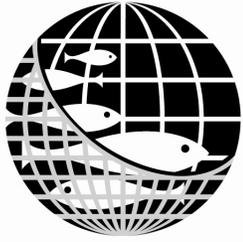


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Bottom-Up, Global Estimates of Small-Scale Marine Fisheries Catches

Fisheries Centre, University of British Columbia, Canada

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By

Ratana Chuenpagdee, Lisa Liguori, Maria L.D. Palomares and Daniel Pauly

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MARINE FISHERIES CATCHES

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CONTENTS

DIRECTOR'S FOREWORD	1
PREFACE AND ACKNOWLEDGEMENTS	2
EXECUTIVE SUMMARY	3
INTRODUCTION	6
MATERIALS AND METHODS.....	8
RESULTS	10
Definitions of small-scale fisheries	10
Estimation of catches, fishers and boat numbers	11
DISCUSSION	12
Data reliability and estimation challenges.....	12
Improving the estimates.....	13
Small-scale fisheries in global and regional contexts	13
Women in fisheries.....	14
Traditional participation.....	14
New roles and emerging markets	15
Decision-making, resource management and advocacy	15
The post-harvest sector.....	16
Research gaps.....	16
Policy implications and next steps	17
REFERENCES	19
APPENDICES	22
Appendix A : Country summaries	22
Appendix B : List of references used in summaries.....	94



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DIRECTOR'S FOREWORD

Working on small-scale fisheries often means being torn between two opposites. On one end are those who think that this is a waste of time because, "after all, industrial fisheries in the South and the North provide the bulk of the fish" [a true, and typical, quote, from an author who shall remain unnamed]. This standpoint seems to be justified because for most countries the official statistics do not identify small-scale fisheries, suggesting such catch, if any, is negligible. At the other end are cultural anthropologists and other social scientists, asserting in thesis after thesis and paper after paper that small-scale fisheries are important in the villages they studied, but numbers on catch, fishing effort and other metrics cannot be given, because everything is so complex. Indeed, one is often told by social scientists that catches are not the issue, but instead the catching itself, and the culture that develops around it.

The first line of these arguments will be perceived as being correct as long as hard numbers are missing which would document in a compelling fashion that small-scale fisheries, rather than being marginal activities conducted by marginal people, are a vibrant part of the rural economy of numerous countries, providing livelihood to millions of people, besides increasingly feeding into national and international markets.

The second line of arguments, while central to the discipline of, e.g., cultural anthropology, indirectly contributes to the marginalization of small-scale fisheries. In the excitement of documenting unique aspects of the maritime culture they study, and of describing its specialized systems of resource use, the larger context is often ignored, and the small-scale fishers and their families are not seen as actors on the national or international stage.

Both of these lines of arguments can be overcome by making the case that small-scale fisheries, rather than being a marginal sub-sector, represent, in most countries, most of the people working in fisheries, and generating nearly half of the fish and invertebrate catch, often of high values, destined for human consumption. The numbers assembled in this report support such a case.

Moreover, because they use far less fuel energy than industrial fisheries per tonne of fish landed, small-scale fisheries may point to, or even be, the future of fisheries in a world economy shaped by high fuel cost.

The conclusions of this report are tentative, however, because the database upon which they are based covers the world very unevenly. This can be addressed by exposing the content of this database to a wide audience, from which the complements and corrections will emerge that will make this database more complete and reliable, and, hopefully, more useful.

Daniel Pauly

Director Fisheries Centre, UBC

09 October 2006

PREFACE AND ACKNOWLEDGEMENTS

The development of a small-scale fisheries (SSF) database was initiated by the *Sea Around Us* Project to complement the Project's coverage of the world's marine fisheries, which initially relied on 'official' (mainly FAO) data (see www.seaaroundus.org). This was prompted by a suspicion, now verified, that these official data generally do not account, or at least not fully, for SSF catches, with all that it implies for evaluating the role of SSF for selected countries, or globally.

Here, therefore, FAO provided only the starting point, in the form of its 'Country Profiles' (<http://www.fao.org/fi/fcp/fcp.asp>). The data therein were complemented with independent data from hardcopy documents and internet sources. Various assumptions about data homogeneity were made in estimating SSF catches and number of fishers, including the use of 'inshore fishing area' as a limit for SSF. Countries were also categorized based on their Human Development Index (HDI), and all estimates for countries were computed within the same HDI categories.

The estimates of SSF catches and number of fishers presented in this report are a first attempt to provide, on a global basis, quantitative data on SSF that can then be used in fisheries management and policy debates. The SSF database that resulted from this effort will, from January 2007, be available as part of the website of the *Sea Around Us* Project, and regularly updated.

The *Sea Around Us* Project, devoted to documenting and mitigating the effect of fishing on global marine ecosystems, was initiated and is funded by the Pew Charitable Trusts, Philadelphia, U.S.A. Ratana Chuenpagdee also acknowledges support from the EU-funded INCOFISH project on 'Integrating multiple demands in coastal zones, with an emphasis on fisheries and aquatic resources' (Project # INCO 003739). We thank Adrian Kitchingman, Dirk Zeller and other members of the *Sea Around Us* Project for useful inputs, and Grace Coronado and Elijah Laxamana for their programming support, as well as the numerous colleagues who contributed information to the database.

EXECUTIVE SUMMARY

Small-scale fisheries (SSF) are known to employ the majority of world fishers and to provide food and livelihoods to a vast number of people living in coastal areas. Yet, information about SSF is scarce and scattered. For example, it is usually not known whether national statistics on landings that countries report annually to the Food and Agriculture Organization of the UN (FAO) include the catches of their SSF. The consequences of this omission for policy-making are immense, given that FAO maintains the only worldwide database of official fisheries statistics. The reason for the dubious statistics is that, compared to the large-scale fisheries sector, information about SSF is more difficult to obtain, due to the multitude, and often remoteness, of SSF landing sites, not to mention the decentralized nature of their post-harvest and marketing activities. These SSF characteristics and the general lack of economic and political power among small-scale fishing communities contribute to marginalization of this sector and hinder our efforts to understand their dynamics. Thus, research on SSF focuses largely on cultural anthropology, or generic community-level issues, such as reducing poverty, securing food, maintaining livelihoods, in addition to specific issues such as mitigating persistent conflicts with large-scale fisheries. Still, the social, cultural, economic and livelihood importance of SSF to the majority of fishers are rarely reflected in national fisheries development policies, which tend to emphasize large-scale, industrial fisheries. In many cases, the prospect of export earning outweighs income generation in and for small fishing communities. Overall, SSF are marginalized.

The SSF work of the *Sea Around Us* Project, hosted at the Fisheries Centre, University of British Columbia, aims to mitigate, as far as possible, the effects of this marginalization. One major way this is done is by estimating and disseminating more realistic estimates of the catches of SSF, by countries. This work pertains to individual countries; it is very detailed and hence time-consuming. This report is also part of the effort toward helping put SSF at the center stage of fisheries research, and covers the whole world, albeit more superficially than through our country-level analyses. It aims to provide bottom-up (national) estimates of SSF catches and related statistics for each maritime country, and then aggregate them at the global level. These data, which are made available here, and which will be online from January 2007 through the website of the *Sea Around Us* Project (www.seaaroundus.org), will allow dealing with SSF at the same scale as large-scale fisheries, and thus enable more complete analyses of fisheries than has been possible to date. To further inform debates about SSF, we provide, besides catch data, national definition of SSF, gears used, catch composition, number of fishers, number of boats and involvement of women and children, from sources such as FAO Fisheries Country Profiles (www.fao.org/fi/fcp/fcp.asp) and other reports and documents.

The database contains information about SSF in 140 coastal countries; about 60 % of the information is from non-FAO sources. About 70 % of the countries characterize their SSF using boat size, with the most common categories being less than 10, 12 or 15 m, or between 5-7 m in length. Other characteristics used are Gross Registered Tonnage (GRT), engine size and types of gear. Overall, despite the uniqueness of SSF in each location, demarcations between small-scale and large-scale fisheries are generally similar. More importantly, there are sufficient commonalities among countries in how they define and characterize SSF that it is possible to generate data for countries without information from those with data, based on consistent rules.

Data on catches are available for 60 % of the countries included in the database. Global catch, based thereon, is calculated using the following procedures:

- Countries are categorized into three groups according to their 'Human Development Index' (HDI; developed by the UN). The HDI measures a country's status in terms of life expectancy, educational attainment of its citizens and adjusted real income, more appropriate for SSF estimates than gross domestic product (GDP), often used for grouping countries and their fisheries. Grouping of countries by HDI is done such that available data are averaged within groups of similar countries (or strata), and computation for missing values (i.e., their replacement by within-strata averages) is performed for countries within the same HDI categories. Of the 140 countries, there are 43 countries in high, 76 in medium and 21 in low HDI category.

- We assume that small-scale fishing in each country takes place within its ‘inshore fishing areas’ (IFA), defined as shelf area ranging from shoreline to 50 km in distance or 200 m in depth, whichever comes first. These limits are selected on the assumptions that small-scale fishers usually (a) perform day trips (a few hours sailing, a few hours fishing, and a few hours sailing back), and hence are limited in terms of how far from shore they can operate, and (b) do not fish in very deep waters, except in areas where the shelf is very narrow (e.g., around oceanic islands), and therefore are restricted to on-shelf waters and resources.
- Catch per km² (of IFA) is then calculated for countries with catch data, and the average within HDI strata is used to estimate catches for countries without data. Number of fishers and number of boats are estimated in similar fashion. Global estimates of catch, number of fishers and number of boats are then summed within and between strata.

Our global estimate of SSF catches, pertaining to the year 2000, is 21 million t per year, by nearly 12 million small-scale fishers. On average, this means an annual catch of 1.8 t per fisher. Catch per fisher varies greatly, however, between countries, and ranges from 0.85 t in low HDI countries, and 1.4 t in medium HDI countries, to 6.7 t per year in high HDI countries. The estimates of annual catch per boat have a similar structure, i.e., 5.2 t per boat in low HDI countries, 9.3 t per boat in medium HDI countries, and 17 t per boat in high HDI countries.

It is unclear at present whether the global marine catch can simply be added to the official (FAO) global catch of 64 million t in the year 2000, as some of this catch may already be included in FAO statistics. Thus, three possible scenarios may be considered here: all, none or some of these SSF catches were included in the global FAO statistics. This implies that SSF can contribute to between 25 %, in the case where none were included, and 33 %, if all were included. Any of these estimates represents a very significant contribution to total marine catches, suggesting that policies directed explicitly at sustaining SSF are needed, particularly when considering that they involve about 12 million fishers (compared to half a million people in large-scale fishing). Overcoming the marginalization of SSF requires that their contribution to global fisheries catches, and the number of people involved in the sector, are properly incorporated into the decision-making process.

BOTTOM-UP, GLOBAL ESTIMATES OF SMALL-SCALE MARINE FISHERIES CATCHES^a

Ratana Chuenpagdee

*Department of Geography, Memorial University of Newfoundland,
St. John's, Newfoundland and Labrador, Canada; Email: ratanac@mun.ca*

Lisa Liguori

*Institute for Resources, Environment, and Sustainability, University of British Columbia,
Vancouver, British Columbia, Canada; Email: liguori@interchange.ubc.ca*

Maria L.D. Palomares

*The Sea Around Us Project, University of British Columbia,
Vancouver, British Columbia, Canada; Email: m.palomares@fisheries.ubc.ca*

Daniel Pauly

*The Sea Around Us Project, University of British Columbia,
Vancouver, British Columbia, Canada; Email: d.pauly@fisheries.ubc.ca*

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INTRODUCTION

Studies on the historical development of fisheries reveal that marine resources around the world are heavily exploited, with many instances of stock collapses and drastic changes in ecosystems (e.g., Jackson *et al.*, 2001; Pauly and Maclean, 2003; Myers and Worm, 2003; Butcher, 2004). Such consequences have direct impacts on the vast majority of people who depend on fisheries, notably small-scale fishers and their families. For many, fisheries are critical sources of food and income. Alternative employment options are often limited and may not be desirable given traditional and cultural ties to the sea and fishing livelihoods. The disparity in dependency on fisheries resources and the importance of livelihoods among fishing stakeholders need to be recognized. In other words, it is no longer sufficient to discuss issues, concerns and challenges in fisheries without being sector- and scale-specific.

Small- and large-scale fisheries generally co-exist in many parts of the world, and the extent of their interactions and conflicts depends on the relative scale and intensity of their operations (Pauly, 1997). The ecosystem impact of small- and large-scale fisheries also differs, depending on gears used (Chuenpagdee *et al.*, 2003) and overall fishing effort. For example, industrial bottom trawling, covering a large area of a country's continental shelf and extracting large amount of catches, is likely to have a greater impact on the ecosystem than setting of small inshore traps. It could be argued, however, that one large-scale fishing vessel may be less destructive than many small-scale fishing boats. Further, some small-scale fishing methods can be very destructive, such as dynamite and cyanide fishing, practiced illegally in many developing countries, e.g., of Southeast Asia (Saeger, 1993) or Africa (Vakily, 1993). Thus, ecosystem deterioration and overfishing can result from both large-scale and small-scale fisheries (World Bank *et al.*, 1991). Indeed, a worldwide comparative analysis of these two sectors is urgently required to assess these and other related issues.

Most of the research and systematic data collection efforts have been focused on industrial fishing in developed and developing countries. As a consequence, a large body of information and knowledge about the large-scale sector exists, to the extent that common complaints about "lack of data" as the reason for ineffective management measures leading to overfishing are now largely unjustified.

The same cannot be said about SSF. The Food and Agriculture Organization of the United Nations (FAO), for example, coordinates and publishes fisheries statistics, such as landings from capture fisheries by species (and species groups), from member countries on an annual basis. However, the statistics reported by member countries to FAO often do not include catches from subsistence and artisanal fishing, which make up the bulk of SSF. This also applies to recreational fisheries, which may also be considered small-scale.

Many studies of SSF have been conducted, but they tended to emphasize the social and cultural aspects of small-scale fishing, and generally attempted to capture their unique situations at particular locations (Pauly, 2006a). Information about SSF at a country level is rare, one important exception being the fisheries country profiles published by FAO (www.fao.org/fi/fcp/fcp.asp; also available through www.seaaroundus.org), which attempt to provide a description of the large and small fishing sectors of most maritime countries. Researchers and scientists working in SSF, however, do not always appreciate such broad generalizations, claiming that natural and social systems are 'too complex', and that each small-scale fishing community is distinctively different from others. Another common view is that SSF are so different between countries that global, or even regional, definitions and comparisons are impossible, again implying uniqueness for each individual fishery.

The problem with these notions, which often appear convincing at first sight, is that in effect they tend to further marginalize SSF, which are already disadvantaged by their physical, socio-economic, political and cultural remoteness from urban centers (Pauly, 1997). Small-scale fishing communities in developing countries often operate in areas located away from political power and interests. They generally lack landing facilities and other infrastructure and direct access to markets. Compared with the large-scale industrialized fishery sector, the small-scale sector usually receives far less support (e.g., subsidies) from the governments (see contributions in Sumaila and Pauly, 2006). Also the lower economic status of small-scale fishers marginalizes them further, and undermines the political power, that, in democracies, their numbers would imply.

At the onset, an attempt to counter this marginalization of SSF would include an amount of research, and a data collection effort, comparable to that devoted to large-scale fisheries to enable aggregation of catches of similar magnitude. This would help not only to provide a quantitative framework for the sociological and anthropological work performed so far (Pauly, 2006a), but also to allow for comparative analysis of social and economic contributions of the two sectors, as well as their relative impacts on marine and coastal ecosystems.

This report reframes the research on SSF presented by outlining a quantitative approach for deriving global estimates of their catches and number of fishers based on data in the FAO country profiles and other literature, with countries stratified by the UN human development index (HDI). We first describe the database and methodological framework used in data collection and analysis. Next, we explain the procedures and assumptions underlying our estimates. Results are presented in the following section. We then discuss challenges faced in data collection and ways to improve the estimates. Recognizing the important roles that women and children play in SSF, we include a discussion about gender issues. A small-scale fisheries profile for each country is included as an appendix to the report (Appendix A), together with the reference(s) used (Appendix B). The following sections describe the iterative approach we have developed to achieve this, and our preliminary results. We conclude with a discussion which emphasizes the next iterations, where the locale-specific knowledge embedded in the primary and gray literature will be used to improve the database (soon to be part of the *Sea Around Us* Project website, www.seaaroundus.org), and the results based thereon.

MATERIALS AND METHODS

Small-scale fisheries are sometimes described as subsistence and artisanal, with fishers using traditional and simple gears, some without a boat and some with non-powered boats. These fisheries normally contribute food for household consumption, with a small amount of catches used for barter or trade. In other instances, SSF involve use of modern gears and boats with outboard or inboard motors. They are considered commercial fisheries, as catches are landed and sold either by fishers or their family members at the market, or through marketing systems involving ‘middlemen’ (who are often women). Concerns regarding the definition of SSF are related to the wide range of fishing and marketing practices, framed in a great variety of cultural and political settings. Thus, a crucial step in our effort to standardize information about SSF was to review the various definitions used in all countries included in the database. This is best done by groups of countries, and hence we discuss first how we grouped the 140 maritime countries^a in the database into three different strata.

The database is given the following features (see also Figure 1):

First, all countries in the database with marine fisheries (140 in total) are placed into three groups according to their ‘Human Development Index’ (HDI). This index, developed by the United Nations Development Program (UNDP, 2000), defines countries as high HDI (≥ 0.8), medium ($0.5 \leq \text{HDI} < 0.8$), and low HDI (< 0.5). HDI measures a country’s status in terms of life expectancy, educational attainment of its citizens and adjusted real income, and is considered more appropriate for SSF estimates than gross domestic product (GDP), often used for ranking and grouping countries and their national fisheries. Grouping of countries by HDI was performed to enable improved estimation of missing data. Here, available data were averaged within groups of countries (‘strata’), the means forming the basis for estimation of missing values (i.e., their replacement by within-HDI category means). Overall, there were 43 countries in High-HDI (H-HDI), 76 in Medium-HDI (M-HDI) and 21 in Low-HDI (L-HDI).

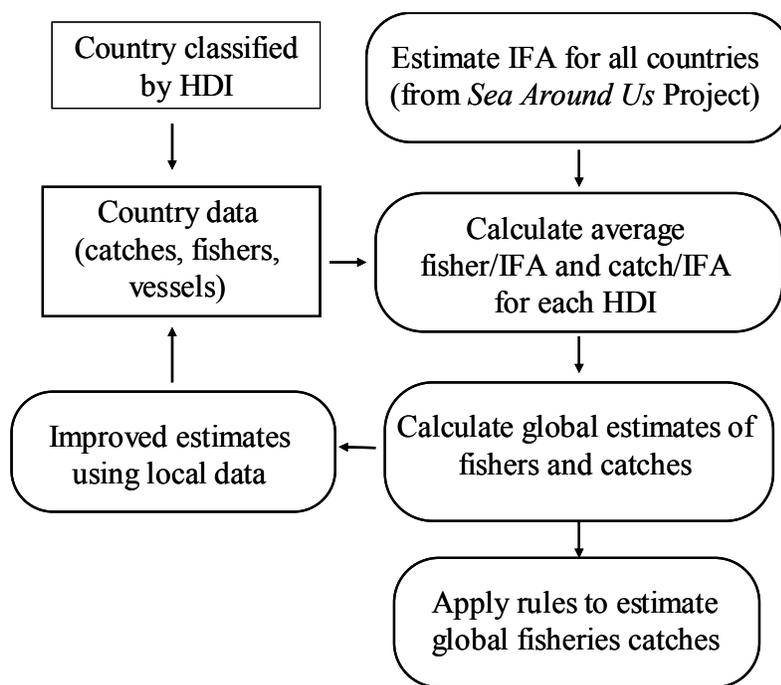


Figure 1. Schematic diagram for global estimation of small-scale fisheries.

The basic entries into the database are catch of SSF, number of small-scale fishers and number of vessels used by these fishers. As a general procedure, we initially used information from the most recent FAO fisheries country profile available on the FAO website. This data set, largely from the late 1990s to early 2000s, provided coverage of SSF in a consistent format across countries. When possible, the FAO data were then replaced by information from other online and published sources, if they were considered more reliable than the FAO profiles. Information about target species, gears used, and other special features of SSF for each country, particularly those related to women and children, was also captured.

^a We distinguished information on small-scale fisheries for the contiguous U.S., Alaska, Hawaii, American Samoa and Guam. This brought the total number of cases (which we still refer to as ‘country’) from 137 to 140. This procedure, wherein a country or territory and its IFA are subdivided into smaller units, improves the precision and accuracy of the estimates, and will be performed for other countries in the future.

Next, we entered for each country an estimate of its ‘inshore fishing area’ (IFA), defined as the area of its shelf (and within its exclusive economic zone) ranging from the shoreline to 50 km offshore or 200 m depth, whichever comes first, based on a bathymetric map of the world ocean (NOAA, 2004). These limits were selected on the assumptions that small-scale fishers usually (a) perform day trips (a few hours sailing, a few hours fishing, and a few hours sailing back), and hence the limit in terms of distance from shore that they can travel to in a day; and (b) do not fish in very deep waters, except in areas where the shelf is very narrow (e.g., around oceanic islands), and hence are restricted to on-shelf (neritic) waters and resources.

Global estimates of catches by HDI stratum were then obtained by (1) using available data by countries to compute within-strata estimates of mean catch per km² of IFA; (2) multiplying these means by the country-specific values of IFA to obtain preliminary estimates of catch in countries without reported value; (3) aggregating catches (estimated or reported) across countries by strata. Note that this approach, which was applied in similar fashion to number of fishers and number of boats, implies that per stratum and global estimates emerge from summing a reasonably high number of largely independent products. Consequently, we can assume that underestimates in certain countries will compensate for overestimates in others (Sokal and Rohlf, 1995). Technically, this approach also allows for estimating formal confidence intervals for the global estimates (see below), although we have abstained here from dealing with issues of precision, given the systematic downward bias that occurs when dealing with SSF, particularly when fishing by women and children is considered.

Estimates resulted from the current procedure, as reported here, are slightly different from those previously reported in Chuenpagdee and Pauly (in press). This is due partly to an inclusion of more non-FAO sources in the database and the improved estimation routine, particularly to reduce the outlier effect, as described below. While the estimation procedure will remain the same from this point onward, global estimate of SSF catches will be increasingly improved as new and more reliable data are added to the database.

RESULTS

DEFINITIONS OF SMALL-SCALE FISHERIES

'Defining' SSF is deemed by many to be impossible, for two reasons. One is the realization that what may be called small-scale in one situation may be large-scale in another (World Bank, 1991; FAO, 2005). The other reason, perhaps less justified, is that SSF are terribly 'complex' or 'different' from place to place. However, precise and all-encompassing definitions are not needed for the stratified approach employed here. Yet, it is interesting that our research shows the characterizations of SSF around the world to be largely uniform.

Of the 140 countries included in the database, 70 % provide definition or characterization of their SSF, with about 65 % of these using boat sizes as a key factor. Most commonly, small-scale boats either 10, 12 or 15 m, or between 5-7 m in length (Table 1). Some countries use Gross Registered Tonnage (GRT) and/or engine size as key characteristics, while others describe small-scale fishing by the type(s) of gear used. To a lesser extent, small-scale fishing is defined by distance or depth where fishing takes place. Only a few countries refer to small-scale fishing by nature of activity, such as 'subsistence', 'traditional', etc. Often, several criteria are given to characterize SSF. The overall consistency found in the definitions and/or characterizations of SSF implies that there are sufficient commonalities among countries to enable a generalized approach, where data for missing countries are estimated based on countries with data.

Table 1. Summary of definitions of small-scale fisheries.

Key features	Common definition (range)
Boat size	between 5-7m; less than 10, 12 or 15m (2 to 24m)
Boat GRT	less than 10 GRT (3 to 50 GRT)
Size of engine	less than 60 HP; between 40-75 HP (15 to 400 HP)
Boat type	canoe, dinghy, non-motorized boat, wooden boat, boat with no deck, traditional boat
Gear type	coastal gathering, fishing on foot, beach seine, small ring net, handline, dive, traps
Distance from shore	between 5-9 km; within 13 km; upto 22 km
Water depth	less than 10, 50 or 100m depth
Nature of activity	subsistence, ethnic group, traditional, local, artisanal
Number of crew	2-3; 5-6
Travel time	2-3 hours from landing sites

The terms 'artisanal' and 'small-scale' are often used interchangeably and they are sometimes referred to as a sub-group of coastal fisheries (Smith, 1979). Small-scale fisheries can also be a legal category, as in the case of Croatia, differentiating fisheries for subsistence purposes from commercial fishing for economic benefit (Croatia Ministry of Agriculture and Forestry, 2004), or in the Philippines, where 'municipal', i.e., SSF using boats of less than 3 GRT, have exclusive access to waters within 15 km of the coastline (Luna *et al.*, 2004).

Generally, however, SSF are commercial fisheries. Even when they retain traditional aspects (e.g., artisanal fishers in Australia who are part of coastal or island ethnic groups using traditional methods), they are typically modernized, e.g., by outboard engines. On the other hand, the size of the boats may fall within the range typical of SSF; the fishing methods used disqualify them. An example of this is provided by India, where trawlers are not considered small-scale, despite fitting the size definition (Mathew, 2002), and by the Philippines, where 'baby' trawlers, of just about 3 GRT, are considered 'municipal' crafts, completely undermining the spirit of the legislation aiming to identify and privilege SSF (Pauly, 1982). Further, there are a few instances where other characteristics are used to refer to SSF. For example, Croatia and Ecuador reserve SSF for their citizens (Croatia Ministry of Agriculture and Forestry, 2004; World Trade Organization, 2004). In Angola, SSF refer to the use of simple and reliable fishing technologies which, while efficient, have a small or negligible impact on the environment (Lankester, 2002).

ESTIMATION OF CATCHES, FISHERS AND BOAT NUMBERS

The SSF catch for countries with this information missing was estimated based on an outlier-adjusted average catch·km⁻² of IFA of the countries with this information and in the same HDI category, multiplied by their IFAs. Mean area catch rates were adjusted for the influence of potential outliers by excluding 10 % of the values with highest catch per area, and 10 % with lowest catch per area, before computing the average area catch rates by HDI category using the remaining 80 % of values. Considering all three HDI categories combined, global catches are estimated at 21 million t, with 58 % of the catch coming from M-HDI countries (Table 2).

As may be seen, the IFA of low-HDI countries, essentially in the intertropical belt, are more productive than those of medium-, and high-HDI countries, which is due to the higher productivity of shallow, tropical waters (Longhurst and Pauly, 1987). This would not apply to deep waters, which, however, are not accessed by SSF.

Fisher numbers were calculated as for catches, and led to our global estimate of 11.6 million fishers; Table 3 gives details on available data.

As may be expected, fisher densities in the IFA increase from high- to low-HDI countries, presumably reflecting inverse income trends.

Boat numbers were also calculated as for catches, and led to our global estimate of 1.84 million units; Table 4 summarizes the available data.

Contrary to the results obtained with fishers per area and catch per area, there is no trend of boat per area and HDI. The most likely reason is that, in low-HDI countries, much small-scale fishing is done without boats.

Table 2. Estimates of catches SSF by HDI category and globally.

HDI category	H-HDI	M-HDI	L-HDI	Total
Mean catch density (t/km ²)	0.77	1.26	2.93	-
Estimated catches (10 ⁶ t)	7.2	12.1	1.5	20.9
Number of countries	43	76	21	140
Countries with data	18	38	19	75

Table 3. Estimates of small-scale fishers by HDI category and globally

HDI category	H-HDI	M-HDI	L-HDI	Total
Mean fisher density (#/km ²)	0.153	1.015	2.501	-
Estimated # of fishers (10 ⁶)	1.08	8.72	1.77	11.57
Number of countries	43	76	21	140
Countries with data	19	51	16	86

Table 4. Estimates of the number of small-scale fishing boats, by HDI category and globally

HDI category	H-HDI	M-HDI	L-HDI	Total
Mean boat density (#/km ²)	0.065	0.153	0.126	-
Estimated # of boats (10 ³)	420	1313	108	1842
Number of countries	43	76	21	140
Countries with data	19	51	16	86

DISCUSSION

DATA RELIABILITY AND ESTIMATION CHALLENGES

Numerous challenges exist when estimating number of fishers per country. Even in cases where data are available, these numbers can be deceptive. Firstly, the number of registered fishers is not necessarily representative of the number of active fishers. For example, in Antigua Barbuda, the number of registered fishers in 2004 was 1,088, but the number of active fishers was only 699 (CARICOM, 2004). Secondly, counting fishers by country is problematic because fishers often migrate, especially in the context of seasonal fisheries. For instance, the lowest numbers of fishers and canoes are found in Moree, Ghana during the major fishing months of July-August, a major upwelling period. This is due to the fact that approximately 400 out of 600 canoes are operated by migrating fishers. At least 5,000 people migrate to other regions (mostly the Western region of Ghana, but also to international destinations like Côte d'Ivoire and Benin); when they return, the population of the port increases by 25 % (Marquette, 2002). While in several countries (e.g., Ecuador), small-scale fishing is reserved for citizens of that country; this is not always the case. One striking example is Gabon, where 75 % of fishers are foreigners (WRI, 2003). In Congo, the shark-fishing ban most seriously affected Beninese fishing communities living and fishing in Congo (WRI, 2003). Thus, studies conducted at different times of the year can produce drastically different results.

Different limitations exist when estimating total catch associated with SSF. Often, subsistence and artisanal fishing is not monitored or regulated unless the species caught have a high commercial value. For example, in Palau, land crab catches are not monitored, even though these crabs represent an important food item (Matthews, 2002). In addition, the data collected often exclude fish sold directly to local markets and restaurants, and fish sold illegally across borders (Huitric, 2005). In Belize, the tourist industry, which boomed since 1980, increased the national market for lobster and conch. This new market pays prices that are competitive with those paid by cooperatives (historically known for keeping precise records of catch). As a result, an increasingly large amount of small-scale catch is unaccounted for in official statistics, which rely on the cooperatives for their data (Huitric, 2005).

In addition to the difficulties involved with estimating unreported catch, official estimates can be equally unreliable. Managers may not update old statistical estimates. For example, in Fiji: “[t]he Fisheries Division estimates of subsistence catch are based on a 1979 small-scale fishing survey which covered only Viti Levu, and used the ability of a single respondent in each village to recall landings over the previous 12 months. For the past 22 years, the estimate of small-scale production for all of the Fiji Islands (the largest component of the domestic catch) has been made simply by adding 200 t of fish to the questionable 1979 figure” (Asian Development Bank, 2000). Other accounts of the essential unreliability of SSF statistics in the Pacific may be found in Zeller *et al.* (2005, 2006)

Another key challenge in estimating the number of fishers is the fact that many estimates do not include women, especially those who work shore-based in inter-tidal zones or mangroves. While we stress the need for these fishers to be recognized, we also acknowledge that many women would not want their participation in fisheries to be reported for fear of further marginalization. For example, in Costa Rica, Chela Barquero Cortes was informed by social service organizations that if she continued to harvest shellfish from the mangroves (a locally stigmatized occupation) her adopted daughter would be removed from her care (pers. comm. to L. Liguori, 1999). Often, children also contribute a great deal to women's catch, but these data are rarely collected by fisheries personnel or scientists (Kronen, 2002). Efforts to collect these data must be carefully considered, as fishing families may not want to share this information due to the risks involved. For example, international organizations such as the International Programme on the Elimination of Child Labour specifically seek to remove children from positions of labor in coastal communities, e.g., in El Salvador (IPEC, 2004).

IMPROVING THE ESTIMATES

The estimates reported here are very preliminary and will require continual update and improvement. Firstly, efforts must be made to obtain information on the 40 % of countries for which currently no information is available, as well as to replace FAO data with those from local studies documented in the primary or report literature. These data should also be checked, verified and regularly updated. The SSF database is developed as an on-line tool to encourage users with better information to contribute their data. The auto-calculation routine with estimation algorithms is prepared as part of this on-line tool to enable easy updates. Further examination is needed on the various assumptions made in the procedure. For example, the most suitable ratio to use as a basis for the estimates needs to be determined. Alternatively, routines such as Monte-Carlo could be incorporated to evaluate sensitivity and uncertainty in all estimated outputs.

Next, the database must be expanded to include catches taken by women and children, which are hardly ever included in national statistics. The current database shows that contributions by women and children could be substantial, particularly in terms of provision of food. Efforts are required to incorporate quantitative and qualitative information about this portion of catches and number of women and children involved.

Thirdly, some published social science studies (anthropology, sociology, and economics) of SSF report information on their catch composition. These data, if available for several time periods, will be useful to determine the impact of SSF on their supporting ecosystems, e.g., by computing the changes in the mean trophic level of their catch (Pauly *et al.*, 1998). Also, the data can be used to provide estimates of values of SSF, using the *Sea Around Us* Project price database (Sumaila *et al.*, in press). Finally, periodic field surveys can be performed to check and verify all types of SSF data, both reported and estimates, and including data such as prices of SSF catches and involvement of women and children.

SMALL-SCALE FISHERIES IN GLOBAL AND REGIONAL CONTEXTS

Information about SSF provided in this report can be used to make comparisons with the large-scale sector, similar to the broad comparisons performed by Thompson and FAO (1988) and Pauly (2006a). For example, the number of crew on large-scale fishing vessels reported therein is about half a million, while our estimates suggest that there are nearly 12 million small-scale fishers in the world. When considering fishing activity in terms of food efficiency, almost all SSF catches are used for human consumption, as opposed to only 57 % in the case of large-scale fishing (Pauly, 1997; 2006a). The contribution of SSF to human food security is therefore greater than that of the large-scale sector; similar analyses can be made for fuel efficiency or return on investment. Thus, the catch per tonne of fuel consumed in small-scale fishing is 4-5 times higher than for large-scale fishing, and the number of fishers employed per \$ 1 million investment in fishing vessels is at least 100 times higher in small-scale than in large-scale fisheries (Pauly, 1997; 2006a).

An investigation is needed to determine the extent to which SSF catches are included in the national statistics of landings within the exclusive economic zone. Three scenarios are possible, i.e., that all, none or a portion of SSF catches have already been included in the annual statistics. Table 5 shows that the contribution of SSF catches ranges from 28 %, in case none of the estimated SSF catches is currently included in

Table 5. Estimates of the contribution of small-scale fisheries catches to global landings according to three possible scenarios.

Scenario	Assumption	Global Landings (million t)	% SSF catches
1	All small-scale fisheries catches are included in national landings	64	33
2	None of the small-scale fisheries catches are included in national landings	85	25
3	Half of small-scale fisheries catches are included in national landings	77	27

the total landings, to 39 % when all have been included. Using the mid-point (50 % inclusion), it could be hypothesized that between one quarter to one third of global marine fisheries catches comes from SSF (Table 5).

Detailed rules will have to be devised to infer whether SSF catches are included in the FAO catches of different countries. For countries known to report ‘zero catches’ in SSF, our estimates should be added to FAO catches, since small scale fishing occurs in all maritime countries, whether or not government officials went to the beaches to record their catches. On the other hand, in cases where SSF catches are roughly equal to the non-identified catches (e.g., the frequently reported ‘miscellaneous’ or ‘other species’), then they might have been included in the FAO statistics. Furthermore, some countries do not report catches of boats below a certain size. In most cases, the entire estimate of the small-scale catch of these countries will have to be added to the FAO-based global catch estimates for marine fisheries.

Regional analysis of SSF can provide insightful information for policy making. The estimates reported here show that the majority of fishers and catches are from M-HDI countries. Among these, 55 % of fishers are from the Asia-Pacific region, contributing about 47 % of catches (Table 6). Catch per fisher ratio for these countries are lowest at 1.4 t per year. Dealing with the implications of such large number requires further work.

Table 6. Regional breakdown of SSF catches and fishers in medium HDI countries

Region	# Fishers (million)	Catches (million t)	# Countries
Africa	0.59	1.44	20
America/Caribbean	1.02	1.95	22
Asia/Pacific	4.81	5.64	17
Europe/Near East	2.30	3.07	17
Total	8.72	12.10	76

WOMEN IN FISHERIES

Traditional participation

Contrary to widespread belief, the participation of women and children in global fisheries extends far beyond the realm of processing and marketing. Many take active roles in catching fish and coastal invertebrates, in addition to contributing directly to fisheries as workers, organizers and managers in fishing based households (Neis, 2005). In some sectors, women and children are responsible for the majority of the catch, e.g., reef gleaning in Southeast Asia and the Pacific (Chapman, 1987), gathering of estuarine bivalves and other invertebrates in West and East Africa (Williams, 2002) and in South and Central America (Gammage, 2004). Including these catches will not only add substantially to the reported quantities, but also highlight a protein and income source so far largely neglected in accounts of the coastal economies.

Women’s contributions in SSF include their participation in fishing, the gleaning of molluscs and crustaceans, marketing, bait preparation, gear maintenance, gathering and cultivating seaweed and algae, and fish processing, i.e., filleting, smoking, salting and/or drying (ICSF, 2002a). Women play critical roles in both traditional and emerging fisheries. They have been integral in shaping well-established systems of customary governance as well as developing new networks to address changing circumstances.

Women’s traditional participation in fishing has been noted in many countries. For example, in 1987, total fish yield supplied by female fishers in the Gulf of Papua New Guinea accounted for 25 to 50 % of total yield (Kronen, 2002). In Samoa, approximately 18 % of all village fishers are female. These women contribute around 23 % of the total weight of seafood. Because women collect the majority of marine bivalves and other invertebrates in Samoa, it is estimated that they provide 20 % of the per capita seafood consumption of 71 kg per year, consisting of 44 kg of fresh fish, 13 kg of invertebrates and seaweed, and 14 kg of canned fish (Lambeth, 2001). In Tonga, women catch finfish as well as shellfish, and their gear choices are largely determined by access and availability, as opposed to gender taboos, since women and men have similar fishing skills and ecological knowledge (Kronen and Vunisea, 2005).

Many factors influence traditional participation of women in fisheries. Working near the shore with minimal gear allows women to balance fishing with other duties and expenses. In the state of Bahia, Brazil, approximately 20,000 women harvest shellfish for sale. This is due to both positive logistical and socio-cultural reasons for their traditional participation in shellfish collection, and negative reasons; women, in Brazil, were forbidden by law to participate in other fisheries. Only collection of shellfish or algae was permissible until 1988, when a Presidential Act abolished the ban on female labour in fisheries. Even without legal constraints, women’s presence onboard a boat is considered bad luck in Brazil (Diegues,

2002), and in many countries in Central and South America (Gavaldon and Berdugo, 2004). In Germany, while the physical nature of fishing is the most commonly cited barrier for women entering the fisheries sector, it is important to note that the sea-going fishery does not meet the social aspirations of most women (European Commission, 2002). In Brazil, the situation has changed notably in recent years and, in several states of the North and the Northeast, women work with their families in small-scale fishing (Diegues, 2002). Socio-economic hardship in coastal areas has also been linked to women's increasing participation in fish capture in several countries in Africa and other regions of the world (Williams *et al.*, 2005).

New roles and emerging markets

Even in countries where women's participation in fishing is not traditional, there are areas where women have become active participants. In Bangladesh, fishing was an activity traditionally reserved for Hindu males, with the exception of some widows and older women in the southern part of the country. In 1996, fishing was the second most important occupation outside the agricultural sector, yet only 3 % of working women fished (Sultana *et al.*, 2002). However, women actively participate in both fishing and in resource management, e.g., in Goakhola Hatiara where about 8 % of women describe themselves as fulltime fishers (but 68 % fish for 5 to 6 hours a day) and 56 % describe themselves as part-time fishers. The remainder fish for subsistence purposes. Women fish with hook and line (88 %), gill net (4 %), cast net (4 %) and traps (4 %) (Sultana *et al.*, 2002). Women's participation in these fisheries is relatively recent: 56 % of these women have been fishing for less than 10 years, 40 % have fished for more than a decade, and only 4 % have fished for more than 20 years (Sultana *et al.*, 2002).

New markets have also allowed women to gain access to coastal resources. Aquaculture has created a demand for shrimp fry and many women, regardless of religion, age and marital status, now catch shrimp fry, e.g., along the coast of Bangladesh. Women and children comprise 80 % of the workforce in shrimp fry collection (Sultana *et al.*, 2002). In addition, commercial prawn (*Machrobrachium rosenbergii*) farmers created a new market when they sought an alternative to high-priced commercial feed. Women transferred their traditional knowledge of snail collection and snail-breaking, a well-established practice used for duck feed, to supply this new market with inexpensive snail meat (Sultana *et al.*, 2002).

Decision-making, resource management and advocacy

In addition to their participation in traditional and emerging fisheries, women are increasingly taking positions of leadership in fishing associations. Greek women do not tend to have separate fishing co-operatives, but instead are members of fishers' co-operatives and unions (European Commission, 2002). In Finland, women have also been elected as presidents of fishing cooperatives (European Commission, 2003). In Argentina, several women are active participants in the fishers' association of Puerto Madryn (Elias *et al.*, 2005) and in the state of Pará, Brazil, over 10 % of registered guild members are women (Diegues, 2002). When 'colônias' have admitted women, integration has allowed for a reconsideration of traditional roles and the exchange of new ideas and perspectives. In Brazil, women seeking alternatives to traditional associations like 'colônias' have created their own associations and many women hold highly respected positions within them (Diegues, 2002). In Ecuador, women are active members of local co-operatives and hold high positions even at the national level (ICSF, 2002a).

In some countries such as Ireland, women's associations have been well established for decades. In the early 1960s, the association 'Mna Na Mara' (Women of the Sea) was created by women to establish contacts and solidarity amongst fishers' wives. Today, with 130 members, the association addresses pressing fisheries issues (e.g., training, psychological support for families in grief, making information accessible to young people, and addressing safety concerns). One current project involves language courses to help members branch out into an international network (European Commission, 2003). In the Netherlands, 'VinVis' was created in 2000 as an independent Dutch network to bring together women who were concerned about fisheries and fishing communities. Members share experiences from diverse fishing trades, discuss the changing roles of fishers' wives, and take part in public meetings. Members of this network have established an increasing number of contacts with fishers' wives from other countries in Europe. According to members, because fishers' wives are onshore, they are in a much better position than their husbands to defend the interests of the fishery sector (European Commission, 2002).

Many cases suggest that women's concerns are being increasingly recognized. In France, wives of owner-skipper can participate in an official scheme for 'co-working spouses' giving them the right to a pension and maternity leave (European Commission, 2003). Interestingly, while many studies focus on equity and gender roles in fisheries in Asia, Africa, South and Central America, and Europe, studies addressing these issues in the USA or Canada are much less common (see, e.g., Neis and Grzetic, 2000).

The post harvest sector

In addition to the roles some women play in fishing, advocacy, and decision-making, their participation in the post-harvest sector is notable in almost every country. Examination of women's roles in the post-harvest sector and other shore-based activities is critical for food security, poverty alleviation and sustainable livelihoods of fishing communities at large, as recognized in Cambodia where the post-harvest fisheries sector is very much under-represented in the development policies and plans of most countries. The boundaries between the sector and other economic activities (such as trade, agriculture, transport and credit) are often unclear and this makes it difficult to fit activities in the sector into a clear sectoral framework. But the integration with areas such as women's affairs, food security, and poverty reduction, makes it especially important as a focus for development. (Department of Fisheries Cambodia, 2004). Cambodia's Department of Fisheries has recently taken action to support the Cambodian Women in Fisheries Network in order to reverse historical patterns excluding women from decision-making in development initiatives (Matics, 2005).

West African examples of fish processors and traders illustrate the importance of women's roles in (a) the business aspect of SSF and (b) defining the rules of resource access and management. Women are very influential in small scale fishing businesses due to their abilities to influence capture fisheries through the introduction of new technology, credit, financed gear, and encouraging exploitation of certain species. In this sense, women greatly influence capture fisheries in Western Africa even when they do not fish. In fact, according to the ICSF (2002b), in this region, female traders and processors provide the most reliable funding system in existence.

Processors and traders in West Africa also reveal women's contribution to the social and ecological resilience of SSF. For example, in Moree, Ghana, women play major organizational and leadership roles, both within the community and in satellite fishing communities where fishers migrate. According to Marquette *et al.* (2002), "resilient institutions for fishery management exist locally *and* are exported and recreated in migrant communities," which "refutes the assumption that fishers have open and free access to common property resources." An elected Moree 'fish queen' (as well as the chief of the fishers) represents migrants in relation to the host community and resolves conflicts that arise. Because local (not migrant) women are generally fish traders and sellers; these wholesalers are very important contacts for migrant fishers. Recognizing the leadership roles of women in this complex social system and their contributions to mediating conflict and competition help to explain how migrant fishers and members of host communities develop mutually beneficial relationships. In most cases, the work is economically advantageous for both migrants and locals. In addition, traditional and emerging fisheries management institutions such as these serve to protect coastal resources in Ghana (Marquette *et al.*, 2002). In this case, women's influential roles could easily be overlooked if researchers are not conscious of informal rules of resource use and dynamic hierarchies of power within groups.

Research gaps

Frequently, fisheries research fails to acknowledge the many ways in which women "maintain the social, cultural and economic fabric of the fishing community" (ICSF, 2002a). In part, women's participation in fisheries is not sufficiently recognized because coastal fisheries do not fit neatly into existing categories. For example, in San Felipe, Yucatan (Mexico), members of a women's fishing cooperative cannot be officially recognized as 'fishers' because their primary target species is listed as a community resource not designated for commercialization outside the port (Gavaldon and Berdugo, 2004). Although these women work in a small-scale fishery and sell their harvest as bait in the economically valuable octopus fishery, they are not legally eligible for government assistance (e.g., funding to repair gear or boats destroyed in a hurricane) as are members of men's fishing cooperatives. Similarly, shellfish collectors in Spain are not well served by official definitions of fishing. 'Mariscadoras' collect shellfish on foot along the foreshore and, in Galicia, 90 % of the 5,900 people participating in this fishery are women. In 2001, they collected 6,500 t of shellfish, or the equivalent of 47 million Euros (European Commission 2003). Mariscadoras are well-organized and have worked collectively to develop their fishery around the long-term sustainability of

coastal resources (Pintos, 2005). However, the fishery is not recognized at the European level because only two sectors are officially listed: fisheries and aquaculture. According to mariscadora Dolores Bermudez, “The mariscadoras belong to neither fisheries nor aquaculture. We are somewhere between the two” (European Commission, 2003). Bermudez notes that approximately 50 % of the women in this fishery are over age 50 and suffer health problems as a result of their work (European Commission, 2003).

The lack of attention to the roles that women play means that both positive and negative consequences of their actions are often overlooked. For example, in Tonga, reef gleaners smash corals (with knives, iron poles and hammers) to find shells. They use traditional methods, including poisons from sea cucumbers and plants to stun fish, which may also affect other organisms. In Fiji, women pour bleach, pesticides, and fertilizers into streams to catch freshwater prawns (Matthews, 2002). These practices have not been officially recognized; however, fisheries and conservation department personnel acknowledge serious threats related to women’s destructive fishing practices. These practices may remain undocumented because women’s needs and harvest activities are usually the focus of separate offices and agencies, not integrated into overall fisheries development programs (Matthews, 2002).

Several studies do exist, but communication between disciplines is very poor. Thus, “one problem is that most fisheries social science research is descriptive [and] the research style and reporting language of the social scientists do not naturally endear them to fisheries managers” (Johannes *et al.*, 1993). Better communication of research results and greater efforts to utilize research outside the conventional fisheries literature will broaden our understanding of women’s changing roles in global fisheries. As emphasized by Neis and Maneschy (2005), discussion about fisheries should go beyond overfishing and failed management to include issues related to food security, occupational health, social equality and human rights, as well as trade liberalization, all of which link closely with gender. In short, learning the many aspects about women in fisheries and integrating gender in the discussion about fisheries and globalization is essential to address today’s fisheries crises (see example in Neis *et al.*, 2005).

POLICY IMPLICATIONS AND NEXT STEPS

Information about the number of small-scale fishers and their catches reveals the social and economic importance of this sector. These estimates suggest a high level of dependency of millions of people on fisheries resources for millions of people. Another important factor is that income generated from this sector is likely to stay at the local level, and contribute to local well-being (Sen, 1999). All of these issues need to be taken into consideration when developing fisheries policies. Further, it should be noted that small-scale fishers are highly vulnerable to policy decisions, given that the majority of them are from countries with a medium and low HDI. Careful assessment of social and economic ramifications of fisheries policies is required to support and sustain livelihoods of these fishers.

The SSF database presented here was developed to enable more systematic data collection and to provide a framework to assess the importance of SSF relative to global fisheries. It aims to encourage data sharing and to enhance knowledge about those aspects of SSF that can be analyzed comparatively. Aside from this report, where most of the content of the database is presented (see Appendices A and B), this database will be made available (from January 2007) as a component of the *Sea Around Us* Project website (www.searoundus.org). In the process, features not explicitly dealt with here, e.g., the species composition of the catches, and their market values will be added progressively. Also, fields such as the fraction of SSF catches included in fisheries statistics will be filled in for all countries, and the number of countries with estimated catches and/or related statistics will be reduced. One result is that the assumptions made for filling the gaps in this database, and their underlying assumption of homogeneity, will become less important as the more empirical, country-specific data are entered. Therefore, we urge interested colleagues to alert us of quantitative data on catches, and related statistics that could be used to complement or correct the entries in this database. More importantly, by putting information about SSF in a widely accessible website, we hope to encourage a debate and data exchange about a hitherto marginal sector of the fisheries.

Finally, the database, as part of the *Sea Around Us* Project website will evolve to contain data types not previously discussed, of which we see the following three as the most important:

1. Presently, the data entered cover the 1990s to 2000s. This will be complemented, for each country, by catch and related record (or estimates) pertaining, for each country, to the

1960s/1970s and the post-WWII/1950s periods, thus enabling trends (e.g., of catch/fisher) to be established;

2. Fisher and vessel numbers will be jointly used to derive a measure of small-scale fishing effort in 'Horsepower-days', as used elsewhere by the *Sea Around Us* Project. This will involve completing the occasional boat descriptions in the 'Definition' and 'Remarks' fields, converting boat length to engine power using empirical relationships, and adding to the estimated cumulative horsepower of the engines, where appropriate, the muscle power of the fishers themselves; and
3. Presently, only one 'Remark' field is provided to capture information typically collected by social scientists. In the spirit of the invitation in Pauly (2006b), the *Sea Around Us* Project will provide more on request by social scientists who consider this database a suitable vehicle for structured qualitative data, and perhaps also photos and papers in PDF format, on the world's small-scale fisheries.

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APPENDICES

APPENDIX A: COUNTRY SUMMARIES OF THE SMALL-SCALE FISHERIES DATABASE AS OF SEPTEMBER 2006.

Small-scale fisheries of: Albania

Definition: Boat size less than 12 m in length

Inshore fishing area:	6,979 km ²		Hum. dev. index: Medium
Reported # of fishers:	119	in: 2001	Reference: 37
Reported # of boats:	59	in: 2001	Reference: 37
Reported catch (t):		in:	Reference:
Estimated catch (t):	3,449		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 37;
78% of small-scale boats are gill-netters (Ref. 37). Lagoon fisheries are important for the small-scale sector (Ref. 133).			

Small-scale fisheries of: Algeria

Definition: Boat size 5–6 m in length, small motorized boats, crew members 2-3

Inshore fishing area:	9,985 km ²		Hum. dev. index: Medium
Reported # of fishers:	1,362	in: 2000	Reference: 70
Reported # of boats:	545	in:	Reference: 134
Reported catch (t):		in:	Reference:
Estimated catch (t):	4,934		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 267;
Coral harvesting amounted to about 10 t in 1993 (Ref. 267).			

Small-scale fisheries of: Amer Samoa

Definition:

Inshore fishing area:	530 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):	132	in: 2002	Reference: 357
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Angola

Definition: Boat size less than 9.1 m

Inshore fishing area:	48,092 km ²		Hum. dev. index: Low
Reported # of fishers:	25,500	in: 1998	Reference: 10
Reported # of boats:	3,750	in: 2005	Reference: 10
Reported catch (t):	50,420	in: 2004	Reference: 129
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 293; 293

Angolan fisheries, mostly small-scale, was a major industry before Angola gained independence from Portugal. In the 1970s, there were about 700 fishing boats and an annual catch of more than 300,000 t. With independence (1975) came two decades of crisis including civil war, the fishing industry fell into disarray and overfishing associated with international fishing vessels, esp. Spanish trawlers. In 2000, Angola suffered an epidemic of pellagra, a potentially fatal disease caused by an easily preventable deficiency in Niacin (Vitamin B3); relief workers distributed dried fish (Niacin-rich); 83% of the cases were female (Ref. 293). Many artisanal fishers were members of cooperatives, some well managed, i.e., keep accurate records of the quantity, quality and value of fish passing through their systems. Artisanal fishing is now difficult because of lack of inputs. Usually, fishers organise groups, own one or more boats, nets or sails, fish together and divide the catch among themselves (Ref. 291). It is common for women to be farmers, but not as fishers (Ref. 293).

Small-scale fisheries of: Antigua Barb

Definition:

Inshore fishing area:	4,128 km ²		Hum. dev. index: High
Reported # of fishers:	1,088	in: 2004	Reference: 23
Reported # of boats:	276	in: 2004	Reference: 23
Reported catch (t):	2,527	in: 2004	Reference: 23
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender):

Reference(s):

Tourism was the most important industry, involving about half of the country's working population before Hurricane Luis in 1997. Most marine products, e.g., expensive fish, lobsters and conchs, were exported or used to meet the demands of tourism, causing a chronic shortage of supply for domestic demand (Ref. 278). The growing tourism industry (over 400,000 visitors, stayovers and cruises in 1990), and the resulting development of coastal areas (e.g., infrastructure and tourism facilities) was largely responsible for intense damage to mangrove swamps and off-shore reefs (Ref. 327). In Antigua, Hurricane Luis was followed by a large increase in lobster catches due to an increased vulnerability to fishing; such vulnerability could lead to recruitment overfishing and stock decline. After the hurricane, many individuals who lost their jobs due to closure of hotels and businesses sought short-term employment in fishing. Most of this short-term effort was most likely directed at the already overexploited nearshore areas (Ref. 24). Coastal pelagics are not widely targeted by local fishers. Only one vessel uses a beach seine as its principal gear. A few fishers, on a seasonal basis, target jacks, herrings and ballyhoo; large pelagics are targeted mainly by the sport and recreational fishery (Ref. 135).

Small-scale fisheries of: Argentina

Definition: Coastal gatherers, commercial divers, beach seiners and small boats, usually less than 10 m in length, and small inshore vessels (10-18 m) known as the "rada/ría".

Inshore fishing area:	179,232 km ²		Hum. dev. index: High
Reported # of fishers:	1,690	in: 2005	Reference: 42
Reported # of boats:	384	in: 2005	Reference: 136
Reported catch (t):		in:	Reference:
Estimated catch (t):	90,468		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender):

Reference(s): 42

Loss of employment in traditional economic activities (e.g., agriculture and husbandry) and industrial fishing led to the development of small-scale fisheries in new areas during the last few decades. There is a wide range of small-scale fisheries, from coastal gatherers, beach seiners, gillnetters, to a semi-industrial pelagic fishery (Ref. 42). 39% of small-scale catch is 'various coastal species', 34% is common hake, especially in the patagonian region; 5% is coastal rays; 3% is Argentine anchoita, 3% is shrimp and 17% is 'others' (Ref. 136). Women participate in coastal gathering of shellfish and small octopus, some as young as 5 years old (with family members) and stop at 60 (walking along rocky intertidal areas becomes difficult; Ref. 42).

Small-scale fisheries of: Australia

Definition: Fishing for subsistence by coastal or island ethnic groups using traditional methods

Inshore fishing area:	1,113,094 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	7,000	in: 2003	Reference: 113
Reported catch (t):		in:	Reference:
Estimated catch (t):	561,839		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 26;
Information about artisanal fisheries is location/fisheries specific, e.g., hand collection of bêche-de-mer in Torres Strait by traditional inhabitants (Ref. 26).			

Small-scale fisheries of: Belize

Definition: Boat size less than 12 m in length

Inshore fishing area:	106,323 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	53,667		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Bahrain

Definition: Boat size 10-15 m in length

Inshore fishing area:	7,416 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	2,300	in: 2001	Reference: 87
Reported catch (t):	9,847	in: 1998	Reference: 268
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender):

Reference(s):

Fisheries in Bahrain are entirely artisanal. Trawling was banned in 1998 (Ref. 87; 138). The government controls the local seafood market in Bahrain. Exports of seafood are allowed only when there are adequate supplies to meet local demand. In both summers of 1996 and 1998, water temperatures exceeded 36°C. This resulted in massive coral bleaching in Bahraini waters. By 1999, 99 percent of inshore and nearshore coral reefs had died (Ref. 268).

Small-scale fisheries of: Bangladesh

Definition: Fishing area up to 40 m from shore

Inshore fishing area:	35,367 km ²		Hum. dev. index: Low
Reported # of fishers:	570,000	in: 1999	Reference: 64
Reported # of boats:	17,331	in: 2003	Reference: 274
Reported catch (t):	248,000	in: 2003	Reference: 274
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender):

Reference(s): 339

The estuarine and marine capture fisheries of the country are mainly based on artisanal fishing, i.e., 95% of the total marine production (Ref. 274). Fishing in coastal waters was the exclusive domain of the 'jaladas', i.e., low caste Hindu community. The tradition of jaladas broke down under continuous pressure in the mid 1960s when Muslim fishers increased in numbers. The traditional caste fishers and poor Muslim fishers now comprise the artisanal fishery community. There is intense and continuous competition between the shrimp trawl industry and the traditional artisanal sector for demersal fin fish and shrimp. Fishing is not a lucrative profession, particularly for artisanal fishers whose socioeconomic conditions often restrict their ability to exit from this centuries-old occupation (Ref. 283). Traditionally, only Hindu men were engaged in fishing; except elderly or widowed Hindu women who caught fish for household consumption. Now, poor women, irrespective of religion, age and marital status catch shrimp fry in coastal areas; 80% of the shrimp fry collectors are women and children. This is linked to high poverty levels and the growth of shrimp farming. Prawn farming created a demand for snail (used as feed), collected by women and children in their spare time. Goakhola Hatiara women, in particular, were involved in fishing, on a part-time basis for household consumption. Most use hook and line, fish between 5-6 hours a day, and catch an average of 1.12 kg per day (Ref. 339).

Small-scale fisheries of: Barbados

Definition: Boat size less than 12 m in length

Inshore fishing area:	426 km ²		Hum. dev. index: High
Reported # of fishers:	2,200	in: 2004	Reference: 300
Reported # of boats:	735	in: 2002	Reference: 103
Reported catch (t):	2,133	in: 2004	Reference: 300
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 300; 300

Coastal fishers, usually locals, are mobile and fishing areas are not closely linked to adjacent communities, but are limited by range of vessels and because, especially in trap fisheries, fishers prefer to keep their gear close by. There is relatively little territoriality, especially when resources such as sea urchins are abundant. All fisheries have strong traditions and have been relatively slow to modernize (e.g., traps and deep handlines are still mainly hauled without mechanical assistance). The sea egg fishery has been documented and regulated for over 100 years. People of all ages, both male and female, have traditionally participated in this fishery. Seasonal participation in this fishery has ranged from nearly 1000 people in the mid 1950s to just over 200 at present. This fishery may play an important role in the supply of new labour into the industry, as boys are often introduced to fishing through diving for sea eggs (Ref. 300). Flyingfish account for almost two-thirds of total landings in most years and over 90% during the period 1994 to 2003 (Ref. 139). Women are less active in harvesting. However, women account for 63% of total post-harvest primary stakeholders. The majority of fish vendors (60%), fish boners (77%) and fish scalers (70%) are female. The work of women and children is most visible in the sea egg industry where they process urchins in groups on beaches for sale to consumers (Ref. 300).

Small-scale fisheries of: Belgium

Definition: Boat size less than 10 m in length

Inshore fishing area:	2,784 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	61	in: 2003	Reference: 114
Reported catch (t):		in:	Reference:
Estimated catch (t):	1,405		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 44

Studies note that 20 women are employed in 'sea fishing activities' (salaried staff of fishing companies); only one works on board a vessel (fishing on a small coastal vessel with her husband). Women in fishing families are often responsible for marketing and accounting/management and have critical input to strategic choices (e.g. gear technology; Ref. 44).

Small-scale fisheries of: Belize

Definition: Open boats, boat size between 4.3-7.6 m in length, outboard engines; Sloops, up to 10 m, outboard engines; Dugout canoes, small engine

Inshore fishing area:	13,178 km ²		Hum. dev. index: Medium
Reported # of fishers:	2,600	in: 2000	Reference: 300
Reported # of boats:	790	in: 2000	Reference: 300
Reported catch (t):		in:	Reference:
Estimated catch (t):	6,512		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 301;

Fishing in Belize is divided into artisanal and small-scale commercial; most fishing takes place in the shallow protected waters of the main barrier reef and around the atolls. Lobster and conch are the two most important fisheries. Over the last decade, shrimp and finfish, both demersal and inshore pelagics, have become recognized for their great economic potential. A 1996 fishery independent survey of conch population suggested that the stock was seriously overexploited. Relatively high abundances of conch in Hol Chan Reserve suggest the role reserves can play in maintaining adult stocks (Ref. 301).

Small-scale fisheries of: Benin

Definition:

Inshore fishing area:	2,721 km ²		Hum. dev. index: Low
Reported # of fishers:	62,000	in: 2002	Reference: 329
Reported # of boats:		in:	Reference:
Reported catch (t):	34,650	in: 2002	Reference: 329
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 330

Small-scale fisheries provide livelihood to about 15% of the people in the workforce (Ref. 330); 90% of total domestic production comes from small-scale fisheries (Ref. 329). Women fish for oyster and crabs and are active in fish processing and marketing (Ref. 330).

Small-scale fisheries of: Brazil

Definition: Boat size less than 10 m in length

Inshore fishing area:	413,060 km ²		Hum. dev. index: Medium
Reported # of fishers:	553,872	in: 1997	Reference: 36
Reported # of boats:	23,000	in: 2001	Reference: 88
Reported catch (t):	353,350	in: 1997	Reference: 36
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender):

Reference(s):

Women fishworkers harvest crabs, mussels and other shellfish for sale on beaches. They also make and repair nets, and assist in the maintenance and repair of boats. Women participate in community meetings, manage households and, in addition to daily chores (e.g. cooking, cleaning, gathering firewood and washing the clothes), may also wash laundry for other people as an alternative source of income. Women may bring in more income than their fishermen husbands (Ref. 332). Prior to the 1988 Constitution, women were not legally permitted to work in fishing, considered as a male activity. Women were only legally allowed to harvest shellfish and algae. In 1988, a Presidential Act abolished the prohibition on female labour in fisheries (Ref. 36). In Bahia, about 20,000 women participate actively in shellfish collection and in Maranhão, women fish 'on foot' for shrimp using small shrimp nets (Ref. unknown). During the past five years, in the state of Pará, over 10% of the registered fishing guild members are women (Ref. unknown).

Small-scale fisheries of: Brunei Darussalam

Definition: Open-planked wooden boats, outboard engines, operating in shallow waters

Inshore fishing area:	6,369 km ²		Hum. dev. index: High
Reported # of fishers:	925	in: 2005	Reference: 11
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	3,215		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender):

Reference(s):

Small-scale fisheries of: Bulgaria

Definition:

Inshore fishing area:	10,383 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:	36	in: 2000	Reference: 71
Reported catch (t):		in:	Reference:
Estimated catch (t):	5,131		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 71;
30% of fisheries are marine; marine artisanal fisheries contribute 95% of total marine catches(Ref. 71).			

Small-scale fisheries of: Cambodia

Definition: Dinghies and day boats, boat size between 7-11 m in length, engine range 15-180 HP, operating upto 30 miles off shore

Inshore fishing area:	28,828 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):	115,000	in: 2001	Reference: 344
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 250
Women actively fish in Tonlé Sap Lake fisheries, often with their children, using small gill nets (Ref. 250).			

Small-scale fisheries of: Cameroon

Definition: Beam trawlers, small to medium engine up to 300 hp

Inshore fishing area:	11,420 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	5,643		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 354;
80% of fishers are foreigners in Cameroon (Ref. 354).			

Small-scale fisheries of: Canada

Definition: Boat size less than 13 m in length

Inshore fishing area:	2,357,366 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	16,311	in: 2002	Reference: 35
Reported catch (t):		in:	Reference:
Estimated catch (t):	1,189,890		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 17
Important First Nations fisheries (e.g., ooligan, eel) are not listed under target species. In Newfoundland, the fishery was the only occupational option for most women. Women knew what they were going to do, and there was no need to look for alternatives (Ref. 17).			

Small-scale fisheries of: Cape Verde

Definition:

Inshore fishing area:	5,591 km ²		Hum. dev. index: Medium
Reported # of fishers:	4,283	in: 2001	Reference: 89
Reported # of boats:	1,257	in: 2001	Reference: 89
Reported catch (t):		in:	Reference:
Estimated catch (t):	2,763		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 89

While women's role is notable in processing and marketing, women do not commonly participate in fishing (Ref. 89).

Small-scale fisheries of: Chile

Definition: Both size less than 18 m in length, less than 50 GRT

Inshore fishing area:	251,855 km ²		Hum. dev. index: High
Reported # of fishers:	27,876	in: 2002	Reference: 277
Reported # of boats:	14,453	in: 2002	Reference: 277
Reported catch (t):	1,000,000	in: 2001	Reference: 277
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 277;

About 12% of artisanal boats use oars and are between 4 and 8 meters in length; 62% have motors and are between 4 and 10 meters in length; the rest are between 10 and 18 meters in length. Coastal waters up to 5 miles from shore are reserved for artisanal fishing, however, industrial fishing is allowed as long as there is no interference (Ref. 277).

Small-scale fisheries of: China Main

Definition:

Inshore fishing area:	366,443 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	181,087		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 315;
Small-scale fisheries produce an estimated 90% of total seafood supply (Ref. 315).			

Small-scale fisheries of: Colombia

Definition: Wooden or fibreglass boats with outboard motors of 15, 40 or 75 HP

Inshore fishing area:	53,691 km ²		Hum. dev. index: Medium
Reported # of fishers:	26,000	in: 2001	Reference: 90
Reported # of boats:	11,450	in: 2003	Reference: 277
Reported catch (t):	5,224	in: 2001	Reference: 148
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 277
About 2650 women harvest 'pianguas' cockle (<i>Anadara</i> spp) from the mangroves, as well as participate in various stages of fishing and fish processing (Ref. 277).			

Small-scale fisheries of: Comoros

Definition: Traditional boats (Galawa) and motorised fibre-glass boats

Inshore fishing area:	1,526 km ²		Hum. dev. index: Medium
Reported # of fishers:	8,000	in: 1995	Reference: 1
Reported # of boats:	4,327	in: 1995	Reference: 1
Reported catch (t):	14,000	in: 1996	Reference: 1
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 1; 1

Artisanal fisheries have typically used traditional boats known locally as 'galawa'. Because access is limited to fringing reefs and many fishing methods are destructive, the government, with the assistance of the European Union, the COI and Japan, recently initiated a strategy to develop artisanal fisheries by introducing motorised fibre-glass boats and placing fish aggregation devices along the coasts. This has resulted in an increase in artisanal catches from 8,000 tonnes in 1989 to 14,000 in 1996 (Ref. 1). Typically, women do not fish, but are involved seasonally as traders and market women, or 'wachouzi' (Ref. 1).

Small-scale fisheries of: Congo Dem Rep

Definition: Fishing using beach seine and canoe

Inshore fishing area:	1,593 km ²		Hum. dev. index: Low
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	2,597		Computed from: 1.630 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s):

Small-scale fisheries of: Congo Rep

Definition: Small, medium capacity, engine less than 400 HP, produce small catches, operate near coasts

Inshore fishing area:	7,982 km ²		Hum. dev. index: Medium
Reported # of fishers:	3,000	in: 2000	Reference: 72
Reported # of boats:	273	in: 2000	Reference: 72
Reported catch (t):	15,000	in: 2002	Reference: 329
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Costa Rica

Definition: Fishing area up to about 10m from shore

Inshore fishing area:	19,585 km ²		Hum. dev. index: Medium
Reported # of fishers:	4,000	in: 2003	Reference: 8
Reported # of boats:	3,110	in: 2000	Reference: 252
Reported catch (t):	14,407	in: 1996	Reference: 305
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Cote d'Ivoire

Definition: Boat size less than 8 m in length or about 20 GRT

Inshore fishing area:	10,175 km ²		Hum. dev. index: Low
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):	24,000	in: 2002	Reference: 329
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Croatia

Definition:

Inshore fishing area:	46,226 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	22,844		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Cuba

Definition: Boats between 10 and 23 m (referred to as "coastal fleet")

Inshore fishing area:	61,525 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:	990	in: 2003	Reference: 115
Reported catch (t):		in:	Reference:
Estimated catch (t):	30,404		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 115
Women play important roles in processing and marketing, but do not typically participate in fishing (Ref. 115).			

Small-scale fisheries of: Cyprus

Definition: Boat size between 6-12 m in length

Inshore fishing area:	4,042 km ²		Hum. dev. index: High
Reported # of fishers:	972	in: 2002	Reference: 326
Reported # of boats:	620	in: 2002	Reference: 326
Reported catch (t):	1,649	in: 2002	Reference: 326
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 326
Reported number of women fishing is 72 (Ref. 326).			

Small-scale fisheries of: Denmark

Definition: Boat size less than 50 GRT

Inshore fishing area:	60,127 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	3,330	in: 2001	Reference: 91
Reported catch (t):		in:	Reference:
Estimated catch (t):	30,349		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 44
Small family businesses such as trap setters involve female spouses as active partners; women occasionally go to sea with their husbands (Ref. 44).			

Small-scale fisheries of: Djibouti

Definition: Boats less than 14 m

Inshore fishing area:	3,187 km ²		Hum. dev. index: Low
Reported # of fishers:		in:	Reference:
Reported # of boats:	90	in: 2003	Reference: 156
Reported catch (t):	350	in: 2001	Reference: 92
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):
In 1980, the Program for the Development of Artisanal Fisheries was initiated to supply fishing gear, outboard engines and boats (Ref. 92) which led to the significant increase in fishers with an average age range of 40 to 55 (Ref. 156). National artisanal fisheries production increased from 200 t in 1980 to 400 t in 1984 and 446 t in 1988. The increase in production slowed down in 1988-1991, the due to weak product marketing and decreased dramatically in 1991-1994 (as low as 200 t 1991), due to unrest. Fishers often have very limited options for alternative employment. In part, this relates to conservative attitudes within communities and the limited possibilities for agriculture (Ref. 319). (4) Fish is plentiful during the early months in the summer, but declines from July to September, as fishing is hampered by the strong 'Khamsiin' winds. It is important to note that, in fact, the majority of people in Djibouti do not regularly eat fish for cultural reasons (Ref. 292). (5) There are no large-scale fisheries in Djibouti. Much of the fishing is carried out at the subsistence level, using hook and line and target its demersal and reef species. Gill and throwing nets are also used to a lesser extent, while lobsters are of minor importance, and are collected by local divers (Ref. 156).			

Small-scale fisheries of: Dominica

Definition: Boat size between 5-8 m in length

Inshore fishing area:	659 km ²		Hum. dev. index: Medium
Reported # of fishers:	3,985	in: 1999	Reference: 19
Reported # of boats:	1,100	in: 2000	Reference: 73
Reported catch (t):	1,150	in: 2000	Reference: 355
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Dominican Rp

Definition: Fishing area within 100 m from shore

Inshore fishing area:	10,738 km ²		Hum. dev. index: Medium
Reported # of fishers:	10,000	in: 2005	Reference: 251
Reported # of boats:	3,675	in: 2004	Reference: 251
Reported catch (t):	13,000	in: 2004	Reference: 251
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 276;

Japanese experts introduced new fishing methods in 1996, e.g., bottom long line, to promote deep water fishing; this created opportunities to catch fish species that were formerly difficult to catch. Most fishers are small-scale fishers living below the poverty line and concentrated in Samana Bay (Ref. 276). During dry periods and droughts, coastal communities develop an increased dependency on fish, as other sources of animal protein are inaccessible. Fishers provide fish for their own families and for their farming relatives (Ref. 338).

Small-scale fisheries of: Ecuador

Definition: Boat size upto 15 m in length and 50 GRT

Inshore fishing area:	29,769 km ²		Hum. dev. index: Medium
Reported # of fishers:	82,000	in: 2003	Reference: 277
Reported # of boats:	16,149	in: 2003	Reference: 277
Reported catch (t):	50,000	in: 2001	Reference: 93
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s):

Women are active participants in fisheries. For instance, cockle-gathering in the village of Bunche, Muisne Canton, Esmeraldas Province, is noted as an exclusively female activity practiced by 'concheras'. Women are also enthusiastic and active members of local co-operatives and hold high positions even at the national level (Ref. 254). Women play important roles in the post-larval shrimp fishery, not just in the capture and cleaning of post-larvae (Ref. 288).

Small-scale fisheries of: Egypt

Definition: Boat size of 5-6 m in length

Inshore fishing area:	61,591 km ²		Hum. dev. index: Medium
Reported # of fishers:	9,024	in: 2002	Reference: 319
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	30,437		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s):

Large-scale fisheries is not well developed due to environmental conditions of the Mediterranean, e.g., low concentration of phosphates and nitrates and low abundance of bottom-dwelling organisms. High prices of fresh fish in most Mediterranean countries encouraged the development of a large number of small-scale fisheries (Ref. 41). Many fishers in the artisanal fleet are related or belong to the same family or tribe and have few employment alternatives. There is a noticeable trend toward leaving fishing to work in catering, mining or drilling. Reasons cited include pollution, limited fishing grounds, and inadequate facilities related to fishing (Ref. 319).

Small-scale fisheries of: El Salvador

Definition: Boat size between 5-7 m in length, and less than 10 m

Inshore fishing area:	14,221 km ²		Hum. dev. index: Medium
Reported # of fishers:	13,000	in: 2005	Reference: 161
Reported # of boats:	4,922	in: 2003	Reference: 116
Reported catch (t):	11,038	in: 2003	Reference: 116
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 270; 280

The 12-year civil war through the 1980s destroyed much of El Salvador's social and economic infrastructure and exacerbated poverty in rural areas. One-parent households sent children to work and the number of working children has steadily increased since fighting ceased in 1992. Child labor provides 20% of the income in poor families in El Salvador. Thousands of children, both girls and boys, are involved in fishing, mainly in small-scale businesses, in very poor working conditions exposed to risks (e.g., drowning, injury from knives, exposure to the sun for more than six hours a day, handling explosives (illegal fishing), and contamination by marine microorganisms. It is common to find children with badly sun-damaged skin, fungus infections covering their feet and hands or even amputated limbs. Many working children abuse amphetamines to keep them awake during night shifts and regularly smoke tobacco (mostly cigars) to help repel mosquitoes. Recent IPEC-sponsored action programmes removed 175 children from shellfish ('curiles') harvesting on the Island of Espiritu Santo, near Usulután (Ref. 270). Women, with their children, collect mollusks in the mangrove areas and beaches. Women have scarce material, technological and financial means and are excluded from the decision-making spaces in cooperatives and productive units. Statistics do not take into account the unpaid work carried out by women (Ref. 280).

Small-scale fisheries of: Eq Guinea

Definition: Boat size less than 11 m in length

Inshore fishing area:	7,820 km ²		Hum. dev. index: Medium
Reported # of fishers:	3,000	in: 2003	Reference: 117
Reported # of boats:		in:	Reference:
Reported catch (t):	18,400	in: 2003	Reference: 117
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s):

Small-scale fisheries of: Eritrea

Definition: Boat size less than 16 m in length

Inshore fishing area:	59,568 km ²		Hum. dev. index: Low
Reported # of fishers:	1,174	in: 2000	Reference: 249
Reported # of boats:	267	in: 2000	Reference: 249
Reported catch (t):	1,300	in: 2000	Reference: 249
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 249; 249

The Ministry of Fisheries 2000 annual report notes the estimated maximum sustainable yield of around 70,000 t, but the actual catch was only about 13,000 t. Of this total, the artisanal sector contributed only 10%, even though the majority of fishers belong to this sector. Previous years' catches were also low for the artisanal sector when compared with the industrial sector. This low level of catch has made fishers vulnerable to a vicious circle of low income leading to inefficient fishing practices, which in turn produce low incomes (Ref. 249). Approximately 1000 'footfishers' participate in land-based fisheries, primarily women and children (Ref. 249).

Small-scale fisheries of: Estonia

Definition: Boat size less than 12 m in length; referred to as 'inshore'

Inshore fishing area:	29,212 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	500	in: 2004	Reference: 130
Reported catch (t):		in:	Reference:
Estimated catch (t):	14,745		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s):

Small-scale fisheries of: El Salvador

Definition: Boat size between 5-7 m in length, and less than 10 m

Inshore fishing area:	14,221 km ²		Hum. dev. index: Medium
Reported # of fishers:	13,000	in: 2005	Reference: 161
Reported # of boats:	4,922	in: 2003	Reference: 116
Reported catch (t):	11,038	in: 2003	Reference: 116
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 270; 280

The 12-year civil war through the 1980s destroyed much of El Salvador's social and economic infrastructure and exacerbated poverty in rural areas. One-parent households sent children to work and the number of working children has steadily increased since fighting ceased in 1992. Child labor provides 20% of the income in poor families in El Salvador. Thousands of children, both girls and boys, are involved in fishing, mainly in small-scale businesses, in very poor working conditions exposed to risks (e.g., drowning, injury from knives, exposure to the sun for more than six hours a day, handling explosives (illegal fishing), and contamination by marine microorganisms. It is common to find children with badly sun-damaged skin, fungus infections covering their feet and hands or even amputated limbs. Many working children abuse amphetamines to keep them awake during night shifts and regularly smoke tobacco (mostly cigars) to help repel mosquitoes. Recent IPEC-sponsored action programmes removed 175 children from shellfish ('curiles') harvesting on the Island of Espiritu Santo, near Usulután (Ref. 270). Women, with their children, collect mollusks in the mangrove areas and beaches. Women have scarce material, technological and financial means and are excluded from the decision-making spaces in cooperatives and productive units. Statistics do not take into account the unpaid work carried out by women (Ref. 280).

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Reported # of fishers:	3,000	in: 2003	Reference: 117
Reported # of boats:		in:	Reference:
Reported catch (t):	18,400	in: 2003	Reference: 117
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Eritrea

Definition: Boat size less than 16 m in length

Inshore fishing area:	59,568 km ²		Hum. dev. index: Low
Reported # of fishers:	1,174	in: 2000	Reference: 249
Reported # of boats:	267	in: 2000	Reference: 249
Reported catch (t):	1,300	in: 2000	Reference: 249
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 249; 249

The Ministry of Fisheries 2000 annual report notes the estimated maximum sustainable yield of around 70,000 t, but the actual catch was only about 13,000 t. Of this total, the artisanal sector contributed only 10%, even though the majority of fishers belong to this sector. Previous years' catches were also low for the artisanal sector when compared with the industrial sector. This low level of catch has made fishers vulnerable to a vicious circle of low income leading to inefficient fishing practices, which in turn produce low incomes (Ref. 249). Approximately 1000 'footfishers' participate in land-based fisheries, primarily women and children (Ref. 249).

Small-scale fisheries of: Estonia

Definition: Boat size less than 12 m in length; referred to as 'inshore'

Inshore fishing area:	29,212 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	500	in: 2004	Reference: 130
Reported catch (t):		in:	Reference:
Estimated catch (t):	14,745		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s):

Small-scale fisheries of: Fiji

Definition: Boat size between 6.3- 7.1 m in length

Inshore fishing area:	47,705 km ²		Hum. dev. index: Medium
Reported # of fishers:	30,000	in: 1999	Reference: 65
Reported # of boats:		in:	Reference:
Reported catch (t):	21,600	in: 1999	Reference: 4
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 275;

Coastal resources are managed through customary ownership of rights to fishing grounds. These rights are defined and owned by 'vanua' or 'tikina' (social units that include a number of villages in a district), which regulate use and exploitation of fisheries resources. People are expected to use their own allocations; fishers seeking to use grounds belonging to others are expected to ask permission from the owners. To preserve resources for a special purpose (e.g., a wedding, a birth, or a death ceremony), fishing ground owners may declare a portion of their grounds off-limits. Restrictions may also apply to various fishing methods in order to protect resources (Ref. 275). There is often a gender difference in fish harvesting patterns. Men fish on the outer edge of reefs and in open water, working from boats. Women and children commonly harvest smaller fish, shellfish, crustaceans and seaweed on inshore reefs, in mangrove areas and in rivers (Ref. 269). Harvesting and marketing of salt and freshwater clams is almost exclusively done by women, contributing almost half of the total production (2000 t), which is worth about FJ\$ 4.5 million (Ref. 335). While not officially recognized, fisheries and conservation department personnel acknowledge serious threats due to some fishing practices employed by women (e.g., pouring of bleach, pesticides, and fertilizers into streams to harvest freshwater prawns; Ref. 335).

Small-scale fisheries of: Finland

Definition: Boat size between 8-15 m in length; referred to as 'inshore'

Inshore fishing area:	61,423 km ²		Hum. dev. index: High
Reported # of fishers:	1,675	in: 2001	Reference: 94
Reported # of boats:	3,721	in: 2002	Reference: 43
Reported catch (t):		in:	Reference:
Estimated catch (t):	31,004		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 94; 44

Small-scale fisheries are a socially important sector in Finland. Approximately 71 per cent of vessels and 63 per cent of employment in fisheries are represented by the small-scale sector (Ref. 94). There are few women in fisheries in Finland; the most active women in the fisheries sector are the wives of fishermen who work with their husbands. Women are involved in fishermen's cooperatives and often hold high positions (such as president; Ref. 44).

Small-scale fisheries of: France

Definition: Boat size between 5-6 m in length, 2-3 crew (Vili); Boat size 10-12 m in length, 5-6 crew (Popo)

Inshore fishing area:	118,664 km ²		Hum. dev. index: High
Reported # of fishers:	9,185	in: 2002	Reference: 104
Reported # of boats:	5,125	in: 2002	Reference: 104
Reported catch (t):	453	in: 2002	Reference: 104
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s):

Wives of owner-skippers in France can participate in an official scheme for 'co-working spouses' giving them the right to a pension and maternity leave (Ref. 40). Women typically play one of four roles in France's fisheries: wives of fishermen or of salaried shellfish workers; wives of skippers or shellfish producers who work part-time in the enterprise; wives of skippers or shellfish producers with a co-management role; or female skippers or shellfish producers (Ref. 44).

Small-scale fisheries of: Gabon

Definition:

Inshore fishing area:	35,020 km ²		Hum. dev. index: Medium
Reported # of fishers:	4,298	in: 2002	Reference: 105
Reported # of boats:	1,564	in: 2002	Reference: 105
Reported catch (t):	20,507	in: 2002	Reference: 105
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 105; 105

Small-scale fisheries are all marine (Ref. 105). An estimated 918 fisherwomen are included in the total number of small-scale fishers (Ref. 105).

Small-scale fisheries of: Gambia

Definition: Fishing area within 13 m from shore

Inshore fishing area:	4,249 km ²		Hum. dev. index: Low
Reported # of fishers:	5,000	in: 1999	Reference: 260
Reported # of boats:	1,785	in: 1997	Reference: 48
Reported catch (t):	29,743	in: 2001	Reference: 313
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 313;

Small-scale fisheries are all marine (Ref. 260). Bonga makes up, on average, 73% of total artisanal marine landings (Ref. 313).

Small-scale fisheries of: Georgia

Definition:

Inshore fishing area:	3,243 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:	324	in: 2004	Reference: 131
Reported catch (t):		in:	Reference:
Estimated catch (t):	1,603		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 131;

Numbers include lagoon fishing (Ref. 131).

Small-scale fisheries of: Germany

Definition:

Inshore fishing area:	30,645 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	2,323	in: 1997	Reference: 49
Reported catch (t):		in:	Reference:
Estimated catch (t):	15,468		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 44

There is no record of a female vessel owner or crew-member. Women do not traditionally work onboard fishing vessels. While the physical nature of the labor is the most commonly cited barrier for women entering the fisheries sector, it is important to note that the sea-going fishery does not meet the social aspirations of most women. Women participating in inland fisheries or small-scale coastal fisheries and aquaculture are often born into families who have traditionally worked in these fisheries. It is noted that 2,742 women work in aquaculture.

Small-scale fisheries of: Ghana

Definition: Small canoes with no engines and all crafts with outboard motors

Inshore fishing area:	22,502 km ²		Hum. dev. index: Medium
Reported # of fishers:	101,000	in: 2001	Reference: 15
Reported # of boats:	8,641	in: 2001	Reference: 15
Reported catch (t):	160,577	in: 2003	Reference: 118
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 353

In the Fanti town of Cape Coast, Ghana, women are the processors and marketers of fish and women fishtraders have become powerful financiers and owners of canoes, nets, and fishing equipment. Researchers have suggested that some development projects targeting women in fisheries have contributed to the breakdown of fishtraders' traditional economic networks as well as livelihood strategies, e.g., Women in Development (WID) loan schemes that target women's associations, and the 1985 Interstate Succession Law, which reconfigured inheritance rights (Ref. 353).

Small-scale fisheries of: Greece

Definition: Seiners, small ring netters, small drifters and liners fishing near the shore; referred to as inshore fisheries

Inshore fishing area:	81,451 km ²		Hum. dev. index: High
Reported # of fishers:	14,853	in: 1995	Reference: 328
Reported # of boats:	16,680	in: 1996	Reference: 328
Reported catch (t):	79,000	in: 1999	Reference: 328
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 44

Women are involved with inshore fisheries on small coastal vessels. 2,905 women work in marine fisheries and 300 work in aquaculture. Greek women do not tend to have separate fishery co-operatives, but instead are members of fishermen's co-operatives and unions (Ref. 44).

Small-scale fisheries of: Grenada

Definition:

Inshore fishing area:	2,237 km ²		Hum. dev. index: Medium
Reported # of fishers:	1,931	in: 2004	Reference: 13
Reported # of boats:	560	in: 2005	Reference: 13
Reported catch (t):		in:	Reference:
Estimated catch (t):	1,105		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 170;

Over the last ten years, the fishing industry in Grenada has developed from artisanal to a more commercialized fishery harvesting multispecies stock (Ref. 170).

Small-scale fisheries of: Guam

Definition:

Inshore fishing area:	492 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):	129	in:	Reference: 357
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Guatemala

Definition: Boat size less than 10 GRT

Inshore fishing area:	14,422 km ²		Hum. dev. index: Medium
Reported # of fishers:	10,269	in: 1999	Reference: 66
Reported # of boats:	5,215	in: 1999	Reference: 66
Reported catch (t):		in:	Reference:
Estimated catch (t):	7,127		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 171;
Note: gross value of artisanal fisheries: US \$ 45.6 million (Ref. 171).			

Small-scale fisheries of: Guinea

Definition:

Inshore fishing area:	19,525 km ²		Hum. dev. index: Low
Reported # of fishers:	30,000	in: 2001	Reference: 12
Reported # of boats:	2,350	in: 2001	Reference: 95
Reported catch (t):	50,000	in: 2002	Reference: 12
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: GuineaBissau

Definition: Boat engine less than 60 HP

Inshore fishing area:	27,513 km ²		Hum. dev. index: Low
Reported # of fishers:	7,775	in: 2004	Reference: 7
Reported # of boats:	107	in: 2001	Reference: 96
Reported catch (t):	5,400	in: 1997	Reference: 50
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Guyana

Definition: Boat size between 4.5 - 9 m in length

Inshore fishing area:	23,397 km ²		Hum. dev. index: Medium
Reported # of fishers:	5,644	in: 2002	Reference: 21
Reported # of boats:	1,300	in: 2005	Reference: 172
Reported catch (t):		in:	Reference:
Estimated catch (t):	11,562		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 172;
All fisheries are small-scale (Ref. 172).			

Small-scale fisheries of: Haiti

Definition:

Inshore fishing area:	6,683 km ²		Hum. dev. index: Low
Reported # of fishers:	30,000	in: 2003	Reference: 355
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	10,895		Computed from: 1.630 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 358;
Small-scale fisheries are all marine (Ref. 358).			

Small-scale fisheries of: Honduras

Definition:

Inshore fishing area:	52,973 km ²		Hum. dev. index: Medium
Reported # of fishers:	11,700	in: 2000	Reference: 74
Reported # of boats:	2,450	in: 2000	Reference: 74
Reported catch (t):		in:	Reference:
Estimated catch (t):	26,178		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 347

The majority of women fish in mangrove estuaries catching a range of fresh-water and marine fish, crustaceans, and mollusks along the shoreline. In addition to the fish women catch, e.g., eels, catfish and sharks, shellfish and crabs in particular provide essential nutrients and proteins to supplement a typical family diet of corns and beans. Mangrove management plans have failed to adequately document how women use and manage coastal resources (Ref. 347).

Small-scale fisheries of: Hong Kong

Definition:

Inshore fishing area:	2,609 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	2,871	in: 2005	Reference: 264
Reported catch (t):		in:	Reference:
Estimated catch (t):	1,317		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s):

Small-scale fisheries of: Iceland

Definition: Boat size less than 10 GRT

Inshore fishing area:	79,610 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	1,100	in: 2000	Reference: 307
Reported catch (t):	65,000	in: 2000	Reference: 307
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 174; 281

Groundfish are four times more valuable than pelagic species (Ref. 174). Women often fish with their families but their participation in fisheries is not always recognized in policy decisions. For example, no women were involved in the introduction of the quota system. In a comparative study of five Arctic countries, women's participation in governmental bodies dealing with fisheries and aquaculture policy varied from 0-50%. Women's presence on boards of companies was 3.9% while men's was 96.1% (Ref. 281).

Small-scale fisheries of: India

Definition: Boat size between 16-20 m in length (small-scale fisheries); artisanal fisheries boat size is less than 12 m; boat size less than 25 GRT; rudimentary dugout canoes to motorized boat; trawler of

Inshore fishing area:	326,668 km ²		Hum. dev. index: Medium
Reported # of fishers:	1,025,000	in:	Reference: 27
Reported # of boats:	260,347	in: 1998	Reference: 55
Reported catch (t):	1,500,000	in: 2001	Reference: 298
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 255

Small-scale is not a recognized legal category in India. If overall length (OAL) or gross registered tonnage (GRT) is used for defining the small-scale subsector (less than 20m OAL or 25 GRT) almost the entire fishing fleet would fit these criteria (Ref. 298). Small-scale fisheries expanded rapidly during the 1990s; In the traditional fisheries of Kerala, the number of plywood vessels increased by 300 per cent, from less than 2,000 in 1991 to close to 6,000 in 1998. All are motorized (Ref. 255). There are about 10 lakh (1 lakh - 100,000) fisherwomen in India, not including the inland and aquaculture sector. Women catch prawns and fish in canals and impounded water during low tide and also support their husbands by cast netting and collecting prawn larvae from the surf (Ref. 255).

Small-scale fisheries of: Indonesia

Definition: Fishing units without boat, or with boats powered by sail or outboard engines

Inshore fishing area: 2,039,381 km ²		Hum. dev. index: Medium
Reported # of fishers: 1,712,160	in: 1997	Reference: 324
Reported # of boats: 334,202	in: 1998	Reference: 56
Reported catch (t): 2,169,557	in: 1998	Reference: 56
Estimated catch (t):		Computed from: t/km ²
Percent of this catch included in FAO statistics:	%	
Ex-vessel value of the catch:	million USD	
Additional information (incl. on gender):		Reference(s): 176;
Fisheries are mostly marine (Ref. 176).		

Small-scale fisheries of: Iran

Definition: Boat size of 2-11 m in length

Inshore fishing area: 99,151 km ²		Hum. dev. index: Medium
Reported # of fishers:	in:	Reference:
Reported # of boats: 7,653	in: 2003	Reference: 119
Reported catch (t): 42,045	in: 1994	Reference: 282
Estimated catch (t):		Computed from: t/km ²
Percent of this catch included in FAO statistics:	%	
Ex-vessel value of the catch:	million USD	
Additional information (incl. on gender):		Reference(s): 177;
Despite the lack of recognition of an EEZ in the Gulf of Oman, FAO's fisheries profile of Iran notes that conflicts are rare. Due to artisanal deep sea fishing beginning in 1998, Iran's share of tuna resources in the NW Indian Ocean has increased from 5% in 1995 to more than 12% in 2003 (Ref. 177).		

Small-scale fisheries of: Iraq

Definition:

Inshore fishing area:	771 km ²		Hum. dev. index: Medium
Reported # of fishers:	20,000	in: 1997	Reference: 51
Reported # of boats:	1,600	in: 1997	Reference: 265
Reported catch (t):	13,400	in: 1998	Reference: 266
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 178;

All fisheries are small-scale (Ref. 178). From 1991 to 2003, the Ba'athist regime nearly destroyed Iraq's marshlands, one of the largest wetlands in the world. Massive drainage structures diverted water from 8,000 square miles of marshes. Hussein ordered the introduction of pesticides to kill the fish and wildlife in the marshes, an area he considered to be a refuge for the Shiite opponents of his regime. The drainage affected the 5,000-year-old Marsh Arab society, among the poorest people in Iraq, who have traditionally relied on fish for subsistence. The Ba'athists raided settlements (killing tens of thousands of villagers and burning their houses and killing their livestock). The Marsh Arabs were exiled or internally displaced, some were forced to relocate as many as 18 times (Ref. 350).

Small-scale fisheries of: Ireland

Definition: Boat size less than 15 m in length

Inshore fishing area:	62,212 km ²		Hum. dev. index: High
Reported # of fishers:	3,700	in: 1999	Reference: 304
Reported # of boats:	1,744	in: 1999	Reference: 304
Reported catch (t):		in:	Reference:
Estimated catch (t):	31,402		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 40

In the early 1960s, the association Mna Na Mara (Women of the Sea) was created by women to establish contacts and solidarity amongst fishermen's wives. Today, with 130 members, the association has 17 sub-groups, each with different activities, e.g., training, psychological support for families in grief, making information accessible to young people, addressing safety concerns. One current project involves language courses to help members branch out into an international network (Ref. 40).

Small-scale fisheries of: Israel

Definition: Boat size less than 15 m in length

Inshore fishing area:	3,745 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	397	in: 1993	Reference: 45
Reported catch (t):	1,915	in: 1993	Reference: 45
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 180;
All small-scale fisheries are marine fisheries (Ref. 180).			

Small-scale fisheries of: Italy

Definition: Boat size less than 12 m in length

Inshore fishing area:	116,834 km ²		Hum. dev. index: High
Reported # of fishers:	19,358	in: 2002	Reference: 316
Reported # of boats:	10,296	in: 2002	Reference: 316
Reported catch (t):	55,600	in: 2002	Reference: 316
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 44
Studies consistently reveal a very limited presence of women employed onboard fishing vessels. Cultural reasons are commonly cited as a barrier preventing women from seeking employment in a traditionally male occupation. Overall, studies cite few women in marine fisheries (12 women) and aquaculture (22 women; Ref. 44).			

Small-scale fisheries of: Jamaica

Definition:

Inshore fishing area:	9,802 km ²		Hum. dev. index: Medium
Reported # of fishers:	20,000	in: 2004	Reference: 286
Reported # of boats:	3,906	in: 2004	Reference: 286
Reported catch (t):		in:	Reference:
Estimated catch (t):	4,844		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 241; 286

Almost all fisheries are marine; 50% of all households are involved in subsistence fishing (Ref. 241).
Approximately 5% (about 691) of registered fishers are women who actively engage in fishing at sea (Ref. 286).

Small-scale fisheries of: Japan

Definition: Boat size less than 12 m in length, or less than 10 GRT

Inshore fishing area:	323,834 km ²		Hum. dev. index: High
Reported # of fishers:	177,000	in: 2003	Reference: 120
Reported # of boats:	230,989	in: 2002	Reference: 120
Reported catch (t):	1,577,000	in: 2003	Reference: 120
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 273;

Of the 1 million members of fisheries cooperatives in Japan, coastal fishers belonging to local fisheries associations represented 52% of membership in 1994 (Ref. 273).

Small-scale fisheries of: Jordan

Definition:

Inshore fishing area:	59 km ²		Hum. dev. index: Medium
Reported # of fishers:	230	in: 1999	Reference: 319
Reported # of boats:	100	in: 2002	Reference: 319
Reported catch (t):	170	in: 2001	Reference: 97
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 319;

Collection of fisheries statistics ceased in 1985 in Jordan, due to the closure of access to fishing grounds in Egypt and Saudi Arabia. This resulted in a sharp decline in the size of Jordan's artisanal fisheries; 65% of artisanal catch in 2001 was tuna (Ref. 319).

Small-scale fisheries of: Kenya

Definition: Small, non-motorized boats such as outriggers, dhows, cataracts and planked pirogues

Inshore fishing area:	11,073 km ²		Hum. dev. index: Medium
Reported # of fishers:	4,000	in: 1992	Reference: 346
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	5,472		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s):

Small-scale fisheries of: Korea Rep

Definition: Boat size less than 10 GRT

Inshore fishing area:	119,865 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	60,502		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Kuwait

Definition: Boat size less than 12 m in length

Inshore fishing area:	9,976 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	846	in: 2003	Reference: 121
Reported catch (t):	4,455	in: 2003	Reference: 121
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 186;

Kuwait has a history of traditional fisheries; aside from the industrial shrimp fishery, the fleet remains essentially artisanal in nature. The artisanal fleet lands about 90% of the finfish landings and 45% of the shrimp landings (Ref. 186).

Small-scale fisheries of: Latvia

Definition: Boat size less than 14 m in length, but majority are less than 12 m.

Inshore fishing area:	14,275 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:	742	in: 2003	Reference: 122
Reported catch (t):	3,500	in: 2003	Reference: 122
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Lebanon

Definition:

Inshore fishing area:	1,067 km ²		Hum. dev. index: Medium
Reported # of fishers:	4,000	in: 1997	Reference: 253
Reported # of boats:		in:	Reference:
Reported catch (t):	3,646	in: 2002	Reference: 38
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Libya

Definition:

Inshore fishing area:	64,763 km ²	Hum. dev. index:	Medium
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Reported # of fishers:	in:	Reference:
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Reported # of boats:	1,866	in: 2000	Reference: 290
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Reported catch (t):	in:	Reference:
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Estimated catch (t):	32,004	Computed from:	0.494 t/km ²
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Percent of this catch included in FAO statistics:	%
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Ex-vessel value of the catch:	million USD
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Additional information (incl. on gender):	Reference(s): 188;
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All fisheries are small-scale. Inland fisheries also exist (Ref. 188).

Small-scale fisheries of: Lithuania

Definition:

Inshore fishing area:	3,138 km ²	Hum. dev. index:	Medium
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Reported # of fishers:	in:	Reference:
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Reported # of boats:	200	in: 2005	Reference: 189
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Reported catch (t):	in:	Reference:
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Estimated catch (t):	1,551	Computed from:	0.494 t/km ²
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Percent of this catch included in FAO statistics:	%
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Ex-vessel value of the catch:	million USD
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Additional information (incl. on gender):	Reference(s):
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Small-scale fisheries of: Madagascar

Definition:

Inshore fishing area:	101,505 km ²		Hum. dev. index: Low
Reported # of fishers:	50,000	in: 1998	Reference: 57
Reported # of boats:	22,000	in: 1998	Reference: 57
Reported catch (t):	63,094	in: 1998	Reference: 57
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Malaysia

Definition: Small unmechanized or outboard powered crafts, mostly less than 10 GRT, operating in shallow waters with traditional gear.

Inshore fishing area:	180,845 km ²		Hum. dev. index: Medium
Reported # of fishers:	84,800	in: 1991	Reference: 273
Reported # of boats:	23,480	in: 1997	Reference: 3
Reported catch (t):	277,708	in: 1994	Reference: 3
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 356

Women's participation in fishing is evident only in the east coast states of Kelantan and Terengganu and, to a lesser extent, in Kedah on the west coast of Peninsular Malaysia. These women typically fish from shore or in shallow, protected waters with simple hand-operated gear (e.g., hooks and lines, scoop nets or traps). The catch is for home consumption but the surplus is commonly sold to local fish dealers and village retailers, as well as friends and relatives. Studies report that, due to lack of income-earning opportunities, increasing numbers of women in small-scale fishing communities in Kelantan are joining their husbands in marine fishing. Other women accompany their husbands not because they lack alternatives but because they are accustomed to fishing and do not view women's participation in fisheries as abnormal (Ref. 356).

Small-scale fisheries of: Maldives

Definition:

Inshore fishing area:	34,538 km ²		Hum. dev. index: Medium
Reported # of fishers:	14,995	in: 2003	Reference: 345
Reported # of boats:	1,674	in: 1995	Reference: 47
Reported catch (t):		in:	Reference:
Estimated catch (t):	17,068		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 191;
Small-scale fisheries are mainly marine (Ref. 191).			

Small-scale fisheries of: Malta

Definition: Boat size less than 15 m in length

Inshore fishing area:	5,301 km ²		Hum. dev. index: High
Reported # of fishers:	1,864	in: 1998	Reference: 31
Reported # of boats:	1,036	in: 1997	Reference: 31
Reported catch (t):	887	in: 1997	Reference: 31
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Mauritania

Definition:

Inshore fishing area:	31,662 km ²		Hum. dev. index: Low
Reported # of fishers:	10,000	in: 1997	Reference: 52
Reported # of boats:	3,000	in: 1997	Reference: 52
Reported catch (t):	10,000	in: 1997	Reference: 52
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Mauritius

Definition: Boat size less than 10 m in length

Inshore fishing area:	29,061 km ²		Hum. dev. index: Medium
Reported # of fishers:	2,700	in: 1997	Reference: 30
Reported # of boats:	1,073	in: 1995	Reference: 30
Reported catch (t):	1,443	in: 1997	Reference: 30
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 192;
Small-scale fisheries are all marine (Ref. 192).			

Small-scale fisheries of: Mexico

Definition: Boat size between 10-13.5 m in length

Inshore fishing area:	419,102 km ²		Hum. dev. index: Medium
Reported # of fishers:	138,941	in: 2001	Reference: 28
Reported # of boats:	102,807	in: 2001	Reference: 98
Reported catch (t):		in:	Reference:
Estimated catch (t):	207,109		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 193;
Small-scale fisheries are mostly marine (Ref. 193).			

Small-scale fisheries of: Morocco

Definition:

Inshore fishing area:	53,746 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:	18,000	in: 2000	Reference: 75
Reported catch (t):	765,241	in: 2002	Reference: 9
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Mozambique

Definition: Boat size between 3 - 8 m in length

Inshore fishing area:	94,212 km ²		Hum. dev. index: Low
Reported # of fishers:	50,000	in: 2001	Reference: 99
Reported # of boats:	16,000	in: 1998	Reference: 99
Reported catch (t):	100,000	in: 2001	Reference: 99
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 194;
Main fishing gears are beach seine, gillnet and handline (Ref. 194).			

Small-scale fisheries of: Myanmar

Definition: Fishing in onshore area (intertidal zone) and inshore (9-18 km from coast)

Inshore fishing area:	162,508 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:	26,099	in: 2001	Reference: 195
Reported catch (t):	62,000	in: 2001	Reference: 100
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Namibia

Definition: Boat size less than 12 m in length

Inshore fishing area:	73,134 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:	29	in: 2000	Reference: 76
Reported catch (t):	365	in: 2000	Reference: 76
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 196;

Because approximately 75% of Namibia's population live in rural areas, predominantly inland, the marine subsistence fishing sub-sector is virtually nonexistent (Ref. 196).

Small-scale fisheries of: Netherlands

Definition: Boat engine less than 60 HP

Inshore fishing area:	28,081 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	291	in: 2000	Reference: 77
Reported catch (t):		in:	Reference:
Estimated catch (t):	14,174		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 44

Approximately 202 women work in the fisheries sector (excluding processing) and 11 work in aquaculture. One woman works as crew member on a fishing vessel on a regular basis; four others do so occasionally (Ref. 44). VinVis is an independent Dutch network created in 2000 to bring together women who are concerned about fisheries and the fishing community. Members share experiences from diverse fishing trades, discuss the changing roles of fishermen's wives, and take part in public meetings. Members of this network have established an increasing number of contacts with fishermen's wives from other countries in Europe. According to members, because fishermen's wives are always onshore, they are in a much better position than their husbands to defend the interests of the fishery sector (Ref. 40).

Small-scale fisheries of: New Zealand

Definition: Boat size between 6-18 m in length

Inshore fishing area:	275,790 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	1,185	in: 2003	Reference: 123
Reported catch (t):		in:	Reference:
Estimated catch (t):	139,206		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 198;

Since the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, Maori fishers now control more than half of all commercial fishing through various company and quota ownerships. New Zealand's legislation supports a framework in which Maori manage their customary fishing rights (Ref. 198).

Small-scale fisheries of: Nicaragua

Definition: Boat size between 5- 10 m in length

Inshore fishing area:	54,615 km ²		Hum. dev. index: Medium
Reported # of fishers:	13,439	in: 2002	Reference: 106
Reported # of boats:	472	in: 2001	Reference: 106
Reported catch (t):	4,308	in: 2001	Reference: 101
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 199

2,455 of 13,439 registered artisanal fishers are female (Ref. 199).

Small-scale fisheries of: Nigeria

Definition: Artisanal canoes of 6-13m in size, exploit coastal waters up to 9 km from shore

Inshore fishing area:	42,285 km ²		Hum. dev. index: Low
Reported # of fishers:	700,000	in: 2002	Reference: 340
Reported # of boats:		in:	Reference:
Reported catch (t):	320,000	in: 2002	Reference: 329
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 200;
<i>Sardinella</i> spp., <i>Ethmalosa</i> spp. are landed in huge quantities in season (November to April) by artisanal fishers (Ref. 200).			

Small-scale fisheries of: Norway

Definition: Boat size less than 13 m in length

Inshore fishing area:	151,814 km ²		Hum. dev. index: High
Reported # of fishers:	1,450	in: 2000	Reference: 279
Reported # of boats:	1,180	in: 2000	Reference: 279
Reported catch (t):		in:	Reference:
Estimated catch (t):	76,629		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 201;
Arctic-Norwegian cod is the main target species for small-scale fisheries, both in terms of volume and value (Ref. 201).			

Small-scale fisheries of: Oman

Definition: Boats less than 10 m in length, except launches (wooden vessels 12 m or more in length with inboard diesel engines; 3 percent of artisanal vessels)

Inshore fishing area:	59,071 km ²		Hum. dev. index: Medium
Reported # of fishers:	26,944	in: 1998	Reference: 58
Reported # of boats:	13,109	in: 1998	Reference: 58
Reported catch (t):	88,560	in: 1998	Reference: 58
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 202;

Fisheries activities in the Sultanate of Oman can currently be divided into three distinct categories: (a) traditional, (b) industrial and (c) government-sponsored projects (Ref. 202).

Small-scale fisheries of: Pakistan

Definition: Boats fish in water not deeper than 50 m, and within 12-nautical-mile coastal zone (territorial waters)

Inshore fishing area:	45,913 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	22,689		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 203;

Small-scale fisheries are mainly marine (Ref. 203).

Small-scale fisheries of: Panama

Definition: Less than 10 GRT (except vessels fishing seabream, dusky grouper, pompano dolphinfish and sharks with more than 10 GRT)

Inshore fishing area:	53,404 km ²		Hum. dev. index: Medium
Reported # of fishers:	13,062	in: 2000	Reference: 78
Reported # of boats:	5,346	in: 2000	Reference: 78
Reported catch (t):	93	in: 2001	Reference: 25
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Papua N Guin

Definition: Boat size between 3-10 m in length, small engine

Inshore fishing area:	191,256 km ²		Hum. dev. index: Medium
Reported # of fishers:	120,000	in: 2001	Reference: 5
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	94,514		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 321; 335

Collection of invertebrates, both commercially (beche de mer as well as trochus and other shells) and for subsistence purposes, is extensive and may exceed finfish harvests (Ref. 321). The total fishing yield supplied by Gulf of Papua New Guinea women fishers in 1987 was between 25 - 50% (Ref. 335). Women harvest small fish, molluscs and invertebrates in lagoons and inter-tidal and inshore areas in the Pacific. Trobriand Islands and the south coast of mainland Milne Bay women harvest invertebrates such as mud crabs. More recently, women became involved in bêche-de-mer fishery where they work as harvesters, as well as scouts for male divers (Ref. 285).

Small-scale fisheries of: Peru

Definition: Boat size with hold capacity of less than 30 metric tonnes.

Inshore fishing area:	82,000 km ²		Hum. dev. index: Medium
Reported # of fishers:	56,800	in: 2000	Reference: 277
Reported # of boats:	6,258	in: 2000	Reference: 277
Reported catch (t):	374,196	in: 2001	Reference: 277
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Philippines

Definition: Boat size less than 3 GRT

Inshore fishing area:	272,921 km ²		Hum. dev. index: Medium
Reported # of fishers:	684,000	in: 2000	Reference: 79
Reported # of boats:		in:	Reference:
Reported catch (t):	793,824	in: 2003	Reference: 247
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 207;

In marine fisheries, declining catches are related to fishers' low incomes. Estimated catches of 2 kg per day in 2000 represent a drastic change from the 20 kg per day average during the 1970s. Despite low production of inland fisheries compared to marine fisheries, it is important to note that inland fisheries provide subsistence livelihoods for thousands of marginal fishermen (Ref. 207).

Small-scale fisheries of: Poland

Definition: Boats of overall length up to 15 m, operating in waters up to 22 from coast

Inshore fishing area:	19,142 km ²		Hum. dev. index: High
Reported # of fishers:	2,400	in: 1998	Reference: 59
Reported # of boats:	1,120	in: 1998	Reference: 59
Reported catch (t):	7,150	in: 1998	Reference: 59
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Portugal

Definition: Boat size less than 5 GRT

Inshore fishing area:	23,728 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	9,510	in: 1998	Reference: 60
Reported catch (t):		in:	Reference:
Estimated catch (t):	11,977		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 44

8,666 women work in fisheries overall: 490 are fishers and 42 work in aquaculture (Ref. 44).

Small-scale fisheries of: Qatar

Definition:

Inshore fishing area:	25,318 km ²		Hum. dev. index: High
Reported # of fishers:	3,911	in: 2000	Reference: 80
Reported # of boats:	515	in: 2001	Reference: 80
Reported catch (t):		in:	Reference:
Estimated catch (t):	12,779		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 210;
Small-scale fishers caught 1820 t each of emperor (<i>Lethrinus</i> spp) and groupers (<i>Epinephelus</i> spp) in 2001 (42% together of total landings; Ref. 210).			

Small-scale fisheries of: Romania

Definition: Boat size less than 11 GRT

Inshore fishing area:	9,282 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	4,587		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Russian Fed

Definition: Small vessels of 24.34 m in length

Inshore fishing area: 1,583,754 km ²		Hum. dev. index: Medium
Reported # of fishers:	in:	Reference:
Reported # of boats: 800	in: 2002	Reference: 107
Reported catch (t):	in:	Reference:
Estimated catch (t): 782,650		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:	%	
Ex-vessel value of the catch:	million USD	
Additional information (incl. on gender):		Reference(s):

Small-scale fisheries of: Samoa

Definition: Boats less than 15m in length

Inshore fishing area: 2,087 km ²		Hum. dev. index: Medium
Reported # of fishers:	in:	Reference:
Reported # of boats:	in:	Reference:
Reported catch (t): 7,293	in: 1999	Reference: 67
Estimated catch (t):		Computed from: t/km ²
Percent of this catch included in FAO statistics:	%	
Ex-vessel value of the catch:	million USD	
Additional information (incl. on gender):		Reference(s): 289

In Samoa, 18% of all village fishers are female. These fisherwomen harvest around 23% of the total weight of seafood. Because women collect the majority of marine bivalves and other invertebrates in Samoa, it is estimated that they provide 20% of the per capita seafood consumption of 71 kg per year (44 kg of fish, 13 kg of invertebrates and seaweed, and 14 kg of canned fish; Ref. 289).

Small-scale fisheries of: Sao Tome Prn

Definition: Boat size less than 10 GRT

Inshore fishing area:	1,902 km ²		Hum. dev. index: Medium
Reported # of fishers:	2,900	in: 1994	Reference: 46
Reported # of boats:	2,400	in: 1994	Reference: 46
Reported catch (t):	3,150	in: 2002	Reference: 329
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Saudi Arabia

Definition:

Inshore fishing area:	107,249 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:	9,436	in: 2003	Reference: 124
Reported catch (t):		in:	Reference:
Estimated catch (t):	53,000		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Senegal

Definition:

Inshore fishing area:	23,092 km ²		Hum. dev. index: Low
Reported # of fishers:	52,200	in: 1997	Reference: 53
Reported # of boats:	10,000	in: 1998	Reference: 53
Reported catch (t):	311,536	in: 2002	Reference: 108
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Seychelles

Definition:

Inshore fishing area:	39,063 km ²		Hum. dev. index: Medium
Reported # of fishers:	1,000	in: 2001	Reference: 318
Reported # of boats:	400	in: 1997	Reference: 333
Reported catch (t):	5,000	in: 2001	Reference: 318
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 216;
All fisheries are small-scale; marine sector is small (Ref. 216).			

Small-scale fisheries of: Sierra Leone

Definition: Canoes fishing within 5 - 9 km from shore (Inshore Exclusive Zone, IEZ)

Inshore fishing area:	23,061 km ²		Hum. dev. index: Low
Reported # of fishers:	25,000	in: 2000	Reference: 81
Reported # of boats:	7,000	in: 2000	Reference: 81
Reported catch (t):	52,200	in: 2002	Reference: 329
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 217;

The artisanal marine fisheries sector produces an estimated 70 percent of fish consumed by Sierra Leone's domestic market. While this quantity is high, the value is quite low (Ref. 217).

Small-scale fisheries of: Singapore

Definition:

Inshore fishing area:	1,067 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	539		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s):

Small-scale fisheries of: Slovenia

Definition:

Inshore fishing area:	220 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	95	in: 1998	Reference: 61
Reported catch (t):		in:	Reference:
Estimated catch (t):	111		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Solomon Is.

Definition:

Inshore fishing area:	36,282 km ²		Hum. dev. index: Medium
Reported # of fishers:	5,506	in: 2000	Reference: 82
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	17,930		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 218;

Because about 90% of the population in Solomon Islands lives in rural areas, subsistence and artisanal fishing activities in coastal areas and nearshore reefs and lagoons are extremely important. Due to civil unrest, violence, and tension among ethnic groups, in 2000 many fishing businesses closed, air service to the country was suspended, and fishery exports declined substantially (Ref. 218).

Small-scale fisheries of: South Africa

Definition:

Inshore fishing area:	131,147 km ²	Hum. dev. index:	Medium
Reported # of fishers:	in:	Reference:	
Reported # of boats:	in:	Reference:	
Reported catch (t):	in:	Reference:	
Estimated catch (t):	64,809	Computed from:	0.494 t/km ²
Percent of this catch included in FAO statistics:	%		
Ex-vessel value of the catch:	million USD		
Additional information (incl. on gender):		Reference(s):	219;
Small-scale fisheries are all marine (Ref. 219).			

Small-scale fisheries of: Spain

Definition:

Inshore fishing area:	71,702 km ²	Hum. dev. index:	High
Reported # of fishers:	in:	Reference:	
Reported # of boats:	12,667	in: 2000	Reference: 83
Reported catch (t):	in:	Reference:	
Estimated catch (t):	36,192	Computed from:	0.505 t/km ²
Percent of this catch included in FAO statistics:	%		
Ex-vessel value of the catch:	million USD		
Additional information (incl. on gender):		Reference(s):	
<p>'Mariscadoras', i.e., women who harvest foreshore shellfish on foot, are often women over fifty. The trade is practiced by 5,900 Galicians, 90% are women. In 2001, 6,500 t of foreshore shellfish were harvested (worth 47 million euros); a fishery, dominated by women and accounts for 13% of Galicia's total catches. The Association of the Marisqueo Professionals of Galicia (AREAL; with 2,200 members), was created in 2002 to bring together local associations of mariscadoras. The AREAL president stress the importance of reevaluating resource management decisions affecting fisherwomen who are considered neither as fishers nor aquaculturers. Galician women's employment in coastal fisheries is stable but limited. Most women working in the sector are between 30-40 years old and new fishers. Aside from mariscadoras, 45 women work in coastal fishing and 58 work in aquaculture. In Andalucia, no women work in coastal fishing but 46 work in aquaculture (Ref. 44).</p>			

Small-scale fisheries of: Sri Lanka

Definition:

Inshore fishing area:	32,453 km ²		Hum. dev. index: Medium
Reported # of fishers:	110,000	in: 1997	Reference: 297
Reported # of boats:	24,900	in: 1998	Reference: 62
Reported catch (t):	50,000	in: 1994	Reference: 297
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 220;

The marine fisheries sector contributes 90% the total fish production of Sri Lanka. Of this, over 72% comes from the coastal fisheries. Shrimp and lobster are the most valuable species commercially for small-scale fishers (Ref. 220).

Small-scale fisheries of: St Kitts Nev

Definition: Boat size between 3-6 m in length

Inshore fishing area:	653 km ²		Hum. dev. index: Medium
Reported # of fishers:	650	in: 2001	Reference: 20
Reported # of boats:	331	in: 2000	Reference: 84
Reported catch (t):		in:	Reference:
Estimated catch (t):	323		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	

Additional information (incl. on gender): Reference(s): 221;

Small-scale fisheries are all marine; this sector provides a small contribution to GDP (compared to oil; Ref. 221).

Small-scale fisheries of: St Lucia

Definition:

Inshore fishing area:	544 km ²		Hum. dev. index: Medium
Reported # of fishers:	2,059	in: 2001	Reference: 20
Reported # of boats:	907	in: 2000	Reference: 85
Reported catch (t):		in:	Reference:
Estimated catch (t):	269		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: St Vincent

Definition:

Inshore fishing area:	1,561 km ²		Hum. dev. index: Medium
Reported # of fishers:	2,500	in: 2001	Reference: 20
Reported # of boats:		in:	Reference:
Reported catch (t):	1,120	in: 2002	Reference: 109
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Sudan

Definition:

Inshore fishing area:	19,827 km ²		Hum. dev. index: Low
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):	5,000	in: 2002	Reference: 110
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Suriname

Definition: Boat size less than 15 m in length, fishing in water less than 10 m in depth

Inshore fishing area:	18,184 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:	230	in: 2000	Reference: 86
Reported catch (t):		in:	Reference:
Estimated catch (t):	8,986		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Sweden

Definition: Boat size less than 12 m

Inshore fishing area:	106,639 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:	1,183	in: 1998	Reference: 63
Reported catch (t):		in:	Reference:
Estimated catch (t):	53,826		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 44

Women's participation in sea fisheries has traditionally been in small-scale, inshore fisheries, which operate using low technology gear close to home. Approximately 113 women work in fishing (not including processing; Ref. 44).

Small-scale fisheries of: Syria

Definition: Boat size between 4-10 m in length

Inshore fishing area:	1,085 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	536		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Tanzania

Definition: Local, traditional and primitive methods of fishing; low levels of mechanization and labour intensive

Inshore fishing area:	25,611 km ²		Hum. dev. index: Low
Reported # of fishers:	20,000	in: 2003	Reference: 16
Reported # of boats:	6,000	in: 2003	Reference: 16
Reported catch (t):	50,000	in: 1995	Reference: 294
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Thailand

Definition: Boat size less than 10 GRT

Inshore fishing area:	130,566 km ²		Hum. dev. index: Medium
Reported # of fishers:	47,620	in: 2002	Reference: 320
Reported # of boats:	54,538	in: 2002	Reference: 320
Reported catch (t):		in:	Reference:
Estimated catch (t):	64,522		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Togo

Definition: Fishing on foot or using different non-motorized boat

Inshore fishing area:	1,265 km ²		Hum. dev. index: Low
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):	10,146	in: 1999	Reference: 68
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Trinidad Tob

Definition: Boat size of 7-10 m, with 40-75 HP outboard engines (Trinidad), and 6.7-12.1m, with 15-100 HP outboard engines (Tobago)

Inshore fishing area:	25,284 km ²		Hum. dev. index: Medium
Reported # of fishers:	2,146	in: 2002	Reference: 322
Reported # of boats:	1,073	in: 2002	Reference: 322
Reported catch (t):		in:	Reference:
Estimated catch (t):	12,495		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 230;
Approximately 80% of the annual national marine catch is caught by the artisanal inshore fleet (Ref. 230).			

Small-scale fisheries of: Tunisia

Definition:

Inshore fishing area:	53,060 km ²	Hum. dev. index:	Medium
Reported # of fishers:	in:	Reference:	
Reported # of boats:	10,720	in: 2003	Reference: 125
Reported catch (t):	in:	Reference:	
Estimated catch (t):	26,221	Computed from:	0.494 t/km ²
Percent of this catch included in FAO statistics:	%		
Ex-vessel value of the catch:	million USD		
Additional information (incl. on gender):		Reference(s):	231;
Small-scale fisheries are mainly marine (Ref. 231).			

Small-scale fisheries of: Turkey

Definition: Boat size 10 m or less

Inshore fishing area:	56,093 km ²	Hum. dev. index:	Medium
Reported # of fishers:	in:	Reference:	
Reported # of boats:	in:	Reference:	
Reported catch (t):	in:	Reference:	
Estimated catch (t):	27,720	Computed from:	0.494 t/km ²
Percent of this catch included in FAO statistics:	%		
Ex-vessel value of the catch:	million USD		
Additional information (incl. on gender):		Reference(s):	232;
All fisheries are small-scale marine fisheries (Ref. 232).			

Small-scale fisheries of: UK

Definition: Boat size less than 10m in length

Inshore fishing area:	225,023 km ²		Hum. dev. index: High
Reported # of fishers:	5,500	in: 2004	Reference: 132
Reported # of boats:	6,867	in: 2002	Reference: 126
Reported catch (t):		in:	Reference:
Estimated catch (t):	113,581		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Ukraine

Definition: Fishing no farther than 2–3 hours' motor boat travel from landing sites

Inshore fishing area:	69,484 km ²		Hum. dev. index: Medium
Reported # of fishers:		in:	Reference:
Reported # of boats:	65	in: 2001	Reference: 127
Reported catch (t):	8,700	in: 2001	Reference: 102
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 234;
Until the ban on sturgeon fisheries in 2000, small-scale coastal fishers targeted sturgeons; now fishers commonly target mullets (Ref. 234).			

Small-scale fisheries of: Untd Arab Em

Definition: Boats less than 15 m in length

Inshore fishing area:	54,315 km ²		Hum. dev. index: High
Reported # of fishers:	17,264	in: 2002	Reference: 111
Reported # of boats:	1,038	in: 2002	Reference: 128
Reported catch (t):	8,184	in: 2002	Reference: 111
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Uruguay

Definition: Vessels less than 10 GRT, fishing within 13 km of the coast

Inshore fishing area:	27,863 km ²		Hum. dev. index: High
Reported # of fishers:	1,400	in: 2003	Reference: 32
Reported # of boats:	600	in: 2003	Reference: 32
Reported catch (t):	3,500	in: 2005	Reference: 32
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: US - Alaska

Definition:

Inshore fishing area:	690,906 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	348,738		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: US - Hawaii

Definition:

Inshore fishing area:	17,016 km ²		Hum. dev. index: High
Reported # of fishers:		in:	Reference:
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	8,589		Computed from: 0.505 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Vanuatu

Definition: Boat size less than 15 m in length

Inshore fishing area:	11,483 km ²		Hum. dev. index: Medium
Reported # of fishers:	10,000	in: 1999	Reference: 69
Reported # of boats:		in:	Reference:
Reported catch (t):		in:	Reference:
Estimated catch (t):	5,675		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Venezuela

Definition:

Inshore fishing area:	107,759 km ²		Hum. dev. index: Medium
Reported # of fishers:	40,000	in: 1998	Reference: 311
Reported # of boats:	16,600	in: 1998	Reference: 311
Reported catch (t):	386,129	in: 1998	Reference: 311
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Viet Nam

Definition: Boat size less than 10 GRT

Inshore fishing area:	178,006 km ²		Hum. dev. index: Medium
Reported # of fishers:	540,000	in: 2000	Reference: 296
Reported # of boats:	83,873	in: 1992	Reference: 273
Reported catch (t):		in:	Reference:
Estimated catch (t):	87,966		Computed from: 0.494 t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s):

Small-scale fisheries of: Yemen

Definition: Boat size between 5-7 m in length, fish in areas less than 100 m depth

Inshore fishing area:	59,229 km ²		Hum. dev. index: Low
Reported # of fishers:	41,322	in: 1998	Reference: 240
Reported # of boats:	8,030	in: 1998	Reference: 319
Reported catch (t):	105,191	in: 1998	Reference: 319
Estimated catch (t):			Computed from: t/km ²
Percent of this catch included in FAO statistics:		%	
Ex-vessel value of the catch:		million USD	
Additional information (incl. on gender):			Reference(s): 240;
All small-scale fisheries are marine fisheries (Ref. 240).			

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