

# Fisheries and the Millennium Development Goals : **Solutions for Africa**



## The Millennium Development Goals and Fisheries in Africa

Africa, and in particular sub-Saharan Africa, stands out as facing tremendous difficulties in achieving even modest progress towards the Millennium Development Goals (MDGs). Today, over 46% of Africans live in absolute poverty—a figure that is steadily rising. Life expectancy has fallen further to 46 years; in some countries to below 35 years. Child mortality and malnutrition, HIV/AIDS and other diseases continue to paralyse social and economic development. In this dire situation, innovative and diversified interventions are needed, including support to growth sectors in local economies. Fisheries, clearly, do not hold all the answers to the vexed questions about achieving the MDGs in Africa, but they do offer a key entry point to reach millions of poor people on the continent and to assist them to increase their income, improve the nutrition and health of their families, and become active agents of economic development and social change.

Fish already makes a vital contribution to the food and nutritional security of 200 million Africans and provides income for over 10 million mostly small-scale fishers, farmers and entrepreneurs engaged in fish production, processing and trade. In addition, fish has become a leading export commodity for Africa, with an annual export value of US\$ 2.7bn. Yet these benefits are at risk as the exploitation of natural fish stocks is reaching limits, fisheries management and trade increasingly target global markets, and aquaculture has not yet fulfilled its potential as a major source of fish supply for the continent. As a result, per capita fish supply in sub-Saharan Africa has declined to a world-low of 6.6 kg/year, at a time when global supply is still growing. To redress these trends, key investments are needed to improve resource governance, production, markets and nutritional development. Assuming an average annual population growth rate of 1.9% from 2002–15, total fish production must increase by 27.7% over this same period just in order to maintain current levels of per capita supply. This is a tremendous challenge, but also an opportunity to utilise the existing human and physical resources for developing a sustainable fish economy for the continent. By seizing this opportunity there is enormous potential for investments in fisheries development to make vital contributions to meeting the MDGs in Africa.



## The MDGs and entry points for fisheries

The MDGs express the shared commitment made by the global community to fight poverty. They take the bold step of identifying concrete targets and a 2015 timeline for achieving them. The MDGs take a holistic view of development, recognising that poverty has many faces and arises from a variety of different causes. While a simple and uniform indicator is chosen to refer to an absolute poverty line—'living on less than a US\$ 1 a-day'—the MDGs make it very clear that poverty is not only, and perhaps not primarily, about income and expenditure. It is, very importantly, about human well-being, social opportunities, economic conditions and a healthy natural environment. Accordingly, the MDGs are an interlinked set of objectives that call for cross-sectoral planning and implementation.

The contributions of fisheries to the MDGs are of two kinds: direct contribution to specific goals and indirect support to all the goals through enhanced livelihoods. It is a strength of fisheries, and in particular of small-scale fisheries, that it enables millions of poor fishers, processors and traders to diversify their livelihood strategies on the basis of income and commercial skills while at the same time supplying vast numbers of poor consumers with essential nutrition.

The MDGs are being supported through numerous programs at national, regional and global levels. Nineteen African countries are using multi-sectoral Poverty Reduction Strategy Papers (PRSPs) closely aligned to the MDGs to provide overall policy, planning and investment orientation at the national level. While PRSPs rarely identify fisheries as an investment sector, it is evident in many countries



that their objectives will, in part, depend on strong and poverty-focused fisheries development. The direct contributions from fisheries to GDP are especially high in countries with marine and export fisheries (over 5% of GDP in many West African countries). However, in many other countries with strong artisanal inland fisheries, benefits to the national economy are dispersed through large numbers of small-scale producers. These, nevertheless, form the backbone of many local economies and generate substantial revenue to local governments. Spanning artisanal fish production and industrial export trade, Uganda's lake fisheries, for example, produce fish worth over US\$ 200 million a year, employ 135,000 fishers and 700,000 small-scale operators in processing, trade and associated industries, generate US\$ 87.5 million in export earnings and contribute 2.2% to GDP (The Republic of Uganda 2004).

Regionally, the New Partnership for Africa's Development (NEPAD) has taken on the MDG agenda and is becoming a leading proponent of an integrated approach to development. Within NEPAD's Comprehensive African Agricultural Development Programme (CAADP), fisheries has been recognised as a key instrument for increasing productivity, ensuring food security, improving market access for the rural poor and strengthening Africa's performance in global markets. There are great opportunities for utilising the development potential of fisheries at a regional level, including intra-African trade and joint external trade negotiations, shared resources management, technology exchange and human capacity building.

Contribution of Fisheries to MDGs in Africa		
GOAL 1:	Eradicate extreme poverty and hunger	<ul style="list-style-type: none"> <li>➤ Income to 10 million poor households through fish capture, processing, trade and allied industries</li> <li>➤ Food security for 200 million poor, strengthened through affordable, high quality food</li> </ul>
GOAL 2:	Achieve universal primary education	<ul style="list-style-type: none"> <li>➤ Indirect benefits through increased income for women and improved health of children</li> </ul>
GOAL 3	Promote gender equality and empower women	<ul style="list-style-type: none"> <li>➤ Women strongly engaged in artisanal processing and trade, gaining income and power</li> </ul>
GOAL 4:	Reduce child mortality	<ul style="list-style-type: none"> <li>➤ Fish nutrients (such as fatty acids) improve neural development in the fetus and lower the risk of low birth weight, key factors in child mortality</li> <li>➤ Child nutrition improved through supply of protein and minerals</li> </ul>
GOAL 5:	Improve maternal health	<ul style="list-style-type: none"> <li>➤ Improved nutritional status of women</li> </ul>
GOAL 6:	Combat HIV/AIDS, malaria and other diseases	<ul style="list-style-type: none"> <li>➤ Fishing communities are among the hardest hit by HIV/AIDS; progress here is vital for combating the pandemic regionally</li> <li>➤ Affordable proteins and micro-nutrients help mitigate the impacts of disease among the poor and are essential for the effective use of drugs</li> <li>➤ Incomes from fisheries enable the poor to obtain further services</li> </ul>
GOAL 7:	Ensure environmental sustainability	<ul style="list-style-type: none"> <li>➤ Good fisheries governance, such as through regulated small-scale fisheries, can contribute to sustainable aquatic resource management and provide lessons for water governance</li> </ul>
GOAL 8:	Develop a global partnership for development	<ul style="list-style-type: none"> <li>➤ Fish is a leading export commodity helping African nations to improve their trade balance, and offering opportunities for developed countries to promote and adopt good trading practices</li> </ul>

## Key contributions from fisheries to the MDGs in Africa

### Goal 1: Extreme poverty

More than 10 million people on the continent depend on fisheries as an essential commercial activity. Over 2.5 million fishers create further business opportunities for more than three times as many processors, traders and micro-enterprises in associated industries. For most of them fisheries provides their main source of income. Over 99% of African fishers are engaged in labour intensive small-scale fisheries under a variety of ownership and employment arrangements, including subsistence and market production. What they all have in common is a high degree of flexibility, a wide distribution of benefits, and relatively easy entry points for the poor. Small-scale fisheries serve as 'safety nets' for the poor, both rural and urban, who might join fisheries, often temporarily, in response to special needs or declining opportunities elsewhere. On the other hand, the same fisheries can also drive economic and commercial development, often linking remote fishing areas to national and regional markets. To safeguard this dual function and the accruing income benefits, fisheries development objectives need to integrate subsistence and commercial interests.

### Goal 1: Hunger

Of Africa's 800 million people, more than 200 million regularly eat fish. For them, fish is an important part of their nutrition accounting, on average, for 22% of their animal protein intake—up to 70% in some countries. In addition, fish provides vital vitamins, minerals, fatty acids and other micro-nutrients crucial to a healthy diet. Fish is particularly important for the poor, as it is often the most affordable source of protein. Yet, fish supply in Africa is in a crisis. Africa is the only part of the world where fish supply per person is declining, while at the same time it is already at the lowest level by far (6.6 kg/person/year in 1997). This is of particular concern given the lack of any alternative source of the



animal protein and other nutrients supplied by fish for the majority of fish consumers. The supply crisis is a combination of stagnant production from capture fisheries and growing populations. Many natural fish stocks are declining and fish farming (aquaculture) has not yet substantially developed in sub-Saharan Africa, contributing less than 2% of fish supply. If population growth continues as projected, sub-Saharan Africa will need about 61% more fish per year in 2020 just to maintain the current consumption level.

### Goal 2: Primary education

The contribution that can be made by fisheries to the goal of universal primary education is significant but indirect. Poverty and irregular income are leading causes of low educational attainment in Africa. Income from fisheries provides important seasonal continuity in many agricultural communities. Studies throughout the continent show that school attendance is higher among children in households where women have independent income. In addition, these children tend to receive better nutrition and health care and achieve higher educational standards. Supporting women's business opportunities in fisheries is, therefore, an important contribution to the educational development of their children.

### **Goal 3: Women's opportunities**

Women are strongly engaged in artisanal fish-processing and small-scale fish trading all across Africa. It is conservatively estimated that around 5 million women (some 50% of the total fisheries workforce) derive their income from these activities and have increased their social participation as a result. While in many countries women entrepreneurs are well organised in associations and safeguard their business opportunities successfully at the local level, they continue to be vulnerable to broad shifts in economic policy. Increased export-orientation of previously local or regional fisheries, for instance, competes with artisanal processing and threatens to compromise women's access to fish at landings.

Women also play a key role in ensuring that nutritional benefits from fish reach other members of their households and communities. The food security of children and other vulnerable groups depends importantly on whether women obtain fish through their own involvement in processing and marketing, rather than having to rely on men's income.

### **Goals 4 & 5: Child and maternal health**

Persistently high child mortality figures are among the most alarming statistics in Africa. About 60% of deaths in the under-five age group are attributed to malnutrition, with mineral, vitamin and protein deficiencies standing out as leading causes. In many parts of the continent, fish has been the main source of these vital nutrients, especially among the poor. In addition, recent studies associate low birth weight, another leading factor in child mortality, with insufficient supply of omega-3 fatty acids during gestation. These acids can be obtained almost exclusively through fish and are equally important for the mental and neurological development of infants. Fish consumption during pregnancy and lactation further improves the nutritional and health status of women, thus reducing susceptibility to diseases.

### **Goal 6: HIV/AIDS and other diseases**

Fishing communities offer an urgent and strategic entry point for HIV/AIDS support in many parts of the continent. Fishing communities are estimated to have among the highest HIV/AIDS prevalence rates in



Africa. Studies suggest that these may be up to five times as high as in surrounding farming communities (Ainsworth and Semai 2000). At the same time, fishing communities show very a feeble coping capacity against the impact of this disease and experience severe threats to their livelihoods based on their weak physical health. Even in countries with large HIV/AIDS support networks, few support services focus on or even include fishing communities who are often migratory and transient. It is particularly through this mobility that fishers contribute to the spread of HIV/AIDS in the region (UNAIDS 1999).

In Malawi, small-scale fish ponds offer a valuable addition to local farming systems without substantially adding to the labour burden—an option that has been taken up by HIV/AIDS affected households including by those headed by widows and orphans. These families show improved nutritional status through fish consumption, and use income from fish sales to obtain further health services, including HIV/AIDS care. In recent nutrition studies, fish has been shown to contain combinations of proteins, vitamins and minerals that help fortify affected persons against the susceptibility to secondary diseases, while improved nutrition also increases the effectiveness of anti-retroviral drugs. AIDS orphan groups in Zambia are now following the example set in Malawi.

### **Goal 7: Environmental management**

As pressure from resource users has increased, in particular from commercial fishing fleets, so many of Africa's fish stocks have been pushed to their limits. Effective fisheries management measures based on participatory and transparent decision-making are still the exception, yet progress has been made through community participation and co-management arrangements in inland and coastal fisheries. If scaled up and shared around the continent, these local experiences can also provide lessons for good governance of common pool resources beyond the fisheries sector. A major challenge for safeguarding the future of fisheries in Africa is to find ways of reducing the level of overfishing in many of the region's water bodies. This can only be achieved when 'fisheries' is considered within people's wider economic and social context so that alternative sources of livelihoods can be identified and supported. Other factors driving the decline in fish production include the environmental degradation of aquatic ecosystems and the growing demands between competing users of water. Here, the needs and benefits of fisheries must gain a much higher profile in wider ecosystem management approaches and investment planning than in the past. In these cases, fisheries can then become a major rationale for conservation and environmental management measures.



### **Goal 8: Partnerships through trade**

Fish is the most highly traded food commodity in the world. Over 40% of all fish cross international borders between the point of capture and consumption. This is also true in Africa. Over the past 20 years, the continent has turned from a net importer to a net exporter of fish. Today, fish exports are valued at US\$ 2.7 billion annually, while fish products worth US\$ 700 million are imported each year (FAO 2004). For eleven African countries, fish products make up more than 10% of the total value of national exports, in 14 countries over 25% of agricultural exports. On the other hand, there is concern that fish trade agreements between African exporting countries and their import markets are often not conducive to good fisheries management and governance. This is especially the case in marine fisheries, where historically foreign

fleets have typically harvested fish in African waters and exported them without much control by African countries. Some small-scale inland fisheries are also witnessing a shift in official policy towards fish exports, marginalizing artisanal fishers and small-scale processors and traders, and withdrawing fish from local and regional markets. The implications of changing trade policies need to be fully understood, so that trade partnerships can be utilised as vehicles for development as envisaged in the MDGs.

## Solutions for Africa: Capturing fisheries for the MDGs

### Improving food and nutrition security

The declining supply of fish per person in Africa is alarming and places a priority on increasing fish supply to consumers on the continent. A combination of efforts is needed, including:

- stabilising capture fisheries production through better governance of aquatic resources;
- developing aquaculture aimed at growing urban and rural markets;
- improving processing and marketing of fish nationally and in the region;
- pursuing balanced fisheries management objectives that integrate external trade with domestic and regional food security goals.

### Accelerating enterprise development

Fishers, processors, traders and the growing number of fish farmers form an extensive reservoir of entrepreneurs who can serve as agents of economic development in otherwise often remote areas. Their energy can be galvanised by improving access to markets through new developments in policy and infrastructure, backed up by enhanced business skills and small-scale credit for trade. These investments will help diversify commercial activities as well as bring improvements to poor consumers in the supply and nutritional quality of fish products. For aquaculture, improved market access can stimulate intensification and wider adoption of new production technologies.



### Investing in governance

Fisheries resources are coming under increasing pressure from over-investments in fishing, competing water uses for development, and environmental degradation. Advances made in fisheries governance through co-management, community participation and decentralisation need to be further fostered to develop management tools that are workable in a complex and diffused decision-making environment such as fisheries.

### Conclusion

To accelerate progress towards achieving the MDGs and ensure that incremental achievements can be sustained in the long-term, future investments need to target the key vehicles for social and economic development by 2015 and beyond. Fisheries is one of these. It has demonstrated that it can generate wealth for African families and nations, distribute benefits widely and cost-effectively among women and the poor, make unique and vital nutritional contributions to human development and provide leverage to address strategic questions of resource governance.



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WorldFish Center Policy Brief prepared by S. Heck and C. Béné. Africa and West Asia Programme, The WorldFish Center, Cairo, Egypt.

This paper should be cited as: WorldFish Center. 2005. Fisheries and the Millennium Development Goals : Solutions for Africa. WorldFish Center, Penang, Malaysia.

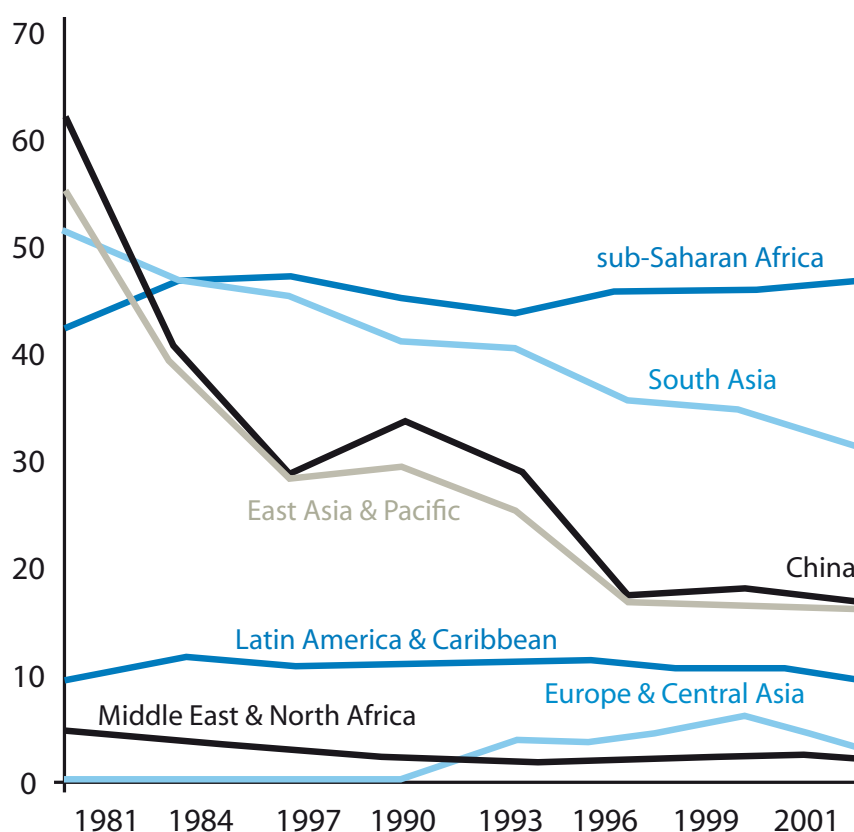
We thank the Norwegian Ministry of Foreign Affairs for supporting production of this Policy Brief.

## Tables and charts

### 1. Progress towards MDGs in sub-Saharan Africa (2004)

Poverty rates have been falling in all regions except sub-Saharan Africa

Share of people living on less than \$1 a day (%)



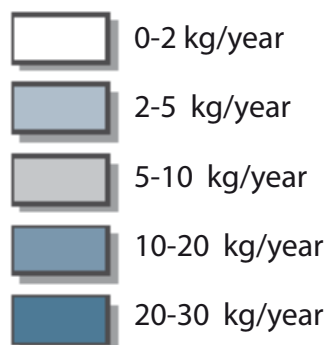
#### Sub-Saharan Africa in 2002

- 46.5% live on less than \$1 a-day
- 76.3% on less than \$2 a-day
- Over 40% of children do not finish primary education
- Over 30% of children undernourished
- Under-5 mortality: 171 per 1,000 live births
- Maternal death risk: 1 in 16
- HIV/AIDS rate among young women: 9%; over 12% in eastern and southern Africa
- More than 3.5 million new HIV/AIDS infections in 2002
- Life expectancy: 46 years; in some countries below 35 years

Source: World Bank 2004.

## 2. Fish supply and contribution to protein supply in sub-Saharan Africa (SSA)

Average per capita fish supply  
(in live weight equivalent)



Source: FAO 2002.

Fish availability in selected African countries (2001)					
Country	Fish production in mt	Import-Export balance	Per caput fish supply in kg/year	Fish protein supply grams/ caput/day	Fish as % of animal protein intake
Ghana	451,287	-	30.1	10.0	69%
Tanzania	336,200	+	7.1	2.6	27%
Zambia	69,200	-/+	6.5	1.9	21%
Malawi	41,187	-/+	3.6	1.1	28%
SSA	5,192,892	+	6.6	2.4	22%
World	142,592,428	n/a	15.8	4.3	15%

Source: FAO 2004.

## 3. Fish nutritional value

Source: US Dept. Agric. 2002.

Nutritional value of catfish	
<b>Per 100g fish:</b>	
• Protein:	18.2 g
• Iron:	0.82 mg
• Calcium:	9 mg
• Iodine:	0.1 mg
• Potassium:	321 mg
• Vitamin A:	0.02 mg
• Vitamin B2:	0.1 mg
• Vitamin B6:	0.2 mg
• Poly-unsaturated fatty acids	
• Other minerals, vitamins, micro-nutrients	
Numbers differ according to species.	



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