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Prepared by the IMF in Cooperation with the World Bank

Preliminary Assessment of the Macroeconomic Impact of The Tsunami Disaster on Affected Countries, and of Associated Financing Needs

I. Introduction

The magnitude 9.0 earthquake and associated tidal waves that hit Indian Ocean countries on December 26, 2004 entail a natural disaster of tragic proportions. The estimated number of dead and missing is nearing 300,000, and roughly 1½ million people have been displaced. The human cost of this disaster is clearly beyond measurement.

Now affected countries must deal with the aftermath of the disaster, and engage in reconstruction efforts. This note presents IMF and World Bank staffs' preliminary assessment of the likely macroeconomic impact of the disaster, and of financing needs of affected countries.¹ It focuses in particular on Indonesia, Maldives, and Sri Lanka, where the damage has been greatest. It provides preliminary information on India, which was hard-hit but where the needs assessment is still under way, with World Bank support. It also gives a brief assessment of the situation in Thailand, Seychelles, and Somalia. (Bangladesh, Malaysia, and Myanmar are not discussed in this note, because the damage was limited, and, in Myanmar's case, also because information is poor.)

The IMF and the World Bank have been actively engaged in assisting the authorities cope with the aftermath of the disaster. The World Bank has taken a lead role, along with the Asian Development Bank (ADB) and other international institutions, in assisting the authorities conduct damage and needs assessments. IMF staff have focused on assessing the implications of the disaster for macroeconomic policy, including the impact on growth, as well as the fiscal and external positions. Both institutions have also moved ahead quickly to initiate the provision of emergency financial assistance and longer-term financial aid. The IMF's Executive Board recently decided to set up an administered account to subsidize emergency assistance for natural disasters provided by the IMF to PRGF-eligible member countries. Total funds needed to make this initiative effective are an estimated \$70-100 million; pledges of contributions from IMF members are now urgently needed.

II. Country Notes

Indonesia

According to the United Nations (UN), the official death toll from the tsunami, including those missing and presumed dead, is estimated at 225,000. More than 425,000 people have been rendered homeless, and thousands of children orphaned. The Indonesian government has set up a Joint Disaster Management Center with the UN at the office of the Vice-President to manage and coordinate international relief efforts for the tsunami-affected areas in Aceh and North Sumatra.

Preliminary estimates put the total cost of reconstruction at \$4-5 billion for the coming five years. The Ministry of Planning, with the assistance of the World Bank, the ADB, and the IMF, completed a preliminary assessment of the damage and the associated reconstruction costs, ahead of the Consultative Group on Indonesia (CGI) meeting held in Jakarta during January 19-20. A detailed sector-by-sector study was conducted to assess the destruction of physical assets such as housing, roads, and infrastructure, and estimate the associated replacement costs. The initial estimates are subject to revision and may be different from the actual cost of the new infrastructure that would be built.

At the CGI meeting, donors pledged nearly \$4 billion to finance reconstruction spending in 2005-2009. Of the total, \$1.7 billion was pledged for 2005, of which \$1 billion would be on-

budget (30 percent in grants and 70 percent in concessional loans) and the remaining \$0.7 billion disbursed directly to, or through, NGOs. However, there is some uncertainty regarding both the timing of actual disbursements, and whether any debt relief provided within the framework of the Paris Club (see below) would be offset against pledges made at the CGI meeting. Substantial financial assistance is also being provided by private donors. To ensure transparency and efficiency in the management of all donor funds, the government has decided to set up a multi-donor trust fund.

Notwithstanding the destruction to Aceh's wealth and capital stock, the impact of the disaster on overall growth in Indonesia is expected to be limited, with negative supply-side effects largely offset by increased reconstruction spending. Aceh accounts for only about 2 percent of national GDP, with the oil and gas sector, which was not damaged, accounting for almost half of regional GDP. At the national level, the net impact, including the effect of reconstruction spending, is projected to marginally lower GDP growth by between zero to ¼ percentage point. Inflation is expected to remain around 6 percent.

The substantial donor resources pledged for reconstruction would go a long way to cover Indonesia's financing need, and contain the effects of the disaster on the budget and the balance of payments to manageable proportions. For 2005, financial assistance should enable the government to limit the budget deficit to about 1¼ percent of GDP (after grants), only slightly higher than the previously planned target of 1 percent of GDP. (There is a small financing gap of about 0.1 percent of GDP that remains to be addressed.) As for the balance of payments, preliminary projections suggest that additional import needs would be covered by foreign assistance, and with Aceh's key oil and gas exports unaffected, the overall impact is likely to be broadly neutral.²

A temporary suspension of payments to Paris Club creditors would bolster reserves and help finance the reconstruction needs without requiring offsetting cuts in spending or a diversion of domestic financial resources. The government has responded positively, in principle, to the offer of a temporary debt moratorium from the Paris Club, although its terms and conditions are uncertain, and much will depend on their nature. Figures provided by the authorities suggest that a moratorium would entail debt service savings of some \$350 million in the first quarter of 2005, and \$4½ billion for the year as a whole. At the same time, the government has stressed the importance of relying on grants as the main means of financing the reconstruction of Aceh.

Bank and IMF management and staff have been in close contact with the authorities and have offered to help Indonesia in any way the government may find useful. During the Emergency Summit on Tsunami-Affected Countries held in Jakarta on January 6, the President of the World Bank signed a memorandum of understanding on Bank support. The Bank stands ready to provide up to \$300 million in recovery assistance over the next two years and has pledged disbursements of \$125 million for Aceh in 2005. The Bank is also in discussions with the authorities on mechanisms for coordinated channeling of donor assistance. Also at the Jakarta summit, the Managing Director offered emergency financial assistance as well as technical assistance in the IMF's areas of expertise. Although the government is not likely to seek financial assistance from the IMF, its staff have been closely involved in assessing the macroeconomic impact of the disaster. IMF staff are also discussing with the authorities the possibility of providing technical assistance in coordinating and tracking donor funds (and have provided the government with a guidance note on best practices in this regard), and various payment system and banking issues.

Indonesia: Selected Economic and Social Indicators				
	2004	2005		2006
		Pre-tsunami	Post-tsunami	
GDP and Inflation (in percent)				
Real GDP growth	5.0	5.5	5.25 - 5.5	6.0
Average inflation	6.1	6.0	6.0	6.0

Public Finances (in percent of GDP)				
Revenue (including grants)	17.4	16.1	16.2	15.7
Expenditure	18.6	17.1	17.5	16.3
Reconstruction spending			0.5	0.3
Overall balance	-1.2	-1.0	-1.3	-0.7
Net domestic financing	1.9	1.7	1.7	0.9
Foreign financing	-0.7	-0.7	-0.5	-0.2
Financing gap			0.1	
Balance of Payments (in billions of U.S. dollars)				
Revenue (including grants)	17.4	16.1	16.2	15.7
Expenditure	18.6	17.1	17.5	16.3
Reconstruction spending			0.5	0.3
Overall balance	-1.2	-1.0	-1.3	-0.7
Net domestic financing	1.9	1.7	1.7	0.9
Foreign financing	-0.7	-0.7	-0.5	-0.2
Financing gap			0.1	
Balance of Payments (in billions of U.S. dollars)				
Current account balance (including grants)	7.3	5.5	6.0	4.3
Current account balance (in percent of GDP)	2.8	1.9	2.1	1.4
Grants (official only)	0.1	0.1	0.3	0.1
Capital account	-6.2	-4.9	-5.1	-2.2
Official financial inflows	3.4	3.3	4.0	4.8
Overall balance	1.1	0.6	1.0	2.1
Official Reserves				
In billions of U.S. dollars	36.3	35.8	36.1	36.8
In months of imports	6.1	5.7	5.7	5.4
In percent of short-term debt	158.8	165.4	168.5	190.0
External public Debt				
In billions of U.S. dollars	82.3	77.8	78.5	75.0
In percent of GDP	31.5	27.0	27.2	23.5
Memorandum Items				
Deaths (persons) 1/ 2/			> 225,000	
Displaced (persons) 2/			> 425,000	
Damage estimate (in billions of U.S. dollars)			4 - 5	

1/ Including missing persons.

2/ Government of Indonesia estimates as of February 1, 2005.

Maldives

The Maldives was hit hard by the tsunami. Compared to other affected countries, the human toll has been relatively small, with 83 people killed and 25 missing. However, there was

extensive damage to housing and infrastructure, with virtually complete destruction of 14 of about 200 inhabited islands, leading to the abandonment of three of them. Some 5 percent of the population lost their homes, one-quarter of tourist resorts are closed, and 8 percent of fishing boats were damaged.

The economic impact will be very substantial. The effect on output will depend on the pace of reconstruction activity and the recovery of tourism, but tentative estimates suggest a decline in GDP growth of over 5 percentage points, or to 1 percent in 2005. Revenue losses, including from tourism taxes and import duties, will be about 5 percent of GDP and reconstruction costs borne by the government are estimated at 13 percent of GDP in 2005. Net losses to the balance of payments are estimated at about \$160 million (19 percent of GDP). About \$70 million of this will be covered by already committed grants and concessional loans. The authorities are prepared to take fiscal measures (mainly cuts in non-disaster related current and capital spending) to limit foreign exchange losses and address part of the remaining financing gap, but efforts need to be made to ensure that as much as possible of the remaining financing gap is covered by additional donor contributions.

The authorities and the World Bank are finalizing estimates of medium-term recovery costs. A preliminary joint World Bank/ADB/UN assessment has estimated damage at about \$400 million.

A Paris Club deferral of debt service or a rescheduling would not bring much benefit to the Maldives. Very little of the Maldives' \$300 million external debt is to Paris Club creditors; most is to multilateral or non-Paris Club bilateral creditors.

The Maldives urgently needs balance of payments and budget support from bilateral donors. Support from the World Bank, ADB, UN agencies, and Japan is already taken into account in the calculation of the 2005 financing gap. The World Bank will provide \$14 million through an emergency recovery operation in the first half of 2005 and is ready to provide further assistance of about the same magnitude in the second half of the year, once the reconstruction needs are more clearly defined. However, substantial contributions will be needed from other donors to close the gap. If possible these should take the form of grants or highly concessional loans. Support during the first half of 2005 will be particularly important, as this is when the shortfall in tourist revenue will be greatest, and there may be pressure on the rufiyaa (which is pegged to the U.S. dollar) during this period. The authorities have decided to request emergency assistance from the IMF, in the amount of SDR 3-4 million (about \$4-6 million). Even if this additional assistance is provided, however, a large financing gap will remain.

Maldives: Selected Economic and Social Indicators				
	2004	2005		2006
		Pre-tsunami	Post-tsunami 1/	
GDP and Inflation (in percent)				
Real GDP growth	8.8	6.5	1.0	9.0
Average inflation	6.4	7.8	6.8	2.8
Public finances (in percent of GDP)				
Revenue (including grants)	35.2	38.0	42.5	37.9
Expenditure	38.0	42.0	57.6	52.1
For reconstruction			13.3	10.5
Overall balance	-2.8	-4.0	-15.1	-14.2
Net domestic financing	-1.4	1.3	-0.0	0.0
Foreign financing	4.2	2.8	4.1	3.7
Additional external financing requirement			11.0	10.5
Balance of payments (in millions of U.S. dollars)				

Current account balance	-89	-105	-207	-198
Current account balance (in percent of GDP)	-11.8	-12.2	-25.1	-21.4
Grants	7	7	64	7
Capital account	149	106	116	105
Official financial inflows	48	42	52	59
Overall balance	60	1	-91	-93
Financing gap			91	97
Official Reserves				
In millions of U.S. dollars	205	206	205	209
In months of imports 2/	3.6	3.5	3.2	3.2
External Public debt 3/				
In millions of U.S. dollars	290	311	367	450
In percent of GDP	38.5	36.0	44.3	48.5
Memorandum Items				
Deaths (persons) 4/			83	
Displaced (persons) 4/			12,000	
Damage estimate (in millions of U.S. dollars) 4/			406	

1/ Excludes effects of fiscal measures proposed by the authorities.

2/ In months of current year's imports of goods and nonfactor services.

3/ Includes additional external financing, assuming equal proportions of grants and loans.

4/ Based on World Bank/AsDB/UN System Joint Needs Assessment, February 8, 2005.

Sri Lanka

The immediate humanitarian impact of the disaster has been huge. The tsunamis struck a long coastal area stretching over two-thirds of the country's coastline. Deaths have been estimated in excess of 30,000, with thousands missing, and hundreds of thousands still displaced. The affected population is estimated at between one and two million, out of a total population of 19 million. While communicable diseases remain a significant risk, outbreaks have been prevented so far.

The physical capital stock has been severely damaged. The World Bank, ADB, and the Japan Bank for International Cooperation, working closely with the authorities and other donors, have carried out a preliminary damage and needs assessment, based on which asset losses are estimated at \$1 billion (4½ percent of GDP). Financing needs for reconstruction are estimated at \$1.5-1.6 billion and include upgrades in the power, water, and transportation sectors.

While the commercial areas in the western part of the country were largely unaffected, there was extensive damage to the fisheries and tourism sectors. The fishing industry, which accounts for 2 percent of GDP and exports very little, has been devastated—more than half of the fishing fleet is damaged, many fishermen died, and several of the major fishery harbors have been destroyed. Tourism and related services account for about 2 percent of GDP and more than 5 percent of exports of goods and services. However, only ¼ of hotel capacity has been damaged and some of the affected hotels are expected to re-open within the next weeks or months. The reconstruction effort should largely offset the negative impact on growth. The authorities now estimate growth in 2005 at 5¼ percent, down from the pre-tsunami projection of 6 percent, but still similar to growth in 2004. Consumer prices are expected to increase, at least temporarily, as food prices are affected by supply shortages. Reflecting inflationary pressures already in place in 2004, the average inflation rate is expected to rise to 12 percent in 2005.

Reconstruction efforts will exert pressure on the balance of payments and the fiscal situation. Notwithstanding higher private and official transfers, lower tourism receipts and a reconstruction-related surge in imports are expected to widen the current account deficit by almost 2 percentage points of GDP relative to pre-tsunami projections. The overall fiscal balance, including grants, would increase by about 1¼ percentage points. Excluding grants, the fiscal deficit could exceed the budgeted target of 7½ percent of GDP by 2 percentage points, owing to higher current and capital outlays and a marginal adverse impact on revenues. The authorities are seeking sufficient aid flows such that all tsunami-related spending would be foreign financed, leaving net domestic financing unchanged.

Aid pledges by donors have been impressive, but commitments for 2005 still need to be firmed up. Among others, Japan has committed to provide additional aid of \$105 million for tsunami reconstruction (including \$80 million in grants), while the ADB has committed an additional \$35 million (including \$10 million in grants). The World Bank stands ready to provide \$150 million in total for reconstruction purposes, including \$75 million in new commitments (of which \$30 million will be in grant form). Total tsunami-related disbursements are projected at around \$500 million in 2005, which would be sufficient to finance the direct reconstruction expenditures planned for this year.

IMF assistance has already been provided in the form of a one-year extension of "repurchase" (repayment) expectations due this year under Sri Lanka's 2001 Stand-By Arrangement with the IMF. This will save Sri Lanka some \$110 million in debt service in 2005. A request for emergency assistance equivalent to about \$160 million is expected to be presented to the Executive Board in late February for its consideration, and discussions on the PRGF/EFF-supported program are expected to resume later this year.

The authorities are also interested in the offer of temporary debt relief that has been extended by Paris Club creditors. The government is currently seeking more information on the terms of possible debt relief. For 2005, total debt service to Paris Club members is estimated at \$323 million, of which \$216 million is in interest.

Even with significant aid flows and IMF financial assistance, the external and fiscal positions are expected to remain vulnerable. The authorities will be hard pressed to keep international reserves at the pre-tsunami level of about \$1.9 billion (2 months of imports), well below what had previously been envisaged under the IMF-supported program. Any temporary debt relief provided by the Paris Club, which would be in addition to the aid flows identified above, would help reduce external vulnerability and limit downside risks, including those arising from higher oil prices and the impact of the expiration of the Multifibre Arrangement on textile exports.

Sri Lanka: Selected Economic and Social Indicators				
	2004	2005		2006
		Pre-tsunami	Post-tsunami	
GDP and Inflation (in percent)				
Real GDP growth	5.2	6.0	5.3	6.0
Average inflation	7.6	10.5	12.0	7.5
Public Finances (in percent of GDP)				
Revenue (excluding grants) 1/	15.8	17.6	17.4	16.9
Expenditure	23.9	25.1	27.0	25.6
For reconstruction			2.5	1.5
Overall balance	-8.2	-7.5	-9.6	-8.7
Overall balance (including grants)	-7.7	-7.1	-8.4	-8.0
Net domestic financing	6.2	4.9	4.9	3.8
Foreign financing (incl. grants)	2.0	2.5	4.7	4.9

Balance of Payments (in U.S.\$ millions)				
Current account balance	-626	-689	-1,161	-999
Current account balance (in percent of GDP)	-3.2	-3.2	-5.3	-4.2
Transfers (private and public)	1,358	1,456	1,704	1,670
Capital account	414	904	1,219	1,132
Official financial inflows	326	470	770	676
Overall balance	-212	215	58	133
Official Reserves				
In millions of U.S. dollars	1,825	1,886	2,002	2,294
In months of imports	2.1	2.1	2.3	2.5
External Public Debt				
In millions of U.S. dollars	11,429	11,980	12,564	13,538
As a percent of GDP	58.8	55.2	57.4	57.5
Memorandum Items				
Deaths (persons; includes missing)			37,000	
Displaced (persons)		400,000	- 500,000	
Damage estimate (in U.S.\$ billions)			1.0	

1/ Projections for 2005 include 1.2 percent of GDP in fiscal measures which are still to be identified.

India

India suffered large human losses on account of the tsunamis. The death toll has reached close to 11,000 persons, and the 5,800 missing persons are now being presumed dead. As many as 650,00 persons have been displaced, mostly from the Andaman and Nicobar Islands, as well as three southern states (Andhra Pradesh, Kerala, and Tamil Nadu), which have all suffered extensive physical damage. Many fisheries were destroyed, which were the principal livelihood for the large number of poor living in the affected regions.

Although the full economic cost of the disaster is not yet known, the impact on economic growth is expected to be minor. This is because the most affected regions are not heavily industrialized. However, many people have lost houses and jobs and about half a million people have been displaced. The preliminary damage estimate is around ¼ percent of GDP. The government is focusing its efforts on providing temporary shelter and wage employment, and restoring infrastructure. A first package of measures totaling about 0.1 percent of GDP has already been announced. Next year's budget, expected to be announced in March, will present the government's comprehensive reconstruction plans.

The Indian authorities have requested support from the World Bank, the ADB, and the UN for infrastructure reconstruction. A joint needs assessment began on February 1. An initial estimate of \$300 million in potential IDA funding, mainly from a redirection of existing funding, has been shared with the Indian authorities for their consideration; in addition, the World Bank is considering mechanisms to channel potential bilateral support to reconstruction priorities.

As India's external public debt is relatively small, debt relief is not a pressing concern. In fact, India has been prepaying external debt obligations in recent years. And since India's official reserves, at \$130 billion (13 months of imports), are ample, the balance of payments are unlikely to come under serious pressure even if reconstruction entails extensive imports. The government has therefore declined offers of debt relief, although it would accept concessional multilateral credits.

Thailand

The tsunamis that hit the southern coast of Thailand inflicted a heavy human toll and widespread infrastructural damage. Official figures report 5,300 dead and 3,100 missing. The preliminary estimate of physical damage is about \$0.8 billion (½ percent of GDP).

However, the macroeconomic impact of the damage is expected to be limited. IMF staff's current projection for economic growth in 2005 (about 5½ percent) reflects preliminary estimates of the direct and knock-on effects of the tsunamis, which are expected to reduce growth by ½-1 percentage point. The projection also takes into account the \$1½ billion relief package already approved by the authorities. The forecast is in line with that of the authorities and most market analysts, and assumes that Thailand's appeal as a tourist destination is restored relatively soon, and that reconstruction gets underway quickly.

The government has indicated that Thailand will not seek financial assistance from the international financial institutions, or debt relief from official creditors. Benefits from tsunami-related debt relief would be limited, as Thailand's public external debt amounts to less than 10 percent of GDP. In addition, Thailand's external position is strong, with official reserves amounting to \$50 billion (nearly 6 months of imports). Thailand also enjoys full access to capital markets.

Seychelles

The tsunamis, which were followed by two days of torrential rains, caused substantial damage to the physical capital stock and have worsened an already serious balance of payments situation. The human toll was relatively limited, with 2 persons dead and about 100 families displaced.

The authorities estimate the damage to physical infrastructure and private property at some \$33 million (about 5 percent of GDP). Included in this estimate are immediate needs of \$8.9 million, as estimated by a UN Disaster Assessment and Coordination team. Several bridges, as well as stretches of coastal roads, will have to be rebuilt. About 5 percent of the hotel capacity in the tourism industry, the lynchpin of the Seychelles economy, will require wide-ranging restoration. The artisanal fishing sector has been deeply affected, with extensive damage to fishing vessels and port facilities.

While the tsunamis' impact on growth and inflation is expected to be modest, there will be increased pressure on the fiscal position and the balance of payments in 2005. Growth, already negative owing to a prolonged foreign exchange shortage, could be reduced by one percentage point, with weaker tourism activity being offset in large part by the reconstruction effort, provided there is sufficient foreign exchange to finance related imports. Inflation is expected to rise to about 12 percent. Domestic contingency funds (1.3 percent of GDP) in the 2004 budget are being used to cover immediate reconstruction and social safety net needs. The negative impact on the balance of payments is estimated at \$25-35 million (3½-5 percent of GDP) for 2005 and, after taking into account pledges for assistance that have been received to date (about \$5.4 million in grants), the financing gap would increase from \$10 million to about \$45 million.

Seychelles is in a vulnerable position. International reserves are at historic lows (about 3 weeks of imports), public debt at extremely high levels, and the government has been accumulating external payment arrears, including to the World Bank, African Development Bank, and Paris Club creditors. The IMF is in close dialog with the authorities to assist them in resolving these issues and to support an ongoing strengthening of economic policy.

The authorities have issued an official appeal for international financial support to repair destroyed infrastructure. The World Bank intends to assist them in organizing a donor conference to mobilize additional grant financing from bilateral donors. The authorities have responded positively to the Paris Club's offer of a temporary debt moratorium; for 2005, debt service to Paris Club members is estimated at \$6.1 million in principal and \$2.1 million in interest payments.

As Seychelles is in arrears to the World Bank, the Bank is not in position to provide emergency lending.

Somalia

The tsunamis that hit mainly the north-east region of Somalia, Puntland, have caused human losses and extensive infrastructural damage. It was reported that nearly 300 people died and more than 50,000 people were displaced. A large number of shelters and houses were damaged or destroyed, and many fishing boats and equipment were lost.

Since the start of the civil war in 1991, the IMF has not had any official contact with Somalia and, thus, is not able to assess the macroeconomic impact or cost of the disaster. The World Bank has only resumed official contact very recently (after the disaster) and has no presence on the ground to contribute to damage or needs assessments. Somalia has been without a central government until recently when a transitional government was formed late last year in Nairobi. No official estimates of the cost of the tsunamis have been made available. The UN Office of the Coordination of Human Affairs recently estimated that about \$10 million in humanitarian aid is needed in the first half of 2005 to help those who were affected by the disaster. Where conditions permit, emergency relief efforts have been undertaken by international relief agencies and private charities.

Somalia is not servicing its debt at this time, and debt relief is not a pressing issue. Somalia has substantial external arrears to the IMF estimated at about SDR 222 million at end-2004. It also has arrears to IDA totaling about \$125 million. Because of these arrears, the World Bank is not in a position to provide emergency IDA credits or grants. Discussions on possible debt relief could take place when there is a functioning and internationally recognized government operating in Somalia. The World Bank treats Somalia as a Low Income Country Under Stress and has produced a country reengagement note, joint with UNDP; preparations are under way for an overall needs assessment, in which the Bank will take part.

1 The information contained in this note was provided to G7 Finance Ministers ahead of their meeting in London on February 4-5.

2 Official reserves are projected to rise temporarily in 2005-06, reflecting the possibility that donor inflows may precede subsequent expenditure on imports.