



WorldFish
C E N T E R

www.worldfishcenter.org



WorldFish **REPORT**
2010/11

Including financial statements for 2010

Reducing poverty and hunger by
improving fisheries and aquaculture

Director General's Statement



This has been another busy year for WorldFish that saw several important efforts, designed to help us better align with the wider reforms of the CGIAR.

Central among these was the development of our Strategy Update, approved

by the Board in May 2011. Our strategy is driven by two major development challenges, one focused on improving the livelihoods of people dependent on Aquatic Agricultural Systems, the other on sustainably increasing fish supplies to meet food and nutrition security objectives. I am very proud of the outcome of this process and am confident that it gives us the direction needed to align our efforts and contribute substantively to the CGIAR's Systems Level Objectives.

Key vehicles for achieving our goals are now, of course, the CGIAR Research Programs. And it is no accident that our two development challenges align closely with two of these, one on Aquatic Agricultural Systems that we lead, and a second on animal source foods that will be led by our partner center ILRI. WorldFish staff and partners put in a tremendous effort this year working to develop high quality proposals for these programs. A testament to their efforts was the positive evaluations the proposals received and their unconditional approval by the CGIAR Fund Council. I must also, of course, acknowledge the contributions by staff to the other four CGIAR Research Programs in which we are engaged. These four programs

will further complement and extend our efforts to pursue our mission and are an important part of our overall portfolio.

Despite the heavy focus on developing the CGIAR Research Programs this year, it is encouraging to see that we maintained an excellent research output and reached most of our performance targets. I am also glad we made the time to talk together with our partners about our research during a very successful Science Week in July.

Looking ahead, I find myself both excited and determined. Excited that we appear to be entering a new phase in which we can achieve significant impact with a coherent high quality research agenda. Determined, because with the financial support for that agenda comes the challenge of ensuring that we implement effectively and deliver on the promise. I am confident we can do this, provided we work hard to maintain and further strengthen our relationships with our partners and ensure that we build the capacity of our staff and support them appropriately. Here's to a successful 2012!

A handwritten signature in black ink that reads "Stephen J. Hall". The signature is fluid and cursive, with a long horizontal stroke at the end.

Stephen J. Hall,
Director General





Heavenly Shores

Projects enhance Philippine coastal livelihoods by improving artisanal fishery management and expanding options for smallholder aquaculture

Seacoasts are complex ecosystems that wed coral reefs, mangroves, seagrass beds, beaches and estuaries with upstream farms, forests and settlements. As diverse and fecund as coastal environments are, coastal communities often grow too large for local natural resources to support, precipitating a downward spiral. As excessive and careless resource exploitation, habitat degradation, and pollution hamper ecosystem productivity and damage capture fisheries, fishers redouble their effort, further shrinking fisheries and the livelihoods they provide and leaving coastal communities poor and vulnerable.

Nowhere is the marriage of land and sea more fraught than in the Philippines. The past three decades have seen 70% of the country's mangroves and 20% of its seagrass destroyed; nearly 90% of its coral reefs are under threat. The biomass of coastal fish stocks is only 10-30% of what it was in the 1940s.

In 2011, the WorldFish Center pursued three projects in the Philippines to enable coastal communities to draw improved livelihoods from natural resources while sustaining their productivity and other environmental services.

The year saw the launch of the two-year project *From Ridge to Reef*, funded by the United States Agency for International Development. Joining WorldFish with several international, regional, national and local partners, the project applies an ecosystem approach to biodiversity conservation and development in northwestern Mindanao. It has three themes: (i) reverse coastal resource degradation by reducing the flow of chemical runoff and sediments from agriculture and forestry, rehabilitate fish habitats, and comprehensively evaluate links in aquatic production systems to optimize resource use, (ii) enhance the livelihoods of coastal communities by examining

their bases, restoring the productivity of capture fisheries and identifying and developing sustainable alternative and supplementary livelihoods, (iii) build local capacity in biodiversity conservation and natural resource management, while creating a system for managing natural resource information and databases.

Despite dwindling capture fisheries, fish remains the Philippine's primary source of animal protein, especially for the poor. Aquaculture now produces half of the national fish harvest. In 2011, WorldFish implemented the *Comprehensive Aquaculture Development and Technical Assistance Program*, which the government funded to add value to its investments in agriculture and fisheries by (i) training local governments and individuals in coastal communities to manage artisanal fisheries more sustainably, (ii) enabling livelihood diversification, in particular toward smallholder aquaculture, and (iii) promoting a policy environment favorable to fishery improvement.

The third Philippine project conducts on-farm trials of aquaculture enhanced by the introduction of giant freshwater prawns locally called ulang. The trials are designed to refine ulang culture to maximize the income of participating households and develop a model for broader application, while strengthening the research capacity of partner organizations. Results in 2011 from the Cagayan Valley of Northern Luzon and the Eastern Visayas showed that the polyculture of bottom-feeding ulang with top-feeding tilapia yielded the highest net income for farmers. The sustainability of expanded ulang culture depends, however, on developing the value chain to supply fish farmers with more and better ulang juveniles and feed, and to improve postharvest management and marketing.

Sustainably-Farmed Seafood Holds Key to Future Global Food Security

Today, almost half of all seafood we eat comes from aquaculture; but rapid growth in the sector raises concerns about its effects on biodiversity, environmental degradation and the depletion of wild fish resources

In 2011, the WorldFish Center and Conservation International jointly published the groundbreaking study *Blue Frontiers: Managing the Environmental Costs of Aquaculture*. The study investigated the environmental impact of the world's major aquaculture production systems and species, and now offers a first-ever global assessment of trends and impacts of cultivated seafood. The analysis found that more production means more ecological impact, but that compared to other forms of animal protein production such as livestock, aquaculture is, in many ways, more efficient.

Using available data from 2008, the study compared aquaculture's global demands across 13 species groups, 18 countries, and the major production systems and feeding regimes in use today. This allowed researchers to compare and contrast 75 different types of species-production systems, to determine their environmental impacts on acidification, climate change, energy demand, land-use demand, and other ecological factors.

The key message emerging from this research is that the ecological sustainability of aquaculture can be substantially improved. Countries that grow the same species in the same systems often differed markedly in the ecological efficiency of their operations. This means that the worst performers

can learn a lot from the best. Because ~90% of today's aquaculture occurs in Asia (especially China), improving environmental performance here, will have the greatest ecological benefit.

The ecological impact per tonne of aquaculture production also varies by species. Among the worst performers are eel, shrimp and salmon, due to significant energy and fish feeds required for production. Among the best are bivalves and seaweed because they lie lower in the food chain and do not require additional feed.

Aquaculture compares favourably with other animal food production systems; it contributes less to global emissions of nitrogen and phosphorus per unit of production than does beef or pork, and fish are much more efficient than pigs or cattle at converting feed into protein. Aquaculture thus has clear advantages over other types of animal source food production for human consumption. There is, nevertheless, great room for improvement by identifying and sharing best practices, increasing investment in innovation, and strengthening policies and regulations.

Currently one of the fastest growing food production sectors in the world, aquaculture has grown at an average annual rate of 8.4% since 1970. Total production reached 65.8 million tonnes in 2008 according to FAO and today, the industry is valued at more than US \$100 billion. Now providing almost half of all seafood for human consumption, projections indicate that demand will continue to grow over the next two decades.

Achieving this needed growth in production in an environmentally sustainable way will require concerted effort. The *Blue Frontiers* report illustrates the opportunities and challenges that lie ahead and offers several recommendations to help ensure a bright future for the industry. The core of these recommendations is a call for a much wider exchange of knowledge and technology, with policies and action to promote sustainability and investment in research to fill knowledge gaps. Adopting these recommendations will help us move toward a more ecologically sustainable industry – an essential pre-requisite for continuing to meet the world's future needs and demands for fish.



Malawi's Lakes

Analyses of the challenges facing the vital fisheries of Malawi guide the formulation, with stakeholder participation, of strategies for building resilience

For a landlocked people, Malawians love fishing. Fish provide 60% of their animal protein and most of their micronutrients. The explanation is Malawi's historically bountiful fisheries and wealth of lakes. Today, however, these lakes are stressed by rapid population growth, deepening poverty, environmental degradation and soaring demand for fish.

In a paper published in 2011 in the *Journal of Great Lakes Research*, that analyzes challenges to sustainably managing Malawi's lakes, WorldFish and collaborating researchers report that government management approaches to date have aimed to maximize sustainable yield. But policymakers have not adequately incorporated socio-ecological factors or broader lake catchment processes into fishery management plans, rendering regulatory enforcement ineffective and allowing fishery overexploitation. Researchers involved in the study recommend a review of fishery policy and a shift toward maintaining the resilience of fisheries, the broader environment and livelihoods. Integrated management planning should be adopted, say the authors, to accommodate the diverse interests of stakeholders in the lake basins and address the ecological, socioeconomic and external factors that threaten lake ecosystems and the livelihoods of dependent communities.

The catch from Malawi's lakes in most years is between 50,000 and 60,000 tons but can fall as low as 30,000 tons and rise as high as 80,000. Lake Malawi, the largest, is one of the world's most diverse fisheries, with over 1,000 species, contributing more than 60% of the national catch. Lake Chilwa, one-sixteenth as large as Lake Malawi, is among Africa's most productive fisheries, producing on average 30% of the national catch. Lake Chilwa has no outlet, its size fluctuating dramatically by season and on longer cycles, with minor recessions occurring every six years or so and major recessions every 25 years, sometimes leaving the lake completely dry. Some studies show that temperatures in the Lake Chilwa Basin will increase 2.6-4.7°C by 2075. Elevated temperatures through climate change are expected to exacerbate the lake's contraction, slashing fish stocks as the extensive coastal swamps that nurture them are left high and dry.

The 5-year *Lake Chilwa Basin Climate Change Program*, implemented by a consortium of partners including WorldFish, LEAD-Eastern and Southern Africa and the Forestry Research Institute of Malawi and funded by the Norwegian Ministry of Foreign Affairs, entered its second year in 2011. The program applies a participatory diagnosis and adaptive management

framework for small tropical fisheries published by WorldFish researchers two years ago.

The program strengthens the capacity of local and district institutions to plan, implement and monitor integrated adaptations, further facilitating resilience planning across the basin and across sectors by developing and implementing, with stakeholder participation, integrated adaptation plans for climate change hotspots. Already 300 fishers are using log books developed through the program to track their fish catches and incomes and to monitor how well the fishery is meeting their livelihood needs. Fisheries managers are using the log books to track temporal and spatial distribution of fishing effort, allowing them to identify areas most at risk to overfishing. They then discuss this with fishers and together are developing area management plans.

The program is developing a range of climate change adaptations to enhance the capacity of one million people in the basin to build resilience under climate change by adopting sustainable livelihoods and improving their natural resource management. It builds the adaptive capacity of households and enterprises in these hotspots by analyzing livelihoods, mapping vulnerability to climate change, strengthening access to markets, and identifying and promoting new livelihoods. Enhancing livelihood resilience through fish value addition has focused on reducing post harvest losses and improving the quality, packaging and certification of fish products to target high value urban markets. In these markets the prices are 10 times higher than those fishers can get at the beaches. Program participants expect that high value fish products produced by women fish processing groups will start entering these more profitable markets by the end of 2011.



Developing Aquaculture Enterprises

Research examines the livelihood implications of different aquaculture systems and pathways for growth, notably in Bangladesh, Cambodia and Indonesia

Aquaculture research for development at the regional and global scale addresses primarily food security and environmental sustainability. At the local and national scales, it also aims to improve the livelihoods and well-being of aquaculture practitioners and their communities.

Research motivated by poverty reduction has traditionally focused on improving low-input, extensive smallholder aquaculture production, seeing it as benefitting a greater number of stakeholders than the more commercially oriented systems that require capitalization and business skills that may be beyond the reach of the rural poor. Research reported in 2011 supports a more nuanced view.

In 2011 WorldFish scientists and their collaborators published the results of studies in Bangladesh assessing the relationship between aquaculture and poverty. They observed that more capital-intensive freshwater aquaculture lifts people out of poverty by providing wage employment and catalyzing growth in the rural economy. Smaller-scale and more subsistence-oriented aquaculture in Bangladesh appears to benefit poverty reduction not so much by helping households out of poverty, but by preventing their slide *into* poverty. It does so by diversifying sources of household income and generating assets that can be sold in emergencies. So, although households that adopt smallholder low input aquaculture tend to be better off than most of their neighbours, seemingly limiting its potential for poverty reduction, such aquaculture cements poverty-reduction gains by making rural households less vulnerable to joining the ranks of the poor.

WorldFish-led research in Cambodia, co-funded by the Australian Centre for International Agricultural Research and the Japanese Ministry of Foreign Affairs, explored the role of different aquaculture systems and enterprise types in meeting the country's future fish demand. Fish supply-demand scenarios forecast that aquaculture is essential for Cambodia's future fish supply. Scientists reported in 2011 that the optimal mix of aquaculture systems in Cambodia in 2030, which should supply a projected 187,840 tons of cultured fish, would necessitate a shift to more productive household systems; a reduction in the proportion of freshwater cage culture due to ecosystem limitations, and stimulating small and medium commercial aquaculture enterprise. Research

also provides first estimates of the significant investments required, US\$200 million in infrastructure capital alone, emphasizing the importance of private sector engagement in SMEs, and future research on enterprise and business models that deliver optimal economic, social and environmental benefits.

Aceh, Indonesia's second poorest province, which is still recovering from protracted conflict and the 2004 Indian Ocean tsunami, has been a focus of WorldFish research investment, alongside engagement with development partners, since 2005. Research in 2011 showed that management improvements in commercially oriented, smallholder brackish water aquaculture systems generated important household benefits; when implemented the percentage of profitable smallholder aquaculture operations more than tripled, from 28% to 96%. Additionally there was an increase in proceeds from each harvest and a reduction in some costs which resulted in the financial contribution to each household doubling during the project's life from 34% to 64%. Yet significant early investment was necessary to deliver these benefits to households, particularly in building smallholder organizational foundations for future development. Researchers built a business model around this, which they anticipate could see profit per farm household per crop in Aceh rise to \$2,339 in 2016 – an outstanding 3000% increase from 2007 and a 500% increase over 2010.

Such findings indicate that commercial aquaculture enterprises and household oriented aquaculture offer different opportunities for the poor – and that research needs to consider the various pathways and enterprise systems that may contribute to the development outcome and impacts we seek. Converting smallholder aquaculture operations into viable enterprises, whilst not suitable for all, requires focus on improving farm productivity, collective organization, rural infrastructure, access to capital and markets, building farmer's skills and understanding and providing adequate technical and operational support. Creating such conditions itself requires investment, and enabling business models and investment processes that deliver the right conditions remains an area of future research.



Capacity Building

WorldFish shares knowledge with local stakeholders in the course of its research and in a training program for future technicians, researchers and policymakers

Creating knowledge about fisheries and aquaculture in collaboration with research partners and stakeholders is a key objective for WorldFish. Using that knowledge to improve the livelihoods of the poor and vulnerable where fisheries and aquaculture can make a difference and to sustainably increase the supply of affordable fish in developing countries is central to its success.

In 2011, WorldFish published in the journal *Agricultural Systems* a paper reporting on the impact of integrated aquaculture-agriculture (a low-input but knowledge-intensive approach that exploits nutrient cycling between aquatic and terrestrial crops to improve the productivity of both) on smallholder farm sustainability and farmers' livelihoods in Bangladesh, with a particular focus on the value of building farmers' capacity.

Researchers with the *Development of Sustainable Aquaculture Project* — funded by the United States Agency for International Development and implemented with 48 partner nongovernmental organizations in 42 of Bangladesh's 64 districts — compared the results of long-term training in integrated aquaculture-agriculture over three consecutive years with those of traditional training-and-visit extension services. The long-term training entailed three training sessions in the first year, two in the second year, and one in the third year, complemented by regular informal training such as pond-side group meetings and annual participatory evaluations. Researchers found that long-term training significantly improved farmers' technical efficiency, total factor productivity, net income, food consumption and nutrition, as well as the fertility of their land.

Researchers also found a positive effect on human and social capital that was measurable as higher returns on family labor, better and more frequent access to local government institutions, and greater involvement and responsibility in community organizations. A particular outcome of the research was an increase from 25% to 40% of women's

participation in household pond aquaculture.

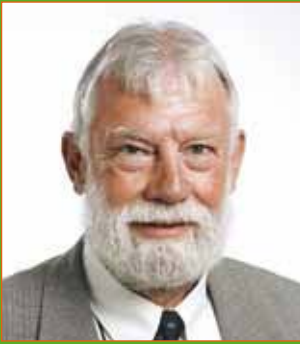
The increased participation of women in the project not only contributed to an increase in their household income, but also brought them a sense of confidence and higher social status.

In Egypt, the WorldFish Aquaculture Research and Training Center has trained more than 1,450 students from 100 countries since it joined forces in 1999 with Egypt's Central Laboratory for Aquaculture Research, sharing a training and research facility established near Abbassa 21 years ago. The pedagogical approach includes lectures, laboratory training, field training, demonstrations and field trips, depending on the content of instruction, which expanded from three courses in 1999 to 15 in 2009.

Trainees from Egypt and other countries in Africa, Asia, Latin America and Europe have gone on to hold senior fishery, aquaculture and rural development posts in their home countries and internationally. Many maintain contact with the training center to receive technical advice or literature recommendations to support their work or further studies.



Chairman's Statement



In the past year, WorldFish has focused on reshaping its strategy and research portfolio to maximize the opportunities provided by the CGIAR reform. The new CGIAR Strategy and

Results Framework and the CGIAR Research Programs provided the foundation of this effort and for the WorldFish Strategy Update, which the Board endorsed in May. This updated strategy more explicitly aligns the research of the Center with the new CGIAR strategic objectives and recognizes the CGIAR Research Programs as the key vehicles for pursuing the WorldFish mission.

Building on this guiding document, the Board also recognizes that one of foremost accomplishments by the Center this year has been its contribution to designing the CGIAR Research Programs. We are particularly pleased by the scientific and organizational leadership WorldFish has shown in developing the Research Program on Aquatic Agricultural Systems. The Board is confident that successful delivery of this Program will make a major difference in reducing poverty and hunger in these systems and commends the management, staff and WorldFish partners for putting together such a compelling program. In the light of these efforts I am more and more convinced that fisheries and aquaculture are key elements in future world food security.

The Board also acknowledges the leadership WorldFish has displayed in designing and planning the "One Common System" which will bring significant benefits in terms of organizational efficiencies to the CGIAR.

Reflecting on the financial performance in 2010, the Center recorded a healthy surplus due mainly to some late funding commitments from our donors and prudent cost management in response to a lower than expected level of bilateral funding. The Center's continuing search for operational efficiencies has resulted in a significant reduction in overheads compared to 2009. Indirect expenses were reduced by 18% in 2010 from 2009.

The Center has an adequate level of reserves and the balance sheet position gives no current cause for concern. The reserves stood at \$8m and that translates into working capital coverage of 169 days. These reserves will be required to finance the growth we are already seeing in the programs and to cover employee and other liabilities. Looking forward to 2011 the Center expects to achieve a modest growth in income but is already seeing very positive signs for 2012.

In summary, the achievements made this year by the CGIAR and the Center in its reform efforts have been large. As with any reform process, there have been, and will be further, bumpy patches, but we remain confident that we can continue to build on a promising foundation. Meeting our impact targets will certainly be challenging, but my experience in development has led me to recognize that good science must partner with political and economic processes to make a difference and that it takes time for research to deliver on these development promises. WorldFish and the CGIAR can contribute good science but a secure funding stream to support this is essential. At WorldFish we look forward to contributing to delivering quality research to these development challenges supported by the more secure funding environment expected in the new CGIAR.



Ambassador Remo Gautschi,
Chair, WorldFish Board of Trustees

Board of Trustees

Ambassador Remo Gautschi, Chair
Switzerland

**Dr. Wendy Craik, Vice-Chair
and Chair of the Governance Committee**
Australia

Dr. Stephen J. Hall
The WorldFish Center

Prof. Mohamed F. Osman
Agriculture Research Center (ARC)
Egypt

Dato' Ahamad Sabki Bin Mahmood
Department of Fisheries
Malaysia

Ms. Vimala Menon, Chair of the Audit Committee
Malaysia

Prof. Judi W. Wakhungu
African Centre for Technology Studies
Kenya

Mr. Axel Wenblad
Swedish Board of Fisheries
Sweden

WorldFish Investors 2010

- African Wildlife Foundation
- Agence Française de Développement
- Agence Nationale de Recherche
- Agencia Espanola de Cooperacion Internacional
- AGHAM Party List
- ASEAN Center for Biodiversity
- Australian Agency for International Development
- Australian Center for International Agricultural Research
- Bangladesh Local Government Engineering Department
- BG Group
- BG Group Egypt
- Canadian International Development Agency
- Centre for Development Innovation
- CGIAR Consortium Board
- Challenge Program on Water and Food
- Collective Action and Property Rights (CAPRI)
- Compagnie Nationale du Rhone
- Conservation International
- Coral Reef Initiative to the Pacific
- Danish International Development Agency
- European Commission
- Finnish International Development Agency
- Fishbase Information and Research Group Inc
- Food and Agriculture Organization of the United Nations
- German Federal Ministry for Economic Cooperation and Development
- Indian Council for Agricultural Research and Ministry of Agriculture Dept of Agriculture Research and Education
- International Centre for Environmental Management
- International Development Research Centre
- International Food Policy Research Institute
- International Fund for Agricultural Development
- International Fund for Agricultural Research
- International Rice Research Institute
- Japan International Research Center for Agricultural Sciences
- Japan Wildlife Research Center
- Japanese Ministry of Foreign Affairs
- Karya Bumi Planning Consultants
- Malaysian Agricultural Research and Development Institute
- Ministry of Fisheries and Marine Resources
- Mitsui Bussan Environment Fund
- New Zealand Aid Programme
- Norwegian Agency for Development Cooperation
- Norwegian Ministry of Foreign Affairs
- OPEC Fund for International Development
- Organisation for Economic Co-operation and Development
- Organization for Industrial, Spiritual, and Cultural Advancement - Japan Fund for Poverty Reduction
- OXFAM
- Philippines Bureau of Agricultural Research
- Philippines Department of Science and Technology
- Resources Legacy Fund
- Rytone Entertainment
- Save the Children (USA)
- SEAMEO Regional Center for Graduate Study and Research in Agriculture
- Secretariat of the Pacific Regional Environment Program
- Sri Lanka National Aquaculture Development Authority, Ministry of Fisheries and Aquatic Resources
- Swedish International Development Agency
- The Agricultural Research Center of the Ministry of Agriculture, Government of Egypt
- The David and Lucile Packard Foundation
- The Force of Nature Aid Foundation
- The Nature Conservancy
- TransNational Consulting Partnership
- UniQuest Pty Limited
- United Kingdom Department for International Development
- United Nations Educational, Scientific and Cultural Organization
- United Nations Environment Program
- United States Agency for International Development
- University of Wageningen
- University of Washington
- Wildlife Conservation Society-Congo
- World Bank
- World Resources Institute
- WWF-World Wide Fund for Nature

Statement of Financial Position

(US Dollar '000)

	As of December 31	
	2010	2009
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	7,739	12,315
Accounts receivable		
Donors	4,336	2,080
Employees	74	118
Others	490	1,992
Prepayments	242	83
Total current assets	12,881	16,588
NON-CURRENT ASSETS		
Property and equipment, net	190	291
TOTAL ASSETS	<u>13,071</u>	<u>16,879</u>
LIABILITIES AND NET ASSETS		
CURRENT LIABILITIES		
Accounts payable		
Donors	1,378	2,901
Employees	13	15
Others CGIAR Centers	41	127
Others	1,121	2,640
Fund in trust	443	3,448
Accruals and provisions	2,057	1,750
TOTAL LIABILITIES	<u>5,053</u>	<u>10,881</u>
UNRESTRICTED NET ASSETS		
Designated	2,490	1,092
Undesignated	5,528	4,906
TOTAL NET ASSETS	<u>8,018</u>	<u>5,998</u>
TOTAL LIABILITIES AND NET ASSETS	<u>13,071</u>	<u>16,879</u>

Statement of Activities

(US Dollar '000)

	For the Years Ended December 31	
	2010	2009
REVENUES, GAINS AND OTHER SUPPORT		
Grants	17,152	17,312
Other revenues	530	383
TOTAL REVENUES, GAINS AND OTHER SUPPORT	<u>17,682</u>	<u>17,695</u>
EXPENSES AND LOSSES		
Program related expenses	15,398	16,129
Management and general expenses	2,351	3,253
Sub total expenses and losses	17,749	19,382
Indirect cost recovery	(1,572)	(1,525)
TOTAL EXPENSES AND LOSSES	<u>16,177</u>	<u>17,857</u>
NET DEFICIT	<u>1,505</u>	<u>(162)</u>





WorldFish
C E N T E R

www.worldfishcenter.org



Photo credits:
Asafu Chijere
Jamie Oliver
Jharendu Pant
Randall Brummet
Raymond L. Asilo
Marjorie Ann L. Dator
WorldFish Bangladesh Office

Contact WorldFish Offices

Malaysia (Headquarters)

Key contact: Dr. Stephen J. Hall, Director General
Tel: (+60-4) 626 1606
Email: worldfishcenter@cgiar.org

Bangladesh

Key contact: Mr. William Collis
Tel: (+880-2) 881 3250, (+880-2) 881 4624
Email: worldfish-bangladesh@cgiar.org

Cambodia

Key contact: Mr. Alan Brooks
Tel: (+855) 23 223 208
Email: worldfish-cambodia@cgiar.org

Egypt

Key contact: Dr. Gamal Othman El-Naggar
Tel: (+202) 2736 4114, (+2055) 340 4228
Email: worldfish-egypt@cgiar.org

Malawi

Key contact: Dr. Daniel Jamu
Tel: (+265-1) 527 151, (+265-1) 527 337,
(+265-1) 527 195
Email: worldfish-malawi@cgiar.org

Solomon Islands

Key contact: Ms. Delvene Boso
Tel: (+677) 250 90
Email: d.notere@cgiar.org

Philippines

Key contact: Dr. Maripaz L. Perez
Tel: (+63-49) 536 9246; 536 2290
ext 193, 194, 195, 0202
Email: worldfish-philippines@cgiar.org

Zambia

Key contact: Ms. Tabeth Chiuta
Tel: (+260) 211 257939, (+260) 211 257940
Email: worldfish-zambia@cgiar.org

Full contact details for all offices are available at www.worldfishcenter.org/contacts



Find out more by
scanning the QR code
with your smartphone's
QR code reader.