

fisheries

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The problems caused by HIV/AIDS within fishing communities

The vulnerability of fishing communities to HIV and AIDS has been widely overlooked by health organisations. Consequently, they have not received the prevention, care and treatment programmes available. This is having devastating impacts on these communities.

The impact of HIV/AIDS in Africa first became apparent in a fishing village on the Ugandan shores of Lake Victoria in 1982. However, the prevalence of HIV/AIDS in fishing communities has not been extensively studied or addressed since this time. Research by the Food and Agriculture Organization's HIV/AIDS Programme and Sustainable Fisheries Livelihoods Programme examines the impacts of HIV/AIDS on the fishing sector and evaluates current efforts to address these.

HIV/AIDS causes a decline in labour productivity, due to deaths and illness limiting the number of available workers.

The associated loss of income for households, combined with increased medical costs, forces many people to sell their fishing equipment. This results in a further decline in productivity. The death of fishers also means a loss of expertise in both the local and global fishing sector.

The research shows:

- HIV/AIDS rates are very high in fishing communities due to a number of factors including long absences from home, cash incomes and gender inequality.
- The easy availability of commercial sex in ports and at landing stations and a masculine culture that condones or encourages casual sexual encounters are also problems.
- The high mobility of fishing populations may contribute to the transmission of HIV/AIDS between communities.

World Health Organization guidelines have no clear efforts to target fishing communities for prevention, care and mitigation programmes. Guidelines for the fishery sector from the International Labour Organization do not address this issue either. There are some initiatives relating to HIV/AIDS in fishing communities, but these are mostly small-scale and fragmented, often working with isolated communities.

Reducing the impact of HIV/AIDS in fishing communities will require increased efforts and cooperation between governments, non-

governmental organisations (NGOs) and private sector companies. Priorities include better access to health care and critical medicines, improved education about the causes of HIV/AIDS and support programmes for communities already affected by the disease. This will require significant financial commitments from organisations with the resources to make a difference.

The research makes several policy recommendations:

- Policymakers need to address immediate causes of HIV/AIDS, such as sexual behaviour, as well as the underlying causes

that worsen the problem, such as poverty and vulnerability.

- Fishing ministries must raise awareness of issues related to HIV/AIDS in the fisheries sector, initiate appropriate responses and coordinate responsive policies with health ministries.
- Health ministries must ensure better access to health services (such as antiretroviral therapies and HIV/AIDS testing) for fishing communities, as well as support programmes, such as encouraging proper nutrition.
- Local governments can help to assess the impact of HIV/AIDS in communities and provide 'safety net' funds.
- NGOs can help funding organisations to identify appropriate projects and help communities to implement these.

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Impact of HIV/AIDS on fishing communities: Policies to Support Livelihoods, Rural Development and Public Health, Report by the United Nations Food and Agriculture Organization, 2005
ftp://ftp.fao.org/FI/brochure/policy_briefs/hiv_aims/y5922e.pdf

Initiatives relating to HIV/AIDS in fishing communities are mostly small-scale and fragmented, often working with isolated communities



Small-scale fishing: benefits for poor people

Inland fisheries make an important contribution to rural livelihoods in developing countries. However, policymakers do not always understand the role of such fisheries.

This is partly because fishing is often only one activity amongst many that a poor household will pursue to gain a livelihood.

Research from Imperial College London, UK, and the International Water Management Institute, Sri Lanka, looks at how inland fisheries contribute to the livelihoods of rural communities. Inland fisheries are common property resources and require relatively few resources compared to aquaculture (fish farming). Easy access means inland fisheries are particularly important for the poorer members of rural communities.

However, inland fisheries rely on water resources that are increasingly being developed for agriculture and industry and they are often affected by environmental pollution. In some regions, inland fisheries are overexploited and degraded. Much fish is destined for subsistence consumption or local markets: so relative population density influences exploitation levels and the potential for sustainable management. The protection of freshwater biodiversity, increasingly recognised as a conservation

priority, can also affect fishing activities.

Despite their importance, inland fisheries are often overlooked by policies. Some policymakers view inland fishing as a marginal and low value activity, pursued only by poor households, who degrade the ecosystem by over fishing. The real picture is more complicated:

- Inland fisheries are common property resources, but they are not always unmanaged or overexploited. Effective community-based management is common in smaller water bodies.
- Fishers have many skills and an awareness of their environment. For example, in Laos it is common for a single household to use 20 to 30 different methods of fishing.
- Although inland fishing is often for subsistence purposes, fishing can provide cash and a valuable means of diversification for farming households. Fishing communities are diverse due to differences in asset endowment, livelihood strategies, methods of fishing and rights over resources. The research recommends:
- Policies must reflect a better understanding of diverse livelihoods and should be adapted to different socio-economic and ecological contexts.



A group of men prepare a fishing boat on the southwest coast of Sri Lanka.

© Eric Thompson, Courtesy of Photoshare

- Diverse and flexible measures will ensure that poor people can benefit from inland fisheries whilst also achieving conservation objectives.
- Creating new policies must represent all relevant interests; including the views of local fishers will help to make policies context-specific.

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'Livelihood functions of inland fisheries: policy implications in developing countries', *Water Policy* 7, pages 359-383, by Laurence Smith, S. Nguyen Khoa and K. Lorenzen, 2005

Can poor people benefit from the international fisheries trade?

The global export value of fisheries products is around 60 billion euros annually and growing. This trade has significant implications in Asia, where fisheries provide food and income for poor, marginalised people.

Research by Poseidon Aquatic Resources Management, the Network of Aquaculture Centres in Asia-Pacific and the STREAM Initiative, investigates how the international trade in fisheries products between Europe and Asia relates to poverty alleviation in Asia.

In Vietnam, the poorest groups in the shrimp sector include shrimp fishermen, labourers in shrimp farming households and women workers in processing companies. These groups are particularly vulnerable to changes in the global shrimp market.

In Indonesia and the Philippines, people who catch fish for the ornamental fish trade are often poorly organised and lack appropriate equipment. They often suffer from poor health and depend solely on the trade to support their family. They cannot easily change their livelihoods because of limited alternatives. The research shows:

- Institutions responsible for the aquatic resource and seafood sectors are often poorly developed in developing countries, with limited capacity to manage the risks and influences of international trade.
- In Vietnam, the Philippines and Indonesia, institutions and policies do not effectively reflect or address the key influences on poor producers and farmers.
- Factors relating to domestic and international trade can increase the vulnerability of poor producers. Issues relating to non-trade issues, such as governance and marginalisation, can also be influential.

Trade in fisheries products between Asia and Europe provides income and food to millions of poor people in coastal communities

The influences from international trade include increasingly strict environmental, sanitary and phytosanitary standards, technical barriers to trade and declining prices for some seafood commodities and live marine ornamentals. For example, environmental certification initiatives and corporate social responsibility provide opportunities for poor producers. However, they also risk further marginalising very poor people who cannot take part due to cost barriers and difficulties in becoming effectively organised.

The research identifies several policy lessons:

- Focussing on the quality and reliability of supplies may be more effective than attempts at pro-poor branding or certification.
- Policies should include incentives and support for sustainable capture and production methods, improved social organisation, access to market information and improvements in handling, storage and transport processes.
- Developing country governments need support to analyse and understand people's livelihoods and how best to support them. This would result in better policies and enable poor people to better adapt and respond to trade developments.
- Improved trade policies must be supported by initiatives related to good governance and local resource management.

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'The International Seafood Trade: supporting sustainable livelihoods among poor aquatic resource users in Asia,' Poseidon Aquatic Resource Management Ltd (UK), the Network of Aquaculture Centres in Asia-Pacific and the STREAM Initiative, Synthesis Report, by G. Macfadyen, M. Phillips and G. Haylor, 2005
www.consult-poseidon.com/reports/EC%20PREP%20final%20synthesis%20report%2016.09.05.doc

Politics, science and shrimp farming

Shrimp farming is a major industry in many developing countries, providing important foreign exchange and offering potential for economic development, particularly in rural areas. However, since the early 1990s, researchers, activists and non-governmental organisations (NGOs) have been protesting about its environmental and social impacts.

There are two main views about shrimp aquaculture: the Political Ecology (PE) argument and the Best Management Practices (BMP) argument. Recent research funded by the European Union examines how these contrasting views have influenced national and international policies during the last 20 years.

The PE argument is concerned with negative impacts of shrimp farming, including mangrove destruction, pollution and social conflict. Protesters had some successes in the 1990's, causing national governments, international organisations and funding agencies to stop funding shrimp farm development, for example in India, Costa Rica and Thailand.

In response, the shrimp farming industry, scientists and engineers developed the BMP approach, aiming to solve the problems of shrimp farming through technical solutions. Since early 2000, the BMP position has overtaken the PE approach and now seems widely accepted by policymakers and international development agencies.

Several factors have influenced this shift towards BMP:

- BMP supporters agree on policy aims so they can focus on developing technical solutions. In contrast, PE is represented by a diverse group of NGOs, researchers, environmentalists and social activists. Disagreement between these groups has undermined their arguments.
- The language used by BMP proponents has excluded PE advocates by focusing on technical issues of pond management, while presenting PE as unscientific and unwilling to work towards solutions.
- BMP supporters ignore many arguments about negative social impacts because they perceive them as non-scientific.
- BMP supporters have presented studies that assert that large-scale industry is not implicated in the destruction of mangroves, which was one of the central arguments of the PE.

BMP proponents have managed to shift the debate towards technical issues because their scientific expertise is difficult to challenge and their solutions are relatively simple. They have reduced shrimp farming to a technical, non-political issue and reformed it as a scientific challenge, sidelining PE as lacking evidence and unwilling to find solutions.

This has a number of policy implications:

- BMP policies essentially support large-scale shrimp farming industries, which support the PE argument that policies are made by exclusive powerful groups, often against the interests of small-scale

case study

Tackling illegal fishing practices in Africa's protected waters

Illegal, unreported and unregulated (IUU) fishing is increasingly affecting the fisheries revenues of developing countries. The global cost of IUU fishing practices is estimated to be in excess of US\$ 2.4 billion annually, about US\$900 million for sub-Saharan Africa alone.

Research by the Marine Resources Assessment Group, UK, reviewed the impact of IUU fishing on developing countries. This research found that the level of IUU fishing was inversely correlated with the state of governance. IUU fishing in sub-Saharan Africa primarily affects tuna fisheries in east African states and mixed fisheries in west African states. West Africa, the Mozambique Channel, Somalia and central Africa are particular problem areas: targeting relatively modest funds here could significantly increase government incomes from fishing, improve livelihoods and contribute to food security. However, the income increase might not always equate to the full value of the IUU catch.

The research found:

- Governance improvements are the most effective way to combat IUU fishing and would eliminate local and central government corruption, enforce vessel licensing obligations and improve the capacity for detecting IUU activity and enforcing regulations.
- Countries with European Union or similar access agreements appear more capable of controlling IUU fishing than others, reflecting the long-term capacity-building effect of such agreements.
- The open register system reduces the licensing and operating costs of vessels using 'Flags of Convenience' and thereby encourages IUU activity.

In addition to revenue losses, IUU fishing creates significant damage to marine habitats, including high levels of unwanted species discards and the death of turtles, birds and mammals. Globally, ecological damage by regulated fleets currently exceeds that of IUU fleets only because most regional fisheries management bodies have few regulations to control environmental impacts.

The research recommends:

- strengthening current agreements to enforce the reporting of catches and inspections in ports
- donors supporting developing countries to establish control mechanisms for their own vessels throughout the world and foreign vessels fishing in their waters
- better cooperation between developing countries, especially surveillance organisations
- funding several supportive initiatives, including observers on foreign vessels, training programmes for observers and inspectors, encouraging cooperative activities between licensed industry and non-licensed fishermen and funding research into sustainable fisheries practices.
- discouraging states from operating open registers for fishing vessels
- encouraging all states to ratify and implement international agreements effectively to control fishing vessels
- developing satellite-based monitoring systems, including support for vessel monitoring.

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'Synthesis Report - Review of Impacts of Illegal, Unreported and Unregulated Fishing on Developing Countries', Marine Resources Assessment Group Ltd, 2005
www.high-seas.org/docs/Synthesis_report_Final_MRAG_2005.pdf

producers and local communities.

- Neither side is objective. Scientists and technicians look for technical solutions to certain solvable problems; some of them have an interest in supporting the industry because their jobs depend on it. PE groups may overemphasise negative impacts to gain public attention. Recognising this is vital for producing effective policies.
- BMP focus on farm-level solutions, overlooking the interactions with other activities. While they can reduce environmental impacts on individual farms, policies must be more cross-sectoral, integrated and wide-reaching.
- Implementing BMP technologies usually

requires capital and high technical skills, which may not be economically or institutionally viable for many shrimp farmers, particularly small-scale farmers in developing countries. Presenting BMP as the single solution to the shrimp farming issue can be misleading.

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'The Good, the Bad and the Ugly: Discourse, Policy Controversies and the Role of Science in the Politics of Shrimp Farming Development' *Development Policy Review*, 23 (5), pages 585-614, by Christophe Béné, 2005

Addressing challenges in co-management information systems

There is an increasing shift towards the co-management of fisheries in many countries. Co-management creates new challenges for information collection and use, with a larger number of people involved in the process.

This has prompted managers to reflect upon their roles and reconsider their information requirements. Co-management also creates opportunities for participatory data collection and information sharing systems.

Co-management – the sharing of authority for resource management between government and resource users – is increasingly being introduced to manage fisheries, especially where centralised, top-down approaches to management have failed to manage stocks sustainably. Information remains fundamental to the management process, to monitor management approaches and policies and to develop and implement effective management plans.

However, co-managed systems involve several stakeholders, who have diverse information needs. These stakeholders include local resource users and local management bodies implementing local management plans, to national governments setting co-management and fisheries policies at regional or national levels.

Useful literature already exists to help co-managers design and implement data collection systems to support their evolving needs. However, much of this refers to other natural resource sectors, with little emphasis on co-managed fisheries. Research funded by the UK's Department for International Development reviewed fisheries in Lao PDR, Bangladesh, Thailand, Cambodia, Tanzania, Uganda, Vietnam and the Philippines. This research found that:

- Co-management creates new challenges for stakeholders responsible for designing and implementing sustainable and efficient systems that meet the information needs of all people involved in the management process.
- Data collection systems are often poorly designed, resource intensive and unsustainable.
- Whilst stakeholders' objectives and responsibilities vary, they often have overlapping data and information needs. Opportunities therefore exist to share data and the responsibility for collecting it.

An eight-stage participatory process was developed to identify common data needs and design data collection and sharing systems, which helped in meeting these new challenges. The research projects compiled a set of guidelines around this eight-stage process. These will be published in the Food and Agriculture Organization Fisheries Technical Paper Series. The guidelines are currently helping to develop information systems to support co-management in several projects, including the Fourth Fisheries and Community-Based Fisheries Management projects in

Bangladesh and the Mekong River and Reservoir project in the Lower Mekong Basin, southeast Asia.

Policy approaches include:

- encouraging the participation of key stakeholders in the design and implementation of data collection and sharing systems
- communicating the importance of the role of resource users in collecting and sharing information
- raising awareness amongst resource users of their

role in shaping policies and ensuring their resources are adequately valued and recognised by planners and management bodies from different sectors

- ensuring feedback to stakeholders for sustained participation and cooperation.

The guidance produced and the eight-stage participatory process for designing data collection and sharing systems are aimed at the fisheries sector. However, it will hopefully be applicable to other natural resource sectors where government and resource users share responsibility for resource management.

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Guidelines for Designing Data Collection and Sharing Systems for Co-Managed Fisheries, FAO Fisheries Technical Papers 494/1 & 494/2, Food and Agriculture Organization: Rome, by A. S. Halls, R. Arthur, D. Bartley, M. Felsing, R. Grainger, W. Hartmann, D. Lamberts, J. Purvis, P. Sultana, P. Thompson and S. Walmsley, 2005

Co-management is increasingly being introduced to fisheries and can be used in other natural resource sectors

useful websites

Food and Agriculture Organization's Programme on Fisheries
www.fao.org/fi/default.asp

Industrial Shrimp Action Network
www.ramsar.org/about/about_shrimp_action.htm

Marine Resources Assessment Group
<http://p15166578.pureserver.info/MRAG/Home.htm>

Network of Aquaculture Centres in Asia-Pacific
www.enaca.org

One Fish
www.onefish.org

Poseidon Aquatic Resource Management Limited
www.consult-poseidon.com

STREAM Initiative
www.streaminitiative.org

Sustainable Fisheries Livelihoods Programme
www.sflp.org

WorldFish Center
www.worldfishcenter.org

World Rainforest Movement – focus on shrimp farming.
www.wrm.org.uy/deforestation/shrimp.html

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