



**PROMOTING
LITERACY
TO IMPROVE
LIVELIHOODS
IN FISHING
COMMUNITIES**

POLICIES LINKING EDUCATION TO FISHERIES MANAGEMENT

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The aim of this policy brief is to:

**Review the status of literacy and
its use in fishing communities**

**Assess literacy needs
in fisheries development processes**

**Draw attention to the potential of literacy and
numeracy for improved fisheries management**

**Demonstrate how literacy programmes can
build on existing knowledge and practice**

**Suggest policy responses and strategic
partnerships to improve access
to literacy and education**

THE IMPORTANCE OF LITERACY AND NUMERACY IN SMALL-SCALE FISHING COMMUNITIES

Literacy is a key aspect of human development with important benefits for people's livelihoods and capabilities, influencing their ability to access information and resources and to manage change. The literacy and numeracy abilities of fishing communities play a significant role in the management of aquatic resources as well as in the maintenance and diversification of livelihoods.

Literacy and numeracy are integral to the livelihoods of many small-scale fishing communities. Uses include practices of record keeping, communication, management of business activities and marketing. These activities may typically involve book keeping, using both literacy and numeracy, and letter writing as part of long distance trade. Literacy is also increasingly needed as part of community management of fishing resources and in environmental protection activities. The ability to access and use written

communication influences decision-making (for example on health or credit) which can also enhance and diversify people's livelihoods.

Illiteracy is not an occupational hazard of fisheries. In some areas, fishing communities have higher levels of literacy than their agricultural neighbours, with widespread use seen in economic and religious activities. Well-established traditions are often reflected in the writing and decoration of fishing vessels, which are illustrative of a rich literate environment. Markings often demonstrate 'intertextuality', referring to texts and practices unrelated to fishing, such as religious writings and sayings. This is the sign of a culture where literacy has symbolic and cultural meaning beyond the merely functional, demonstrating people's sense of identity and occupational pride.



Despite the educational marginalization faced by many fishing communities, there appear to be rich cultures of literacy with often high levels of motivation for functional literacy learning. Engagement with literacy is essential for effective social participation, influencing people's access to rights and entitlements. As such, literacy can help to reduce the social marginalization and vulnerability faced by many small-scale fishing communities. This brief aims to reveal the alternative, or hidden, literacy of fishing communities and find ways to build on them, to support fisherfolks' own initiatives to strengthen their livelihoods and sustain both their fisheries and their identity.



EDUCATION AND LITERACY: THE GLOBAL CONTEXT*

Increased access to education in many countries means that literacy rates have risen significantly over the last decade. Furthermore, fishing communities are also enjoying growing rates of literacy, and this is a major resource for socio-economic development and improved fisheries management.

ESTIMATES OF ADULT ILLITERACY RATES (POPULATION AGED 15+) BY REGION, 1990 TO 2000-2004

	Number of illiterates (thousands)		Literacy rates (%)		Change from 1990 to 2000-2004 in:		
	1990	2000-2004	1990	2000-2004	Number of illiterates	Literacy rates	
					(thousand)	(%)	(percentage points)
World	871 750	771 129	75.4	81.9	-100 621	-12	6.4
Developing countries	855 127	759 199	67.0	76.4	-95 928	-11	9.4
Developed countries	14 864	10498	98.0	98.7	-4 365	-29	0.7
Countries in transition	1 759	1 431	99.2	99.4	-328	-19	0.2
Sub-Saharan Africa	128 980	140 544	49.9	59.7	11 564	9	9.8
Arab States	63 023	65 128	50.0	62.7	2 105	3	12.6
Central Asia	572	404	98.7	99.2	-168	-29	0.5
East Asia and the Pacific	232 255	129 922	81.8	91.4	-102 333	-44	9.6
South and West Asia	382 353	381 116	47.5	58.6	-1 237	-0.3	11.2
Latin America and the Caribbean	41 742	37 901	85.0	89.7	-3 841	-9	4.7
Central and Eastern Europe	11 500	8 374	96.2	97.4	-3 126	-27	1.2
North America And Western Europe	11 326	7 740	97.9	98.7	-3 585	-32	0.8

Note: Figures may not add to totals because of rounding.

Source: EFA Global Monitoring Report "Literacy for Life" (UNESCO, 2006), statistical annex, Table 2A, p.63.

- Influenced by global policy initiatives - including the Millennium Development Goals (Goal 2: to achieve universal primary education by 2015) – there is a continuing increase in primary education enrolment rates worldwide. This is leading to an overall increase of adult literacy (especially among the youth). Rates within fishing communities are highly varied, reflecting wider patterns of educational access and disadvantage, such as disparities between women and men, rural and urban, and between wealthy and poor.
- Girls' enrolment in primary schooling has rapidly improved at a global level, another influence of the MDGs. However, rates of adult literacy remain low in many countries and 64% of non-literate adults worldwide are women. The goal of improving adult literacy is addressed by the 'Education for All' Dakar Framework for Action which recognizes that goals in education and development extend beyond those of universal primary education.
- Despite overall gains, educational disadvantage remains in many countries. There are some 771 million non-literate adults (aged 15+) worldwide, the majority of whom live in south and west Asia, and sub-Saharan Africa. These countries are home to most of the world's fisherfolk.

*Data in this section is from UNESCO (2006) Education for All Global Monitoring Report 'Literacy for Life'. UNESCO, Paris. Full report available at http://portal.unesco.org/education/en/ev.php-URL_ID=43009&URL_DO=DO_TOPIC&URL_SECTION=201.html

USES OF LITERACY AND NUMERACY IN FISHING COMMUNITIES

Fishing communities often suffer from educational disadvantages due to geographical and social marginalization. Education providers are often unable, or unwilling, to provide services tailored to mobile and migratory populations which include many fisherfolk. The educational status of parents also plays an important role in deciding to send children to school and in their ability to support their children's education. Strong occupational identities and the impact of child labour may also reduce school enrolment and attendance. To be a fisher or fish trader may confer prestige in a coastal community, and children working in the fishing sector may be reluctant to continue with schooling when there is opportunity for cash income and participation in high-status fishing activities. In some areas this contributes to elevated rates of school drop-out and low attendance:

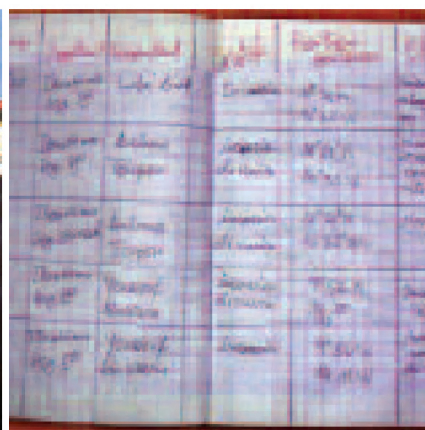
'Many children dropped out of school when they saw greater benefits in fishing than listening to a jack of all trades teacher who could not even inspire the pupils. The fishermen parents feel that education is too rigidly programmed, but express willingness to allow their children to go to school if the school programme makes room for children to assist in the fishing'.

Source: Fatunla, G (1996) Socio-economic issues in the education of children of migrant fishermen in Nigeria. *Journal of Sustainable Agriculture* 9 (1): 31- 55, p51.

'Functional' literacy and numeracy - in contrast to formal schooling which is characterized by grade attained, or number of years of attendance - is normally defined in contextual terms by the reading, writing and numeracy a person requires and uses in everyday life. Functional literacy therefore has an applied, real life orientation. It recognizes people's changing needs and aspirations. Rather than a single 'stage' or measure, functional literacy implies a range or continua of skills, practices and abilities, some of which are undertaken by individuals, others collectively in groups. Functional literacy is largely acquired outside the formal schooling system.

FUNCTIONAL LITERACY IN FISHING COMMUNITIES

Effective literacy and numeracy skills and practices are integral to fisheries management, environmental conservation, common property management and livelihoods diversification. Many of these activities involve complex texts and practices, for example in satellite navigation, charting, marketing, understanding digital information, interpreting legal documents, and using new information technologies, such as mobile phones and the Internet. Community development activities such as microfinance also require the mastering of complex literacy and numeracy tasks. Such tasks in fishing communities imply meeting conditions quite unlike that of most conventional literacy programmes in order to be task-oriented, flexible and responsive to the diversity of people's expressed needs and aspirations. In some cases in-situ support and coaching, with direct application, may be more effective than special literacy classes.



FAO/SLP/D. Minkah

Community surveillance of fisheries in Guinea, the use of GPS, and a log book of incursions by industrial boats into in-shore fishing zone



The vernacular literacy and numeracy practices of small-scale fishing communities often go unnoticed. These informal practices may not be associated with traditional schooling and high-status uses of literacy, but they provide a valuable resource upon which people build other livelihoods and community development activities.

HIDDEN LITERACIES

Literacy texts and practices of fishing communities may be hidden from public view, and under-reported in literacy surveys. Those who have received informal learning at home or in a mosque school might not consider themselves to be literate in traditional terms. In-situ practices such as informal records, notes written on small scraps of paper, or literacy associated with digital technologies such as mobile phones may go unnoticed and unreported. Texts containing sensitive information (such as information on business transactions, credit and debt) are likely to be kept hidden. In some situations, women willingly conceal or deny their literacy to reduce their vulnerability (where, for example, claiming literate status could be perceived as a threat to social norms and relations).

Barton, D. and Hamilton, M. (1998). *Local Literacies*. Routledge, London.

Maddox, B. (2005). Assessing the impact of women's literacies in Bangladesh: An ethnographic inquiry. *International Journal of Educational Development* 25 (2): 123-132.

Despite the limitations of the delivery of formal education, literacy and numeracy practices are widespread in many fishing communities. This does not imply that there is no need for educational services; on the contrary, higher-level literacy among fisherfolk is required more and more, for three main reasons:

Globalization and markets

As markets for fishery products become ever more globalized, it is more common that fisherfolk in small-scale fisheries become involved in more complex trade negotiations, requiring access to market information (often in digital form), the ability to draft and negotiate written contracts and to understand and meet international product quality and certification standards.

Participation and rights

Fisherfolk are increasingly involved in decision-making, often in partnership with local or national government agencies. This 'co-management' often requires fisherfolk to manage legal rights, be involved in the creation of by-laws governing fishing activities, allocate user-rights, administer licensing schemes and participate in the monitoring and assessment of the fishery. These tasks call on a variety of literacy and numeracy skills, and, if fisherfolk are to benefit from newly-acquired rights, also require confidence in interacting with bureaucracies and the judiciary on equal terms. At present, too few fisherfolk have such levels of literacy, thereby limiting the extent to which they benefit from a shift towards rights-based fishing.



Eddie Allison

Women on the Java Sea coast, Indonesia, weighing and packaging anchovy larvae for export, on ice, to Singapore where they are a high-value product. This exemplifies how fishing villages are connected to global markets. The transactions are recorded in a notebook by a girl child who is also looking after a baby.

Diversification

As many fish stocks are heavily or overexploited, numerous fishing-dependent households and communities seek to diversify their livelihoods with new activities. If diversification is to add positive benefits to livelihoods, these activities need to earn higher income and reduce vulnerability and may require learning new skills. For example, opportunities in aquaculture and horticulture may require interactions with extension services and understanding various texts and information sources. Diversification is generally facilitated by higher-level literacy and numeracy.

LITERACY AND FISHING COMMUNITIES IN SUB-SAHARAN AFRICA

Although literacy rates across sub-Saharan Africa reflect regional variation and patterns of educational inequality, literacy is nevertheless highly-valued in many fishing communities where there are established literacy traditions and practices. People's motivation for learning often seems to be higher in communities where there is already access to schooling and some existing literacy skills and practices. This suggests that once the benefits of literacy have been realized and aspirations raised, the demand for higher-level skills follows.

EXAMPLES OF LITERACY IN AFRICAN FISHING COMMUNITIES:

- In Tanzania and Senegal, literacy rates among fishing communities were higher than their farming counterparts.
- Kalangala, one of the districts of the Ssesse Islands in Lake Victoria, is regarded as one of the least developed districts in the country, yet it has the highest rate of literacy outside of Kampala.
- In Uganda, Nigeria and The Gambia although levels of school attendance in fishing communities are high (60-80% of people having attended school), people have not gained enough functional literacy skills for literacy tasks to access resources and to understand official documents (e.g. in microcredit programmes).
- The language of instruction in primary schools and non-formal education programmes does not always match people's functional literacy needs. In Uganda and The Gambia people wanted to learn literacy in languages of trade and official activity for fishing-related activities. Mother tongue literacy is important, but may not be enough. For example, in West African fisheries people may want French language and literacy as well as local languages, reflecting their different market and community-based activities.
- Access and uses of literacy is often gendered. This reflects on-going inequality in education and the different roles of women and men in fishing communities. However, in some fishing communities where women are responsible for fish marketing and business they may have higher levels of literacy than men.

LITERACY AND FISHING COMMUNITIES IN SOUTH AND SOUTH EAST ASIA

Literacy rates in South Asia and Southeast Asia reflect marked regional differences in terms of access to education, cultural norms and literacy traditions. Despite the high numbers of non-literate adults in rural areas, studies in Bangladesh, India, the Philippines and Sri Lanka have shown that literacy use is widespread in many fishing communities.

EXAMPLES OF LITERACY IN SOUTH ASIAN FISHING COMMUNITIES:

- In Kerala, India, literacy rates in coastal fishing communities were 78%, with women higher than men - figures comparable with other rural communities. On the other hand, in Orissa, India, figures suggest that fishing communities have much lower rates of literacy than agricultural communities, particularly among women.
- National Sample Survey Organization data in India (55th round) shows that men's literacy rates within fishing communities are higher than those of agricultural labourers. A similar pattern is highlighted in Sri Lanka, where literacy rates of fishing communities were higher than those of other groups in the urban and rural 'working class'.
- Ethnographic research in Bangladesh and the Philippines has shown that literacy and numeracy practices are widely used within fishing communities for market-related fisheries activities, credit arrangements and in religious activities - all supporting a vibrant literate environment.



For more information, see 'Reference sources' at back



CHANGING LITERACIES: BUILDING ON EXISTING STRENGTHS

The existing literacy traditions and practices of fishing communities are an important resource and a livelihoods 'strength' that fisheries management and development programmes can build on. This requires educational interventions that are responsive to local uses of literacy and numeracy, to people's expressed needs, and that can adapt to changing uses of literacy. At the same time, many fishing communities lack access to schools for their children and require significant proactive educational support and resources, such as school infrastructure for girls and gender-aware approaches to literacy courses if they are going to be able to tackle disadvantage and vulnerability.

HIGH DEMAND FOR FUNCTIONAL LITERACY: EXPERIENCE OF THE SUSTAINABLE FISHERIES LIVELIHOODS PROGRAMME (SFLP) IN WEST AFRICA

Work done with support from the SFLP in Burkina Faso, Côte d'Ivoire, Ghana and Mali, found that there was a high demand for literacy programmes. Adult literacy programmes made it possible for men and women to take notes, write reports, and take part in bookkeeping and microfinance activities. Literacy and numeracy were also applied in weighing and measurement, for fish marketing and in community health. Specialised literacy materials were also developed with SFLP support - on co-management, agriculture, environmental protection and HIV/AIDS. Participants in the adult literacy programmes reported that improving their literacy helped them to negotiate with authorities to protect and build their livelihoods, and had raised their social status and aspirations.

Source: SFLP (2005)

There are several examples of successful literacy interventions in fishing communities:

- The Bay of Bengal Programme has a long experience of linking adult literacy learning with livelihoods development¹.
- On Lake Victoria, the Icelandic Development Agency is supporting the government functional adult literacy programme in Kalangala District and the island sub-counties of Mukono District in Uganda. Roughly 10% of the population has participated in the programme² which includes tailor-made small business courses for semi-literate people, courses in marketing and accounting, and functional literacy for adults.
- Working on the Kenyan Lake Victoria beaches from Kisumu, the 'Women in the Fishing Industry Project' supported adult literacy classes and non-formal radio programmes. The activities encouraged debate on health and business issues such as improving the income of traditional enterprises, and developing new sources of income³.
- In Bangladesh the Empowerment of Coastal Fishing Communities for Livelihood Security project ran a primary education programme in 46 villages encouraging community involvement by non-literate community members in school management with the support of community leaders and school management committees⁴.



These programmes demonstrate the viability of adult literacy programmes in fishing communities, and their contribution to livelihoods. However, the diversity of educational status and literacy abilities within fishing communities requires a plurality of educational responses. It means standardizing the range and diversity of literacy and numeracy practices (including languages and scripts) that underpin 'functional literacy' in fishing communities, and the important role of literacy in processes of social change. Standardized literacy classes with conventional literacy primers are unlikely to meet these educational needs and aspirations.

¹ Bay of Bengal Programme (1986) Towards Shared Learning: An approach to non-formal adult education for marine fisherfolk of Tamil Nadu, India. Swedish International Development Authority and Food and Agriculture Organization.

² H. Arnason and M. Mabuya (2005) ICEIDA Support to the Implementation of Uganda FALP in Kalangala District 2002-2005- External Evaluation Report. Icelandic International Development Agency.

³ Binns, F (2005) 'The Applicability of Livelihoods Approaches to Education for Rural People in Sub-Saharan Africa'. Presented at the symposium on Education for Rural People, University of East Anglia, March 2005.

⁴ Compendium of Best Practices and Lessons Learnt. Empowerment of Coastal Fishing Communities for Livelihood Security, Cox's Bazar, Bangladesh. October 2005.

PROMOTING LITERACY FOR DEVELOPMENT AND FISHERIES MANAGEMENT: WHO CAN DO WHAT?

Although information on literacy and its uses in fishing communities is rather scattered, and the claims of low literacy difficult to verify, there is a clear need to improve literacy provision in fisheries communities, in order to both strengthen livelihoods and to contribute to improved governance of fishery resources, through participatory management. The main conclusion and recommended actions are:

There is a need to improve information on literacy and its uses in fishing communities.

Although both formal and informal literacies are important in fishing communities, in most cases not enough is known about their current prevalence and uses to be able to support them adequately. There is a lack of systematic and comparative research into the literacy status of fishing communities. Literacy 'rates' collated by governments and international agencies are notoriously unreliable. They rarely reflect people's functional literacy needs and aspirations. National literacy figures often mask significant urban-rural disparity, and differences associated with age, gender and ethnicity. This has implications for organizations working in fisheries development and educational planners.

Local organizations and government departments should make use of international support agencies, such as UNESCO, for assistance to research, promote and support adult literacy programmes.

UNESCO's LIFE (Literacy Initiative for Empowerment, 2005-2015) strategy is focused on empowering learners through country-led practice, informed by evidence-based research. The initiative aims to build literacy programmes that are grounded upon what works, that is, proven success-stories and best practices.

Literacy provision for fishing communities should be localised, flexible, and responsive to people's expressed needs and aspirations.

If adult literacy interventions are to be effective, they should build on people's existing skills and abilities, and supporting people's direct application of new learning. Local level needs-assessment is required which is responsive to differences of gender and age, and the educational needs of diverse and heterogeneous populations. Fisheries management programmes need to recognize the diversity of literacies within fishing communities rather than assuming illiteracy as a starting point.

Functional literacy and numeracy programs should be oriented to people's real life texts and practices.

These may involve complex tasks, requiring collective learning, and in-situ coaching and mentoring. The literacy tasks of fishing communities may require multiple scripts and languages. These should be recognized and incorporated into education provision. 'Community Literacy' approaches, and materials tailored to people's expressed needs and functional uses are likely to be more successful than 'top down' standardized approaches.

Fisheries departments should look for strategic partnerships to finance and support literacy programs for fisheries,

including the development of appropriate approaches and materials for the fisheries sector. Education providers should seek to better understand and respond to the educational needs and aspirations of fishing communities.

The existing literacy environment and literacy practices can be supported and developed

if government and non-government agencies modify their uses of literacy and numeracy to make them more accessible to semi-literate people and linguistically diverse communities.



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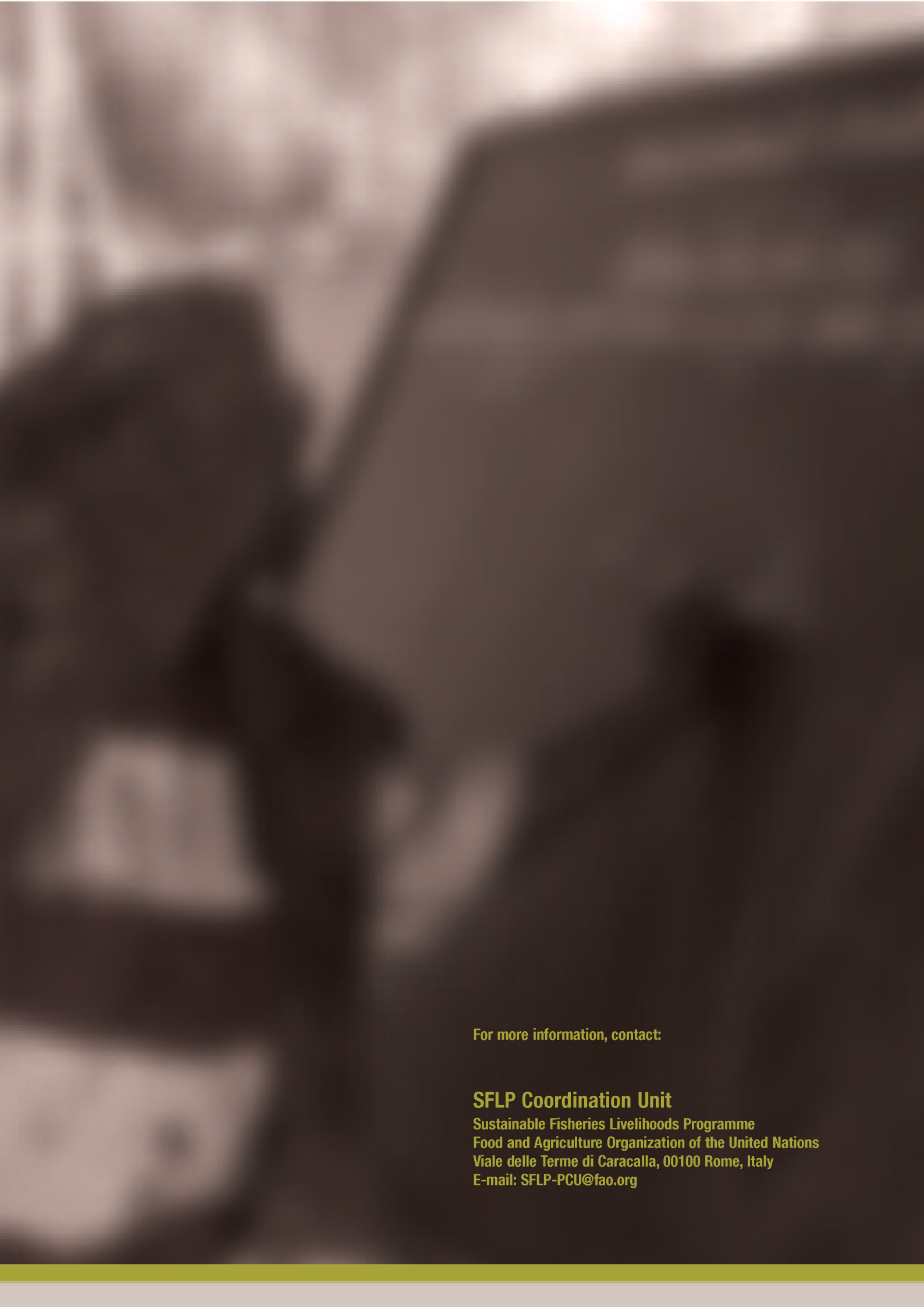
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For more information, contact:

SFLP Coordination Unit

Sustainable Fisheries Livelihoods Programme
Food and Agriculture Organization of the United Nations
Viale delle Terme di Caracalla, 00100 Rome, Italy
E-mail: SFLP-PCU@fao.org

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