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Integrating fisheries into the development discourse







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FOREWORD

Asia is the world's foremost capture fishery and aquaculture producer and is home to the majority of the world's fishers and fishing vessels. Consequently, one would expect this importance to be reflected in the national development discourse of Asian countries. This review by the Asia-Pacific Fishery Commission (APFIC) considers whether this is so by examining the socio-economic importance of fisheries in the region in terms of their contribution to primary exports, domestic protein consumption, employment, and the incidence of poverty within fishing communities. Furthermore, using a content analysis of key policy documents, the review assesses whether fisheries have been mainstreamed into national development and poverty reduction strategies produced across the APFIC region. The review concludes by offering some recommendations as to how APFIC member countries might strengthen the presence of the sector in the development discourse. This review will be of value to those who seek to understand the direction of fisheries policy in developing countries of Asia and the Pacific region better, particularly for the purpose of strengthening the visibility of fisheries in national development planning.

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1. Introduction

On 18 September 2000, the 55th Session of the General Assembly issued the United Nations Millennium Declaration. As well as fundamental shared values such as freedom, equality, tolerance and a respect for nature there was a pledge to free "our fellow men, women and children from the abject and dehumanizing conditions of extreme poverty" (UN, 2000:4). To this end a series of objectives, more commonly referred to as the Millennium Development Goals (MDG), was articulated, with the greatest prominence given to the commitment to halve by 2015 the proportion of the world's population subsisting on an income of less than US\$1 a day. Two years later, the World Summit on Sustainable Development (WSSD) held in Johannesburg not only reiterated the imperative to eradicate poverty across the developing world, but also signalled the importance of the Earth's oceans, seas, islands and coastal regions in sustaining economic prosperity and contributing to global food security. Integrated, multidisciplinary and multisectoral national programmes of coastal and ocean management, reinforced by strengthened regional cooperation and coordination mechanisms, were seen as fundamental in protecting natural resources and contributing to economic growth and poverty eradication (UN, 2002:14f f). This is particularly so in Asia and the Pacific region, where capture fisheries and/or aquaculture production are important contributors to GDP in many states where fisheries products are highly traded commodities and per capita fish consumption levels are very high. At the same time, trawl surveys indicate substantive degradation and overfishing of coastal stocks (Sugiyama, Staples and Funge-Smith, 2004: 1ff).

Despite the proportion of people in the region living on US\$1 a day having declined dramatically over the last fifteen years, almost two-thirds of the region's population (some 700 million people) are to be found among the world's poor (UNDP and OHRLLS, 2005). This prompted the joint United Nations Economic and Social Commission for Asia and the Pacific-United Nations Development Programme (UNESCAP-UNDP) report *Promoting the Millennium Development Goals in Asia and the Pacific: Meeting the Challenges of Poverty Reduction* (2003) to acknowledge that a further significant diminution in poverty could be attained if states encouraged agriculture and rural development,² citing China (in the 1980s) and Viet Nam (in the 1990s) as examples of how rapid economic growth could be paralleled by a sustained reduction in poverty. The point was reiterated by He Changchui, the FAO Regional Representative for Asia and the Pacific, on 22 September 2005 when he declared that "...agricultural growth, especially if focused on poor farmers, is the most important engine for the creation of employment and income for the poor" (FAO, 2005a: 1).

Although the role the fisheries sector³ could play in promoting growth and reducing poverty was, surprisingly, overlooked in both the 2003 UNESCAP-UNDP report and the subsequent UNDP publication *Pro-Poor Growth and Policies: The Asian Experience* (Pasha and Palanivel, 2004), this oversight has been redressed through the activities of FAO, other international donor agencies, and national governments in the region. The Network of Aquaculture Centres in Asia-Pacific (NACA) has been instrumental in increasing food production and foreign exchange earnings, and improving and diversifying rural incomes through coordinated regional action programmes (NACA, 2006). The Bay of Bengal Programme (established in 1979), for example, originally conceived as a technology-driven programme, grew to recognise the need for integrated and coordinated management of both coastal and nearshore living marine resources and evolved into a socio-economic programme

¹ Then estimated at 1 134 million, equivalent to around 25 percent of the population of the developing world.

The document also advocated export-oriented labour-intensive manufacturing as the most appropriate development strategy in the industrial arena

Unless otherwise stated, the term "fisheries sector" includes capture fisheries, aquaculture and connected activities in fish processing and marketing.

covering the entire ecosystem. Its successor, the Bay of Bengal Large Marine Ecosystem (BOBLME, 2005–11) programme, is explicitly committed to creating conditions which "lead to the improved well-being of rural fisher communities through incorporating regional approaches to resolving resource issues and barriers affecting their livelihoods" (GEF, 2005:5). Likewise, the goal of the Support to Regional Aquatic Resources Management (STREAM) initiative is to secure and advance the livelihoods of poor people across fifteen countries in Asia and the Pacific region by enabling them to exert greater influence over the aquatic resource management policies and processes that have an impact on their lives (STREAM, 2006).

The Asia-Pacific Fishery Commission (APFIC) also has an integral role to play in this process. In its new guise as a regional consultative forum it can stimulate discussion as to how the growth-enhancing, poverty-reducing potential of fisheries can be more effectively highlighted in the region, for if the regional MDG are to be reached fisheries "are an important area in the fight to eradicate extreme poverty and hunger" (Bakary Kante, Director UNEP/DEC, 3 May 2006). This article will provide some pointers in this respect. First, using a framework that illustrates the relative importance of the respective national fisheries sectors two key reasons why the sector should be mainstreamed into the development thinking and planning of developing APFIC nation states are outlined.⁴ Second, the extent to which the fisheries sector is presently mainstreamed into the key national policy documents of these states is examined. This allows the identification of whether such documents reflect the sector's current significance in the national development process. Third, some recommendations as to how developing APFIC nation states might proceed in order to raise the profile of the fisheries sector in the development discourse are offered.

2. Growth and equity: Grounds for inserting fisheries into key national policy documents

It is contended that the sector can have a particularly important role to play in the national development process on two counts. First, when it either contributes, or could potentially contribute, to underlying growth processes in a substantive manner ("the growth argument" for including fisheries in the national development discourse). Second, in those instances where a substantial number and/or substantive percentage of a country's fisheries-dependent population is enmeshed in poverty ("the equity argument" for inserting fisheries in the national development discourse).

A. Fisheries: The growth argument for inclusion

A pivotal component of the development strategy prescribed by major multilateral institutions like the World Bank during the 1980s and early 1990s, and one that carried over into many of the poverty reduction strategies of the early years of the twenty-first century, has been the emphasis on export-led growth. For countries without a substantial manufacturing base, oil or other non-renewable resources, renewable resources such as agriculture, forestry and fisheries have invariably been key components of export promotion strategies. Although the fisheries sector is not the principal motor of growth in any of the developing APFIC states it can still play an important ancillary role in enhancing growth rates over time through:

• developing new or underexploited fisheries – a limited option given the current status of regional resources however (Sugiyama, Staples and Funge-Smith, 2004: 20ff);

Developing APFIC nation states, for the purposes of this paper, are defined as countries with a 2004 Gross National Income per capita [Atlas method] of US\$5 000 or less [in current US\$] (World Bank Development Indicators, 2006a).

- developing aquaculture and mariculture the two fastest growing food export activities in the world in value terms (Delgado and Courbois, 1997);
- improving fisheries management the recent APFIC regional workshop on low-value and "trash fish" in Asia and the Pacific region (2005), for example, identified a series of intervention points and actions designed, among other things, to improve policy coherence between the demands of aquaculture development and the ecological, economic and social needs of capture fisheries;
- improving value added in production new investments in landing and processing facilities, for example, can help reduce wastage rates and/or create new market opportunities; and
- encouraging greater integration of the sector, where warranted, in tourism and coastal zone management programmes so as to derive benefits through eco-tourism and marine park initiatives, sport fishing and similar activities (FAO, 1996: 10).

Although the sectoral importance of fisheries can be evaluated in a variety of ways (fisheries contribution to GDP, generation of resource rents, net or gross export earnings, licence fee receipts, inward investment into the sector, the role of fisheries in contributing to food security etc.) this paper focuses on two criteria for illustrating the current significance of the sector in growth terms. First, the importance of the sector as a generator of foreign exchange⁵ is highlighted, arguing that the larger its contribution, the more likely is, or the greater the opportunities are for, its insertion into national policy formulation processes. Second, the national reliance on the sector for the provision of animal protein needs is highlighted. The greater the reliance on fish protein, the greater the likelihood that national development strategies will reflect this, embracing policies designed to either safeguard or develop this protein source and/or reduce dependence thereon. In Viet Nam, for example, where fish provides 37 percent of daily animal protein intake, the government introduced a Sustainable Aquaculture for Poverty Alleviation (SAPA) Strategy and Implementation Programme as part of a wider Hunger Eradication and Poverty Reduction (HEPR) Programme (Government of Viet Nam, 2001).

B. Fisheries: The equity argument for inclusion

Poverty reduction strategies are increasingly central to the development planning process. Concessional lending by the International Monetary Fund (IMF) and World Bank, with their concomitant demands for beneficiaries to submit a Poverty Reduction Strategy Paper (PRSP) prior to the release of funds, merely serves to underline this emphasis (Box 1).

However, for the fisheries sector to benefit from the opportunities offered by PRSPs, there must be sufficient evidence substantiating the extent and endemic nature of poverty within fishing communities. Yet, since Gordon (1954:132) noted half a century ago that "...fishers typically earn less than most others, even in much less hazardous occupations or in those requiring less skill", the poverty of fishers and fishing communities has often been taken as given (see Macfadyen and Corcoran [2002] for a summary of anecdotal evidence of this). Fortunately, in the case of developing APFIC states, evidence has been more forthcoming. A sample of recent FAO *Fishery Country Profiles* observed:

• eighty percent of Indonesian fisher families received incomes below the national poverty threshold (FAO, 2000);

⁵ FAO (2003b) have, in fact, highlighted that "net export revenues from fish exports earned by developing countries reached US\$17.7 billion in 2001, an amount larger than for any other traded food commodity such as rice, cocoa, tea or coffee."

Box 1. Poverty reduction strategy papers, the IMF and the World Bank

Low-income countries which are eligible for access to concessional funding (under either the IMF's *Poverty Reduction and Growth Facility* [PRGF] or the World Bank's *International Development Association* [IDA]) have, since 1999, been obliged to produce Poverty Reduction Strategy Papers (PRSPs) prior to fund disbursement. These Papers not only oblige countries to encapsulate and quantify the multidimensional nature of domestic poverty, but are also expected to advance comprehensive macroeconomic, structural and social policies consistent with poverty reducing outcomes. Significantly too, PRSPs are posited to emerge from a highly participatory and transparent consultation process, thereby reducing the likelihood of policy slippage over time by ensuring that the ensuing macro- and sectoral development strategies are country, rather than donor, driven.

Benefiting countries are expected to produce Progress Reports on an annual basis, fully revising the document every three to five years. Presently around seventy low-income countries have completed (or are in the process of completing) a PRSP.

- Filipino fisher households suffered from a higher incidence of poverty and worse access to basic necessities (FAO, 2005b);
- Bangladeshi fishers were "among the extremely and moderately poor people" (FAO, 1999); and
- most Vietnamese fishing communities were described as "poor" (FAO, 2005c).⁶

Similarly the STREAM initiative (2000:23) reported that 88 percent of very low-income households encountered in Tay Ninh Province in Viet Nam in 1999 were linked to the fisheries sector, compared to only 44 percent of high income households. There remains, nonetheless, still only a limited understanding of the underlying causal mechanisms linking poverty and fisheries (see, for example, Allison and Ellis [2001]; FAO [2002a]; Cunningham and Neiland [2005], FMSP [2006]).

This paper identifies two measures to consider the equity argument for fisheries representation in development plans. First, given the absence of data on poverty among fishers, a headcount index of rural poverty in the APFIC countries is used as a second-best measure to reflect the likely magnitude of poverty in the sector. This analytic oversimplification is justified given that the vast majority of fishers in the region are to be encountered in rural, as opposed to urban, areas. The more profound the nature of rural poverty then, the more likely it is that poverty reduction strategies will target the sector, thereby benefiting the fisheries sector either directly (specific interventions in the fisheries field) or indirectly (by, for example, reducing the costs of accessing rural credit for productive purposes). Second, the potential for poverty-reducing, fisheries-specific, policies grows in line with the numeric size of the sector. The more poor fishers there are, the greater the potential for mobilization, and the more difficult it is for policy-makers to ignore such voices. The greater the magnitude of rural poverty and the greater the number of fishers then, the greater the potential opportunities for inserting the fisheries sector into national development and poverty reduction strategies in the APFIC region on equity grounds.

In parts of the APFIC region, historical as well as current cultural and management contexts underscore a clearly defined link between poor people and fishing as a component of livelihoods. In India, for example, fishing has been a low-caste activity for centuries – with important contemporary ramifications. Such caste-based systems have, moreover, generally been strongly resistant to change as the traditional policy discourse precluded poorer stakeholders from participating – a situation the PRSP process attempts to redress.

C. The socio-economic importance of fisheries in developing APFIC States

APFIC members accounted for approximately 40 percent of world fisheries production in 2003, with China alone responsible for approximately half of member's harvests from capture fisheries, and one-third of aquaculture production. APFIC, though, embodies many other significant fisheries and aquaculture producers and, with the exception of Cambodia, Nepal, Pakistan and Sri Lanka, other APFIC developing states all produced over one million tonnes of fish each during 2003. Moreover, capture fisheries and/or aquaculture production were substantive contributors to national income in many APFIC developing states (Table 1).

Table 1. Fisheries/aquaculture contribution to GDP in developing APFIC states: 2001

Ca	apture Fisheries	Aqua	culture
Cambodia	10.030	Viet Nam*	3.497
Viet Nam*	3.702	Bangladesh	2.688
Indonesia	2.350	Philippines	2.633
Philippines	2.184	China	2.618
Thailand	2.044	Thailand	2.071
Bangladesh	1.884	Indonesia	1.662
Sri Lanka	1.428	Cambodia	0.893
China	1.132	India*	0.540
Malaysia	1.128	Sri Lanka	0.468
		Malaysia	0.366
		Nepal	0.345
		Myanmar	0.167

^{*} Data for 2000.

Source: Sugiyama et al. (2004: 1)

Seafood, for example, is Viet Nam's most important export after textiles and oil (FAO, 2005c), and its contribution to GDP is approximately equal to that of education and training (General Statistics Office of Viet Nam, 2006). National accounts, however, do not relay the sector's full importance, as fisheries also make a significant contribution to national food security in a number of APFIC states, although there are concerns that current patterns of production and trade are compromising this contribution ⁷

Here, the growth and equity issues outlined above are analysed in greater detail. Growth considerations are examined by plotting the association between fisheries' contributions to trade and consumption. Figure 1 plots the value of each country's fisheries exports during 2003, measured as a proportion of that year's total agricultural exports (hereafter *Trade*), against average per capita fish and seafood consumption during 2003, measured as a proportion of total daily animal protein (hereafter *Consumption*). Data and sources are set out in Appendix 1.

Figure 1 is divided into four quadrants by reference lines. These are set at 18.5 percent for *Trade*, the average value computed by Thorpe (2005: 18) for a sample of 127 developing economies during 2000, and at 19.4 percent for *Consumption*, the average for 129 countries in the same year. These reference lines reveal the relative importance of fisheries trade and consumption to developing APFIC states relative to the world's developing economies. Fisheries contribution to *Trade* is above average

⁷ For example, the FAO (2005b) profile of Philippine fisheries suggests that "the ability of the sea to provide a cheap source of food and income for the Filipino masses has been severely compromised".

Trade against consumption

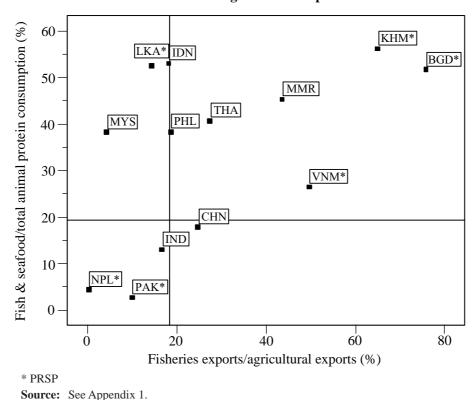


Figure 1. Fisheries contribution to trade and consumption

in nine countries (and only marginally below for India and Indonesia), and all the countries in the sample (with the exception of Nepal⁸) enjoyed a surplus on fisheries trade during 2003, in many instances measurable in billions of US dollars (FAO, 2005d:A-7). Similarly, *Consumption* was typically greater than the developing world average.

Countries in the northeast quadrant (Bangladesh, Cambodia, Myanmar, the Philippines, Thailand and Viet Nam) recorded the greatest fisheries contribution to both agricultural export earnings and national diets. As a result, it could be anticipated that the sector would feature prominently within these countries' national development strategies. China, despite being the world's largest exporter of fisheries commodities by value in 2003, has a marginally above average contribution to Trade allied to a marginally below average contribution to Consumption, and is the only country located in the southeast quadrant. Three countries (Indonesia, Malaysia and Sri Lanka) are found in the northwest quadrant, suggesting that the sectoral contribution is relatively more important in consumption than trade terms (although Indonesia did record a substantial fisheries trade surplus in 2003). Furthermore, population and income growth in Indonesia and Malaysia in particular are expected to increase the demand for fisheries commodities sharply in these countries (FAO, 2000; 2001). The sectoral case for inclusion in development strategies on the grounds of its contribution to growth is least strong for those countries located in the southwest quadrant (India, Nepal and Pakistan). The presence of landlocked Nepal among this group is unsurprising, although the true extent of fisheries consumption here is uncertain because of the entirely artisanal character of production and the absence of an organized distribution network (FAO, 1997). Although Pakistan has a coastline of some 1120 km (FAO, 2003a), only about nine percent of the population lives within 50 km of the sea (World

FAO (1997) suggest that imports to Kathmandu from India, Thailand, and Singapore are "mainly destined to hotels and restaurants catering for tourists and foreign residents".

Resources Institute, 2006). This fact, a limited distribution network, and a concentration on fishmeal production⁹ are the crucial factors explaining low consumption.

Figure 2 examines the strength of the equity argument for the sector's integration into development strategies. It does so by illustrating the association between employment in fishing as a proportion of the labour force (hereafter Employment), and the level of rural poverty (hereafter Poverty).¹⁰ In this instance, the reference lines are once more set at the developing world averages of 1.3 percent and 44.3 percent for Employment and Poverty respectively, as reported by Thorpe (2005: 18).

Employment against rural poverty 60 BGD* KHM* PHL 50 Rural Poverty Headcount Index 40 PAK* NPL* IND 30 LKA* IDN VNM* 20 THA 10 CHN 0 0 1 2 3 5 4 Fishers/economically active population (%) * PRSP **Excludes Myanmar**

Figure 2. Fisheries employment and rural poverty

Asia accounts for some 85 percent of global fisheries employment, although this probably understates engagement in the sector (Sugiyama, Staples and Funge-Smith, 2004: 2). It is therefore unsurprising that most countries are positioned in the northeast or southeast quadrants. Bangladesh and the Philippines exhibit a strong association between high fisheries employment and above average rural poverty. Although employment is above average in China, India, Indonesia, Sri Lanka, and Viet Nam, the available survey evidence suggests that these countries enjoy below average levels of rural poverty. Malaysia, Nepal, Pakistan, and Thailand are all located in the southwest quadrant, while only Cambodia is located in the northwest quadrant.

Nevertheless, even if countries post modest contributions on *Trade/Consumption* grounds and exhibit a low incidence of *Employment/Poverty*, this does not necessarily imply that development and

Source: See Appendix 1.

⁹ The most recent profile of Pakistani fisheries suggests that approximately 40 percent of marine fisheries production is converted to fishmeal to supply the poultry industry (FAO, 2003a).

It was not possible to find a reliable estimate of the level of rural poverty in Myanmar.

poverty reduction strategies should overlook the sector. At the local (or regional) level, the concentration of fisheries activities in coastal zones or major watersheds is likely to produce pockets of fisheries dependence (whether in *Trade*, *Consumption* or *Employment* terms); although it may be the case that such region-specific needs are best dealt with at the decentralized planning level. What is clear from the preceding analysis, however, is that there are substantive differences in the extent to which APFIC countries rely on the fisheries sector in regard to trade, domestic protein consumption, employment and rural poverty at the national level. Yet sectoral significance, in terms of either *Trade/Consumption* or *Poverty/Employment*, does not guarantee that the sector will be effectively incorporated into the national development discourse.

3. Poverty reduction strategy papers, national development plans and the fisheries sector

The expectation that PRSPs provide a more comprehensive and integrated approach to development planning does not negate the opportunity for specific sectors to advance their own partisan interests. That said, the extent to which the fisheries sector (or indeed, any sector) is incorporated into a PRSP or National Development Plan (NDP) will depend on the national economic, sociopolitical, structural and cultural context. In the preceding section those APFIC countries in which growth and equity considerations might feasibly ensure the sector's incorporation into the national development agenda were identified. Now, the extent of such incorporation through an analysis of PRSPs and NDPs for the APFIC economies is examined using a variant of the assessment methodology suggested by Ekbom and Bojö (1997).

A. Assessment methodology

Ekbom and Bojö (1997), inspired by earlier work by Bojö and Chee (1995), the World Bank (1996) and Loksha (1996), elaborated an elementary filter of thirteen criteria grouped into five sequential sections as an aide-mémoire for evaluating the extent to which the environment had been incorporated into World Bank Country Assistance Strategy (CAS) documents. Not only did the exercise conclude that environmental issues had made some inroads into CAS documentation, but it also concluded that there existed a "rich flora of inspiring examples" of effective environmental mainstreaming which was potentially transferable. Modified versions of Ekbom and Bojö's assessment framework were later applied to examine the extent to which the environment had been integrated into CAS produced in 1999 (Shyamsundar *et al.*, 2001) and PRSPs (Bojö and Reddy, 2001), again highlighting examples of good practice. Oksanen and Mersmann subsequently adapted the methodology to evaluate the extent to which a renewable resource sector – in this instance forestry – had been included in Sub-Saharan African PRSPs, finding:

"... in general the sector was incorporated in a rather modest and unsystematic manner. The analysis of the cause and effect linkages between the forest sector and poverty and the treatment of forest related issues was generally weak. Considering this, surprisingly many forest-related responses and actions were proposed in the poverty reduction programmes" (2002: 123).

Earlier research by the present author and others (Thorpe, 2005; Thorpe *et al.*, 2004, 2005a, 2005b, 2006) has utilized Oksanen and Mersmann's methodology, in effect substituting fish for forest, to analyse the extent of fisheries mainstreaming across different regions. This paper is an extension of that work, focusing specifically on the extent to which fisheries have been integrated into the PRSPs and NDPs produced by APFIC member countries. Box 2 outlines the assessment methodology applied, and the scoring scale deployed to produce the results outlined in the following sub-section.

Box 2. Assessment methodology applied

Criteria 1 (Issue): Were fisheries related issues included in the analysed documents?

Criteria 2 (Causal Links): Were the causal linkages between fishery-related issues and poverty related issues analysed in the documents?

Criteria 3 (Responses): Were fisheries related responses and actions defined in the documents?

Criteria 4 (Process): Were links between the document formulation process and fisheries related policy and planning processes detailed in the document?

Each of the four criteria was given a numeric value where:

- 0 = no mention
- 1 = mentioned, but not elaborated upon
- 2 = elaborated
- 3 = best practice

This permits an average aggregate score to be computed for each analysed document, values ranging from 0 (sector is not mentioned in the document at all) to 3 (best practice evident on all four counts).

B. Analysis of key national policy documents

Six APFIC countries have completed a PRSP, namely Bangladesh, Cambodia, Nepal, Pakistan, Sri Lanka¹¹ and Viet Nam, with Cambodia, Nepal and Viet Nam also producing progress reports outlining how the PRSP is being implemented. NDPs were analysed for a further four countries (India, Malaysia, the Philippines and Thailand).¹² The inclusion of fisheries-related issues in APFIC PRSPs and NDPs is to be expected given the Asian contribution to capture fisheries (half of the world's twelve leading fish harvesting nations are APFIC members), aquaculture (91 percent of global production), participation in the fishery sector (85 percent of world total) and fleet size (84 percent of the world's decked vessels, 51 percent of powered undecked vessels and 83 percent of non-powered boats) (FAO, 2002b). This indeed proves to be the case, with fisheries featuring highly in the PRSPs/NDPs of Bangladesh, Cambodia and the Philippines, less so in the NDPs of India and Malaysia, and not at all in the PRSPs of Nepal and Pakistan (Appendix 2 provides a detailed analysis of national policy agendas for each country.¹³

Eight of the ten national policy documents analysed address fisheries issues, although in the case of Thailand this is somewhat superficial as the *Ninth National Economic and Social Development Plan 2002–06* simply acknowledges that the unsustainable exploitation of fisheries has impacted unfavourably on biodiversity and ecosystem balance. More emphasis is given to fisheries issues in the NDPs of India and Malaysia and the PRSPs of Sri Lanka and Viet Nam. The Indian and Malaysian documents both provide a summary of past sectoral growth. The Indian document links the sector to a strategy designed to strengthen agriculture and agro-industry through increased

Although the Sri Lankan 2002 PRSP was "subsequently discarded" for political reasons (World Bank, 2006: 1), It was decided to retain the 2002 PRSP in our sample due to the current absence of any alternative NDP.

At the time of writing, the Chinese government had not yet produced its 11th Five-Year Plan 2006-10, the Indonesian Medium-Term Development Strategy 2004–09 was only available in Indonesian (a language with which the authors were not familiar), while Myanmar suffers from "the absence of a credible national development plan" (Igboemeka, 2005: 2).

It should be stressed that the purpose of this research is to measure fisheries incorporation into PRSPs and NDPs. It is beyond the remit of this paper to ascertain whether the identified links, responses and processes subsequently impact in the manner intended on policy formulation or implementation – this is a topic for further research.

Table 2. Extent to which the fisheries sector is included in the PRSPs and national development plans of developing APFIC states

Criteria/Value	1	2	3	Average*
Issues	Thailand	India, Malaysia, Sri Lanka, Viet Nam	Bangladesh, Cambodia, the Philippines	1.8
Links	India, Malaysia	Cambodia, Sri Lanka, Viet Nam	Bangladesh, the Philippines	1.4
Responses	Thailand	Bangladesh, India, Malaysia, the Philippines, Sri Lanka, Viet Nam	Cambodia	1.6
Process	Malaysia	Cambodia, the Philippines, Thailand	Bangladesh, Sri Lanka	1.3

^{*} The average is computed with reference to the ten APFIC countries for which there were either PRSPs or NDPs.

commercialization, large-scale production and the establishment of new (private) consortia to exploit deep-sea stocks and provide port facilities. The Malaysian document appears more cognizant of ensuring increased fisheries production to meet the nutritional needs of the poor. Viet Nam's PRSP has parallels with the Malaysian NDP inasmuch as the emphasis is on growth via the exploitation of the country's comparative advantage in aquaculture and offshore seafood production, although concerns are also expressed about a series of anti-dumping actions that have been initiated against the country as a consequence of its growing catfish/shrimp exports. In contrast, the Sri Lankan PRSP details how the civil war has adversely affected the country's fishing communities.

Three outstanding accounts of fisheries issues within the APFIC region are provided by the Bangladesh and Cambodian PRSPs, and the Medium-Term Philippine Development Plan 2004-10 (MTPDP). The Cambodian PRSP addresses aquaculture, fisheries management, livelihood improvement, and community fisheries in separate sections, with frequent other references helping to mainstream fisheries issues throughout the document. For Bangladesh, agriculture is a priority sector in the poverty reduction strategy. A separate section details how fisheries fit into this strategy and how the government plans to accelerate sectoral growth and respond to the particular concerns (viz. prohibiting the use of electrical nets and developing legislation to allow the leasing out of kha ponds) that were raised by fisheries stakeholders in the participatory process that took place prior to the publication of the PRSP. The Philippines MTPDP 2004–10 builds on the emphasis given to the sector in the preceding MTPDP 2001-04, proposing that Mindanao become the national agro-fisheries hub tasked with developing the export-growth potential of the sector through exploiting idle offshore and inland waters. It also advocates large-scale community-based programmes to intensify and diversify production. Moreover, the document is interspersed with numerous references to the sector regarding the resolution of property rights conflicts within fisheries, educational programmes for fisherfolk, introducing improved information systems and highlighting the threats posed to marine/coastal areas by destructive fishing methods, siltation, pollution etc. (Best Practice).

Causal links between fishery-related and poverty-related issues are mentioned in seven of the ten documents. However, the *Ninth Malaysian Plan 2006–10* does no more than acknowledge that 70000 poor families (many of them fisherfolk) will benefit from the introduction of the *Skim Pembangunan Kesejahteram Rakyat* (SPKR – Citizen Peace/Harmony/Wealth Development Scheme) and a special programme to diversify/enhance their income sources. The Indian NDP similarly fails

to distinguish between fisher and non-fisher households when asserting that the primary sector is important for improving nutritional standards among the rural masses, with caste a crucial factor in determining the likely exposure of a household to poverty. Explicit recognition of the poverty of fisher families is, however, to be found in the Sri Lankan PRSP. The document observes that coastal fishing communities are among the poorest of groups in the rural sector. In addition, fishers are identified (along with other rural groups) as a grouping that moves into/out of poverty according to season/climate/exogenous factors. The PRSPs of Cambodia and Viet Nam are more prescriptive in the sense that they draw attention to the limited access fishing households have to credit and other resources, noting either the need to expand subsidized fishing activities to redress this obstacle (in the case of Viet Nam) or how important fish is as a contributor to national animal protein intake, particularly among poorer households (in the case of Cambodia).

The analyses contained in the Bangladeshi PRSP and the Philippines *MTPDP 2004–10*, although essentially commenting on the same issues, are rather more profound. Although the Philippines Plan also acknowledges that poverty is concentrated in rural areas, this is tied to a commitment to increase employment prospects (743540 jobs in the fisheries sector alone), grant artisanal fishers exclusive access to waters up to 15 km from the shore, and expand production so as to reduce domestic fish prices. Fishers are one group also slated to benefit from the introduction of emergency and livelihood assistance programmes and expanded health care provision. Livelihood vulnerability is also a key feature of the 370-page Bangladeshi PRSP and was identified in the PRSP consultation process through the explicit questioning of fishers about their livelihood strategies. These findings subsequently inform several of the strategic goals identified in the Agricultural Growth through Poverty Reduction and Food Security policy implementation matrices (*Best Practice*).

Eight policy documents contained fisheries responses. Of these, the *Ninth Thai National Economic and Social Development Plan* offered only a fleeting reference pledging to demarcate areas for the protection of aquatic fauna and local fishing areas. Six countries placed more emphasis on fisheries responses. India, with multiple responses scattered across its rather lengthy *Tenth Five-Year Plan*, plans to promote aquaculture to diversify rural incomes in "backward regions", and to boost research activity in order to promote sustainable fisheries and aquaculture growth. The *Ninth Malaysian Plan* details a variety of interventions aimed at stimulating the commercial growth prospects of fisheries, aquaculture, fish processing and ornamental fish rearing. These include the modernization of coastal fisheries, the provision of new infrastructure (including a deep-sea fishing complex at Tanjung Mamis) and vessel upgrades. The rapid expansion of aquaculture is the centrepiece of Viet Nam's PRSP, with infrastructural investment and an accompanying extension service provision designed to ensure that sustainable growth targets are met. Although the document expects total fisheries support to reach VND 21–7 thousand billion (approximately US\$1.3 billion), no individual breakdown of the figures is given.

Sri Lanka has based its fisheries policy on its National Fisheries Development and Coastal Zone Management programmes, delineating strategies to ensure the sustainable development of the sector, combined with specifically targeted interventions to bring poor and socially excluded groups (including fishers) into the economic mainstream. The Bangladeshi PRSP is also concerned with enhancing the well-being of domestic fishers. Its goals are to facilitate greater access to floodplain fisheries, increase productivity in inland aquaculture and capture fisheries, promote rice and fish culture combined, and introduce local stock varieties. Institutional reform is also on the agenda. In contrast, the Philippines' response is more explicitly export-oriented. The *MTPDP 2004–10* outlines a six-point export strategy for marine products, promises to establish an aquaculture and seaweed enterprise programme, and develop landing and post-harvest facilities to expand fisheries-based production systems. Funding for these proposals will be generated through the formation of joint public and private finance mobilization mechanisms, commencing in late 2005.

The most elaborate response strategy is outlined in the Cambodian PRSP. This includes action/implementation matrices detailing objectives, strategies, monitoring indicators and budgets. Nonetheless, the more recent 2004 Progress Report suggests there is still a need to develop a fisheries development master plan. Combined rice and fish farming, aquaculture, and community-based fisheries management are identified as key components in the national strategy for equitable agricultural development. Particularly noteworthy interventions include a programme to promote improved resource access for poor families and communities, a study examining the commercial importance of freshwater fisheries, and gender-specific extension programmes to reflect the dominant role of women in traditional farming, fishing, and related commercial activities (*Best Practice*).

Six documents comment on the policy process, with the *Ninth Malaysian Plan* simply noting the need to increase fishers' involvement in agro-processing and marketing programmes. Three documents were more forthcoming. The Philippines' *MTPDP 2004–10*, developed with fisheries stakeholder participation, commits the government to mobilize, organize and build fishers' capacity through infrastructure provision and enterprise support. The Cambodian PRSP also confirms that fishers' representatives participated in the document-forging process, and commits the government to move towards co-management of national fisheries resources. Community participation is also placed firmly on the agenda in Thailand with the *Ninth National Economic and Social Development Plan* outlining a series of measures intended to improve local input into fisheries decision-making processes. The most elaborate accounts, however, are provided by Bangladesh and Sri Lanka. In Bangladesh, the consultative process preceding the PRSP allowed fishers' representatives to discuss the nature and causes of poverty from their particular perspectives and help devise poverty reduction targets and strategies (*Best Practice*). Sri Lanka dedicates a whole section of its PRSP to detailing a variety of community-based coastal preservation and marine resource management projects to be implemented over a period of five years.

C. Sectoral importance and the mainstreaming of fisheries into national policy documents

Figure 1 suggests that fisheries appear to be significant as a motor of growth within six of the thirteen developing APFIC states (Bangladesh, Cambodia, Myanmar, Philippines, Thailand and Viet Nam), with a further three states (China, Indonesia and Sri Lanka) falling just outside the global reference points established by Thorpe (2005). In Figure 2, Bangladesh and the Philippines, both of which score highly on the growth criteria, exhibit pronounced levels of rural poverty and fisheries-related employment, whereas China, India, Indonesia, Sri Lanka and Viet Nam have levels of fisheries-related employment that are above the global average (Thorpe, 2005). The question is: Does sectoral significance in growth and/or equity terms aid in mainstreaming fisheries into PRSPs and NDPs? And, conversely, is the sector relatively neglected in those countries with a less significant fisheries sector?

Four out of the ten countries for which NDPs or PRSPs are available provided one or more examples of best practice. This was especially evident in the Bangladeshi PRSP of November 2005 (three instances of best practice). The 2002 Cambodian PRSP (and the October 2004 Progress Report) and the 2004–10 Philippines Medium-Term Development Plan both provided examples of best practice under two criteria, while Sri Lanka offered an instance of best practice on the process criteria (Table 2).

Combining the analyses of Figure 1 and Figure 2 with Table 2 indicates a strong correlation between the significance of the sector in *Trade-Consumption* and *Poverty-Employment* terms and the prominence it is given in national policy documents. The sector has been most effectively mainstreamed into the PRSPs or NDPs of Bangladesh, Cambodia and the Philippines, countries appearing in, or bordering, the northeast quadrants of the scatterplots. In contrast, the reduced

significance of fisheries in both Nepal and Pakistan helps to explain why the sector goes unmentioned in their respective PRSPs. Elsewhere, the large artisanal fishing sector in Sri Lanka and the poverty therein is reflected in a pronounced emphasis within the 2002 PRSP on community participation in maritime resource management (process). The increasing importance of Viet Nam's seafood exports is recognized in the 2006 PRSP (issue). And India's *Tenth Five-Year Plan* (2002–07) acknowledges the disadvantaged position of key segments of the rural poor and announces that landless groupings (among others) will be prioritized when assigning pond fishing rights (response).

4. Conclusion - The way forward

The economic and social importance of fisheries in the APFIC region has helped ensure that aggregate scores under each of the four identified criteria are substantially higher than those recorded for other geographic regions (Table 3). More pertinently, perhaps, the APFIC region is markedly more effective at both highlighting the linkages between fisheries and poverty and encouraging sectoral stakeholders to participate in discussing and formulating national fisheries and aquaculture development policies. This can most likely be attributed to the recognition, in both FAO fisheries country profiles and regional research reports (cf. the STREAM [2000] publication on poverty in Viet Nam's fisheries), of the endemic nature of poverty in fishing communities, a recognition that has been championed by fisheries stakeholders (and/or their supporters) in demanding input into the decision-making process. It is surely no coincidence that Bangladeshi fishers, who were "among the extremely and moderately poor people" according to the Bangladesh fisheries country profile in 1999, were invited to participate in the national and regional participatory consultation meetings on poverty and its causes and the identification of poverty prone groups prior to the release of the country's full PRSP in November 2005.

Table 3. Extent to which the fisheries sector has been mainstreamed into PRSPs and NDP (by region)

Region	No. of	Criteria				
Region	Countries	Issues	Links	Responses	Process	
APFIC	10	1.8	1.4	1.6	1.3	
Latin America	16	0.5	0.25	0.875	0.125	
Africa (PRSP countries)	26	1.04	0.85	1.39	0.65	
Transition Economies	13	1.08	0.46	1.23	0.39	
Small Island Developing States (SIDS)	12	1.5	0.5	1.17	0.58	

Scores are the average score, by criteria, for each regional grouping (minimum value = 0, maximum value = 3).

Source: Table 2 (this paper) for APFIC region, all others from Thorpe (2005).

Although there is a strong correlation between the national significance of the sector and the acknowledgement of this in key national policy documents, there is no room for complacency.

First, despite the national recognition of the importance of fisheries in development and poverty reduction strategies, its relevance has been somewhat overlooked, or misdirected, at the wider regional level. The UNESCAP appears singularly fisheries-blind. The sector was ignored in the 111-page report *Promoting the Millennium Development Goals in Asia and the Pacific: Meeting the Challenge of Poverty Reduction* (2003) and, although the UNESCAP Subcommittee on Poverty Reduction Practices has deliberated on poverty alleviation through tourism development, urban poverty and slums, information and communications technology (ICT) for rural development, microfinance, housing rights and organic produce, it has not found room to date to comment on the

fisheries/poverty nexus (UNESCAP, 2005). Equally, although the Asian Development Bank produced a fisheries policy framework in 1997 to direct ADB activities in the sector, a recent ADB evaluation (May 2006:44) states that, "The fisheries policy has been largely irrelevant to national fisheries policy development..." The report concludes by suggesting that the current policy should be retired within twelve months, but offers only five very general suggestions¹⁴ as to how the ADB might subsequently proceed in the fisheries arena. UNDP, in contrast, appears to have rather belatedly recognized the importance of fisheries in the region. Its just published 2006 Asia-Pacific Human Development Report, suggests that "Asia has much to gain by promoting equitable agricultural trade generally, but this is particularly true for that in fish" (2006:66, italics added). It is therefore imperative that APFIC and its member states focus on addressing these concerns at the regional level. This could be achieved in a number of ways. One option is to ensure fisheries representatives are both present and vocal in their defence of the sector at relevant regional meetings, such as the recent Pro-Poor Policy Analysis and Dialogue at the Country Level Planning Workshop (International Fund for Agricultural Development (IFAD), Food and Agriculture Organization-Regional Office for Asia and the Pacific (FAO-RAP) and the Ministry of Agriculture and Cooperatives (MOAC), Bangkok, April 2005) and the Forum on National Plans as Poverty Reduction Strategies in East Asia (ADB, Vientiane, April 2006), for example. These activities can be augmented by more specific strategies – for example: (i) lobbying ESCAP to fund a Flagship Fisheries project in the thematic area of fisheries and poverty reduction; (ii) linking with UNDP to develop strategies to facilitate the more equitable development of fisheries trade; and (iii) working with the ADB to produce a framework to help guide its future policy interventions in fisheries.

Second, there is also a need at the national level to ensure policy promises are followed through and implemented, as best practice at the level of policy formulation does not necessarily translate into best or at least effective policy outcomes.

Third, there are lessons to be learned, not just regionally but also globally, relating to the processes that have enabled fisheries to be mainstreamed into the national development discourse. If fisheries can be adequately represented in the 2004 Cambodian PRSP, a country where the sector provides 65 percent of total agricultural exports and 56.2 percent of daily animal protein consumption, why has the sector been largely disregarded in the 2002 Gambian PRSP, a country where fisheries supply 43.9 percent of total agricultural exports and an almost identical contribution (56.9 percent) to national animal protein intake?

Fourth, insertion of the sector into the national development discourse is in itself no guarantee that resources will be harvested in a sustainable manner. Indeed, the emphasis in the *Ninth Malaysian Plan 2006–10* on greater commercialization, large-scale production and enhanced infrastructural facilities such as the Tanjung Mamis fisheries complex may well militate against the long-run sustainable contribution of fisheries to domestic livelihoods, food security and/or export earnings. Hence, organizations such as APFIC have an important role to play in advising national governments on the status of fisheries resources and on potential threats to these resources. Despite the publication of a number of regional studies confirming the magnitude of poverty within the fisheries sector, there remains a more general unmet need, as identified by Thorpe (2005) and FMSP (2006:4), to understand the underlying causal factors linking fisheries and poverty better. An improved understanding of the poverty/fisheries linkage will aid in the development of projects and programmes that not only maximize the benefits derived from fisheries, but also reduce the poverty and vulnerability of fishers.

These include: (i) emphasizing development and management approaches that adhere to the principles of responsible fisheries, (ii) refer to fisheries policy instruments of regional organizations for policy guidance, (iii) assess ADB in-house capacity to administer fisheries assistance, (iv) develop strategic partnerships with international organizations with expertise in the sector and (v) integrate fisheries into broader rural development approaches).

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Appendix 1 Trade, consumption, employment, and rural poverty data

Economy	Code	Fisheries exports/total agricultural exports 2003 (%) ¹	Fish & seafood/total animal protein consumed 2003 $(\%)^2$	Fishers ³ / economically active population (2003) ⁴	Rural poverty headcount index ⁵
Bangladesh	BGD	75.8	51.7	1.90	53.0
Cambodia	KHM	65.0	56.2	1.15	51.1
China	CHN	24.7	17.9	1.60	4.6
India	IND	16.7	13.0	1.35	30.2
Indonesia	IDN	18.2	53.0	4.99	22.0
Malaysia	MYS	4.3	38.2	1.07	19.3
Myanmar	MMR	43.6	45.3	2.38	_
Nepal	NPL	0.3	4.3	0.46	34.6
Pakistan	PAK	10.0	2.7	0.52	35.9
Philippines	PHL	18.7	38.3	3.16	50.7
Sri Lanka	LKA	14.4	52.5	1.71	25.0
Thailand	THA	27.4	40.7	0.95	15.5
Viet Nam	VNM	49.7	26.4	2.45	19.7
Mean		28.4	33.9	1.8	30.1
Developing Country Mean ⁶		18.5	19.4	1.3	44.3

Sources: ¹ FAO, 2005c: A–3.
² Derived from: FAO (2006).
³ World Resources Institute (2006).

⁴ FAO (2006).

⁵ World Resources Institute (2006).

⁶ Thorpe (2005: 18).

Appendix 2

Extent to which the fisheries sector is integrated into Asian PRSPs and national development plans

Country	Document/Date	Criteria	Value	Remarks
Bangladesh	PRSP/Nov 2005	Issues	3	Agriculture seen as priority sector for poverty reduction and a specific sub-section identifies; (i) contribution to GDP-exports-employment, (ii) poor supply of quality fish seed, (iii) government commitment to accelerate growth through intensification, enhanced value-added and diversification.
				Participatory process highlighted key development needs (including leasing out of <i>kha</i> ponds, excavation/construction of new ponds/canals, prohibiting use of electrical nets, prevent indiscriminate fishing).
		Links	3	Employment/livelihood opportunities in backward/forward linkages recognised, especially home-based pond aquaculture.
				Explicit questioning of fishers regarding their (vulnerable) livelihood and reasons therefore – given that they may be bypassed by generic anti-poverty programmes.
				Improved biodiversity will benefit the poor – "particularly with respect to fisheries".
				Strategic Goal 20 in Policy Matrix 4 aimed at raising incomes of poor fishers while PM8 links fisheries in to the goal of food security.
				Promised national fisheries programme will ensure access of the poor to waterbodies.
		Responses	2	Promise to introduce a Certificate of Land Ownership to facilitate access to floodplain fisheries as a development of the Jalmahal programme.
				Strategic Goals 18–22 in Policy Matrix 4 identifies steps required to increase productivity in inland aquaculture, inland capture fisheries, raise the income of poor fishers, promote rice-fish culture and strengthen research and extension.
				Need – albeit undefined – to improve technical infrastructure in sector (especially aquaculture), and introduce/promote local varieties of fish stock.
				DoF to be strengthened, research to be increased, human resources developed and an overarching legal framework devised to control activities of all government departments whose remit might impact on fishing.
		Process	3	Fishers representatives included in national and regional participatory-consultation meetings to discuss poverty, its causes and poverty-prone groupings – and help set sectoral targets and strategies to hit said targets. Fishers – along with snake-charmers and eight other key 'poor' groups – also consulted directly vis-à-vis the causes of their poverty.
				DoF obliged to pursue community-based participation in decision-making, per Strategic Goal 4 (Policy Matrix 10).
Cambodia	PRSPPR/Oct 2004 PRSP/Dec 2002	Issues	3	Separate sections discussing aquaculture, fisheries management and livelihood improvement, community fisheries. Fisheries related issues raised throughout the document, including: • State loses US\$100 m/yr. due to corruption and illegal fishing, • Women dominate fisheries sector post-catch to marketing (75%).

Country	Document/Date	Criteria	Value	Remarks
Cambodia (continued)				 Natural resource depletion (fish) increases conflicts among user groups. Inappropriate government market interventions hinder fisheries development – change of corporate culture needed to build competitive, market responsive sector. Incorporating fishing villages into eco-tourism strategy would help to supplement local incomes.
		Links	2	Fisheries are a key area for securing rural livelihoods with implications for other aspects of poverty. 1993–2001 agric. accounted for 46.4% of GDP, 30% thereof fisheries. Sharp increases in trade, incl. fish, over past decade noted-importance of agri-exports for poverty reduction recognised.
				Natural resource destruction aggravates the situation of the poor. Constrained access to natural (fishery-related) resources results in increased food insecurity for growing number of families.
				Fish accounts for 30% of national animal protein intake, 40–60% in rural areas, 70–75% in areas close to the Tonle Sap Great Lake/rivers etc. Larger share of fish in consumption expenditure among the poor.
		Responses	3	Two out of 9 components of Equitable Agricultural Development are fisheries related (rice-fish farming and aquaculture; community-based fisheries management.) – components and implementation strategies detailed – government measures identified and costed, and monitoring indicators defined in implementation matrix. Includes fishing-lot reform programme to promote resource access of poor families/communities. Industrial policy to promote processing industries for existing natural resources, including fish.
				Some progress in reforming natural resource management (incl. fisheries) – one of 8 priority areas of Governance Action Plan (GAP) Advances made in tackling corruption in fisheries.
				Trade related sector studies (incl. freshwater fisheries) published. Implementation matrix includes gender specific extension programmes to take account of dominant role of women in traditional farming, fishing and marketing.
				PRSPPR, however, notes need to still develop a master plan for fisheries development (including sustainable community fisheries).
		Process	2	Specific data on fishing communities derived from Household Socio-Economic Survey in Fishing Communities 1995–96. Poor reps. of fisheries sector participated in PRSP workshops.
				Intended change to co-management of fishery resources includes empowerment of local people and establishment of community fisheries.
China	*11 th FYP 2006–10			
India	10 th FYP 2002–07	Issues	1	Decade of growth in fishery sector (6% p.a.)/aquaculture (10–12%).
				Agriculture/fisheries production increases needed to meet nutritional needs of population.
				Quality and safety aspects of agriculture/fisheries products are important.
				Analysis of port facilities, incl. fishing ports. Port development projects to address environmental issues, including impact on fisheries and fishermen.

Country	Document/Date	Criteria	Value	Remarks
India (continued)		Links	1	Agric. and allied sectors (fisheries) important for improving economic situation, health, nutrition of rural masses. High employment potential of fisheries good for improving living-standards, but growth slowed in 1990s. Scheduled Castes (SCs)/Other Backward Classes (OBCs) – the worst off in socio-economic terms – are agricultural labourers, fishers etc.
		Responses	2	 Refs. to fisheries scattered throughout the doc., incl.: Diversification of land-based activities, e.g. into aquaculture, to be encouraged in 'backward regions'. Poss. finan. supp. to proj. using waterlogged lands for aquaculture. Fishing rights for ponds pref. given to self-help groups of landless, to promote alternative sources of livelihood. Possibility to develop welfare funds for fish processing workers. Measures to promote export avenues for agric., fisheries promised. Third priority of agriculture development is research/dissemination of agriculture technology, focus on development of marine fish resources/deep-sea fishing (harvest/post-harvest technology, fish products), bio-technology (incl. gen. engineered fishes, selective breeding), immuno-pathological research, sustainability. Research institutional, incl. National Bureau of Fish Genetic Resources (NBFGR), to be strengthened. Schemes for fish processing development are being implemented.
Indonesia	*MTDS 2004–09			
Malaysia	9 th MP 2006–10	Issues	2	Main 'thrust' of plan is strengthening agriculture and agroindustry, including fisheries (Chapter 3) – with the emphasis on greater commercialisation, large-scale production and the creation of high-income farmers (fishers?). Chapter notes growth of sector during last plan, ornamental fish as a new source of growth, private involvement in constructing the Batu Maung tuna port, skills training and increased fisher participation in wholesale marketing and credit support. New (private) fisheries consortium to be established to help deep-sea fishers.
		Links	1	70 000 families (including fishers) expected to benefit from SPKR programme to diversify/enhance income sources (includes free housing, income supplements of M\$500 p.m. and capacity-building activities).
		Responses	1	Deep sea Fishing Complex to be set up in Tanjung Mamis, joint development of an ornamental fish project in Pandang Terag, and the modernisation of coastal fisheries through formation of large-scale community fish farms, new technology and the upgrading of fishing vessels, equipment and engines. Pledge to expand aquaculture (19% + p.a.) and deep-sea fishing
		Process	1	activities. Focus on increasing fisher's involvement in agro-based
Mwarres				processing activities and marketing programmes.
Myanmar	DD CDDD /C COCT			Name of fishering
Nepal	PRSPPR/Sep 2005 PRSP/Oct 2003			No mention of fisheries sector whatsoever.
Pakistan	PRSP/Jan 2004			No mention of fisheries sector whatsoever.
Philippines	MTPDP 2004–10	Issues	3	Agribusiness chapter outlines export growth potential of fisheries (exploiting idle offshore and inland waters), and advocates

Country	Document/Date	Criteria	Value	Remarks
Philippines (continued)				large-scale community and environmental friendly programmes of production intensification and diversification.
				Proposes making Mindanao the national agro-fishery hub (aquaculture, processing/canning, crab prodn. and seaweed farming).
				Improved info. systems and resolution of property rights issues.
				Environment and Natural resources chapter recognises threat to coastal/marine areas from destructive fishing methods, siltation and pollution and quantifies biodiversity loss.
		Links	3	Link between coastal and marine ecosystems and livelihoods stressed and guidelines released by DoA granting small artisanal fisherfolk exclusive access over waters up to 15 km from shore – further legislation promised.
				Recognition that poverty is concentrated in rural areas is tied to a commitment to increase jobs (743540 in fisheries sector alone) and reduce domestic fish prices through prodn. expansion (17210 ha).
				Estab. of emergency and livelihood assistance programmes (not fisheries specific) and enrolment of fishers in the health care system.
		Responses	2	Establishment of an aquaculture enterprise programme (eight species) and seaweed farming in non-traditional areas.
				Construction/repair of post-harvest facilities and equipment and development of regional/municipal fish port complexes.
				Public-private mechanisms set up (by Dec 2005) to mobilize funds for fisheries sector in line with the Fisheries Code, plus additional allocation of 17 billion pesos to agriculture/fisheries p.a. Strengthening management capacity of local government units on municipal fisheries management.
				A six-point market-driven export strategy for marine products (new investments in cold storage, bilateral fisheries agreements, quality harmonisation, product development and branding etc.) is outlined.
		Process	2	Commitment to mobilize, organize and build capacities of farmers and fishers through social infrastructure provision and enterprise development support.
				Institutionalisation – including fisher's representatives – in the governance and decision-making process.
Sri Lanka	PRSP/Dec 2002	Issues	2	War had adverse effects on fisheries (excl. from prod. fishing zones, transport, access to markets, expensive inputs, displacement) but output in north has begun to recover.
				Severe erosion of coast affects thousands of fishing families.
		Links	2	Coastal fishing communities amongst the poorest in the rural sector, suffering from social exclusion (poor integration, access to social services).
				Vulnerability of majority of rural population (incl. fishermen): moving in and out of poverty according to season/climate/other external factors (market prices).
				Potential role of agricultural growth (incl. fisheries) for poverty reduction stressed.
		Responses	2	Fisheries policy based on National Fisheries Development Program and Coastal Zone Management Program (CZMP). Key strategies pursued include provision of inputs/technologies, infrastructure development, state sector reform and private sector

Country	Document/Date	Criteria	Value	Remarks
Sri Lanka (continued)				partnerships, aquaculture development and community hatcheries, commercialisation and export promotion (yet lack of fully articulated expenditure framework).
				Coastal Preservation: Series of measures to tackle coastal erosion incl. ban on use of coral reef lime, coastal repairs and protected structures, prom. of community based resource management, reform/amendments to regulatory/institutional environment (Coastal Conservation Action, Fisheries Aquatic Resource Act, CZMP).
				Spec. targeted interventions to bring poor/soc. excl. groups (incl. fishermen) into economic mainstream (housing programmes, infrastructural development, Promotion of self-employment among poor fisher-women). Reconstruction effort includes issuing of inputs (incl. fishing nets, boats) to fishermen, rehabilitation of fish harbours/cooling plants.
		Process	3	Section details measures to enable and foster wide-ranging and effective community participation in management of maritime resources and coastal preservation. Also included in action matrix.
Thailand	9 th NESDP 2002–06	Issues	1	Unsustainable exploitation of environmental resources, including fisheries and coastal resources, has negatively affected ecosystem balance and biodiversity.
		Responses	1	Environmental protection measures include amendment of laws (incl. Fishery Act B.A. 2490 (1947)) to decentralise admin. and allow for community participation, clear demarcation of preservation areas for endangered flora and aquatic fauna, clear zoning and protection of local fishing areas.
		Process	2	Chapter on Natural Resource and Environmental Management outlines variety of measures (incl. fisheries specific) to promote community participation.
Viet Nam	PRSPPR/Feb 2006 PRSP/Jan 2004	Issues	2	Promise to exploit countries comparative advantage in aquaculture and offshore seafood production, with projected value-added growth in fisheries of 4–4.5% p.a. till 2010 (up 9.4% in 2004).
				Anti-dumping actions vis-à-vis catfish/shrimp exports initiated by other states.
		Links	2	Notes poor (incl. Fishers) have limited access to assets incl. credit and commits government to expand subsidized fisheries activities (incl. extension) in a way that is responsive to demand of poor people.
		Responses	2	Intent to both diversify, technify and 'rapidly expand' (to 1.2 million ha.) aquaculture production.
				Plans to invest in infrastructure and provide extension services (including establish six breeding centres) to ensure growth targets are met in a sustainable manner.
				Cost of intended fisheries progs. (aquaculture, infrastructure, offshore fleet construction) will amount to VND 21–7 thousand billion.

Abbreviations:

PRSP (Poverty Reduction Strategy Paper) - Bangladesh, Cambodia, Nepal, Pakistan, Sri Lanka and Viet Nam.

PRSPPR (Poverty Reduction Strategy Paper Progress Report) - Cambodia, Nepal and Viet Nam.

NESDP (National Economic and Social Development Plan) – Thailand.

 $FYP \left(Five \ Year \ Plan \right) - China, \ India.$

 $MTPDP\ (Medium\mbox{-}Term\ Philippine\ Development\ Plan)-Philippines.$

MTDS (Medium-Term Development Strategy) – Indonesia.

MP (Malaysia Plan) – Malaysia.

- Myanmar has no comprehensive/definitive national policy document available.
- '*' In the 'document' column signifies lack of success in obtaining same to date.