chinese and Thai soap operas, the 5-minute educational TV spots on social issues.
programmes		Radio, music and news from the papers read on air.
TV/Radio		
Observations	The 8.00 pm soap was popular in this village with everyone watching.	The men said that young people like pop music and older people like traditional music. They said you only hear traditional music being played late at night.

APPENDIX E: EXCERPTS FROM AN INTERVIEW WITH PICH HEMG

Pich Hemg is aged 46 and the Community Fishery Committee Chief in Koh Rosei, Kampong Chhnang.

How was the Community Fishery Committee established?

The national and provincial-level government came to set up the Community Fishery Committee here but I rely more on Khredo than the Government. Khredo have invited us to two meetings run by the Provincial Fisheries Office. The fisheries officers come here and bring a letter to the village to invite us. During the meetings, Khredo explain about community fisheries and provide a handout and a poster. Then they let us explain the difficulties people face here. I do have an opportunity to voice my opinion, but there is not enough time to talk to the government officials. They haven't provided any training or invited us to any meetings.

Do you mix much with other villages?

About 15 households go to the farm in front of a neighboring village, but they don't talk much with the other villagers, only if they meet them in the fields. A few may come here if there is a wedding or a ceremony. We used to have a video showing, but now people have TVs. People are not so interested in videos but they love it when we have a loud speaker and play music so everyone can hear.

What do you know about community fisheries?

Most people don't know why we have set up a Community Fishery Committee. Some listen to the radio and understand a little bit, but the government officials never come so I don't understand what I am supposed to do. When I do I can spread the word in the village. When the government officials came they invited the people to a meeting and held an election, but the people didn't understand. They explained that now the government has given some fishing lot areas to the communities and they can fish and manage them by themselves. Now communities can go to areas the government has given to them. But people are not allowed to use illegal fishing gear, like electro-fishing, or cut down the flooded forests.

Do you know where the fishing boundaries are?

Everyone knows where we can fish. We have not seen any maps, but we know the boundaries of the fishing lots. The problem is the fishing lot owners try to extend their area into the open access areas by about 200 metres. The marker has sunk. The government official found it and told the fishing lot owner, but they ignore the government officials and when the villagers go fishing, there are problems. The fishing lot owners seizes the nets from the fishermen and demand money to get the nets back. They have guns and threaten them so the villagers are scared to go to that area.

How did the government set up the community fishery here?

When the government came they just explained how to set up a committee and selected reliable people for the committee. I understand the responsibilities, but I don't understand the real role of the Community Fishery Committee or about what power we have. I don't feel confident enough to talk to the rest of the villagers about a community fishery so we have never had a village meeting about it. I need to go on a course to find out how to manage a community fishery and or go to another village to get experience from them.

Media access?

I listen to FM 95. I prefer listening to interviews with people who know a lot about national culture and traditions. People try to copy modern western styles and they forget about the old styles. I listen to the radio from 8-10 pm in the evening, but not often in the morning. People don't have time, although I have heard programmes on fisheries issues in the morning. I think radio and television are both good sources of information, but people don't always have time to listen to the radio. TV is more useful as people use it as a light at night and then if there is news on they can hear about it. We get reception from all stations here, TV9, TVK, TV5, but TV5 is not as clear. I watch TV9 a lot because the children like watching the cartoons.

Really poor people here don't have televisions and only the children of the poor go to another house to watch TV; the parents don't tend to go. Old people won't either. Old people prefer radio. I prefer radio.

From January to July, people do take the radio to the fields and switch on between 11.00 am and 1.00 pm. Young people like music and comedy. Middle-aged people like soap operas and old people like the plays and dramas. Women like the dramas shown on television.

How would you give information to other villagers?

I think the best way to extend information in the village is by television, meetings and posters. If you have a comedy on the TV and insert the information it will attract a lot of attention. The only opportunity I know where you can meet lots of people involved in fishing is at the two stakeholder meetings I have been to at Khredo. I rarely meet the provincial government officials.