The Department for International Development (DFID) is the UK Government department responsible for promoting development and the reduction of poverty. The Government is committed to halve, by 2015, the proportion of the world’s poor whose income is less than one dollar a day; the proportion of people who suffer from hunger, and the proportion of people who lack safe drinking water. Other associated targets include basic health care provision and universal access to primary education. DFID works in partnership with the governments of developing countries, international organisations, voluntary bodies, the private sector and the research community. DFID’s Strategy for renewable natural resources for the period 1995–2005 aims to reduce poverty by enhancing productive capacity in the RNR sector in an economically and environmentally sustainable way. There are ten DFID research programmes, of which three belong to the Fisheries Programmes: Aquaculture Research and Fish Genetics, Fisheries Management Science, and Post-Harvest Fisheries Research. These are managed by Stirling University, Marine Resource Assessment Group Ltd., and Natural Resources International Ltd., respectively. The Strategy aims to generate replicable new technologies and improved knowledge in natural and social sciences through a rigorous scientific approach to problem solving. It promotes the uptake and application of research products for the removal of constraints to sustainable development and management of renewable natural resources in tropical developing countries.

The producers of this publication have made every attempt to ensure that all entries to the Bibliography are as detailed and as consistent as possible. Copies of this Bibliography are available from the individual Programme Managers, and any queries relating to the more obscure reports, papers from conferences etc. should be directed to them. Their addresses and contact details are given in the list of projects at the end of the Bibliography.

Any reference to material in the publication should acknowledge the source as:


This publication is an output funded through the Aquaculture Research and Fish Genetics, Fisheries Management Science, and Post-Harvest Fisheries Research Programmes of UK’s DFID for the benefit of developing countries. The views expressed are not necessarily those of DFID.
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INTRODUCTION

The central aim of the UK Government’s Department for International Development (DFID) is to eliminate poverty by improving the livelihoods of poor people in developing countries. One of the means by which DFID addresses this aim is through its strategy for research in renewable natural resources strategy. The purpose of the Strategy is to create benefits for poor people by generating and promoting the use of new knowledge in natural resources management.

Fisheries play an important part in the social and economic lives of vast numbers of people around the world, many of whom are amongst the poorest and most marginalised people in rural communities. The International Fund for Agricultural Development (IFAD) specifically singles out fisherfolk as one of the key groups of the poor. In many cases fish harvesting, processing and trade is seen as the employment of last resort when other economic opportunities have run out. Fish farming is also a growing contributor to both employment and food for the poor. There are no accurate figures for the number of people involved in fisheries but it is estimated that, globally, there are tens of millions of people dependent on fisheries for their main source of income for at least some of each year – and this number is rapidly increasing.

Research into increasing the productivity and productive potential of poor fisherfolk is an important part of DFID’s knowledge strategy.

DFID funds three fisheries research programmes. The programmes and the institutions which manage them are:

- Aquaculture and Fish Genetics Research (University of Stirling)
- Fisheries Management Science (Marine Resource Assessment Group Ltd.)
- Post-Harvest Fisheries Research (Natural Resources International Ltd.)

Each of these management institutions is contracted by DFID to commission research which will help to deliver the development objectives of the strategy. Research institutions in the academic, non-governmental and commercial sectors are sub-contracted by the programme managers to carry out the research. All research is conducted in close collaboration with partners in developing countries. This collaboration both increases the likely uptake of research outputs and promotes capacity in those countries.

A recent review of the efficiency and impact of the programmes concluded that the research was both cost-effective and has a significant positive impact on the lives of the poor.

As part of the research validation process, the outputs from research are published in peer-reviewed journals. Other dissemination products are also produced which address the needs of a wider audience. This Bibliography brings together the publications of the DFID funded fisheries research over the period 1990–2001. It is designed to provide a source of information about the new fisheries knowledge which DFID has generated through its fisheries research programmes.

If fisheries research is to contribute significantly to the elimination of poverty then:

- researchers need to co-ordinate their activities with each other

practitioners in the field need to be kept informed of new knowledge and technologies
policy makers need to be fully informed
research outputs must provide a strong basis upon which to plan development programmes.

It is hoped that this Bibliography will contribute to that process.

The Bibliography is organised by reference to the three research Programmes. For each Programme there is an introduction to its aims and objectives. The publications produced by that Programme are arranged by year, then project and then by peer-reviewed and other publications.

In a few instances, where there are multiple authors, a publication may appear under more than one project. Please note that in this Bibliography some project titles have been shortened.
The Aquaculture and Fish Genetics Research Programme (AFGRP) is a new programme arising out of the merger, in 2001, of the Fish Genetics Research Programme (FGRP) within the Aquaculture Research Programme (ARP).

Aquaculture is the farming of aquatic organisms, including fish, molluscs, crustaceans and aquatic plants. Management inputs, and the ownership and care of stock, are different from those in capture fishing, and show many parallels with terrestrial crop and animal production. Aquaculture is typically carried out in ponds, enclosures, cages and tanks, in inland or coastal environments. Within this context, genetic methods can be used to improve production and performance of cultured species, and can also be used in capture fisheries enhanced with introduced cultured stocks. Genetic techniques can also be used to identify capture fisheries stocks more accurately and provide important information for fisheries management.

The global yield from capture fisheries has levelled out (around 90 million tonnes per annum) and therefore reliance upon aquaculture-based food supply to meet present and future needs is greater than ever. This is reflected over the last decade with aquaculture production increasing from 16 million to 42 million tonnes, from 20% to 33% of world fish production. Much of this production is in tropical and subtropical countries, contributing significantly to rural and urban food supply, as well as to international trade, helping to meet important nutrition and income goals in poorer countries.

DFID has long since recognised the importance of aquaculture, particularly in its target regions, and has identified the importance of well-focused research to remove constraints, reduce vulnerability and maximise potential. The more recent expression of needs and opportunities within the context of livelihoods has also helped to focus on the ways in which a sector such as aquaculture, and its related biotechnical elements such as genetics, might best be supported and developed. While technical issues can be important, the delivery of benefit to poor households and communities requires a mix of approaches and understanding to target research more appropriately to the needs of producers and consumers.

The Programme purpose is to improve the livelihoods of the poor through increased knowledge of aquatic stocks and their selection, enhancement and culture, to generate sustainable productive benefits. A range of technical and social disciplines are involved in studying ways in which communities understand and interact with aquatic resources and their management for aquaculture, and in working with local groups and agents to promote better ways in which aquaculture and fish genetics can contribute to DFID’s broader development targets.
1990 1990

Programme Output

Other Publications


R4222 Studies on ulcerative disease rhabdovirus infection of rice field fish species in ASEAN countries

Peer Reviewed


R4443 Studies on the culture of tropical prawns (penaeids) with particular reference to husbandry, disease and nutrition

Other Publications


R4452 Production of mitotic gynogenesis of superior monosex clones of tilapia and transfer of technology to the Philippines

Peer Reviewed


Other Publications

R4523 Cryopreservation and manipulation of ova and milt in commercially important tropical species

Peer Reviewed


R4680 Taxonomy and culture of tropical fungi pathogenic to fish and shellfish

Peer Reviewed


1991

R4222 Studies on ulcerative disease rhabdovirus infection of rice field fish species in ASEAN countries

Peer Reviewed


R4443 Studies on the culture of tropical prawns (penaeids) with particular reference to husbandry, disease and nutrition

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1992 studies on the culture of tropical prawns (penaeids) with particular reference to husbandry, disease and nutrition

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Peer Reviewed


Other Publications


R4523 Cryopreservation and manipulation of ova and milt in commercially important tropical species

Peer Reviewed


Other Publications


R4537 Analysis of the gene flow of the Bermuda spiny lobster

Peer Reviewed


R4723 Taxonomy culture and pathogenicity of a new, highly invasive fungus from South and South East Asia

Other Publications

R4751 Development of strategies for sustainable shrimp farming

*Peer Reviewed*


*Other Publications*


R4803 Genetic means for the production of monosex tilapia

*Other Publications*


1993

R4222 Studies on ulcerative disease rhabdovirus infection of rice field fish species in ASEAN countries

*Peer Reviewed*


R4523 Cryopreservation and manipulation of ova and milt in commercially important tropical species

*Peer Reviewed*


R4537 Analysis of the gene flow of the Bermuda spiny lobster

*Peer Reviewed*

R4700 Use of androgenesis to regenerate diploid fish from the genetic material of cryopreserved sperm

Peer Reviewed


Other Publications


R4721 Aquaculture in Sub-Saharan Africa

Other Publications


R4723 Taxonomy culture and pathogenicity of a new, highly invasive fungus from South and South East Asia

Peer Reviewed


Other Publications


R4751 Development of strategies for sustainable shrimp farming

Peer Reviewed


**Other Publications**


**R4801 Genetic diversity and stock structure of Lake Tanganyika Kapenta introduced to African lakes**

**Other Publications**


**R4802 Molecular population genetics of *Penaeus* species in the Malaysian Peninsula**

**Peer Reviewed**


**Other Publications**


**R4803 Genetic means for the production of monosex tilapia**

**Peer Reviewed**


Other Publications


R5069  Development of transgenic tilapia fish

Peer Reviewed


Other Publications


R5502  Development and exploitation of transgenic tilapia fish

Peer Reviewed


R4222 Studies on ulcerative disease rhabdovirus infection of rice field fish species in ASEAN countries

Peer Reviewed


R4443 Studies on the culture of tropical prawns (penaeids) with particular reference to husbandry, disease and nutrition

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R4452 Production by mitotic gynogenesis of superior monosex clones of tilapia and transfer of technology to the Philippines

Peer Reviewed


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R4537 Analysis of the gene flow of the Bermuda spiny lobster

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R4721 Aquaculture in Sub-Saharan Africa

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R4751 Development of strategies for sustainable shrimp farming

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Other Publications


R4801 Genetic diversity and stock structure of Lake Tanganyika Kapenta introduced to African lakes

Peer Reviewed


R4915 Application of cryopreservation techniques for the genetic management of commercially important tropical species

Peer Reviewed

R5068 Genetic manipulations for improved tilapia (GMIT) technology adaptation and development

Peer Reviewed


Other Publications


R5502 Development of transgenic tilapia fish

Peer Reviewed


R5997 Studies on the biology of the EUS Aphanomyces

Peer Reviewed


Other Publications


R6058  Selective improvement of genetically male tilapia

Peer Reviewed


1995

R4537  Analysis of the gene flow of the Bermuda spiny lobster

Peer Reviewed


R4700  Use of androgenesis to regenerate diploid fish from the genetic material of cryopreserved sperm

Peer Reviewed


Other Publications


R4721  Aquaculture in Sub-Saharan Africa

Other Publications


R4801  Genetic diversity and stock structure of Lake Tanganyika Kapenta introduced to African lakes

Peer Reviewed


**R4914** Investigations into the problems of eggs and embryos of commercially important tropical species

*Peer Reviewed*


**R4915** Application of cryopreservation techniques for the genetic management of commercially important tropical species

*Other Publications*


**R5068** Genetic manipulation for improved tilapia (GMIT) technology adaptation and development

*Peer Reviewed*


**R5430** Studies on viruses associated with ulcerative disease of fish in the Indo-Pacific region

*Peer Reviewed*


*Other Publications*

R5502 Development of transgenic tilapia fish

Peer Reviewed


R5525 Development of tropical crustacean cell cultures

Other Publications


R5997 Studies on the biology of the EUS *Aphanomyces*

Peer Reviewed


Other Publications


R5998 Studies on the susceptibility of farmed *Rana tigerina* and *R. rugulosa* to frog septicaemic disease and its control

Peer Reviewed


Other Publications


**R6058  Selective improvement of genetically male tilapia**

*Peer Reviewed*


**Other Publications**


**R6059  Genetic improvement of Indian and common carps for aquaculture**

*Other Publications*


1996

**Programme Outputs**

*Peer Reviewed*


*Other Publications*

Production of mitotic gynogenesis of superior monosex clones of tilapia and transfer of technology to the Philippines

Peer Reviewed


Analysis of the gene flow of the Bermuda spiny lobster

Other Publications


Aquaculture in Sub-Saharan Africa

Peer Reviewed


Other Publications


Development of strategies for sustainable shrimp farming

Peer Reviewed


**R4801** Genetic diversity and stock structure of Lake Tanganyika Kapenta introduced to African lakes

*Other Publications*


**R4802** Molecular population genetics of *Penaeus* species in the Malaysian Peninsula

*Other Publications*


**R4803** Genetic means for production of monosex tilapia

*Other Publications*


**R5430** Studies on viruses associated with ulcerative disease of fish in the Indo-Pacific region

*Peer Reviewed*


Other Publications


R5502  Development of transgenic tilapia fish

Peer Reviewed


Other Publications


R5525 Development of tropical crustacean cell cultures

Peer Reviewed


R5997 Studies on the biology of the EUS Aphanomyces

Other Publications


R5998 Studies on the susceptibility of farmed Rana tigerina and R. rugulosa to frog septicaemic disease and its control

Other Publications


R6011 Coastal aquaculture and environment: strategies for sustainability

Other Publications


R6058 Selective improvement of genetically male tilapia

Peer Reviewed


Other Publications


R6059 Genetic improvement of Indian and common carps for aquaculture

Other Publications


Bibliography DFID Fisheries Research Programmes 1990–2001

R6070 Genetic manipulation for improved tilapia – technology adaptation and development II

Other Publications


R6380 Addressing technical, social and economic constraints to rice fish culture in Laos, emphasising women’s involvement

Other Publications


R6938 Improvement and evaluation of YY male technology

Other Publications


1997

Programme Outputs

Peer Reviewed


Other Publications


R4523 Cryopreservation and manipulation of ova and milt in commercially important tropical species

Peer Reviewed

**R4700**  Use of androgenesis to regenerate diploid fish from the genetic material of cryopreserved sperm

*Other Publications*


**R4721**  Aquaculture in Sub-Saharan Africa

*Peer Reviewed*


**R4801**  Genetic diversity and stock structure of Lake Tanganyika Kapenta introduced to African lakes

*Other Publications*


**R4802**  Molecular population genetics of Penaeus species in the Malaysian Peninsula

*Other Publications*


**R5430**  Studies on viruses associated with ulcerative disease of fish in the Indo-Pacific region

*Other Publications*


**R5502**  Development of transgenic tilapia fish

*Peer Reviewed*


**R5997** Studies on the biology of the EUS *Aphanomyces*

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**Other Publications**


**R5998** Studies on the susceptibility of farmed *Rana tigerina* and *R. rugulosa* to frog septicaemic disease and its control

*Peer Reviewed*

R6011 Coastal aquaculture and environment: strategies for sustainability

**Peer Reviewed**


R6058 Selective improvement of genetically male tilapia

**Peer Reviewed**


**Other Publications**


R6059 Genetic improvement of Indian and common carps for aquaculture

**Other Publications**


R6070  Field testing and transfer to Thailand of the YY male technology for the mass production of monosex male tilapia

Other Publications


R6380  Addressing technical, social and economic constraints to rice fish culture in Laos, emphasising women's involvement

Other Publications


R6938  Improvement and evaluation of YY male technology

Peer Reviewed


Other Publications


MAIR, G.C. and CAPILI, J.B. (1997) No sex please, we’re growing – the YY male technology Breeding better fish for aquaculture. 22 mins. 35 copies. Philippines Rice Research Center and the Broadcast Media Department of the Technology and Livelihoods Resource Centre. Philippines. [Video]


**R6979** Applied studies on *Aphanomyces invaderis* the fungal pathogen of epizootic ulcerative syndrome (EUS)

Peer Reviewed


Other Publications


1998

Programme Outputs

Other Publications


R4721 Aquaculture in Sub-Saharan Africa

Other Publications


R4801 Genetic diversity and stock structure of Lake Tanganyika Kapenta introduced to African Lakes

Peer Reviewed


R4802 Molecular population genetics of Penaeus species in the Malaysian Peninsula

Peer Reviewed


R5502 Development of transgenic tilapia fish

Peer Reviewed


Other Publications


R5997  Studies on the biology of the EUS Aphanomyces
Peer Reviewed


Other Publications


R6011  Coastal aquaculture and environment: strategies for sustainability
Peer Reviewed


R6059  Genetic improvement of Indian and common carps for aquaculture
Peer Reviewed


Other Publications


**R6069 Development of approaches and methods for low input fish seed production for Sub-Saharan Africa**

*Other Publications*


**R6380 Addressing technical, social and economic constraints to rice fish culture in Laos emphasising women’s involvement**

*Other Publications*


**R6426 Shrimp defence mechanisms and immunomodulation to enhance sustainability and reduce antibiotic usage in shrimp culture**

*Other Publications*


**R6937 Socio-economic analysis of the dissemination and impact of genetically male tilapia**

*Other Publications*

R6938 Improvement and regional evaluation of the YY male technology

Peer Reviewed


Other Publications


R6979  Applied studies on *Aphanomycetes invaderis*, the fungal pathogen of epizootic ulcerative syndrome (EUS)

*Peer Reviewed*


*Other Publications*


S. CHINABUT, J. LILLEY and K. MORGAN gave half-day workshops to about 50 staff at the Fisheries Research and Training Institute (FRTI), Lahore and 50 staff and farmers at the Sindh hatchery and training centre, (Pakistan, April 1998). A pamphlet on EUS was produced in Urdu and is being distributed country-wide by the Office of the Fisheries Development Commissioner.


R7052  Fish seed quality in Asia

*Peer Reviewed*


R7054  Control of bacterial disease in small-scale freshwater aquaculture

*Other Publications*


R7100  Improved management of small-scale tropical cage culture systems in Asia

*Other Publications*


1999 1999

R5502  Development of transgenic tilapia fish

*Peer Reviewed*

R5998  Studies on the susceptibility of farmed *Rana tigerina* and *R. rugulosa* to frog septicaemic disease and its control

*Peer Reviewed*


R6059  Genetic improvement of Indian and common carps for aquaculture

*Peer Reviewed*


*Other Publications*


R6428  Development of monosex culture in punting species

*Peer Reviewed*


R6938  Improvement and regional evaluation of the YY male technology

*Peer Reviewed*


*Other Publications*


R6979  Ecology, immunogenicity and treatment of *Aphanomyces invadans*

*Peer Reviewed*


*Other Publications*


R7051  An epidemiological approach to aquatic disease control: risk factors associated with outbreaks of white spot disease in artisanal systems in Vietnam and India

*Other Publications*

R7052  Fish seed quality in Asia

*Peer Reviewed*


*Other Publications*


R7100  Improved management of small-scale cage aquaculture in Asia

*Peer Reviewed*


*Other Publications*


R7113  Development and use of transgenic tilapia

*Peer Reviewed*

R7463  Strategies for improved diagnosis and control of bacterial disease in small-scale freshwater aquaculture

Peer Reviewed


2000

Programme Outputs

Peer Reviewed


R6059  Genetic improvement of Indian and common carp for aquaculture

Peer Reviewed


Other Publications

ANON. (2000) Brief report on DFID Fish Genetics Programme in Karnataka, the major achievements of the Project during the last five years and the proposed research activities during the extended period 2001–2004. Fishing Chimes, 20 (4): 60.


R6938  Improvement and regional evaluation of the YY male technology

Other Publications


R6979 Applied studies on EUS – the ecology, immunogenicity and treatment of *Aphanomyces invadans*

*Peer Reviewed*


*Other Publications*


R7064 Small-scale farmer-managed aquaculture in engineered water systems: Critical design and management approaches

*Other Publications*

R7100  Improved management of small-scale cage culture in Asia

Peer Reviewed


Other Publications


R7113  Development and use of transgenic tilapia

Peer Reviewed


R7463  Control of bacterial disease in small-scale freshwater aquaculture

Peer Reviewed

Other Publications


R7591 Development of novel high yielding tilapia

Peer Reviewed


2001

Programme Output

Peer Reviewed


Other Publications


R6058 Selective improvement of genetically male tilapia

Peer Reviewed


R6059 Genetic improvement of Indian and common carp for aquaculture

Peer Reviewed


**R6937** Socio-economic analysis of the dissemination and impact of genetically male tilapia

*Peer Reviewed*


**R6938** Improvement and regional evaluation of the YY male technology

*Peer Reviewed*


**R6979** Applied studies on EUS – the ecology, immunogenicity and treatment of *Aphanomyces invadans*

*Peer Reviewed*


*Other Publications*


R7051 An epidemiological approach to aquatic disease control: risk factors associated with outbreaks of white spot disease in artisanal systems in Vietnam and India

*Peer Reviewed*


45
R7052  Fish seed quality in Asia

Peer Reviewed


R7064  Aquaculture in small-scale farmer managed irrigation systems

Peer Reviewed


R7100  Improved management of small-scale cage culture in Asia

Peer Reviewed


**Other Publications**


**R7123 Fish in irrigation systems technology**

*Peer Reviewed*


**R7284 Genetic improvement and utilisation of indigenous tilapia in southern Africa**

*Peer Reviewed*


**R7463 Control of bacterial disease in small-scale freshwater aquaculture**

*Peer Reviewed*


**Other Publications**

DUNG, T.T. (in press) An article about the general aims and activities of the project. *Vietnamese Fish Farmers Magazine*.


**R7591 Development of novel high yielding tilapia**

*Peer Reviewed*


The Fisheries Management Science Programme has a single purpose:

Benefits for poor people generated by application of new knowledge to fisheries management systems.

There are two Outputs:

1. Improvements in the livelihood outcomes for poor people from better management of *capture fisheries* developed and promoted.

2. Improvements in the livelihood outcomes for poor people from better management of *enhancement fisheries* developed and promoted.

The FMSP has consistently focused on small-scale fishers and fits well into the poverty and livelihoods approach, although, particularly for capture fisheries, research activities may not directly focus on the poor but aim to create an enabling environment for the ultimate benefit of the poor.

Fisheries are of central importance to some of the poorest communities in the world. Where few livelihood alternatives exist, as is the case in many small islands or for many groups whose assets are fishery-specific, fishers are particularly vulnerable to any decline in the resources on which they depend. It is, therefore, essential for fisheries outcomes that exploitation of these resources is sustainable. But the methods of capture that are encouraged can be equally critical. Sustainable exploitation of a particular fishery can be achieved through a number of alternative patterns of effort, which may vary greatly in the type and number of livelihood opportunities that they provide, and the sorts of initiatives needed to support them. These include not just the nuts and bolts of fisheries management – the combinations of gear restrictions, area closures, catch limits etc. – and the form of governance structure adopted, but also the wider policy decisions including tax incentives to boat owners, fuel subsidies or access given to foreign fleets. Thus, in the context of fisheries, better management is the key to achieving this. However, changing the climatic, ecological and social conditions means that management is constantly needing adjustment. Current and newly identified projects seek to address these issues through the provision of management guidelines for both capture and enhancement fisheries upon which some of the poorest communities are dependent.
1991

R4682  Principles of management and conservation of coral reef fisheries
Peer Reviewed


1992

R4517  Development of computer aids for fish stock assessment and management policy

Other Publications


R4682  Principles of management and conservation of coral reef fisheries
Peer Reviewed


R4691  Effects of parasitism on reservoir fisheries in South Asia

Other Publications


R4776  Shrimp management

Other Publications

1993

R4775 Control of foreign fishing

Other Publications


R4778 Programme development

Peer Reviewed


R5024 Multispecies response of reef fisheries to exploitation

Peer Reviewed


R5048 Optimisation of reef fisheries

Other Publications


R5484 Management of multispecies tropical fisheries

Peer Reviewed


1994

R4283 Guidelines for harvesting species of different lifespans

Peer Reviewed


R4683  Impact of species changes in African lakes
Peer Reviewed


R5023  Potential yield of small reservoir fisheries in South East Asia
Other Publications


R5048  Optimisation of reef fisheries
Peer Reviewed


R5484  Management of multispecies tropical fisheries
Other Publications


R5953  Fisheries dynamics of modified floodplains in southern Asia
Peer Reviewed


1995

R4683  Impact of species changes in African lakes
Peer Reviewed


R4777 Analysis of fish aggregating devices

Other Publications


R5023 Potential yield of small reservoir fisheries in South East Asia

Peer Reviewed

R5024 Multispecies response of reef fisheries to exploitation
Peer Reviewed


R5048 Optimisation of reef fisheries
Peer Reviewed


R5049 Control of foreign fisheries – adaptive research


R5484 Management of multispecies tropical marine fisheries
Peer Reviewed


R5485 River and floodplain fisheries

Other Publications


R5958 Culture fisheries assessment methodology

Other Publications


1996

R4777  Analysis of fish aggregating devices

Other Publications


R4778  Programme development

Peer Reviewed


R5023  Potential yield of small reservoir fisheries in South East Asia

Peer Reviewed


R5024  Multispecies responses of reef fishes to exploitation

Peer Reviewed


R5050  Computer aids in fisheries management – adaptive research

Other Publications


R5484  Management of multispecies tropical fisheries

Other Publications


R5953  Fisheries dynamics of modified floodplains in southern Asia

Other Publications


R5958  Culture fisheries assessment methodology

Peer Reviewed


Other Publications


R6437  Management strategies for new or lightly exploited fisheries in developing countries

Peer Reviewed

R6465  Growth parameter estimation and the effect of fishing on size composition and
growth of snappers and groupers implications for management

Other Publications

DIRECTORATE OF FISHERIES RESEARCH (1996) The use of otoliths to determine the age of
snapper and grouper from the Seychelles and Mauritius fisheries Preliminary report to MRAG in
completion of Phase I. Ministry of Agriculture and Fisheries, Lowestoft, UK.

R6494  Evaluation of floodplain enhancement

Other Publications

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Ltd., London, UK.


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address to Congress. Hancock, D.A., Smith, D.C., Grant, A. and Beumer, J.P. (Eds.).
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BEDDINGTON, J.R., LORENZEN, K. and PAYNE, I. (1997) Limits to exploitation of capture
fisheries. pp. 529–536. In: Developing and Sustaining World Fisheries Resources: The State of
Science and Management, Second World Fisheries Congress, Brisbane, 1996 Vol. 2:
Proceedings. Keynote address to Congress. Hancock, D.A., Smith, D.C., Grant, A. and Beumer,
J.P. (Eds.). Commonwealth Scientific and Industrial Research Organisation (CSIRO),
Melbourne, Australia.

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Peer Reviewed

Symposium, Panama, 23–29 June 1996. Vol. 2. Smithsonian Tropical Research Institute,
Balboa, Panama.

R5049  Control of foreign fisheries

Other Publications

232. In: Report of a Regional Workshop on fisheries Monitoring, Control and Surveillance,
(FIMLAP) GCP/INT/606/NOR Field report 97/37 May 1997. Food and Agriculture Organization
of the United Nations, Rome, Italy.
R5484  Management of multispecies tropical fisheries

Peer Reviewed


R5485  River and floodplain fisheries

Peer Reviewed


R5953  Fisheries dynamics of modified floodplains in southern Asia

Other Publications


R5958  Culture fisheries assessment methodology

Peer Reviewed


R6267  Enhancement of a lagoon prawn fishery at Rekawa, Sri Lanka

Other Publications


R6338  Reservoir fisheries management in Savannakhet Province, Laos PDR

Other Publications

R6436  Performance of customary marine tenure (CMT) in the management of community fishery resources in Melanesia

Other Publications


R6437  Management strategies for new or lightly exploited fisheries in developing countries

Other Publications


R6465  Growth parameter estimation and the effect of fishing on size composition and growth of snappers and groupers implications for management

Peer Reviewed


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R6494 Evaluation of floodplain enhancement

*Other Publications*


1998

R5024 Multispecies responses of reef fishes to exploitation

*Peer Reviewed*


R5953 Fisheries dynamics of modified floodplains in southern Asia

*Peer Reviewed*


R5958 Culture fisheries assessment methodology

*Peer Reviewed*


R6267 Enhancement of a lagoon prawn fishery at Rekawa, Sri Lanka

*Other Publications*

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R6437 Management strategies for new or lightly exploited fisheries in developing countries

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R6494 Evaluation of floodplain enhancement

Other Publications

1999

Programme Outputs

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R5953 Fisheries dynamics of modified floodplains in southern Asia

Peer Reviewed


R6267 Enhancement of a lagoon prawn fishery at Rewaka, Sri Lanka

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R6436 Performance of customary marine tenure (CMT) in the management of community fishery resources in Melanesia

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R6437 Management strategies for new or lightly exploited fisheries in developing countries

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Other Publications


R6465 Growth parameter estimation and the effect of fishing on size composition and growth of snappers and emperors – implications for management

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R6494 Evaluation of the biological and socioeconomic benefits of enhancement of floodplain fisheries

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R7042 Information systems for co-management of artisanal fisheries

Other Publications


R7043 Selection criteria and co-management guidelines for harvest reserves in tropical river fisheries

Peer Reviewed


The above article was also published, with permission, in the source below in Other Publications:


Other Publications


R7336 Sustainable livelihoods from fluctuating fisheries resources

Peer Reviewed


2000

Programme Outputs

Other Publications


R5024 Multispecies responses of reef fishes to exploitation

Peer Reviewed


R5953 Fisheries dynamics of modified floodplains in southern Asia

Peer Reviewed


R6338 Reservoir fisheries management in Savannakhet Province, Laos PDR

Peer Reviewed


R6465 Growth parameter estimation and the effect of fishing on size composition and growth of snappers and emperors – implications for management

Peer Reviewed


R7041 Software for estimating potential yield under uncertainty

Other Publications


R7043 Selection criteria and co-management guidelines for harvest reserves in tropical river fisheries

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R7334 Management of conflict in tropical fisheries

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R7335 Adaptive learning approaches to fisheries management

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R7336 Sustainable livelihoods from fluctuating fisheries resources

Other Publications


2001

R5953 Fisheries dynamics of modified floodplains in southern Asia

Peer Reviewed


R7335 Adaptive learning approaches to fisheries management

Peer Reviewed


R7336 Sustainable livelihoods from fluctuating fisheries resources

Peer Reviewed


The vision of the Post-Harvest Fisheries Research Programme (PHFRP) is to improve the livelihoods and food security of poor people within the post-harvest fisheries sector by:

- working with the poor to identify constraints to better livelihoods and improved food security
- commissioning high-quality research to develop methods and tools to overcome constraints
- effectively promoting the results of research to the point where they are adopted for the benefit of the poor.

The importance of the fisheries sector for the poor in developing countries can be summarised under two headings:

**Employment** – fishing and the related activities of processing and trading offer employment to some of the most disadvantaged individuals. The relatively ‘open access’ nature of fisheries offers opportunities to those without access to land. The activities of processing and trading fish are dominated by women and often provide employment where few other opportunities exist.

**Nutrition** – fish and fish products provide a vital source of nutrition. In the majority of African and Asian countries fish accounts for between one and two thirds of animal protein intake. This compares with only 6.6% in North America and 9.7% in Western Europe. As fish is usually considerably cheaper than meat in developing countries, it is of particular nutritional importance to those on the lowest incomes.

The programme has a single purpose:

**To produce benefits for poor producers, processors, traders and consumers through the application of new knowledge to the improved utilisation of fish from fisheries in South Asia and East and West Africa.**

In order to achieve this purpose strategies and management systems to improve post-harvest utilisation of fish – and its impact on the lives of poor processors, traders and consumers – are being developed and promoted. The PHFRP is focusing on a people-centred approach to research that is more impact-oriented and that closely reflects local needs. Its research links into global, regional and national policy initiatives and operates through partnerships with target institutions and fisherfolk communities.

The programme has commissioned research in three main areas to achieve its purpose:

- improved generic methods for identifying the magnitude and source of post-harvest losses in capture fisheries at a local and national level
- appropriate value adding and loss-reduction processes and technologies applicable to major poor stakeholder groups
- an understanding the impact on the poor of the changing pattern of utilisation of fish and the structure and operation of market systems – including globalisation in terms of the effect of external market demands.
The results from this research will combine to provide policy makers with the knowledge to create an enabling environment for the poor in the post-harvest sector, and the tools for support agencies to provide better assistance to the poor.
1990

Programme Outputs

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1992

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R5027  Quantification of post-harvest losses in fish

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1993

Programme Outputs

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R5026  Lipid oxidation in salted-dried pelagic fish

Peer Reviewed


R5027  Quantification of post-harvest losses in fish

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1994

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R4910  Microbiological quality of fish

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R4911 Protection of fish against blowflies during drying and beetles in storage

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R5026 Lipid oxidation in salted-dried pelagic fish

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R5027 Quantification of post-harvest losses of fish

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R5065 Collagen breakdown in fish spoilage

Other Publications


R5074 Effects of antibiotics on the microflora of aquaculture ponds and their products

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R5793 Development of a PCR-based method for the rapid and highly sensitive detection of aquatic vibrios

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R5793  Development of a PCR-based method for the rapid and highly sensitive detection of aquatic vibrios

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R5795  Biology of salt-tolerance in tropical blowflies

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R5027  **Quantification of post-harvest losses in fish**

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R5793  **Development of a PCR-based method for the rapid and highly sensitive detection of aquatic vibrios**

*Other Publications*


R5921  **Use of microbial insecticides in drying and dried fish**

*Other Publications*


R6272 Trends in the utilisation of small pelagics in Asia

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R6467 Opportunities for value added in traditional fishing communities

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R5027 Quantification of post-harvest losses of fish

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**R5793 Development of a PCR-based method for the rapid and highly sensitive detection of aquatic vibrios**

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**R5921 Use of microbial insecticides in drying and dried fish**

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**R6467 Opportunities for value added in traditional fishing communities**

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**R6817 Wet season post-harvest fish losses in the traditional fish processing sector of India - generating an understanding and defining interventions**

*Other Publications*


**R6824 Systems based approach to the reduction of insect infestation**

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**R6959 Adaptation of a predictive cost model to determine the cost of control in identified critical loss areas within the fish processing chain**

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R7008 Field and desk based tools for assessing fish losses: adaptation and validation in West Africa

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R5921 Use of microbial insecticides in drying and dried fish

Peer Reviewed


R6700 Ecology and behaviour of blowfly populations in fish processing and storage systems

Peer Reviewed


R6817 Wet season fish losses in India

Peer Reviewed

Other Publications

WARD, A.R. (1998) DFID monsoon season post-harvest fish losses research project: pre-fieldwork meeting, Atria Hotel, Bangalore. 24–26 June 1998 and initial case study fieldwork in North Kerala. Internal report. Natural Resources Institute, Chatham, UK.


R6959 Adaptation of a predictive cost model to determine the cost of control in identified critical loss areas within the fish processing chain

Other Publications


R7008 Field and desk based tools for assessing fish losses: adaptation and validation in West Africa

Peer Reviewed


Other Publications


CLUCAS, I.C. (1998) Short report on two visits to Ghana for A0724 (project R7008) Natural Resources Institute, Chatham, UK.

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R6700 Ecology and behaviour of blowfly populations in fish processing and storage systems

Other Publications


R6817 Wet season post-harvest fish losses in the traditional fish processing sector of India – generating an understanding and defining interventions

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JOSEPH, M.M. (1999) Report on participatory intervention planning carried out in Orissa and Andhra Pradesh during April–May 1999 for field testing of interventions as Phase III of the monsoon season losses in post-harvest fisheries project. Natural Resources Institute, Chatham, UK.


R6959  Adaptation of a predictive cost model to determine the cost of control in identified critical loss areas within the fish processing chain

Other Publications


R7008  Field and desk based tools for assessing fish losses: adaptation and validation in West Africa

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R6824 Adaptation of a systems based approach to the reduction of insect infestation of traditionally processed fish in tropical developing countries

Other Publications


R6817 Wet season post-harvest fish losses in the traditional fish processing sector of India – generating an understanding and defining interventions

Other Publications


JOSEPH, M.J. and WARD, A.R. (2000) Understanding and reducing losses in traditional fish processing in India. College of Fisheries, Mangalore, India and Natural Resources Institute, Chatham, UK.

SUNDARARAJAN, M. (2000) An evaluation of field trials conducted by the RNRRS monsoon fish losses research project. College of Fisheries, Mangalore, India.

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R6959 Adaptation of a predictive cost model to determine the cost of control in identified critical loss areas within the fish processing chain

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R7008 Field and desk based tools for assessing fish losses: adaptation and validation in West Africa

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R6700  Ecology and behaviour of blowfly populations in fish processing and storage systems

Peer Reviewed


R7008  Field and desk based tools for assessing fish losses adaptation and validation in West Africa

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R7971  Field evaluation of systems-based approach to reduction of blowfly infestation of traditionally processed fish in tropical developing countries

Other Publications


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Contact: Professor J. Muir
Institute of Aquaculture
The University of Stirling
Stirling FK9 4LA, UK
j.f.muir@stir.ac.uk

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R4443 Reference to husbandry, disease and nutrition
R4452 Production of mitotic gynogenesis of superior monosex clones of tilapia and transfer of technology to the Philippines
R4523 Cryopreservation and manipulation of ova and milt in commercially important tropical species
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R4700 Use of androgenesis to regenerate diploid fish from the genetic material of cryopreserved sperm
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R4751 Development of strategies for sustainable shrimp farming
R4801 Genetic diversity and stock structure of Lake Tanganyika Kapenta introduced to African lakes
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FISHERIES MANAGEMENT SCIENCE PROGRAMME

Contact: Professor J. Beddington
Marine Resources Assessment Group Ltd.
47 Prince’s Gardens
London, SW7 2QA, UK

j.beddington@ic.ac.uk

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Contact: Mr John Sanchez  
Natural Resources International Ltd.  
Park House  
Bradbourne Lane  
Aylesford  
Kent, ME20 6SN, UK  
j.sanchez@nrint.co.uk

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