

A	Country	Indonesia	9 February 2005
B	Agency	FAO	
C	Lead agency sectors	Rehabilitation of agricultural production and fishery, food security	
D	Overall situation/ Assessment	<ul style="list-style-type: none"> • Over 450,000 persons are internally displaced and in urgent need of having their livelihoods rehabilitated. • An estimated 40,000 ha of irrigated lands have been devastated (i.e. less than 10 percent of irrigated lands). • 30 981 ha of the rice production is reported to be damaged. In the districts of Aceh Utara, Bireun, Pidie, Aceh Besar, Aceh Java, Aceh Barat and Nagan Raya a total of 90, 350 ha have been destroyed (47, 955 ha fish ponds and 30 981 ha paddy fields). • Aerial surveys of damages to coastal aquaculture ponds along the coast indicate serious damages, ranging from 40 – 60 percent of the ponds in the various districts (worst hit is Bireuen). • The total damage to the irrigation infrastructure is estimated to US\$ 37.9 million in Aceh Province. • Scattered and unattended cattle, several of unknown ownership, since many of their owners also lost their life. The unattended livestock are presenting an increased health risk • The provincial animal husbandry and veterinary services have been almost totally destroyed. In Banda Aceh a high percentage of staff seems to have lost their lives, many of the survivors are too deeply traumatized to be operational. Restoring capacity would require to immediately recruit and dispatch a team of national vets (one for each district?) and to provide essential field veterinary equipment and medical supplies as well as logistic support. • It is estimated that 80 000 wells have been damaged, requiring repair or replacement. • Seawalls, flood ways and jetties have been severely damaged. Damages on flood control and sea wall systems are estimated at US\$72.1 million in Aceh and at US\$4.2 million to amend damages on flood control structures in North Sumatra. • 25 000 ha of mangroves have been affected at a total net loss of US\$ 118 million and an additional 48 925 ha of other forests have been affected at a net value loss of US\$ 21.9 million. Cleared away mangroves left the coastline vulnerable to the tsunami. • High demand for wood for reconstruction of infrastructure and boats poses risk of triggering unsustainable harvesting of forests. • Large amount of wood waste poses risk of pest outbreaks and some of it also needs to be salvaged. • Damages to coral reefs, land, water bodies and coastal lines are estimated as US\$448.9 million. • Small scale fisheries were the main economic activity in affected areas, and some 42,000-58,000 fishers and their families make their living from aquatic resources. • Estimates suggest that about 65-70% of the small scale fishing fleet and associated gear was destroyed in Aceh Province, representing around 9,500 units, of which 40% canoes, 25% with outboard motor, 35% with diesel inboard motor. In Nias Island preliminary estimates vary greatly and range from 240 to 800 destroyed fishing canoes. • 55% of the fishing harbours damaged (but none in Sabang) and 15-20% of fishers are estimated to have died in the 18 affected <i>kabupatens</i>. However, according to the Indonesian minister of fisheries and marine 	

		<p>affairs (MOFMA) 50% of fishers in Aceh have died and about 40,000 fishers have lost homes. Around 45 government fisheries staff lost their lives.</p> <ul style="list-style-type: none"> • Of the marine fish culture plants in Northern Sumatra, 1,000 cage farms have probably been destroyed. In Aceh, between 36 000 and 48 000 ha of brackish water aquaculture ponds that mainly produced shrimp and milkfish were seriously damaged. The Regional Centre for Brackish Water Development (BBAP) in Ujung Natee, reported that 80 percent of the ponds are destroyed and 17 shrimp hatcheries damaged. Aceh provided a large proportion of the wild caught <i>Penaeus monodon</i> broodstock for hatcheries throughout Indonesia. It is unclear how many of the collectors survived, or what impact the interruption of this broodstock will have on the provision of fry for the shrimp farms throughout Indonesia. • Total damage to the capture fisheries sector is estimated at Rrp 478 billion (US\$ 52 million). Direct financial damage to brackish water culture pond production is estimated at Rrp 466 billion (US\$ 51 million), and around US\$ 8 million from damage to hatcheries and government facilities. • Joint field surveys (FAO/Ministry of Agriculture/ Ministry of Marine Affairs and Fisheries) are ongoing
E	Response Activities completed/ongoing	<ul style="list-style-type: none"> • Preliminary assessments in crop and fishery sector for the preparation of FAO component to Flash Appeal completed. More detailed assessments to Aceh and Nias Island are underway • On February 5, FAO sponsored a meeting in Medan of the working group on Agriculture, Fisheries and Forestry. More than 70 delegates from ministries, international agencies and NGOs participated. The meeting was followed by a two-day workshop to prepare strategies and detailed recovery plans for the fisheries and aquaculture sectors. Further workshops are planned in Aceh.
F	Planned Activities	<ul style="list-style-type: none"> • Emergency provision of seeds, tools and other agricultural inputs. Initial repair of infrastructure needed for agricultural production • Formulation, within an integrated land and coastal ecosystem management plan, of a comprehensive plan for the rehabilitation of affected forests and mangroves. • Replacement and repair of fishing materials (hooks, nets, boats, etc.). Repair of brackish water fish ponds • Technical assistance to the Indonesian authorities to facilitate the provision of agricultural/fishery extension services to 60 000 disaster affected households
	Major constraints	<ul style="list-style-type: none"> • The west coast of Sumatra is extremely hard hit. Entire communities have been devastated so immediate rehabilitation of livelihoods is presently not a realistic option. Furthermore, access to and mobility within these areas is extremely difficult
G	Key partners/ coordination	<ul style="list-style-type: none"> • The Ministry of Marine Affairs and Fisheries and the Ministry of Agriculture
H	Funding requirements	FAO submitted an appeal for US \$ 10 million to the UN Flash Appeal
K	Staff presence	<p>René Suter, Tsunami Liaison and Coordination Officer (Jakarta), reneerst.suter@fao.org, Jean Michel Arnoult, Tsunami Assessment and Project Formulation Officer (Jakarta and field missions), arnoult_fao@yahoo.com</p> <ul style="list-style-type: none"> • Two master fishermen, one fisheries advisor, one boat builder and one ice/cold room specialist have been fielded. • One aquaculture expert is under recruitment and will start on 9 February and one harbour expert has been

		<p>recruited and will start in Indonesia on 11 February</p> <ul style="list-style-type: none">• An emergency coordination office is being established in Aceh.• Two emergency coordinators and one agronomist have been fielded.
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A	Country	Maldives 9 February 2005
B	Agency	FAO
C	Lead agency sectors	Rehabilitation of agricultural production and fisheries, food security
D	Overall situation/ Assessment	<ul style="list-style-type: none"> • 12 000 persons (5 percent of the population) have been displaced from their islands and another 8 500 people are temporarily relocated to other places on their own islands. All are in urgent need to re-establish their livelihoods. • Popular dispersion over 200 islands scattered over 900 km complicates assessment and rehabilitation efforts. The Ministry of Planning and National development organisations have identified the 69 most affected islands. • The fisheries sector (that contributed to 9.3 percent of GDP) is seriously affected. A third of the annual catch is consumed domestically, fish products account for almost half of the exports. About 20 percent of the total population is dependent on fisheries as the major income earning activity. • Economic losses will be most severe for artisan, small-scale fishers and processors. Many have temporarily left their islands after loosing not only boats and gear, but also houses and savings (most kept all assets in their homes, rarely using banking facilities). The peak of the fishing season is January – April. • Direct losses to fisheries are 120 fully damaged and lost fishing vessels, 50 partially damaged vessels (22 are out of operation), lost equipment of 337 cottage fish processors and 37 commercial processors. • Estimated total cost for repair and rehabilitation for damages to fisheries industry amounts to about USD25 million. Direct losses (vessels gear and infrastructure) estimated at USD 13.13 million. Indirect losses (mainly livelihoods and productive assets for artisan fishers) estimated at USD 11.87 million. Damages to the fisheries sector, including business losses, have been assessed as USD 25 million (USD 11.5 million for fishing vessels and USD 12 million business interruption) while the cost of rehabilitation has been assessed as USD15.3 million. • 30 percent of the field plots have been completely destroyed. Field crops in 2 103 farms have been damaged, as well as backyard crops and agricultural tools in 11 678 homesteads. • Severely affected atolls and islands (Thaa, Hhaalu, Vaavu, Gaafu, Alifu and Laamu) report contamination of water and/or salinity of water. • 50 percent of the field plots have been destroyed due to saline water flood, causing loss of perennial plants and crop failure. Saltwater intruded into fresh water lenses on almost all of the 1 200 islands, resulting in vegetation browning and dieback. • Perennial trees such as coconuts, breadfruits, mango etc. have been uprooted and/or are suffering from salt toxicity. Particularly bananas have been severely damaged. 700 000 fruit trees and 840 000 timber trees have been damaged in the inhabited islands. These losses affect 11 678 households. • High demand for wood for reconstruction of infrastructure and boats poses risk of triggering unsustainable harvesting of forests. • Large amount of wood waste poses risk of pest outbreaks and some of it also needs to be salvaged.

		<ul style="list-style-type: none"> • Perturbation of water aquifers, sea salt sediments, and salt logging constitute big threats to agriculture and water supply. Saline water intrusion has affected 112 inhabited islands and damage to groundwater resources is severe in 35 agricultural islands. • Recovery needs for the agricultural sector (improvement of soil, forestry and water resources, import of plant material and provision of extension services) are estimated at USD 11.1 million. • The extension services of the Ministry of Agriculture needs to be drastically reinforced during a transitory period in order to cope with the needs for rebuilding agriculture and home gardening in the numerous disseminated islands
E	Response Activities completed/ongoing	<ul style="list-style-type: none"> • Thirteen varieties of vegetable seeds sufficient for ten islands have been procured • FAO's Sri Lanka is in regular contact with the Government of Maldives. FAO staff has participated in a UN assessment. • Based on the joint donor's assessment the Government will seek assistance through a Donor Conference tentatively scheduled in March 2005. FAO, AusAid, Kuwait Fund and Asian Development Bank have shown keen interest in participating in the recovery programme.
F	Planned Activities	<ul style="list-style-type: none"> • Emergency provision of seeds, tools and other agricultural inputs. Reclamation of affected agricultural land • Repair and replacement of assets within the fisheries sector (boats, fishing gear and onshore supporting facilities). • Rehabilitation of the fish processing sector, especially relating to the processing of Maldives fish (dried skipjack). • Replacement of boats will incorporate designs for better onboard fish preservation. • An international fisheries advisor co-ordinates and supervises emergency and rehabilitation assessments for coastal fisheries and aquaculture, as well as structuring and planning emergency relief interventions and rehabilitation assistance. • Formulation, within an integrated land and coastal ecosystem management plan, of a comprehensive plan for the rehabilitation of affected forests and mangroves.
S	Key partners/ coordination	The Ministry of Fisheries, Agriculture and Marine Resources (MFAMR)
H	Funding requirements	FAO submitted an appeal for US \$2 million to the UN Flash Appeal
K	Staff presence	<ul style="list-style-type: none"> • An operational unit will be set up in the Maldives • One ice plant/cold room specialist and one master boat builder have been fielded. One collaborating fisheries expert is on a UNDP mission.

		<ul style="list-style-type: none">• One fisheries extension and credit expert and one expert on reef assessment are under recruitment.• FAO has fielded a senior agronomist for the UN assessment team.
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A	Country	Myanmar	9 February 2005
B	Agency	FAO	
C	Lead agency sectors	Rehabilitation of agricultural production and fisheries, food security	
D	Overall situation/ Assessment	<ul style="list-style-type: none"> • Some 200 villages spread over the southern coast and relying on fishery have been hard hit by losses due to damage on vessels, fishing gears, infrastructure, etc. Government figures suggest that there were 61 deaths and 3,205 people from 638 households displaced. • A total of 144 small vessels have been damaged. • Seasonal fishing villages and so called sea gypsies are communities of particular concern. • So far, in the Tanintharyi Division on the Southern Coast, it is estimated that 44 inshore fishing vessels are severely damaged or lost. • Hard hit was the Laputta Township in the Ayeyawaddy Division, and Pyinsalu Subtownship, about 40km south of Laputta with more than 900 fishermen impacted. • The effects of the tsunami are apparently not as grave as initially feared. The tsunami hit during low tide and was apparently mitigated by a large number of reefs and island, before it reached the shoreline, furthermore it was a full-moon day meaning that many fishermen were not out at sea. • Direct financial damage estimated at USD180,000 - 250,000 	
E	Response Activities completed/ongoing	FAO, including a fisheries consultant, is participated in the preparation of a country profile for mid- and long term donor assistance.	
F	Planned Activities	<ul style="list-style-type: none"> • FAO will participate in medium- and long-term recovery and rehabilitation activities in agriculture and fisheries. • FAO is planning to field a mission to Kawthaung Township to assess losses in the agriculture and fisheries sectors, since previous missions have not covered these sectors. 	
G	Key partners/ coordination	Ministry of Livestock and Fisheries and Ministry of Agriculture and Irrigation	
H	Funding requirements		
I	Other requirements		
J	Major constraints		
K	Staff presence		

A	Country	Sri Lanka	9 February 2005
B	Agency	FAO	
C	Lead agency sectors	Rehabilitation of agricultural production and fisheries, food security	
D	Overall situation/ Assessment	<ul style="list-style-type: none"> • About 450 000 persons are internally displaced and in urgent need of having their livelihoods rehabilitated. 91 749 houses are destroyed. • Waves penetrated on average 0.5 km, impacting only downstream parts of the main agricultural areas. However, recent assessments in the Galle district indicate that damage can be worse than initially thought. Salt water moved more than three kilometres inland, among other damages causing the deaths of a large number of mango- and jackfruit trees. • About 5 938 ha crops were completely damaged. Worst affected districts are Hambantota, Ampara, Batticola, Trincomalee (where 400 ha high value onion and other vegetable crops were destroyed), Maullaitivu and Jaffna. • An additional 5 000 ha of agricultural land made ready for cultivation was affected by sea water intrusion. The harvest period for rice is January to March and other field crops are planted October to November, with a growth duration ranging from 70 – 115 • Droughts occurred in 2004 and a big grain deficit is expected in 2005. • Direct loss of food production is estimated at USD 10 million, while the resuscitation of damaged crop land will cost considerably more. • Coastal agro wells in the East and natural streams have been infected by salt water • Livestock losses are relatively modest, but there are concerns that the cattle population will be used to supply the protein no longer provided by fishery. • The mangroves, costal lagoons and coral reefs acted as protection/buffer zones, lessening tsunami impacts. • The fishermen population suffered 7 573 deaths. Nearly 71,000 persons in fishing households have been directly affected through death, or displacement due to damage to their dwellings • Between 15 500 and 19 637 vessels, were damaged or destroyed. The higher estimate is made up of 1 225 large multi-day boats, 8 097 motorized day boats and 10,316 traditional non-motorised craft. In addition the total estimate of lost fishing gear/net units is 89 920 with 3 412 outboard engines missing. 10 out of the 12 main fishery harbours have been devastated (i.e. plants, cold rooms, workshops, slipways and other marine structures). • Total rehabilitation needs are estimated at USD 145 million: USD 98 million for fishing vessels, engines and gear, USD 23 million for fishery harbours and facilities, USD 1 million for micro-credit, USD 17 million for onshore infrastructure of ice plants, fisheries-related buildings etc, and an additional USD 5 million for technical and financial assistance for modernising the sector. Other damage estimates to infrastructure of are Rs 649 million (USD 6.6 million). • High demand for wood for reconstruction of infrastructure and boats poses risk of triggering unsustainable harvesting of forests. • Large amount of wood waste poses risk of pest outbreaks and some of it also needs to be salvaged. 	

		<ul style="list-style-type: none"> Repair, rehabilitation and improvements related to environmental damages are estimated at USD 75 million.
E	Response Activities completed/ongoing	<ul style="list-style-type: none"> FAO has been selected by the Government and by the WB/ADB/IBIC/JICA Needs Assessment Group to be the official coordinator of fisheries in Sri Lanka. FAO has taken steps to institute regular NGO/Donor Coordination Meeting of which three have been held since January 18th. A joint FAO – Ministry of fisheries working group on fisheries sector rehabilitation has been established. The FAO Emergency Coordination Unit (ECU) in Sri Lanka has been active in preliminary damages and needs assessment and has prepared FAO's component to the UN Flash Appeal. The local FAO team has been reinforced by international and national experts, including a fisheries advisor, a master fisherman, a naval architect and a specialist boat builder. The procurement process has been initiated and so far materials have been purchased locally, among them 65 irrigation pumps, 270 knapsack sprayers and 9000 mammoties (a spade like instrument used for digging). On 2 February, the first of a USD380 000 consignment of boat repair kits to help restore the livelihoods of thousands of Sri Lankan fishermen was delivered to the Ministry of Fisheries. The repair kits will go to boat yards set up around the country by the Sri Lankan government to repair those vessels salvaged by the surviving fishermen. In order to ensure that all external aid is appropriately used for the entire benefit of the affected communities with proper accountability and transparency and to avoid duplication of efforts by the different agencies involved, FAO and the Sri Lankan fisheries ministry has established a joint working group to co-ordinate relief efforts for the fisheries industry.
F	Planned Activities	<ul style="list-style-type: none"> Establishment of a technical coordinating unit for the agriculture sector Emergency provision of seeds, tools and other agricultural inputs. Replacement and repair of fishing materials (hooks, nets, boats, engines etc.) Provision of the correct specification of new gear and materials for mending nets. Initial repair of infrastructure needed for agricultural production Rehabilitation of fishery harbours, anchorages and production related infrastructure. Formulation, within an integrated land and coastal ecosystem management plan, of a comprehensive plan for the rehabilitation of affected forests and mangroves.
G	Key partners/ coordination	<ul style="list-style-type: none"> Department of Agriculture and Department of Animal Husbandry and Livestock Department of Fisheries and Ceylon Fishery Harbours Cooperation and Ceylon Fisheries Corporation Local CBOs and NGOs, relevant state agencies and provincial councils
H	Funding requirements	FAO submitted an appeal for US \$9 685 475 to the UN Flash Appeal
K	Staff presence	<p>Giuseppe Simeon, Assistant Emergency Coordinator, giuseppe.simeon@fao.org</p> <p>James Breen, Emergency Coordinator – Tsunami Assessment and Project Formulation, james.breen@fao.org</p> <ul style="list-style-type: none"> Recruited staff includes a fisheries advisor, a naval architect, a master fisherman, a boat builder, an expert in vessel construction standards, an ice plant/ cold store specialist, a harbour specialist, an agricultural advisor

		<p>and an international information/communications officer.</p> <ul style="list-style-type: none">• 7 national agronomists have been mobilised from ongoing projects. In the fisheries sector local staff include one aquaculture specialist, one fishery sector expert, one development planner, one institutional expert, one marine biologist, one master fisherman, one marketing/post-harvest expert and one boat repair unit coordinator.
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