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Centre's 'irresponsibility' caused panic

Statesman News Service

HYDERABAD, Dec. 30. — The very least the Union home or science and technology ministries could have done before plunging the nation into panic with their tsunami alerts, was get basic facts right about tsunamis or earthquakes.

One report, after the Centre's warning, from UK television network ITV sums up the reality best. "But there were no immediate signs of giant waves and the

US Geological Survey said it was unaware of any aftershock large enough to trigger a fresh tsunami. Duty seismologist Mr John Minsch said an aftershock would have to reach at least 7.5 magnitude and nothing had been recorded larger than 7.1 since Sunday".

Andaman & Nicobar, of course, suffered 48 aftershocks since the first one on Sunday. There were three most intense ones at 6.3 Richter — the last at 11.26 a.m. on Wednesday. Further there is a publicly available tsunami bulletin

(<http://lumhai.soest.hawaii.edu/te xt/tsunami/Tsunami.PHEB>) hosted by the University of Hawaii's department of meteorology around 7 a.m. IST on 28 December, that sea levels have been fluctuating by 6 cm to 65 cm right across New Zealand, USA, Chile, Fiji and several other coasts.

Mr Kapil Sibal made a peculiar statement. "It is scientifically impossible for a tsunami to strike unless there is a quake. But nevertheless we have asked people to be alert, as we cannot predict

nature and can never be sure about its ways". National Geophysical Research Institute, Hyderabad, long ago, placed India's North-east in its seismic hazard map at number five, in other words a place highly susceptible to an earthquake. Several international experts in recent past have said a quake is due there. With this knowledge and despite the fact that its impossible to predict an earthquake, would he have North-east on an alert as one can never be sure about nature's ways?

আতঙ্ক ছড়াল সরকার বাহাদুর

সুনামির
সতর্কবার্তা,
দিনভর
পণ্ড ব্রাণ

সৌভদ্র চট্টোপাধ্যায় ●
নয়াদিল্লি

৩০ ডিসেম্বর: সতর্কবার্তা জারি করে পাক্ষা ১৪ ঘণ্টা ধরে আতঙ্ক ছড়ানোর পরে সরকার অভয় দিল, আতঙ্কিত হবেন না!

সরকারি ওই বিভ্রান্তির জেরে ভুগতে হল আতঙ্কিত মানুষকে, পণ্ড হল উদ্ধারের কাজ। আবার সুনামি আসতে পারে, এই সতর্কবার্তা পেয়ে তামিলনাড়ুর উপকূল এলাকা এবং আন্দামান-নিকোবরের হাজার হাজার মানুষ ঘরবাড়ি ছেড়ে দ্বিধাদিক জ্ঞানশূন্য হয়ে সারা দিন ছুটে বেড়ালেন নিরাপদ উঁচু জায়গার সন্ধানে।

দেশের বৃহত্তম প্রাকৃতিক বিপর্যয়ের মোকাবিলায় যখন সবাই নাজেহাল, তখন ফের সুনামির আশঙ্কা নিয়ে আজ দিনভর তরঙ্গা চালাল শিবরাজ পাটিলের স্বরাষ্ট্র এবং কবিল সিব্বলের বিজ্ঞান ও প্রযুক্তি মন্ত্রক। বিবৃতি, পাল্টা বিবৃতির পাকে পড়ে এবং সতর্কবার্তা পেয়ে বহু স্বেচ্ছাসেবী সংগঠন সমুদ্রতটবর্তী এলাকা থেকে নিজেদের সরিয়ে নিয়েছে।

এবং আশ্চর্য হলেও সত্যি, দিনের শেষে পরিষ্কার, এত বড় বিপর্যয়ের সময়েও কেন্দ্রীয় সরকারের বিভিন্ন শাখার সমন্বয়ের কী নিদারুণ অভাব!

মার্কিন যুক্তরাষ্ট্রের টেরা রিসার্চ এবং অস্ট্রেলিয়ান প্যাসিফিক সুনামি ওয়াচ সেন্টার। আজ ভোরে এই দুই সংস্থা পর্যবেক্ষণ করে জানায়, ভারতের পূর্ব উপকূলে কয়েক ঘণ্টার মধ্যে ফের সুনামি হতে পারে। অস্ট্রেলিয়ার উপকূলে সামুদ্রিক ভূকম্প হলে এই বিপর্যয় আবার আসবে ভারতের উপকূলে। এর ভিত্তিতেই স্বরাষ্ট্র মন্ত্রকের জাতীয় বিপর্যয় মোকাবিলা বিভাগের অধিকর্তা এস কে

স্বামী সতর্কবার্তা জারি করেন। অঞ্জ, তামিলনাড়ু, পশ্চিমবঙ্গ, কেরল, লক্ষদ্বীপ এবং আন্দামান-নিকোবরের মুখ্যসচিবদের পাশাপাশি এই বার্তা যায় রাষ্ট্রপতি, প্রধানমন্ত্রী, ক্যাবিনেট সচিব-সহ সরকারের শীর্ষ স্তরের প্রতিটি মহলে। ভারতের সতর্কবার্তা জারির খবর পেয়ে একই কাজ করে শ্রীলঙ্কা সরকারও। ছড়ায় আতঙ্ক।

সকাল সাড়ে ১০টা থেকেই চেম্বাই, নাগাপট্টিনমের মতো উপকূল এলাকায় পুলিশ রাস্তা আটকে সমুদ্রের



ফের খেয়ে আসছে সুনামি, সতর্কবার্তা জারি হতেই প্রাণভয়ে শেষ সম্বলটুকু আঁকড়ে মানুষের দৌড়। বাদ যাননি পুলিশ ও ব্রাণকর্মীরাও। বৃহস্পতিবার কাড্ডালোরে। — রয়টার্স

ধারের জনপদ খালি করতে শুরু করে। হাজার হাজার আতঙ্কিত মানুষকে শহরের দিকে ছুটতে দেখা যায়। আন্দামানে আতঙ্কের চেহারা ছিল আরও ভয়ঙ্কর। পোর্ট ব্লেয়ারে হাজার হাজার মানুষ নিরাপত্তার সন্ধানে চার পাশের উঁচু টিলায় চড়তে শুরু করেন। সাধারণ মানুষ, ব্রাণকর্মী সবাই। ফলে আগে থেকে নির্দিষ্ট করা থাকলেও পড়ে ফুলে ভেঁটা অসংখ্য শবের গণ-সংকার করার জরুরি কাজটাই করা যায়নি। মহামারি ঠেকাতে ঠিক হয়েছিল, আজকের মধ্যেই সব মৃতদেহ সংকার করে ফেলা হবে। সেটা যেমন করা যায়নি, তেমনই সারা দিন ব্রাণ ও উদ্ধারের কাজও ব্যাহত হয়েছে।

এমনকী আতঙ্ক ছড়ায় ওড়িশার উপকূলেও। সুনামির তাণ্ডব থেকে রবিবার রক্ষা পায় এই রাজ্য। কিন্তু সুপার সাইক্লোনের স্মৃতি মাথায় থাকায় আজ সকাল থেকেই উপকূলবর্তী এলাকা থেকে মানুষ পালাতে থাকেন।

অথচ, যে-সতর্কবার্তাকে কেন্দ্র করে এত কাণ্ড, রাত ৮টায় সরকার তা তুলেই নেয়। বিকেলে কেন্দ্রীয় বিজ্ঞানমন্ত্রী কপিল সিব্বল অবশ্য বলেছিলেন, সুনামির এই আগাম সতর্কবার্তা “অবৈজ্ঞানিক, ভিত্তিহীন। এই ধরনের বক্তব্য নস্যাৎ করা উচিত।” তিনি বরং জোর গলায় ঘোষণা করলেন, “কেন্দ্রীয় সরকারের দিক থেকে কোনও

আনুষ্ঠানিক সতর্কবার্তা নেই।” সমুদ্র পাশে বসিয়ে সিব্বলের ব্যাখ্যা: উন্নয়ন বিভাগের সচিব এবং দেশের পৃথিবীতে এমন কোনও প্রযুক্তি নেই, যা অগ্রগণ্য ভূকম্প বিশেষজ্ঞ হর্ষ গুণ্ডকে বলতে পারে ভূমিকম্প হবে কি না।

বিভ্রান্তির ১৪ ঘণ্টা

- ভোর ৬টা: আমেরিকা ও অস্ট্রেলিয়ার বিশেষজ্ঞ সংস্থার আশঙ্কা, আগামী ১২ ঘণ্টার মধ্যে ফের আসতে পারে সুনামি।
- সকাল সাড়ে ৯টা: ইসরো ও ভারতীয় আবহাওয়া দফতর ইন্টারনেট দেখে ওই তথ্য পাঠাল স্বরাষ্ট্রমন্ত্রকে।
- ১০টা: স্বরাষ্ট্রমন্ত্রক সতর্কবার্তা জারি করল।
- ১১টা: টিভি দেখে সতর্কবার্তার কথা জানলেন বিজ্ঞান ও প্রযুক্তি মন্ত্রী কপিল সিব্বল।
- সাড়ে ১১টা: বিজ্ঞানীদের সঙ্গে আলোচনায় সিব্বল। সকলেই একমত, এই পর্যবেক্ষণ ঠিক নয়।
- দুপুর ১টা: সিব্বল ফোনে চ্যানেলগুলিকে বললেন: সরকারি সাবধানবার্তা নেই। স্বরাষ্ট্রমন্ত্রকের ওয়েবসাইটে সতর্কবার্তা বহাল।
- ৩টা: মন্ত্রিগোষ্ঠীর বৈঠক। সিব্বল ও স্বরাষ্ট্রমন্ত্রী শিবরাজ পাটিল দু'জনেই উপস্থিত। তবু সতর্কবার্তা নিয়ে সুরাহা হল না।
- বিকেল সাড়ে ৪টা: টিভিতে সতর্কবার্তা বহাল দেখে সাংবাদিক বৈঠক ডেকে সিব্বল বললেন, “সরকার সতর্কবার্তা দেয়নি।”
- ৫টা: স্বরাষ্ট্র মন্ত্রকের পাল্টা সাংবাদিক বৈঠক। বিপর্যয় মোকাবিলা বিভাগের সচিব এ কে রস্তোগি বললেন, “সতর্কবার্তা জারি রয়েছে। প্রাণ্ড তথ্যের ভিত্তিতে ব্যবস্থা নেওয়াই দরকার।”
- রাত ৮টা: অবশেষে সতর্কবার্তা প্রত্যাহার করল সরকার।

সুনামি নির্ভর করে ভূকম্পের উপরে। তা ভূকম্পের পূর্বাভাসই যদি সম্ভব না-হয়, তা হলে সুনামি আসছে বলা যাবে কী করে? তিনি এটাও বলেন, এখনও পর্যন্ত এ ব্যাপারে নির্ভূত সতর্কবার্তা দিতে পারে, এমন কোনও প্রযুক্তি বিশেষ নেই। বিদেশ থেকে ভারত যে-প্রযুক্তি কেনার চেষ্টা করছে, তাতে খানিকটা প্রস্তুতির সুযোগ পাওয়া যেতে পারে মাত্র। ভূকম্প হয়েছে বলে দ্রুত যদি ধরতে পারা যায়, তার জেরে সেক্ষেত্রে সুনামির আগাম আন্দাজ পাওয়ার সম্ভাবনা থাকে।

কিন্তু আশ ঘণ্টা পরে একই জায়গায় বসে স্বরাষ্ট্র মন্ত্রকের বিপর্যয় মোকাবিলা বিভাগের সচিব এ কে রস্তোগি এবং অতিরিক্ত সচিব কে পি সিংহ জানান, স্বরাষ্ট্র মন্ত্রক সতর্কবার্তা জারি করেছিল এবং তা এখনও বহাল। রস্তোগির কথায়, “নিরাপত্তামূলক ব্যবস্থা নেওয়ার জন্য সতর্ক করেছি প্রশাসনকে। কারণ আমরা যে তথ্য পেয়েছি, তা প্রচার করা এবং তার ভিত্তিতে ব্যবস্থা নেওয়াই উচিত।”

সিব্বল যে-পর্যবেক্ষণকে অবৈজ্ঞানিক আখ্যা দিয়েছেন, তা স্বরাষ্ট্র মন্ত্রকের কাছে পাঠিয়েছে সিব্বলেরই অধীন ভারতীয় আবহাওয়া বিভাগ (আই এম ডি)। সকালে ইন্টারনেটে এই তথ্য দেখার পরে আই এম ডি তা পাঠিয়ে দেয় জাতীয় বিপর্যয় মোকাবিলা বিভাগের কাছে। তারা আর

ঝুঁকি না-নিয়ে সতর্কবার্তা জারি করে দেয়। কিন্তু এর পরে আই এম ডি থেকে ইসরো মারফত মার্কিন সংস্থার সঙ্গে যোগাযোগ করা হয়। সংস্থাটি জানায়, তারা রবিবারের সুনামিরও আগাম সতর্কবার্তা দিয়েছিল। এ বারেও নিজেদের বক্তব্যে অনড়। সিব্বল এর পরে একের পর বৈঠক করেন বিজ্ঞানীদের সঙ্গে। তার পরে টিভি-তে পাল্টা বিবৃতি শুরু করেন। কেন্দ্রীয় সরকারের বিভিন্ন মন্ত্রকের যখন বিপর্যয় মোকাবিলায় দিশাহারা দশা, তখন সিব্বলকে পাক্ষা সাড়ে তিন ঘণ্টা কাটাতে হয়েছে কেবল টিভি-তে ‘ভুল’ ব্যাখ্যা ‘ঠিক’ করতে।

প্রশ্ন হচ্ছে, দেশে এত বিজ্ঞানী এবং ব্যবস্থা মজুত থাকতেও কেন্দ্রীয় স্বরাষ্ট্র মন্ত্রক কেন এই সতর্কবার্তা জারির আগে পরামর্শ করল না? এবং এমন স্পর্শকাতর একটি বিষয়ে তাড়াহুড়ো করে সতর্কবার্তা জারি করায় আজ মার খেয়েছে ব্রাণের কাজ। কেন্দ্রীয় স্বীকার করেছে, বহু স্বেচ্ছাসেবী সংগঠন সমুদ্রের ধার থেকে সরে গিয়েছে। আন্দামানেও ব্যাহত হয়েছে ব্রাণের কাজ। দিল্লিতে বসে দুই মন্ত্রকের তরজায় যেটা সব চেয়ে বড় ক্ষতি।

তবে সুনামি নিয়ে দিনভর টানা পোড়েনের পরে রাত সাড়ে ১১টায় লিটল নিকোবর ও মধ্য আন্দামানে মাঝারি ভূকম্প হয়েছে। রিখটার স্কেলে মাত্রা ছিল ৫.৪ থেকে ৫.৫।

ভূতগ্রস্ত
চেন্নাইয়ে
দমবন্ধ
ছোটাছুটি

অনিন্দ্য জানা ● চেম্বাই

৩০ ডিসেম্বর: ঝড়ের বেগে পিছন থেকে এসে সশব্দে ব্রেক কমে দাঁড়াল জিপসিটা। ঝটপট নেমে রাস্তার দু'পাশ থেকে ‘নো এন্ট্রি: তামিলনাড়ু পুলিশ’ লেখা ব্যারিকেড টেনে এনে দাঁড় করিয়ে দিলেন দু'জন। বন্ধ হয়ে গেল ‘ই সি আর’। আর এগোনো যাবে না। তখন বাজে সাড়ে ১০টা। পিছনে হাজার হাজার গাড়ির লাইন। অফিস-টাইমের প্রবল যানজটে হাসফাস করছে চেম্বাই শহর। তার মধ্যেই দড়াম করে আচমকা এই ব্যারিকেড।

ব্যাপার কী? জিপসির আরোহীদের হাতের ম্যান প্যাক ওয়াকিটকিতে যা শোনা গেল— তামিলনাড়ু উপকূলে আবার খেয়ে আসছে পাহাড় প্রমাণ সামুদ্রিক ঢেউ। সারা রাজ্যে রেড অ্যালার্ট জারি করা হয়েছে। সমুদ্রমুখী সমস্ত যানবাহন ঘুরিয়ে দেওয়া হচ্ছে। দ্রুত ফাঁকা করা হচ্ছে মেরিনা বিচ-সহ সমুদ্রতট। আরও জানা গেল, ‘সুনামি’ ইতিমধ্যেই থাকা মেরেছে কাড্ডালোর, পশ্চিমের দিকে। ভেসে গিয়েছেন শ'য়ে শ'য়ে মানুষ। চেম্বাইয়ের তীরে ঢেউ আছড়ে পড়ল বলে।

শহর ছাড়ার আর প্রশ্ন ওঠে না এর পর। দে ছুট মেরিনা বিচের দিকে।

তখনই দেখলাম, একটা গোট্টা শহর দ্বিধাদিক জ্ঞানশূন্য হয়ে আতঙ্কিত কী ভাবে ভূতগ্রস্তের মতো ছোটাছুটি করতে পারে। তামিল টেলিভিশন চ্যানেলের কল্যাণে দাবানলের মতো খবর ছড়িয়ে গিয়েছে শহরের এ-মুড়ো, ও-মুড়ো। যে দিকেই গাড়ি ঘোরাই না কেন, ব্যারিকেডের পর ব্যারিকেড। মেরিনা বিচ, আডেয়ার খাঁড়ি পর্যন্ত যাওয়ার প্রতিটি রাস্তা বন্ধ। কোথাও লোহার ব্যারিকেড ফেলে, কোথাও আবার পথচলতি অটো টেনে এনে রাস্তার মাঝে দাঁড় করিয়ে।

পরিচয়পত্র দেখে-টেখে সাংবাদিককে অবশ্য ঢুকতে দিল পুলিশ। সমুদ্রের দিকে এগোতে এগোতেই দেখতে পেলাম, উল্টো দিক থেকে ছড়মুড়িয়ে শহরের দিকে ঢুকে আসছে মানুষের স্রোত। নিমেষে খালি হয়ে যাচ্ছে সমুদ্রের ধার। পুরো মেরিনা বিচ ততক্ষণে ‘কর্ডন’ করে ফেলেছে পুলিশ। ‘বিচ রোড’ যার পোশাকি নাম ‘কামরাজ সালাই’, বন্ধ। ফোরশোর এস্টেট, শ্রীনিবাসপুরম, এর পর ছয়ের পাতায়

ভূতগ্রস্ত চেম্বাইয়ে ছোট্টাছুটি

প্রথম পাতার পর

নছিপুরমের মতো জেলে বস্তির সামনে দিয়ে চোঙা ফুঁকতে ফুঁকতে ঘুরছে পুলিশের গাড়ি। সাবধানবাণীর মর্মার্থ: এখনই খালি করো এলাকা। লাইটহাউসে উঠে পড়েছেন পুলিশের পদস্থ অফিসারেরা। দেখতে হবে— সমুদ্রের জল বাড়ছে কি না!

তার মধ্যেই শহরে যা যা ঘটে গিয়েছে— আকরাপেট্রাই নামে এক জেলেবস্তি পরিদর্শনে যাওয়ার পরিকল্পনা বাতিল করে দিয়েছেন মুখ্যমন্ত্রী জয়ললিতা। শুধু শেষ মুহুর্তে সফর বাতিল করাই নয়, মন্ত্রিসভার জরুরি বৈঠকও ডেকে ফেলেছেন এবং গোটা রাজ্যের উপকূলে চূড়ান্ত সতর্কতা জারি করে দিয়েছেন। তার সঙ্গে সঙ্গেই শুরু হয়ে গিয়েছে গ্রামকে গ্রাম খালি করা।

এই যদি গ্রামের ছবি হয়, চেম্বাইয়ের আতঙ্ক আরও ভয়াবহ। বিভিন্ন বেসরকারি অফিসে অঘোষিত ছুটি দিয়ে দেওয়া হয়েছে। চেম্বাই পোর্ট ট্রাস্ট এক বার বিপদজ্ঞাপক সাইরেন বাজিয়ে দিয়েছে। উপকূলরক্ষী বাহিনীকে সতর্ক করা হয়েছে। সারা শহরে, রাস্তাঘাটে অসম্ভব টেনশন। কী হয়, কী হয় ভাব!

পরবর্তী চার চারটে ঘণ্টা সেই ভাবেই দমবন্ধ করে কাটাল শহরটা। সমুদ্রের দিকে সতর্ক দৃষ্টি রাখল কয়েকশো জোড়া চোখ। তার মধ্যেই মোবাইলে ধরা গেল নাগাপট্টিনমে

সেনাবাহিনীর ব্রিগেডিয়ার মানাভোলানকে। গলায় অত্যন্ত বিরক্তি এনে তিনি বললেন, “আমিও তো শুনেছি! কাজকর্ম সব বন্ধ হয়ে গিয়েছে। সকাল থেকে ঠিক হয়েছিল, বাকি সব বেওয়ারিশ লাশ পুড়িয়ে দেওয়া হবে আজকের মধ্যেই। সমুদ্রের ধারের রাস্তাটাও অন্তত পায়ে হেঁটে যাতায়াত করার মতো করে দেওয়া হবে। সমস্ত কাজ বন্ধ হয়ে গিয়েছে। কিন্তু কোথাও বিপর্যয়ের কোনও চিহ্ন নেই! আমি অন্তত জল বাড়ার কোনও লক্ষণ দেখছি না।”

নাগাপট্টিনমে বাসে অভিজ্ঞ ফৌজি বাই বলুন, চেম্বাই শহরে আতঙ্কের পারদ তখনও চড়চড় করে উঠছে। শঙ্কিত কথোপকথন এত বেড়েছে যে, সমস্ত মোবাইল নেটওয়ার্ক জ্যাম। অনবরত মেসেজ আসছে, “পুদ্দুপেটের খালের জলের উচ্চতা বেড়ে গিয়েছে। এমনিতে ওই খাল শহরের বর্জ্য সমুদ্রে নিয়ে ফেলে। কিন্তু এখন উল্টে সমুদ্রের জল ঠেলে ঢুকছে খালের ভিতর।” কিংবা “রবিবার সন্ধ্যার আগে সমুদ্র প্রায় আধ কিলোমিটার ভিতরে ঢুকে গিয়েছিল। আজও তাই হচ্ছে। সাবধান!”

মেরিনা বিচে দাঁড়িয়ে যে তেমন কিছু চোখে পড়ছিল না, সেটা বড় কথা নয়। তার চেয়েও যেটা দেখে অবাক লাগছিল— পুলিশের অন্তত চার বার ঘোষণা সত্ত্বেও জেলে বস্তিতে কোনও হেলদোল নেই। যে যা করছিল, তাই

করছে। কেউ বাসন মাজছে, কেউ কাপড় কাচছে, কেউ শ্রেফ গা এলিয়ে বসে আছে। এত ছোট্টাছুটি, তর্জন, উত্তেজনা, আতঙ্ক— কিছুতেই কোনও ক্রম্পেপ দেখলাম না। দোভাষির সাহায্যে জবাবটা পাওয়া গেল অবশ্য— “আমাদের অত প্রাণের ভয় নেই। যা হওয়ার তো হয়েই গিয়েছে। এখন ঘর ছেড়ে গেলে যেটুকু আছে, তা-ও কেউ এসে নিয়ে চলে যাবে। তার চেয়ে দেখি না কী হয়!”

কিছুই হয়নি অবশ্য। অন্তত আজ রাত পর্যন্ত। বেলা তিনটে নাগাদ কর্তব্যরত পুলিশের কাছ থেকে জানা গেল, ‘চূড়ান্ত সতর্কতা’ থেকে প্রথম শব্দটা ছটিয়ে করে শুধু ‘সতর্কতা’ রাখা হচ্ছে। তাই থাকবে আগামী ৪৮ ঘণ্টা। যেমন গত ৪৮ ঘণ্টা ছিল।

ধীরে ধীরে পুলিশের শরীরের এবং মুখের ভাষা নরম হয়ে আসছিল। ঠিক সেই সময়েই সমুদ্রের জলের কাছে অতিকায় কিছু ভেসে আসতে দেখে একটা কোলাহল উঠল— ‘ডেডবডি! ডেডবডি!’ আবার দৌড় পুলিশের। জনতার। মিডিয়ার। কাছে গিয়ে দেখা গেল, অতিকায় কচ্ছপ একটা। মৃত। জলে ভেসে এসেছে নিশ্চয়ই। আলোকচিত্রীরা যখন তার সামনেই পুলিশ দাঁড় করিয়ে ছবি তুলতে ব্যস্ত,

তখনও এলোমেলো বোল্ডারের উপর বসে ছিল জেলেবস্তির চেহারাগুলো। তখনও গা এলিয়ে। ভাবটা— কী এল গেল!

31 DEC 2004

ANADABAZAR PATRICK

TREMORS

Baby born on ship

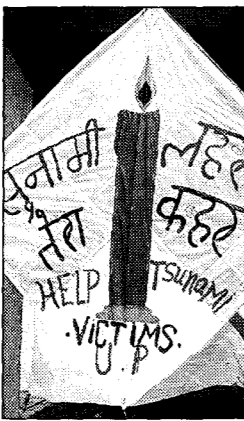
■ Port Blair, Dec. 30 (PTI): A woman being evacuated by a naval ship from Hut Bay in the Andaman and Nicobar Islands yesterday gave birth to a healthy girl on-board.

According to the ship's doctor, the woman felt labour pains at 5 pm yesterday. "I took her down to my cabin where she gave birth to a healthy girl at 7.55 pm," he said. Both mother and baby are fine.

Fauna safe

■ Point Calimere (PTI): The Point Calimere wildlife and bird sanctuary in Tamil Nadu, which houses several deer and painted storks, escaped devastation because of the surrounding mangrove forests. Forest officials had gone into the sanctuary spread over 25 sq. km to assess the damage but found the mangrove plantation had helped minimise the damage.

LIGHT OF HOPE



A kite with messages for tsunami victims on display at a shop in Amritsar. (Reuters)

Queen aid

■ London (AFP): Queen Elizabeth has made a "substantial" donation for victims of the tsunami disaster in Asia. The money would most likely be given to British charities with which the monarch is already associated as a patron, a Buckingham Palace spokesperson said on Wednesday.

Annan effort

■ United Nations (AFP): United Nations secretary-general Kofi Annan has cut short his vacation and is due to return to New York to oversee humanitarian efforts for affected countries. He will hold a meeting with the UN deputy chief for humanitarian affairs, Jan Ege-land, who is coordinating the world body's action on the crisis, a spokesperson said.

US advice

■ Washington (Reuters): The US state department on Wednesday urged Americans in tsunami-affected countries to call home, even if they are far from the disaster areas. "This is a time when people who know they're hundreds of miles away from where the disaster might have occurred need to call home and tell their relatives who know it's only a quarter-inch on the map," said the state department's spokesperson, Richard Boucher.

Satellite help

■ Washington (AP): The National Geospatial-Intelligence Agency of the US is using its spy satellites to measure the scope of the devastating tsunamis in Asia and help relief workers manage their efforts.

PANIC ZONE

Fallout of the fresh alert

INDIA

Tamil Nadu

■ Nagapattinam
 ■ Carrying their remaining belongings, thousands flee in any vehicle available
 ■ Some gather on bridges to watch for waves
 ■ Chief minister Jayalalitha cuts short aid disbursement programme and leaves
 ■ Prime Minister Manmohan Singh

decides to only make an aerial survey
 ■ Cuddalore
 ■ In 30 minutes, hundreds are evacuated from low-lying areas
 ■ Villagers move out to nearby places in trucks and vans
 ■ Tuticorin
 ■ Schools and central and state government offices close
 ■ Operations in Tuticorin port suspended. Staff asked to go home

Kerala

■ Last rites of a tsunami victim in Ernakulam district disrupted.
 ■ Relatives flee with the body and cremate her elsewhere
 ■ A woman faints in the mad rush and is taken to hospital
 ■ In Vypeen, people who returned home this morning flee again
 ■ Andhra Pradesh
 ■ Authorities asked to stand by for evacuation

Andaman and Nicobar

■ In Port Blair, people rush to airport to catch flights out of the island
 ■ Government offices and shops down shutters and most vehicles stay off the road
 ■ Local officials appeal for calm over loudspeakers

SRI LANKA

■ At a lagoon, a group jumps off a

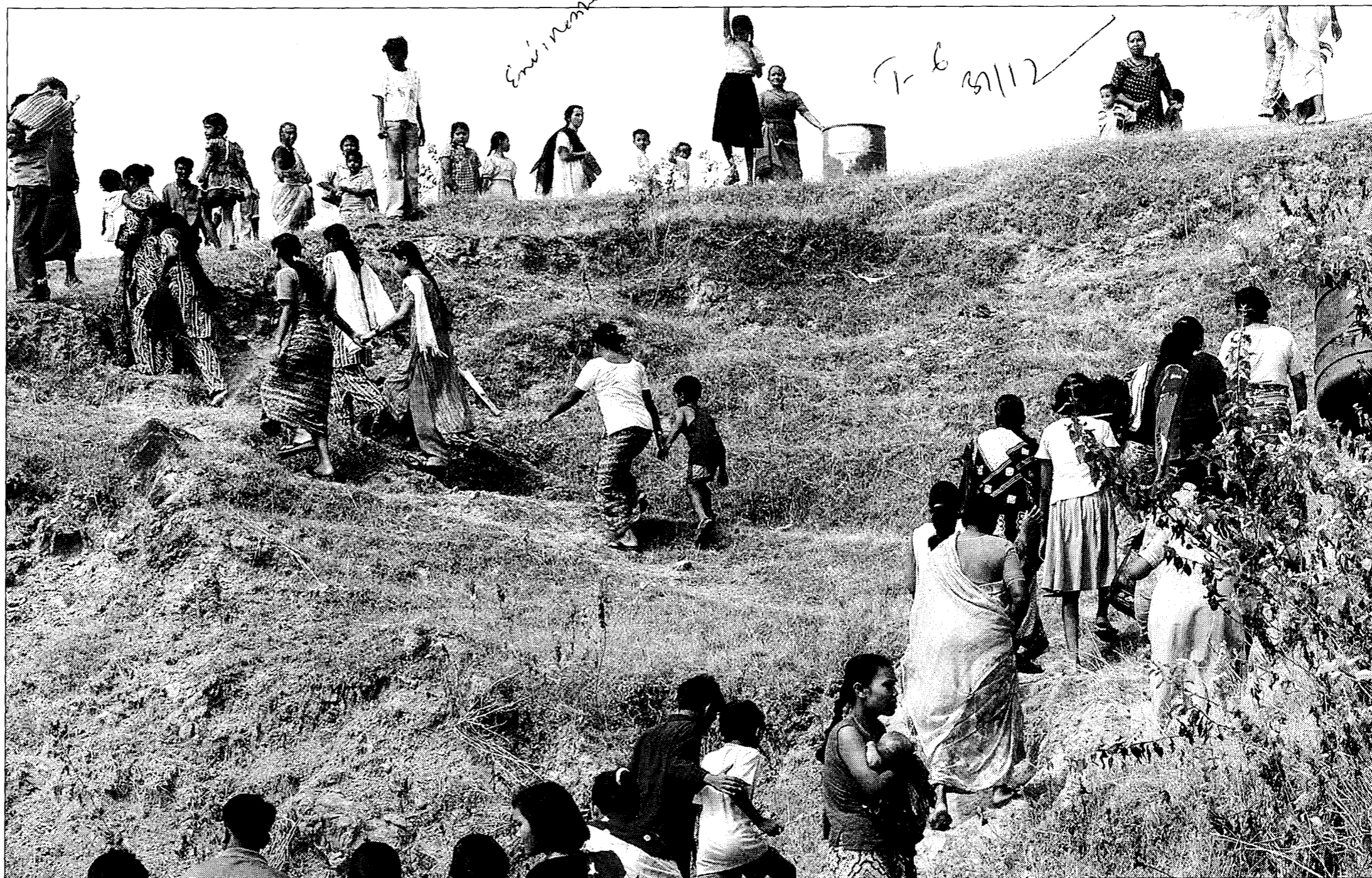
naval ship ferrying aid and wade to the beach

■ A fire engine tells residents to leave the southern coast

INDONESIA

■ Two early morning aftershocks in Aceh send exhausted residents fleeing from damaged homes and temporary shelters into the streets, where many stay to sleep

Run, run... the monster's coming



Residents scramble to higher ground in Port Blair on Thursday. (AFP)

BAPPA MAJUMDAR

Port Blair, Dec 30: It was exactly 11.50 am. I was enjoying a cup of tea at the tribal welfare department when Raju, the errand boy, came rushing to the room.

"Run, run for your life. Don't you know that a second tsunami has hit Port Blair? Why are you still inside?" he shouted before taking the stairs down to the street.

Having spent the last few days in Port Blair and accustomed to more than 60 tremors, I wasn't shaken.

But one look through the first-floor window was enough to send a chill down my spine. Hundreds were making a dash for the highest point in Port Blair; the secretariat office complex on a hillock, which was already teeming with people.

The Andaman and Nicobar administration, perhaps, did not realise that an alert sounded 10 minutes before a probable tsunami could create such chaos.

Madhuri Srinivasan, 32, barely managed to put on her slippers and rush out of her house, grabbing her two-year-

old in her arms. "God, save me from this disaster. I heard the sea has already inundated the streets down below," she said before collapsing.

There were others like Akhil Sharma and his wife Sujata, tourists from Chennai, who were terrified.

"I have lost my brother in the Marina beach tragedy in Chennai. I don't want to die as well," said Sharma.

By noon, the Ocean Development Authority's warning has percolated down to the common man. Offices were emptied, shopkeepers downed

shutters and women and children fled their homes.

From the district collector's office to the tourism department and even the high court, not a soul could be seen.

"Can you feel the strong wind blowing towards Port Blair? Can't you see that the birds have stopped chirping? Disaster is imminent," an official yelled.

When policemen wanted to shut the secretariat gate, absolute mayhem broke out. A crowd gatecrashed and beat up the guards.

Around 12.30 pm, the peo-

ple realised the sea was calm and that, perhaps, it had been a false alarm. It was now time to blame the administration for pressing the alarm button so late.

"If the tsunami warning was for noon, why did they alert us only 10 minutes earlier?" shouted Murugusam, worried more because he had left his restaurant unlocked.

All the roads — from Aberdeen Market, Middle Road, MG Road and Hill Road to the Goleghar area — were deserted, looking like Calcutta on a bandh day.

Lieutenant governor Ram Khapse, on a tour of relief camps on the islands, asked All India Radio to broadcast that people should not panic.

Around 3 pm, when things seemed to have calmed down, the ground started shaking and everybody was out on the streets, the panic button beeping again. But it turned out to be the usual aftershock that people have grown used to.

Another scare followed in the form of a mud volcano (bubbles of steam and mud) erupting to a height of 3 metres on Baratang Island, several

kilometres from Port Blair.

"There's nothing to worry. The volcano had suddenly erupted but things are under control," said the inspector-general S.B. Deol.

However, not everyone was perturbed. Around 5 in the evening, American tourists John McLean and his wife Martha were enquiring why shops had been closed in the afternoon.

When told about the scare, John smiled: "Oh really! But we were in the sea and the water was rather pleasant today."

'I DON'T WANT TO STAY, I'M NOT MAD'

Just home, & off again

M.R. VENKATESH

Nagapattinam, Dec. 30: Toddlers in their arms, they fled. Some fell, tripped by the rush of legs, then got up again and ran. Others packed into cars and buses, into whatever they could get on — auto-rickshaws, mini vans — to get away from another deadly cycle of waves.

"It's coming," shouted a man as he ran. "We saw what happened here. I don't want to stay... I'm not mad."

Residents of tsunami-swamped Tamil Nadu's worst-hit district today fled in hundreds as a fresh alert triggered panic and halted relief work.

The flight of fear began barely an hour after Prime Minister Manmohan Singh's aerial survey of affected areas.

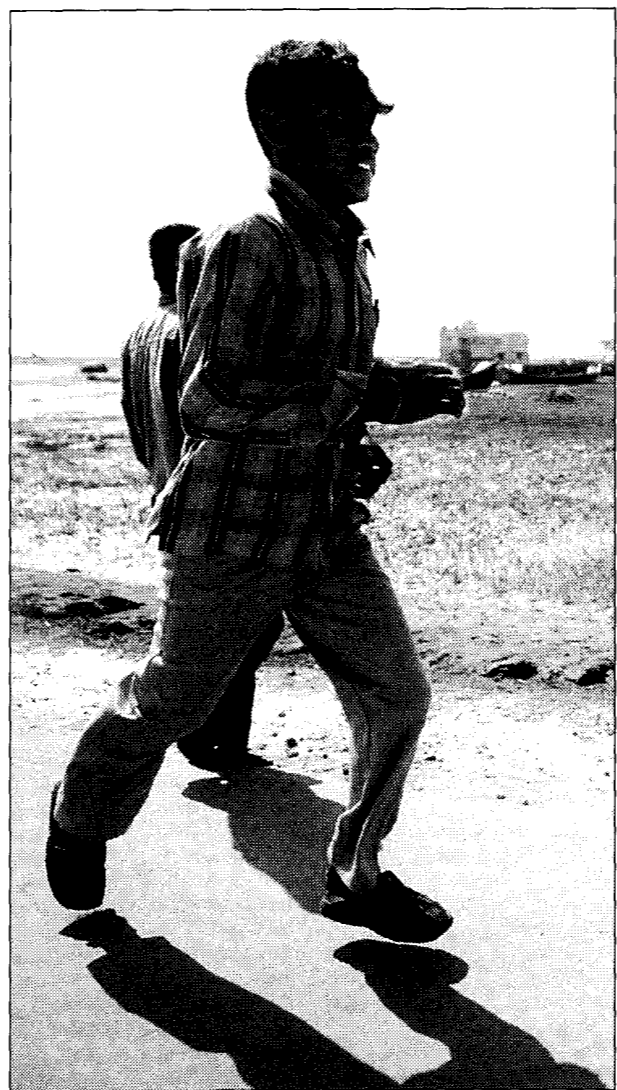
On the Nagapattinam-Tiruvavur road, people walked in groups, children on their shoulders. "There are no state-run buses plying on the roads. So we have set out on foot as people asked us to vacate and go more 2 km away from the shoreline," said Selvi, who had a child in her arms.

Selvi and her husband, with the rest of their family, began walking from the pilgrim centre of Velankanni to Tiruvavur, a distance of 33 km, soon after the alert was sounded. The warning came on a day people had started trickling back to their homes.

"Only this morning, the affected people — mostly fishermen and daily casual workers — had started returning to Nagapattinam to look for what remained of their homes and also as chief minister Jayalalitha was to formally inaugurate relief distribution here," said Ravi, a fisherman.

Nearly 2,000 people waited at Akkarapet, the worst-hit pocket in Nagapattinam, for Jayalalitha to arrive. "Suddenly, someone came and announced that a warning had come from Delhi about a fresh tsunami strike. In an instant, people started fleeing," said Ravi.

Some state ministers were also seen fleeing moments after the warning was flashed over All India Radio and police sirens blared on beaches and in coastal hamlets.



A man dashes to safety in Cuddalore in Tamil Nadu on Thursday. (Reuters)

Trains stop, medics flee

JOHN MARY

Thiruvananthapuram, Dec. 30: Trains stopped in their tracks, doctors scampered out in a bus to the safety of a sister institution. At least 80,000 people reached temporary shelters within an hour of the alert. The government made RTC buses available for evacuation.

In coastal areas of Kollam district, where Sunday's tsunami claimed nearly 150 people, government staff hurried home to take their families to safety. In Sakthikulanga, the parish priest of St John Britto's Church hurriedly finished a wedding service.

In the island cluster in commercial capital Kochi, people squatted on roads and bridges looking westward, towards the sea, for any sign of rising waves.

Further north, in Kozhikode, Kannur and Kasargod, patients were shifted out of beachside hospitals. In Kozhikode, doctors and nurses ran out of hospitals after hearing of the "advancing tsunami".

Within a few hours of the alert, the nearly 700-km coastal stretch from Kasargod to Kanyakumari had been emptied of its folk.

Beaches empty

G.S. RADHAKRISHNA

Hyderabad, Dec. 30: Half-eaten food, empty beer bottles and crowds running helter-skelter.

Just when tsunami-battered Andhra Pradesh had started picking up the pieces, a fresh alert threw its coastal districts into frenzy.

Year-end revellers on the Visakhapatnam beach fled leaving their food and drinks behind at sea-shore restaurants, which in turn were left with unpaid bills.

"My customers vanished without paying the bills. So did my cooks and other workers," said Gopinath Rao, who runs a bar and restaurant.

District authorities across the state have sent out a warning to relief officials to ensure fishermen do not venture into the sea for another 48 hours. Krishna district collector Prabhakar Reddy said: "All the relief camps will run for another day till the situation normalises."

Officials have been asked to keep the campaign low key so that the tourism industry is not hit by adverse publicity. "Already, the state has lost tourist trade worth over Rs 120 crore since Sunday. About 3,700 tourists from Bengal alone have cancelled their trips," said state tourism secretary S.P. Singh.

Fresh tsunami alert triggers panic

People Flee, Defence Forces Put On High Alert

New Delhi/Chennai: Panic gripped the coastal areas in South India and Andaman and Nicobar Islands on Thursday after a warning from the Centre of a fresh tsunami attack, and the defence forces were put on high alert to face any eventuality.

People living within two kilometres of the coastline in Tamil Nadu, Andaman and Nicobar, Kerala, Pondicherry, Andhra Pradesh and Lakshadweep have been asked to move to safer places in the interiors. The alert said that a number of foreign experts were suggesting that another tsunami might hit the Indian shores on Thursday afternoon in the event of an earthquake of high intensity which might occur in the Australian region.

As word about the alert spread and the administrative machinery swung into action panic gripped these areas and the people started evacuating. The sea was rough and there were strong winds near the shore. Water level at Puthu Vype in Vypeen Island and Edavanakkad in Kerala was said to be rising. There was total panic and confusion in Port Blair as people were seen running for safety after TV channels carried the alert.

Adding to the panic was a series of aftershocks that rocked the tsunami-ravaged Andaman and Nicobar Islands on Thursday morn-

ing. In Nagapattinam, the worst hit town in Tamil Nadu, the administration evacuated people and warned them not to venture anywhere near the sea. While Prime Minister Manmohan Singh visited the relief camps at Colachel in Kanyakumari district of Tamil Nadu, chief minister J Jayalithaa cancelled her visit to Akkaraipettai fishing hamlet in Nagapattinam following the alert.

Kerala chief minister Oommen Chandy said in Thiruvananthapuram that the warning had been issued not to create panic but to tell the people to remain vigilant. He said the administration had been geared up to meet any eventuality. As soon as the alert was received the state administration and the police made announcements in coastal areas asking people to stay away from the shores.

Meanwhile, following the tsunami alert, the Centre convened an emergency meeting in New Delhi. "We received information from the science and technology ministry that there was a possibility of another tsunami. We discussed the issue as the information was that it may or may not take place," said home minister Shivraj Patil, who chaired the meeting.

Patil said it was felt that people should be alerted and that was why his ministry sent out a warning to concerned states and Union territories. PTI

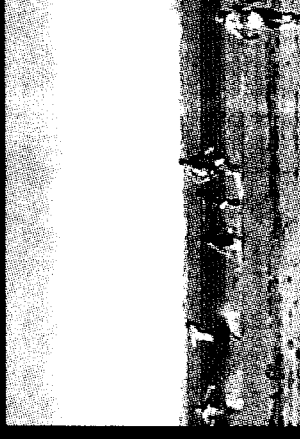


GRASS IN ANTARCTICA



The grass was never so green on the other side. Now, it has taken roots in parts of Antarctica previously covered by ice sheets and glaciers, showing the continent is warming to temperatures unseen for 10,000 years. Scientists say it portends a much wider melting of the ice-cap that formed at least 20 million years ago.

TSUNAMI IN INDIAN OCEAN



Add to these another first—Sunday's thunder from down under. Triggered by an earthquake off Sumatra, the Indian Ocean shoreline had its first encounter with a tsunami. Scientists say the quake's impact may have permanently accelerated the earth's rotation—shortening a day by a fraction of a second. Add to it the reported changes in the earth's axis and the map of Asia. The times they are a changin', can we say?

SNOW IN DUBAI



While Antarctica is getting warmer, snow fell for the first time ever in the UAE in the last two days, leaving a white blanket over the mountains of Ras Al-Khaimah as the desert country experienced a cold spell. On Monday, 12.6 mm of rain fell on the desert emirate of Dubai, where it hardly ever rains.

Maldives dealt a body blow

Male: The tsunami that swept across the Indian Ocean did more than take a heavy toll of lives and property in the Maldives—it confronted the tiny nation with a threat to its very survival. The archipelago of 1190 low-lying coral islands, dotted across hundreds of kilometres of ocean, has for years begged bigger, more powerful nations to act on global warming, fearing higher sea levels could swallow up much of its territory. At least 42 islands in the tourist paradise were flattened with 172 people killed or missing.

That is just \$850 million.



HELL & HIGH WATER PAGES 3, 5, 6, 7 & 8

"In the last few years, we made great progress in our standard of living—the United Nations recognised this. Now we see this can disappear in a few days, a few minutes," Shaheed said.

He noted that investment in a single tourist resort—the economic mainstay—could run to \$51 million. Between 10 and 12 of the estimated 80 resorts have been severely damaged, and a similar number have suffered significant damage. AP

WATER WORLD



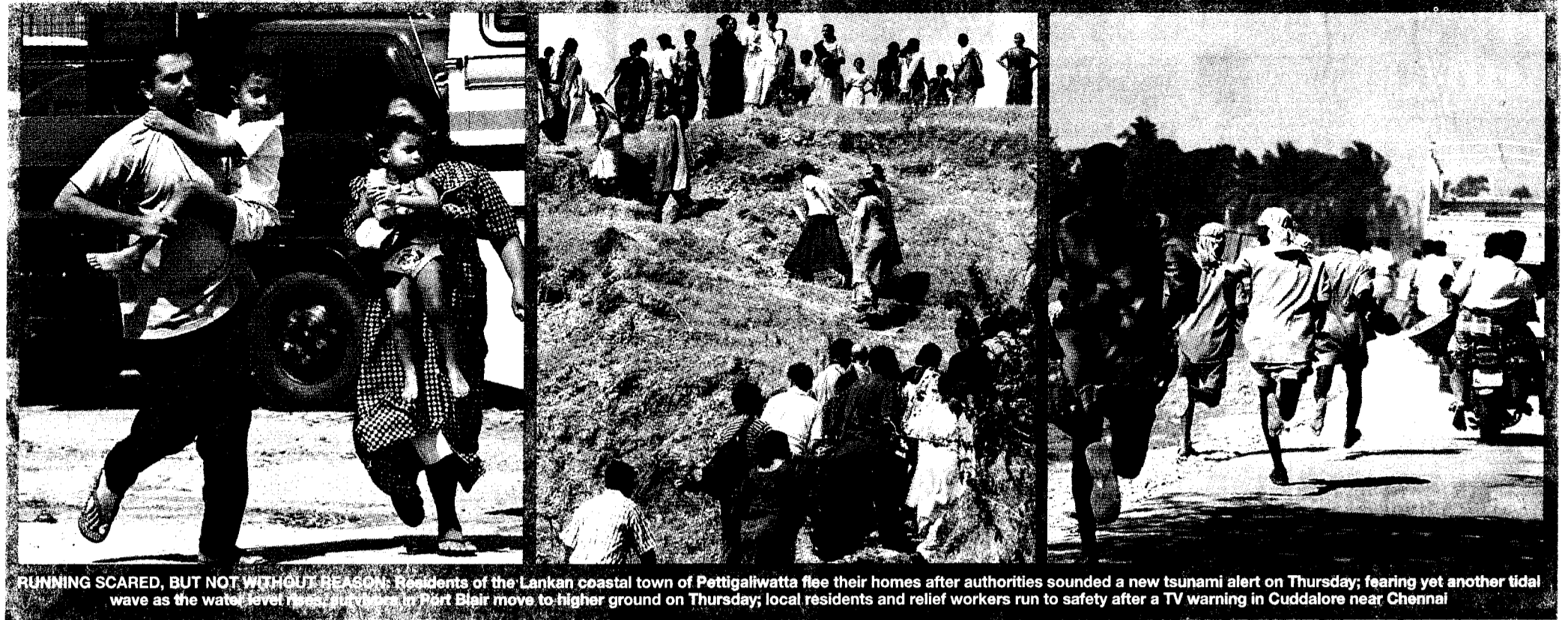
A Buddhist monk releases birds during a ceremony to 'free the spirit of tsunami victims' in Hong Kong on Thursday

Wildlife park safe: The Point Calimere wildlife and bird sanctuary in Tamil Nadu, which houses a number of deer and painted storks, escaped the killer tsunami thanks to the surrounding mangrove forest. The sanctuary, located just 20 kms from Trincomalee, the port town of Sri Lanka and worst affected by the tsunami, had not faced any damage.

Another 'miracle' baby: A woman being evacuated by a naval ship from Hut Bay in the Andaman and Nicobar Islands gave birth to a healthy girl on Wednesday. According to the ship's doctor, the woman felt labour pains first at 5 pm on board the ship. "I took her down to my cabin where she gave birth to a healthy girl at 7:55 pm," he said. "This has perhaps never occurred before on a ship in such circumstances," he added.

Lessons of training: Amidst the ruins caused by Sunday's tsunami, Samiyar Pettai, a small fishing hamlet in Cuddalore, is getting noticed for all the right reasons. Though the tsunami devastated the catamarans, fishing boats and huts in this village, the number of people who died in the tidal waves remained comparatively small at 30 and the officials are attributing this to the training given to the villagers on disaster management under a UNDP-funded programme. This includes training a group of villagers who would take care of specialised activities such as rescue operations and another group would take care of food and other provisions and a third group would keep the list of nearest phone, vehicles etc.

Bizarre death: A woman who suffered injuries when the tsunami waves struck on Sunday, died on Thursday in Ernakulam. The woman was collecting water in a pot near her house when splinters of rocks, kept on the beach to prevent erosion, broke loose and hit her on the head. As her relatives were getting ready to perform her last rites, word spread that there was likelihood of the waves striking once again. Panic-stricken people in the area moved away with the body which was cremated at another place.



RUNNING SCARED, BUT NOT WITHOUT REASON: Residents of the Lankan coastal town of Pettigalwatta flee their homes after authorities sounded a new tsunami alert on Thursday; fearing yet another tidal wave as the water level rose in Port Blair move to higher ground on Thursday; local residents and relief workers run to safety after a TV warning in Cuddalore near Chennai

A world away from the world

A&N Tribes Still Hunt For Food, Have Little Contact With Others

By Samiran Chakrawarti

You just need one statistic to realise how far removed the tribes on the Andaman and Nicobar islands are from the developing economy that is India—30% of the tribal population reported hunting and gathering as their occupation in a survey conducted a few years back.

Only 38 of the 300 islands are populated—26 in the Andamans and 12 in the Nicobars. The total population of the islands is 3,50,000, with a 12% tribal population. Almost 95% of the tribals live in the Nicobars, where they comprise over 50% of the population.

Nineteen communities have been identified in the islands, and the six best-known groups of tribes are the Great Andamanese, Onge, Nicobarese, Shompens, Jarawas and the Sentinlese.

The history of the islands has four distinct phases—the first a period of seclusion till 1788, the second, the British regime from 1788-1942, followed by three years of Japanese regime from 1942-1945 and the last the post-independence period. The tribals fought the Battle of Aberdeen in 1859 against the British, equipped with bows and arrows against the Britishers' guns.

Little is known about the Andaman's Sentinlese—thought to number around 100—who live on the North Sentinel Island, 64 km south-



Jarawa children

west of Port Blair. They are one of the two tribes thought to be worst affected by the tsunami. They are thought to be Burmese nomads, who were swept away to the Andamans by the sea, and started living there.

They have their own language, which has no script, and is unintelligible even to other tribes in the islands. Hunting and fishing for wild boars, sea turtle and a variety of fish and molluscs are their primary occupations and they use bows and iron-tipped arrows. The men wear a waist belt of bark, and other than that both men and women wear nothing except some leaf ornaments

around the head, neck and arms. Among the most isolated communities in the world, they have no interaction with other tribes except receiving occasional gifts, and they defend their island from outsiders using bows and arrows.

The other affected community—the Nicobarese—is actually a generic name for the indigenous population of the Nicobar islands, consisting of 12 different island communities. Car Nicobar is the largest of these islands, with almost 66% of the population of the Nicobars, where 20-foot waves wreaked havoc, wiping out everything, including an entire Air Force Base.

Each of the groups on different islands speak different dialects, but most understand Car Nicobarese, the language of the natives of Car Nicobar, which uses a variant of the Latin script. There are several legends about their origins, most of which talk of a single couple stranded on an island, who in due time populate the entire island.

Historians believe that the islands were frequented by Malays, Burmese and other foreigners, some of whom were stranded there and continued to live there. Farming and fishing are the major economic resources for the Nicobarese, who aren't isolated from the world at large, and most have facilities for healthcare, education and welfare programmes.

7+ quakes trigger killer waves

By Chandrika Mago/TNN

New Delhi: The Centre is now gearing up to assess coastline changes and the overall damage. But for the Andamans there is no respite. The total aftershocks registering magnitudes of 5 or more since Sunday's quake had risen to 61 by Wednesday night.

Although the aftershocks—one of them was of 6.1 magnitude—have generated a lot of fear, they are not likely to cause new tsunamis. This is because tsunamis depend on factors like the earthquake's magnitude and depth, as well as whether there is any vertical displacement of the sea floor. Also, history has shown that tsunamis are generated only by quakes of magnitude 7 or above.

Amid reports that groundwater in the tsunami-hit areas has turned saline, the Centre is sending survey teams to assess the extent of damage and take up emergency work to supply drinking water. The full picture on environment damage will become clearer only after the relief and rescue work ends.

The Centre is now sending a vessel to survey the Andaman and Nicobar Islands coast, where the upheaval is reported to have led to displacement. There could be lateral and horizontal

changes from a quake, there are some reports of land sinking. Assessment of changes to the east coastline will start in a few days, said ocean development



A 14-year-old Car Nicobar girl who lost her father when the waves struck

secretary Harsh Gupta. Environment secretary Prodipto Ghosh says the environmental damage assessment will only be clear in a couple of months. The first priority is to provide relief.



A tsunami-hit family waits to be evacuated from Campbell Bay in the Andaman and Nicobar islands on Wednesday

Fish out of water: Tsunami grounds nomads

Manginapudi (AP): Like many nomadic tribes of the country, fishermen from Uppada at Kakinada come to Manginapudi every year during winter for fishing.

This year too, some 80 families from Uppada came to Manginapudi and erected thatched houses at a small place called Giripuram on the shores of the Bay of Bengal.

Viewing these people as a threat to their livelihood, local fishermen literally keep the Uppada nomads at bay—forcing them to build makeshift houses very close to the sea. They venture into the sea for fishing and sometimes return after three to four days.

In the deadly tsunami that hit the Bay of Bengal coast on Sunday, these families have lost everything. All their fishing boats are damaged, their houses too have collapsed and in just a matter of minutes their survival has been threatened.

Though they are lucky to be alive, life has turned bleak for these hapless families. "Fishing is the only source of our livelihood. What will we do now having lost all our boats," lamented Pandu, a nomad. TNN

West coast under tsunami danger: Experts

By Johnson T A/TNN

Bangalore: Sunday's tsunami tragedy may have spared India's west coast, but tsunami history suggests that the west coast is also sitting duck for seismic waves triggered by quakes in the Mekeran coast near Pakistan.

Scientific notes of the Indian Meteorological Department, from 1945, tell the story of a tsunami triggered by "the great Mekeran earthquake" on November 28, 1945, causing damage in Karachi, Mumbai and Karwar.

While officials here have said that Sunday's tsunami was the first to affect India, scientists say the 1945 Mekeran quake related tsunami was probably the first to cause serious damage to India's coastline.

"This earthquake related seismic waves affected the whole of the Arabian Sea



board. Karwar, about 1000 miles away from the epicentre, was the most distant place," says the IMD's scientific notes for the 1945 Mekeran quake.

The Mekeran coast in nearly 100 years preceding this 1945 earthquake had seen as many as 12 earthquakes. The one on November 28, 1945, measuring 6.7 on the Richter scale was the biggest and it triggered seismic waves.

With earthquakes known to recur in previously affected

zones, and with as many as three known earthquake epicentres in the Arabian Sea, off the coast of Pakistan, there is a clear future tsunami danger for India's west coast, say earthquake experts.

"There is the possibility of a tsunami in the region, although a distant one. It does raise the question of preparedness given the fact that sensitive installations and key commercial activity occurs on the west coast," says Indian Institute of Science professor and earthquake expert R N Iyengar.

The Indian Ocean also remains a hotbed for seismic activity with over a dozen faultlines in the Andaman and Nicobar region, he says.

In 1941, a seismic wave triggered by a quake in the Andaman region is reported to have hit the Chennai coast, although the extent of the damage is not known.

Tele-tsunamis, or tsunamis like Sunday's, which are a result of large earthquakes in distant ocean regions and which may take several hours to hit a coastline also pose danger to India.

Systems like those in use at the Pacific Tsunami Warning Centre, which warn of tsunamis in the Pacific Ocean, need to be considered for the coastlines, along with special engineering codes for buildings, say experts.

The warning systems in the Pacific which are mounted on buoys measure pressure changes in the deep ocean to detect tsunamis and transmit this data via satellites to terrestrial stations.

The warning systems provide information on the path of the tsunami, its speed and when it could hit the coast—enabling evacuation of people ahead of the arrival of the seismic wave.

Lives Good

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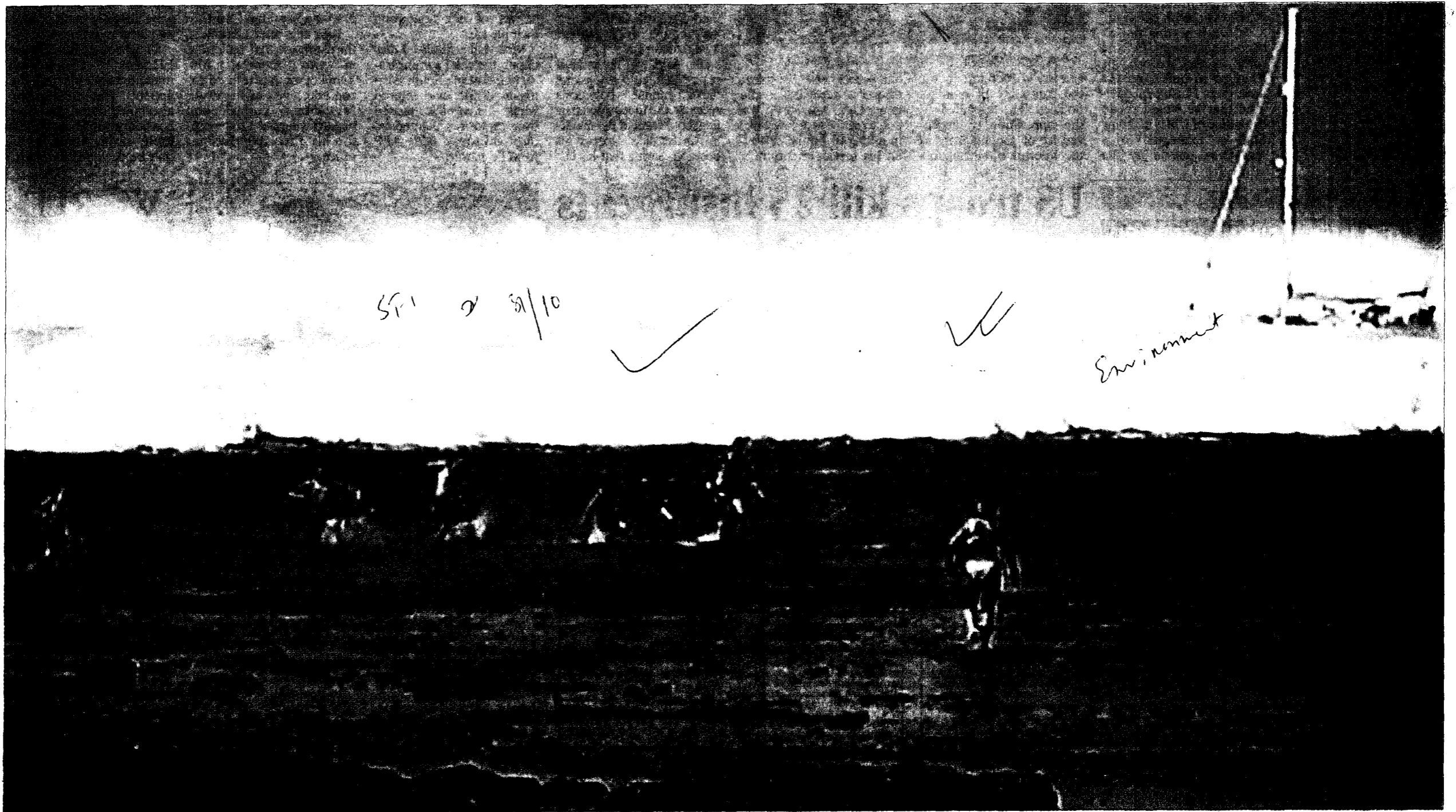
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WHAT WE WERE TOLD WAS COMING



WALL OF WATER: This photograph released on Thursday shows tourists running away as the first of the six tsunamis rolls towards Hat Rai Lay Beach, near Krabi in southern Thailand, on Sunday. — AFP

Statesman News Service

NEW DELHI, Dec. 30. — India was in a state of panic today as the Centre issued a tsunami alert. Masses of humanity residing on the south-eastern coast and islands off it fled their homes for higher land. Sri Lanka too, following the panic generated by the Indian warning, issued an alert, on a day when the toll reached

1,22,000 across the region.

Late tonight, however, the Centre decided to “stand down” the alert. The home ministry’s message to the chief secretaries of Tamil Nadu, Andhra Pradesh, Kerala, Pondicherry, Andaman & Nicobar Islands and Lakshadweep said the meteorological department has reported that no earthquake of large magnitude has occurred in the Sumatra region in the past 12 hours and it has, there-

fore, “been decided to stand down the alert, vigil warranted nonetheless”. In Thiruvananthapuram, the Prime Minister said the government took precautions and issued the alert because “the moral arising out of the tragedy is that we should develop an early warning system to deal with these types of disasters”.

Earlier, while officials at the Centre reportedly spoke of a tsunami strike by Thursday evening, local officials quoted in reports from

the affected areas — the Andaman & Nicobar Islands and Tamil Nadu to Kerala and as yet unscathed West Bengal — were issuing “30-minute” and “one-hour” alerts.

Two Union ministers contradicted each other at separate press conferences on the alert. First, home minister Mr Shivraj Patil called an emergency meeting in the wake of a fresh tsunami alert by an Australian science firm. After the meeting, science and technology

minister Mr Kapil Sibal said the Centre had asked the states and Union Territories concerned to direct people to take shelter in higher places. Involvement of the Armed Forces and paramilitary forces to carry out relief and rescue measures was also discussed. Later, the same Mr Sibal said there had been no warning from any quarter about an imminent tsunami in the next 24 hours. By then, thousands’ misery had been compounded by fear.

31 DEC 2004

THE STATESMAN

Where forests saved the people

By Suresh Nambath

PORT BLAIR, DEC. 30. The Nicobar group of islands will never be the same again. Their shapes have changed. After Sunday's tsunami, some of the islands have become smaller, yielding ground to the sea on the south-eastern side.

As the sand bands in some of the islands have given way to the rising sea, there have been cases of two islands lying in the place of one. Katchal, Pillow mallow and Trinket are examples. There are others where the collapse of bridges similarly gives the impression of islands having broken up. Submerged rock formations could also bring about changes in the cartography. Besides, the lighthouse in Campbell Bay, the southernmost point, is completely cut off and is now a stand-alone structure.

Car Nicobar badly hit

Although Campbell Bay was closest to the epicentre of the

earthquake off Sumatra, it was protected to some extent by the hilly terrain. But Car Nicobar, described as a flat, fertile land, was understandably not so lucky.

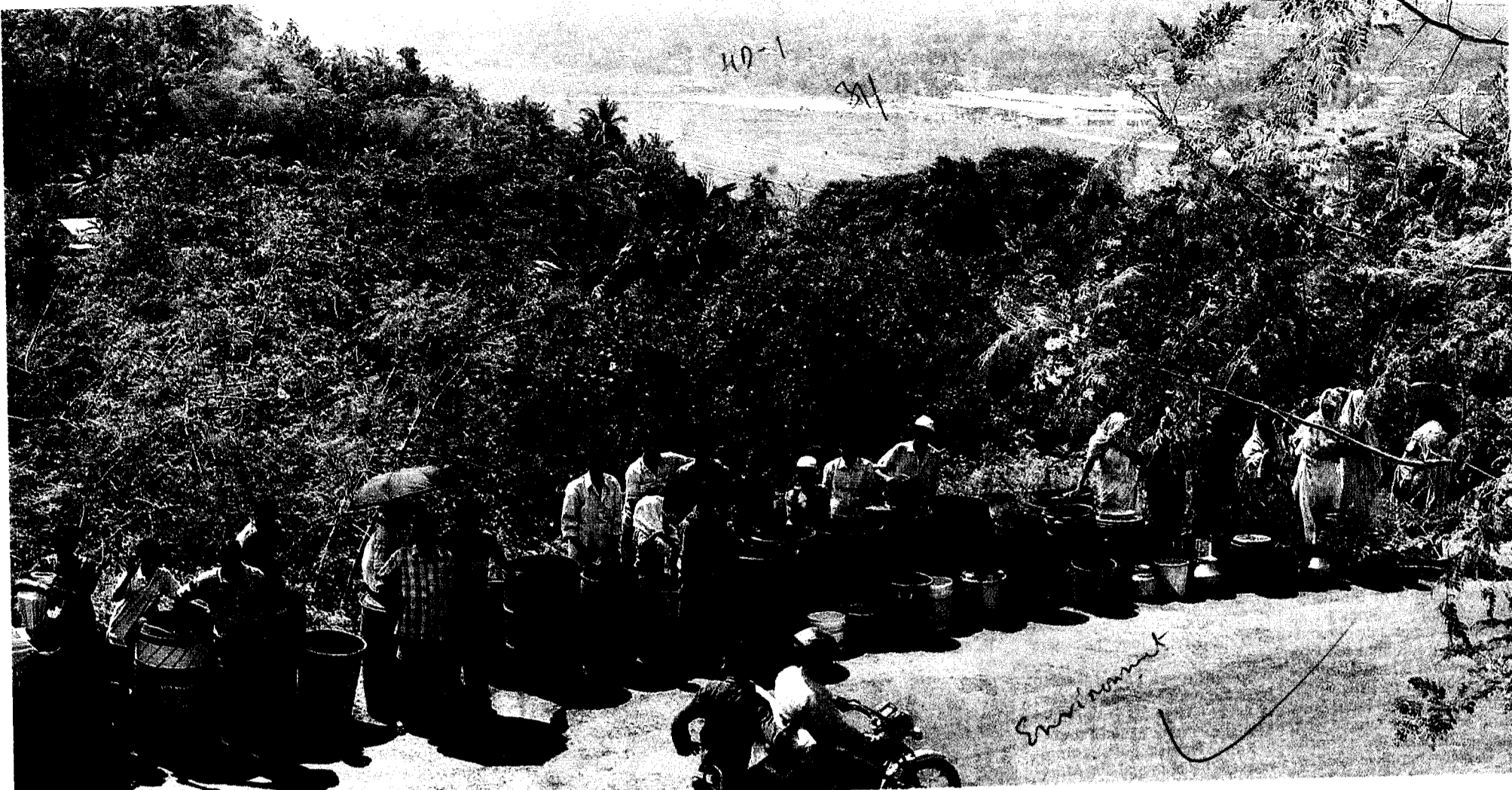
Many of those who survived in Car Nicobar had moved to the air-strip that was on a higher point. But the air force base itself suffered heavy casualties. Officers and their families, who prided in their sea-facing houses, suffered more than others.

The forest cover also reduced the number of casualties in some of the islands. About 400 persons in Car Nicobar who had retreated into the forest to escape the tsunami have returned.

The Andaman and Nicobar Islands have always been known for the beaches that merge into forests and rise up as hilltops.

Strangely, it is the beaches that now appear the most inhospitable of the three.

Tribals safe: Page 13



WATER, WATER EVERYWHERE BUT... Port Blair residents wait for water on Thursday four days after the tsunami struck the Andaman and Nicobar Islands causing extensive flooding and devastation. — AFP

Missive triggers panic waves

By Our Special Correspondent

NEW DELHI, DEC. 30. Was it a warning? Or an advisory? An alert? Or, a simple case of once bitten, twice shy?

However one may choose to characterise an early morning communication from the Ministry of Home Affairs to the Chief Secretaries of Andhra Pradesh, Tamil Nadu, Pondicherry, Kerala, Lakshadweep, Andaman and Nicobar, the missive was enough to fuel a wave of panic in the coastal areas, temporarily throwing out of gear relief efforts for a few hours.

By late afternoon the Home Minister, Shivraj Patil, was embarrassed that his Ministry had been the source of over-reaction, and the Science and Technology Minister, Kapil Sibal, was distancing his Ministry from the warning. By evening, the Home Ministry had withdrawn ("decided to stand down the alert message," in official language) the warning.

The morning communication from the Ministry carried

with it the tag of highest and most immediate attention "alert warning/crash." Citing suggestions of "a number of outside experts outside the country" that "another tsunami may hit Indian Ocean today," the Home Ministry advised the State Governments to be cautious.

It also requested the Chief Secretaries to "put their administrative machinery on alert in the coastal areas and keep continuous vigil on any developments in the sea. Arrangements may also be made for evacuation of people, if required. Shoreline up to 2 km into the main land may be made non-accessible to the general public. This Ministry will come back to you once the available information is analysed and the assessment is made. Navy, Army, Air Force and Coast Guard have also been advised to be on alert and also provide you all necessary help. Their services may be requisitioned where required."

Even though by evening the alert had been withdrawn, there

remained confusion about the source of the original warning. In the communication sent out by S.K. Swami, Director, National Disaster Management in the Home Ministry, the warning was received from the "Australian Pacific Tsunami Warning Centre," whereas the Science and Technology officials had made available to *The Hindu* a communication from Michael Menthly, Director, Terra Research, based in Portland, Oregon (USA).

As per the Science and Technology Ministry officials, they merely passed on the message to the Union Home Ministry and if anybody was guilty of "over-interpretation," it must be the National Disaster Management cell.

Mr. Patil had his version. He said the warning was issued as there was a message and the Government did not want to ignore it. It should be regarded more as a precautionary measure so that people could be alert to the possibility of another tsunami spell. We want to

take a balanced view. We neither want to be over-cautious nor be nonchalant.

Mr. Sibal, in a separate press conference, begged to differ. He argued that any talk of prediction of an earthquake was totally unscientific and needed to be rejected, as no science or technology was available in the world today that could predict an earthquake. At best, one can only identify geological faults and say that an area may be prone to an earthquake. "If anybody is going to say an earthquake is going to take place at a certain time and on a certain date, such an opinion will be unscientific, hogwash and need to be rejected," he said.

Asked why the India Meteorology Department had then forwarded to the Home Ministry the message sent by the American research company, which led to the confusion, he said the IMD had only sent it to the Home Ministry without expressing any opinion. It was up to them to take whatever action they deemed fit.

Editorial on warning system: Page 12

Manmohan deposes two Ministers to Andamans

● "It is a national calamity"

By Our Special Correspondent

THIRUVANANTHAPURAM, DEC. 30. The Prime Minister, Manmohan Singh, has deposed his Minister of State for Home, Prakash Jaiswal, and the Minister of State for Information Technology and Communications, Shakeel Ahmed, to Port Blair and Car Nicobar to oversee the relief and rescue operations there following the devastation wrought by Sunday's tsunami.

At a press conference here this evening, Dr. Singh said the two Ministers would be stationed there for six to seven days. A Central team would visit the affected States and undertake an assessment of the damage and loss. Dr. Singh addressed the press at the Raj Bhavan after visits to Colachel

and Tiruchi and a one-hour discussion with the Kerala Chief Minister, Oommen Chandy, and his Cabinet Colleagues.

Dr. Singh said the Government was considering a long-term rehabilitation plan that would emphasise on not only full rehabilitation but also better quality of life. "Professional expertise will be inducted for developing rehabilitation projects. House reconstruction will focus on improving the quality of habitat as well. Focus would be on area development."

The Centre would look into the need to improve the disaster forecasting and warning systems at the national and State levels and through international cooperation.

Terminating the tsunami tragedy a "national calamity", Dr. Singh said the Centre was committed to providing all possible help to ensure relief and rehabilitation. The Centre and the States would have to work together to bring out an environment-friendly development strategy.

New mechanisms

To a question on whether the Centre proposed to follow the same traditional path of reha-

bilitation, Dr. Singh said that all innovative means would be considered, aimed at providing protection to the people from disasters.

"This would include new mechanisms, including new insurance mechanism," he said. The Union Home Minister, Shivraj Patil, had already announced the decision to bring in a law to set up a National Disaster Management Authority. This would enable the country to handle national calamities.

Asked whether the Coastal Zone Regulation Act should not

be enforced more strictly, Dr. Singh said all efforts should be in that direction. On whether he was satisfied with the international response to India's plight, he said several countries had offered assistance.

The United States President, George W. Bush, had spoken to him personally offering his country's assistance. "But I told them we have enough resources and would be happy to receive assistance when needed."

Dr. Singh will visit the affected areas in Kollam and Alapuzha on Friday.

THE HINDU

The Hindu Group of Publications invites its readers to join hands in the humanitarian task of raising funds in aid of the tsunami victims.

A relief fund has specially been set up to receive contributions, which are fully deductible under the Income Tax Act, and will be made over to the Prime Minister's National Relief Fund/Chief Ministers' Relief Fund.

Readers may send their cheques or drafts payable to "The Hindu Relief Fund" Kasturi Buildings, 859, Anna Salai, Chennai 600002.

Contributions will also be accepted at all our branch offices. To make the payments online, readers may log on to www.thehindu.com

All contributions above Rs. 2,500 will be acknowledged in the newspaper. The list of contributors appears on Page 14.

IN BRIEF

Summit off

NEW DELHI, DEC. 30. The 13th SAARC Summit, which was to be held in Dhaka from January 9, has been postponed indefinitely in view of the tsunami tidal disaster. — UNI

— Details on Page 13

Raghu arrested

KANCHEEPURAM, DEC. 30. Raghu, younger brother of the junior Sankaracharya of the Kanchi Mutt, Vijayendra Saraswathi, was arrested here tonight, in connection with Sankararaman murder case. — PTI

— Details on Page 11

Assumes charge

NEW DELHI, DEC. 30. The Army Chief, General N.C. Vij, today took over as the new Chairman of the Chiefs of Staff Committee. — PTI

— Photo on Page 13

SPORT

● Chess: Fortune favours Arun Prasad — Page 19

TAMIL NADU

● Install warning system, Jayalalithaa tells Centre — Page 4

FRIDAY REVIEW

● Year 2004 — a flashback — Page 1

A SPACE MARKETING FEATURE

● Welcome New Year — 8 Pages
● Vivek & Co. — 4 Pages

Tsunami alert sparks panic along coast

By Our Tamil Nadu Bureau

CHENNAI, DEC. 30. The tsunami alert sounded by the Union Government and repeated broadcast of the information all morning today sent panic waves along the coastal districts of Tamil Nadu.

On a day when both the Prime Minister, Manmohan Singh, and the Chief Minister, Jayalalithaa, were scheduled to visit separately the badly-affected villages and comfort the affected families, the order to clear the coast for at least a two-kilometre stretch posed serious problems all round.

Whole villages and even towns got evacuated in 30-60 minutes in the forenoon. They looked like ghost towns. Aside from the fishing hamlets in the affected districts, Nagapattinam, Tuticorin, Ramanathapuram, Tirunelveli and Nagercoil towns, not to mention the villages between Chennai and Pondicherry, witnessed this "great escape."

All available vehicles were filled with people and those without access to one, got on to bullock-carts or just took to their heels. They certainly did not want to see or be consumed by another tsunami.

Rumours afloat

There was panic, chaos and confusion. Rumours took over and it was in the air that the sea was furious and waters had entered this village or that part of a city.

It all started with a 'news flash' from Kerala, quoting the Chief Minister as saying that the Union Home Ministry had issued a tsunami warning and that people along the coast should evacuate. What applied to Kerala applied to all coastal southern States and Tamil Nadu also received the alert from New Delhi.

In Chennai, the city police cordoned off the entire stretch



The Prime Minister, Manmohan Singh, addressing fishermen at a relief camp at Colachel. — Photo: A. Shaikmohideen (Report on Page 4)

of the Marina and blocked all approach roads. The fisherfolk on the coast were asked to leave immediately, but they came up to the main road and waited for a 'de-alert.' Government offices, public sector undertakings and many shops and offices declared a holiday, as many of the employees began rushing home.

Houses and flats on the coastline began emptying fast, but residents on the first or second floors gathered the courage to stay on, lest the looters take over. Police patrols were arranged for safety.

The critical hours passed and by 1.30 p.m., officials became restive. They had no fresh word from Delhi and the local meteorological office declared that there was no tsunami coming. Gradually, the tension yielded place to relief. But there was a lurking fear as the people felt that the water was rising in the sea.

At the bottom of it all was the

burning question — Was it a real alert or only an emergency drill? According to officials here, it was only an alert on rising sea levels and not a tsunami. A search of all web sites — from American to Australian — gave no answers. When they contacted Delhi, there was no authentic confirmation about the gravity of the situation and nobody wanted to take any chance after what happened on Sunday.

By late evening, officials lowered the guard, but the police decided to remain on alert and keep preventive measures in place. The tangible result was that the Prime Minister did not land at Karaikal or Nagapattinam and the Chief Minister stopped briefly at Cuddalore and Nagapattinam before proceeding to Colachel. Dr. Singh began his day at Colachel and went back to Thiruvananthapuram after an aerial survey of the Tamil Nadu coast and a brief stopover at Tiruchi.

No threat of another tsunami

By Our Special Correspondent

CHENNAI, DEC. 30. The Meteorology Department today allayed fears of another tsunami hitting the Tamil Nadu coast. The Deputy Director-General of Meteorology, S.Sridharan, said no earthquake of great intensity was reported over the sea area after December 26 (when a tsunami attacked the coast). "There is no threat foreseen from a tsunami to the Tamil Nadu coast as reported in the media." However, after-shocks of a magnitude 5-5.5 on the Richter scale are likely over the Andaman sea in the next few days. This kind of slight to moderate earthquakes are unlikely to produce tsunamis, Mr. Sridharan said in a bulletin.

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All primitive tribes are safe

By Suresh Nambath

PORT BLAIR, DEC. 30. After the Coast Guard carried out an aerial survey, and the civil administration did its own study, all primitive tribes in the Andaman and Nicobar Islands were certified to be safe. A Coast Guard pilot today spotted the Sentinalese in the North Sentinalese island during one of several low-flying sorties. The Sentinalese had actually thrown stones at the aircraft.

The Director General of the Coast Guard, Vice Admiral Arun Kumar Singh, dismissed as "rubbish" reports that the primitive tribes were affected by the tsunami. The Negrito tribes were in the Andamans, which did not see the kind of devastation witnessed in the Nicobar islands.

The tribes in the Nicobar islands were the Nicobarese, Shompens and the Holschu, who were all Mongoloids. The Shompens and the Holschu had not reported casualties. The Nicobarese, which were a majority tribe, had however suffered heavy casualties. But Vice Admiral Singh, while pointing out that the Nicobarese were of mixed stock, said it could therefore be asserted that indigenous tribes were safe.

However, he refused to rule out casualties by saying that he could only state there had been no casualties.

The Lieutenant Governor, Ram Kapse, addressing a joint press conference with Vice Admiral Singh, said the Great Andamanese had not been affected by the tsunami. The Inspector-General of Police said the Jara would have normally approached mainlanders if they



Nicobari tribals and other survivors of the tsunami at a relief camp in Port Blair, Andaman and Nicobar Islands, on Thursday. — AP

had been in need of food or medical help. As they had not done so far, they could be assumed to be safe.

Mr. Kapse said Onges in Little Andaman were not among the casualties. None from the tribe was among those who were injured in that island and evacuated to Port Blair, he added.

To questions, the Lt. Governor said he would take a decision tomorrow on requests from international aid agencies for being allowed to do relief work in the Nicobar islands. He had received a communication in this regard from Oxfam only this evening, and he would have to discuss the issue with his officials.

Mr. Kapse said only 400 bodies had been found. He put the number of people 'missing' at 3,000. Asked about several thousand 'unaccounted' people, he said many people who had moved deeper into the forest when the tsunami struck had since returned. He said he was hopeful that the other 'un-

counted' people too would return. Vice Admiral Singh said the Coast Guard had so far rescued or evacuated 669 people. The Coast Guard was involved in relief operations from the sea off the mainland coast. It had also helped the Maldives in relief work.

U.S. decision to form aid 'coalition' sparks row

By Vajju Naravane

PARIS, DEC. 30. The town hall of Paris' 10th district, home to large numbers of Sri Lankans and Pondicherry Tamils, is jammed with people. They have come to "little India" to make their contributions to make their contributions to those affected by the giant tsunami that hit several Asian nations, particularly Sri Lanka and India.

Marie Noelle, a 45-year-old mother of four has come with her youngest daughter Christine. "We came with several boxes of sugar, spaghetti and tinned food as well as clothes and blankets. But we are taking them back with us. I shall write a cheque instead," she explains. Humanitarian officials have been telling people to give in cash rather than in kind until they are hoarse.

"What people don't understand is that logistics is a very difficult problem. We do not have the planes, the personnel required to sort and sift these well-meaning gifts into some semblance of order before flying them or shipping them out to the affected areas. Disaster relief is a very specialised

profession and gifts of money made by cheque to a specially created account are preferable. They are accounted for and are used in a targeted fashion," Francois, an aid worker, told *The Hindu*.

Governments shamed

To the utter shame of several European Governments, monetary contributions made by ordinary citizens have far outstripped the meagre sums their governments have pledged for disaster relief. The telephone exchanges of several charities were blocked by an avalanche of calls by donors wishing to contribute. This has led several countries to upwardly revise their pledges.

French Ministers met today to decide on further measures after Paris said it would provide 22.16 million euros (\$30.14 million), 15 million euros channelled through United Nations agencies and the International Red Cross. A further 1.56 million euros would be in the form of bilateral assistance to India, Indonesia, the Maldives, Sri

Lanka and Thailand, and 5.6 million euros are the French quota for a European Union aid package, the Foreign Ministry said. Twenty-one French citizens have been confirmed dead, over 250 have been injured and scores of others are still missing. The United States' decision to form an aid "coalition" has also led to some controversy here with the daily *Liberation* commenting that "a polemic has grown between those who are supposed to help the affected countries."

The U.S.-French animosity, fuelled by French criticism of the U.S.-led war in Iraq, appeared set to increase after the head of the U.S. Government aid agency said that France was not a big aid contributor.

"The British are, the European Union is, the Japanese are, we are, the Canadians are, and in this case Australia, even though it's a relatively small country, has been very generous," Andrew Natsios, head of USAID, told Fox television. "The aid programme in France is not that big, one. And two, they tend to do loans and you don't make

loans in an emergency," he charged.

The U.S., which was piqued by suggestions that it was being "stingy", has given \$35 million to the relief effort and is sending military aircraft and ships to help in the disaster operation. The French press has denounced Washington's efforts to supplant or sideline the U.N. in its aid efforts by creating a four-nation aid coalition that includes Australia and Japan.

India's decision defended

India's Ambassador to France, Dilip Lahiri, defended India's decision not to seek international aid saying: "Actually we have enough material and resources sufficient to provide for the immediate needs of the affected population... If we think that we will have need for aid later, we shall not hesitate to ask for it. If we have inadequacies, we will call on the U.N., the WHO and on the whole international community. But at the same time we have decided on a relief operation for our neighbours, Sri Lanka and Maldives."

Railway staff to donate salary

By Our Special Correspondent

CHENNAI, DEC. 30. Railway employees in the country will contribute their one-day salary to the Prime Minister's Relief Fund for providing assistance to the victims of tsunami. This will come to Rs. 15 crores, according to the Minister of State for Railways, R. Velu.

The Minister said that the Railway Women Welfare Association would donate Rs. 25 lakhs to the fund. This apart, the railways would permit stranded people in tsunami-affected areas to reach their native place free of cost.

By Our Special Correspondent

NEW DELHI, DEC. 30. Continuing the relief and rehabilitation work in the tsunami-hit region, the Centre today focussed on the worst-hit Andaman and Nicobar, including the inaccessible islands south of Car Nicobar.

A high-power Group of Ministers (GoM) also reviewed the ongoing relief operations in Tamil Nadu, Andhra Pradesh, Pondicherry and Kerala.

Plan for disaster management authority

After chairing the two-hour-long GoM meeting, the Union Home Minister, Shivraj Patil, told reporters that the Government planned to enact a law to set up a National Disaster Management Authority for providing immediate assistance in the event of a natural calamity.

"Such an authority will spell out what emergency relief and rehabilitation measures should be taken at State and district level and how funds should be released," said Mr. Patil. Special efforts were being taken to provide relief in the scattered islands of Nicobar. An additional battalion of Central paramil-

itary forces and several Army columns were being despatched to assist in the rehabilitation work. "We have also sent several helicopters and aircraft since ships cannot anchor because of massive damage to jetties in these islands," Mr. Patil said. Asked about reports of a break-out of an epidemic, he said bodies were being disposed of. Chlorination of drinking water was taken up in the affected areas, he said, adding that the situation was under control.

Later, A.K. Rastogi, Secretary, Disaster Management Division of the Home Ministry, said that about a dozen ships and 16 aircraft were engaged in relief and rescue operations in the affected regions. Paramilitary forces were helping in the disposal of bodies and participating in relief work. About 90 tonnes of relief material were airlifted from various nodal points and the Navy had transported another 15 tonnes of material. As many as 5,900 persons were still missing or feared killed in the Andaman and Nicobar Islands where the official death toll was 359. About 1,200 persons had taken shelter in five relief camps there. In Kerala, he said, about one lakh people had taken shelter in 200 relief camps. In Tamil Nadu 304 camps were sheltering 2.37 lakh persons and in Pondicherry 45,000 persons were living in 46 camps. The official death toll stood at 7,368, Mr. Rastogi said.

The armed forces conducted aerial survey of outlying islands and helicopters and aircraft were carrying out damage assessment of the southern islands. Army engineers had operationalised the Karaikkal bridge in Pondicherry and another in Kerala's Alapuzha district. Naval divers in Kollam were searching for bodies and removing obstacles while in Nagapattinam they had succeeded in opening the fishing channel. An aerial survey was being conducted in the inaccessible areas of Nagapattinam, official sources said.

Help for Sri Lanka

In the neighbouring countries, an armed forces hospital had been airlifted to Colombo while surveys of Trincomalee and Galle channels were being carried out to identify the wrecks. On a request by the Sri Lanka Government, a team of divers and more helicopters were being sent.

Bangladesh puts off SAARC summit following tsunami disaster

By Our Diplomatic Correspondent

NEW DELHI, DEC. 30. The Bangladesh Prime Minister, Khaleda Zia, has postponed the January 9-11 South Asian Association for Regional Cooperation summit in view of the tsunami that had struck some member-countries.

This was conveyed to the Foreign Secretary, Shyam Saran, by his Bangladesh

counterpart, Shamsheer Mobin Choudhry, today, the External Affairs Ministry spokesman announced. "This is a gesture which is appreciated in India," the spokesman said adding that new dates would be worked out in due course.

According to official sources, the summit was rescheduled after the Bangladesh held consultations with member-nations. The Sri Lankans are reported to have conveyed their inability to

attend the summit. Initially, the Bangladeshis were keen on pushing ahead with the summit, with the Bangladesh Foreign Secretary holding a meeting with SAARC envoys on Monday in Dhaka, seeking their cooperation to go ahead with the meeting.

India, too, concurs with the view that the summit should not take place at a time when at least three SAARC nations have been hit by the tsunami.

'Ensure against channelling aid through LTTE'

By Our Special Correspondent

CHENNAI, DEC. 30. The Janata Party president, Subramanian Swamy, has urged the Centre to ensure that the aid agencies in Sri Lanka do not channel the aid given in the wake of the tsunami disaster through

the Liberation Tigers of Tamil Eelam or its outfit, the Tamil Rehabilitation Organisation (TRO).

In a statement issued here, Dr. Swamy said the United Nations had to be warned of this possibility considering what happened in the oil-for-

food project in Iraq during the Saddam Hussein regime.

According to Dr. Swamy's information, 80 per cent of the LTTE's 'Sea Tiger' naval flotilla, which had been harboured in Mullaitheevu area, had been destroyed in the tsunami.

Budget session not likely before February 20

By Our Special Correspondent

NEW DELHI, DEC. 30. The Cabinet Committee on Parliamentary Affairs will finalise the dates for the budget session.

In any case, the session will not begin before February 20, according to the Minister for Parliamentary Affairs, Ghulam Nabi Azad.

Mr. Azad indicated here today that in the second half of the session in April-May — after the recess — important Bills, including the National Rural Employment Guarantee Bill, the Right to Information Bill, the Contempt of Courts (Amendment) Bill, the Hindu Succession (Amendment) Bill and the Prevention of Child Marriage Bill, were expected to be enacted. The parliamentary committees to which these Bills

had been sent to would complete their work by then. The ordinance to amend the Patent Act would be replaced by legislation.

The first half of the session is normally devoted to the President's address to the joint session of Parliament and the motion of thanks that follows, the laying on the table of the Economic Survey, the presentation of the Railway budget and the debate on it, and the presentation of the Union budget and the debate that follows.

'Productive, peaceful'

Mr. Azad earlier indicated that the "sacrosanct" date for the presentation of the Union budget, February 28, would not be disturbed, but there could be some adjustments for the Railway budget due to the As-

sembly elections in three States.

Describing the 23-day winter session with just 17 sittings as "very intense, productive and relatively peaceful," Mr. Azad said that it was not the duration of a session that mattered but the involvement of members and the absence of disruptions. In the short session, as many as 12 Bills were passed by both Houses, 30 Bills were introduced and a record 17 calling attention motions — 15 in the Lok Sabha and two in the Rajya Sabha — were taken up. Besides, seven full-length discussions took place and four short discussions.

It was "not true" that the Government did not have enough business. Six Bills were passed to replace ordinances and six other Bills were also

passed.

The agenda decided unanimously by the Business Advisory Committees of the two Houses was dealt with "a hundred per cent," he said. He thanked the members of the ruling United Progressive Alliance, the Opposition National Democratic Alliance and other parties and groups for their active cooperation.

A first in the winter session was the decision to telecast the entire day's proceedings of both Houses of Parliament from December 14.

This, Mr. Azad hoped, will encourage more meaningful discussions of issues of the public interest and have a positive impact on the conduct and behaviour of MPs and on the legislative business to be conducted.

Musharraf to remain as Army Chief

By B. Muralidhar Reddy

ISLAMABAD, DEC. 30. The Pakistan President, Pervez Musharraf, declared tonight that he had decided to retain the post of Army Chief till October 2007 in the "national interest" and for the continuation of "internal and external" policies.

In a 50-minute address on the state-run television and radio, Gen. Musharraf criticised the Opposition for not being "constructive and responsible." He said that his continuation as Army Chief was imperative to protect Pakistan's vital interests.

Even as he was delivering his speech, the Opposition parties were busy finalising plans to launch an agitation seeking the resignation of Gen. Musharraf. The mainstream Opposition under the umbrella of the Alli-

ance for Restoration of Democracy and the religious parties on the platform of the Murtahida Majlis-e-Amal (MMA) came together after a considerable gap of time for a possible joint response to the announcement.

Divided house

The Opposition still appears to be divided on the nature of protest against Gen. Musharraf. While the ARD is in favour of fresh elections, the MMA, which rules two of the four provinces, is opposed to any plan that can lead to the dissolution of the National and provincial assemblies.

Gen. Musharraf's decision to retain uniform was widely anticipated particularly after Parliament adopted a Bill early this month empowering him to retain the posts of President and Army Chief.



Air Chief Marshal S. Krishnaswamy, Chief of the Air Staff & Chairman, Chiefs of Staff Committee, handing over the 'Baton' to Chairman, COSEC (designate) to Gen. N.C. Vij, Chief of the Army Staff, at a function in New Delhi on Thursday. — Photo: Shanker Chakravarty

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The railway track that was damaged when tidal waves came crashing in Sinigame on the southwestern coast of Sri Lanka on Sunday. A train was washed away leaving 1,000 passengers dead or missing. — AFP

Sri Lanka hopes for reconciliation

By V.S. Sambandan

POINT PEDRO (SRI LANKA), DEC. 29. "There was a deafening roar and we fell flat on the floor, thinking the war had started. We thought bombers were on the way. Then a soldier rushed to us and said: 'run, run, it's the wave,'" Vijayakumar, one of the survivors in Manalkadu, a fishing village near Point Pedro in the Jaffna peninsula, told *The Hindu* this morning, summing up the ordeal of northern Sri Lanka's Tamil residents when Sunday's tsunami lashed the island.

Mr. Vijayakumar was taking a break under a tamarind tree from recovering dead bodies. A bloated and rapidly decomposing body of an infant had just been brought ashore. "We can't even identify our own villagers," Mr. Vijayakumar lamented, sitting on the edge of an empty coffin. According to official figures, at least 2,000 persons are feared dead or missing and 48,729 persons displaced in Jaffna district.

Differences buried

For the island, which was bracing for a possible outbreak of violence, Sunday's tsunami has momentarily buried ethnic differences, but only at the surface. "War, which was imminent, can now be ruled out for some time," a Catholic parish priest said. "Soldiers and LTTE cadres are working together to provide succour," Fr. Roy Ferdinand, the parish priest, added. "The police also helped in speeding up the burial procedure, which was delayed by a (Tamil) District Magistrate."

Barely four days ago, before the tsunami tragedy, ethnic relations between Tamils and Sinhala would have been vastly different from what it is today. In just three waves, there is a whiff of a new thinking emerging at the grassroots. "Solidarity is very high," another priest, Fr. David, said.

Echoing the sentiments ex-

pressed by the President, Chandrika Kumaratunga, in an address to the nation last night, another local priest, Fr. David, said: "there has been no distinction in the disaster. We have all been affected."

'Should bring solution'

The leaders of the church in the predominantly Catholic fishing villages said the current ground-level solidarity "should help in bringing in a political solution" to the decades-long separatist conflict.

Sri Lanka's Minister for Constitutional Reform and National Integration, D.E.W. Gunasekara, who was on a visit to the affected areas in the Jaffna Peninsula, is emphatic in his confidence that there will be a change in the political thinking. "That is why I am here in Jaffna on the instructions of the President," Mr. Gunasekara, himself a survivor of Sunday's tsunami, told *The Hindu*.

Scepticism persists

The optimism, however, is yet to percolate among those who were untouched by the tsunami. There is scepticism if solutions would be found to the political issues of the bloody conflict, which had claimed some 65,000 lives in 20 years. There is mutual help and commiseration over the destruction wreaked by the few minutes of tsunami, which according to varying estimates, killed over 20,000 persons.

"But this won't last long," a private van operator in the north said. "They will all be together for a few months, and then it will be back to the bad old days. Nothing will change," he said. Despite the enormity of the catastrophe, there is popular doubt, not entirely unfounded, if there will be true reconciliation between the main Sri Lankan players in the conflict resolution process — the Government, the Opposition and the LTTE.

Aid pours amid rush to ward off disease

BANDA ACEH (INDONESIA), DEC. 29. From Indonesia to India, workers rushed to bury corpses to ward off disease on Wednesday as cargo planes touched down with promised aid — from lentils to water purifiers — to help the region cope with its tsunami catastrophe. The death count across Asia and Africa soared to nearly 77,000 and aid officials said it was likely to surpass 100,000.

Authorities getting their first glimpse of the devastated west coast of Indonesia's Sumatra island — nearest the epicentre of the massive quake and tsunami — said the area had been virtually wiped out.

The survey highlighted the

dire need for the world's largest relief effort to speed up the deployment of aid to some of the 11 countries that were hardest hit by Sunday's massive, quake-driven walls of water — probably the deadliest in history.

With tens of thousands of people still missing, Peter Ress, operations support chief for the International Federation of Red Cross and Red Crescent Societies, said the figure for the dead and missing would be "absolutely enormous."

Little hope

More than 500,000 are reported injured. The Federation has so far been unable to assess the number of missing people.

"We have little hope, except for individual miracles," Jean-Marc Espalioux, chairman of the Accor hotel group, said of the search for thousands of tourists and locals missing from beach resorts of southern Thailand — including 2,000 Scandinavians.

Indonesian authorities said this did not include a full count from Sumatra's west coast, where more than 10,000 deaths were suspected.

Supplies that included 175 tons of rice and 100 doctors reached Sumatra's Banda Aceh. But with aid not arriving quickly enough, desperate people in towns across Sumatra stole whatever food they could find,

officials said.

Widespread looting

Widespread looting also was reported in Thailand's devastated resort islands of Phuket and Phi Phi, where European and Australian tourists left valuables behind in wrecked hotels when they fled — or were swept away.

An international airlift was under way to ferry critical aid and medicine to Phuket and to take home shellshocked travellers.

Jets from France and Australia were among the first to touch down at the island's airport. Greece, Italy, Germany and Sweden planned similar flights. — AP

Death toll in Andamans put at 10,000



SCRAMBLE FOR SAFETY: Car Nicobar residents rush towards an Army plane to be evacuated from the tsunami-hit island on Wednesday. — AFP

● Over 25,000 rendered homeless

By Suresh Nambath

PORT BLAIR, DEC. 29. The Andaman and Nicobar Islands administration has completed a survey of survivors of all the inhabited islands and the death toll in Sunday's tsunami strike is now officially put at over 10,000 — dead or presumed dead. More than 72 hours after the killer waves came and went, authorities have lost hope of any of those categorised as "missing" being found alive. "If any of them were alive, they would have returned by now," says the Inspector-General of Police, S.B. Deol.

The distance between the inhabited islands, where the survey of survivors is over, and the uninhabited islands precludes the possibility of those declared "missing" having survived. They are now presumed dead.

Toll may rise

However, the death toll could go up further. Some of those injured could die, but more importantly, many of the islands officially considered uninhabited have actually been encroached upon by the Nicobarese. In Car Nicobar, where an Indian Air Force base was wiped out, the death toll could be as high as 3,000. In Katchal, the figure is 2,000 and in Chowra it is 1,000. Camorta, Campbell Bay, Hut Bay, Teresa, Trinkat and the smaller islands, where the dead are in hundreds, make up the total.

Lack of access

Relief operations have been hampered, not by shortage of food and medicine, which have

reached in plenty, but by the lack of access. The tsunami destroyed almost all the jetties. For a group of islands, this is as bad as it could get. Coast Guard vessels now approach the affected islands and deliver the relief material in small boats.

The administration has now requisitioned more helicopters, but they would have to be brought by ships. And time is of the essence now. More than 25,000 people have been rendered homeless. In some islands, where relief could not be reached immediately, coconut trees kept many of the victims alive. The most affected settlements were on the south-eastern side of the islands. In the first few hours after the tragedy, authorities grossly underestimated the extent of the damage. With the communications systems down, only a physical survey, which took three days to complete, gave a full picture of the devastation.

More than 60,000 people, in Little Andamans, Car Nicobar, Nancowrie islands and Campbell Bay were completely cut off. There have been no confirmed deaths of foreigners or tourists. Similarly, primitive tribes of negrito origin such as the Great Andamanese, Onges, Jarawas and Sentinalese are not known to have been affected. The Shompens, though they inhabit the Nicobar islands, were also relatively safe. But the Nicobarese, who like the Shompens are of Mongoloid stock, faced the full impact of the killer waves. Indeed, officials believe that no Nicobarese was untouched.

More reports on Page 13

30 DEC 2004

THE HINDU

Buddha head stolen from Indian Museum

Statesman News Service

KOLKATA, Dec. 29. — Antique thieves have struck again, this time in the heart of Kolkata. A rare, sandstone head of Buddha, brought to the Indian Museum from Sarnath, was stolen from the museum's Archaeology Long Gallery on the ground floor on Wednesday afternoon. The fifth century arte-

fact, about 24 cm in height, is considered an artistic masterpiece of the Gupta period.

It was apparently a neat, clean and easy job — the thief or thieves (police don't know yet whether it was one person or more) just walked in, lifted the glass case covering the artefact and walked off with it.

At 11.30 am, an official of the museum saw the

Buddha head in its glass case. However, when he passed by the same spot around 1.15 p.m. the Buddha head was missing.

Police said the theft took place between 11.30 a.m. and 1.15 p.m. The museum authorities were informed immediately and the police was called in, museum director Dr Sakti Kali Basu said.

The theft at the museum was the first in 30 years. In



A Buddha head (from the Indian Museum website)

September 1974, 16 sculptures from the Gupta period had been stolen, but all were later recovered.

The theft comes nine months after the Nobel burglary in Santiniketan, dealing a double blow to West Bengal's reputation as a soft target for antique thieves.

Dr Basu said close circuit televisions are installed at other galleries, but "this particular

gallery" was not covered by the CCTV surveillance system. The thieves apparently knew this and seized the opportunity to sneak in and get away with the Buddha head. And all this despite the much-touted three-tier security at the museum.

The museum is guarded by Kolkata Police personnel, including an inspector, a naik and a subedar. They are posted at the

main entrance. The next ring comprises museum guards and inside the campus are security agency personnel.

In the wake of the theft, security was beefed up at Asiatic Society. All city police stations have been alerted and asked to draw up lists of those involved in antique smuggling or theft or have past records.

Another report on Kolkata Plus I

HALF THE POPULATION OF CAR NICOBAR CAN'T BE TRACED, SAYS LT GOVERNOR MISSING, NOT PRESUMED DEAD

Sunil Mukhopadhyay in Port Blair

Dec. 29. — "Car Nicobar has a population of 20,000 and half of them are missing," Lt Governor Ram Tapase said here today. "Missing, however, does not mean that all of them are dead. We hope that many of them may come back. So far the body count is 309 from all over the islands," he added.

Many of the aboriginal tribes are thought to have made it to safer grounds, but because of their isolation, no confirmation about their safety is forthcoming. Three days after the killer tsunami struck, the situation in the Andaman and Nicobar Islands today continued to remain grim. Contact is yet to be established with some islands like Pilomilo. Aerial surveys were being made to assess the situation there.

The IGP, Mr SB Deol, put the number of dead and missing at 10,000. "The thrust now is on providing relief and evacuating people from the affected islands. Altogether 1,800 more people would be evacuated from Hut Bay today," DIG Mr SV Rao said. Hut Bay has a population of 10,000.

Water and food packets were air-dropped on Katcha, Chowra and the Nancowry islands. Unified Command sources here said 13 naval ships were on rescue and relief mission in Hut Bay, Kamorta, Campbell Bay, Katcha, Chowra and Nancowry islands. Commander-in-Chief, Unified Command, Andaman and Nicobar, Lt General BS Thakur visited Katcha and Nancowry islands to supervise operations.

Apart from ships, AN-32 aircraft were making sorties to Car Nicobar and Campbell Bay, dropping food and water packets and evacuating people. Asked about the possibility of epidemics, the Lt Governor said that four agencies were working in Car Nicobar, one of the worst affected islands, to ensure that all dead bodies were buried at the earliest.

To another question whether international aid would come, the Lt Governor said various state governments, the Centre and the local administration were in a position to look after the affected people. "We will require international aid when the real rehabilitation work starts." Altogether 400 tourists have been evacuated from Port Blair. The rest were expected to be evacuated today.

Fresh quakes spark fear

Andaman and Nicobar Islands continued to be rattled by earthquakes with two more quakes, measuring 5.7 and 6.1 on the Richter scale, jolting the islands within a span of 10 minutes just after 7.00 a.m. today, the meteorological department said. While the epicentre of the first quake was near Camotra in the Little Nicobar Islands, the second was centred near Car Nicobar which witnessed widespread devastation on Sunday. Another moderate quake, measuring 5.4, occurred at 7.44 a.m., off the west coast of Andaman. It was not clear whether any fresh casualty or damage was caused by the quakes but they sparked fresh fears.

Bush announces core group for relief

The USA, Australia, Japan and India will form a "core group" to lead relief efforts after the tsunami, the US President said today in Texas. He predicted that other countries would soon join the initiative. — PTI & AFP



ESCAPE TO SAFETY: Families queue up to board flights in Port Blair on Wednesday. — PTI

NATIONAL DISASTER, YES. CESS, NO: PM

Prime Minister Dr Manmohan Singh declared Sunday's tsunami a "national calamity". However, as of now, the imposition of a cess to mobilise resources was not necessary, he said.



On the Nagapattinam beach. — Courtesy: Dinamalar

PYRES ON THE STREETS



People reach out for food at Nagapattinam. — AFP
The toll in Tamil Nadu doubled to more than 7,000 on Wednesday. Nagapattinam alone accounted for 4,300 deaths and pyres were lit on the streets. The overall toll in India rose to 10,500 on Wednesday.

NATURE'S FURY- 4 & 5

SUMATRA SHOCKED

Sumatra has lost 75% of its coastline. The toll in Sri Lanka and South-east Asia crossed 69,000.



In Galle, Sri Lanka. — AFP

Private airlines to take off for foreign shores

Statesman News Service

NEW DELHI, Dec. 29. — The Cabinet today gave its approval to allow private airlines to operate on all international routes except the Gulf region.

However, only those private airlines that have a minimum of five years' continuous domestic operational experience and a minimum of 20 aircraft in their fleet would be allowed to operate, civil aviation minister Mr Praful Patel said.

"Only Indian Airlines and Air India

would be allowed to operate in the Gulf region for the next three years and private airlines will not be allowed in this region during the period," he

said after the Cabinet meeting. The Gulf routes are a major revenue earner for the national carriers and a calibrated approach is being taken to

enable the national carriers to get time to adjust to the new competitive environment. The Cabinet, in effect, has decided to "strengthen Air India" and "improve the operational synergy" between it and Indian Airlines. Mr Patel also said that the practice of demanding compensation from foreign carriers by way of commercial agreements mandated by the government may be discontinued.

In his briefing, defence minister Mr Pranab Mukherjee said the private airlines also need to have a minimum mileage coverage and must com-

ply with the Directorate General of Civil Aviation's norms. Guidelines would be framed in this regard later, he added.

At present, Jet Airways and Air Sahara are the only airlines to clear the conditions. Sources said, they will now be able to mount flights to Australia, China, Britain and the United States by April next year.

Mr Mukherjee said Mr Patel has been asked to come out with a policy paper on liberalisation, including the concept of "open sky", for Cabinet approval. The new policy will have to provide a roadmap for liberalisation, with an aim to make flying more affordable, apart from providing more connectivity and passenger and cargo capacity.

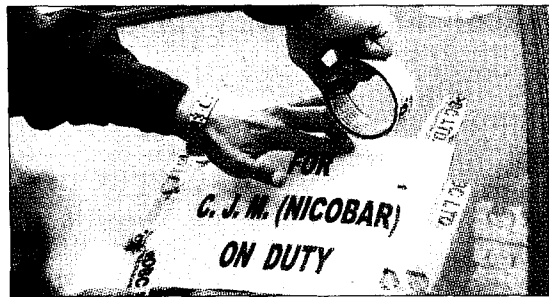


- Private carriers can now ply on international routes
- Applicable to airlines with a minimum of five years continuous experience and a minimum of 20 aircraft
- AI & IA monopoly on Gulf destinations to continue for 3 years
- No more mandating of commercial agreements on new services

Day 4: The tragedy sinks in

COMING HOME IN A COFFIN

ASHOK NATH DEY/HT



The car carrying Joshi's body at Kolkata airport.

The sea he loved swallowed him

Saptarshi Banerjee
Kolkata, December 29

SURESH KUMAR Joshi was in love with the sea. On Sunday morning, he was standing on the sandy beach when the tranquil waters around the Car Nicobar Island rose in an array of enormous waves and one such wave reached in and took him away.

The chief judicial magistrate, whose body was received this evening by his wailing relatives at the city airport, had volunteered to serve at Car Nicobar purely out of his love for the sea. His brother-in-law, Jay Kumar Matolia, said, Joshi (46) was due for a promotion and would have come back to Bengal as an additional district judge on January 5, 2005.



'I'm Arthur C. Clarke, I'm safe'

RENOWNED author and Sri Lanka's most famous expat, Arthur C. Clarke, has just lived through an incident he had described in his first book on the country — *The Reefs of Taprobane*. Published in 1957, the book is about a tsunami reaching the Galle harbour, after the Krakatoa eruption in 1883.

He refers to this at the bottom of a message on his website on Monday after he was flooded with queries about his well-being. He said he was safe, but his staff members were not accounted for.

The judge, who did a stint at the Barrackpore SDJM's court and served some other courts as SDJM, opted for posting in the island after he got a promotion to become a chief judicial magistrate.

"My brother-in-law had joined the post only in June. I can't believe he is dead. We spoke to him on the night of December 25," Matolia said between sobs.

See Pages 2,3,7&13



Settlers and islanders rescued from Car Nicobar arrive at Port Blair on Wednesday.

SUBHANKAR CHAKRABORTY/HT

Phuket masks its suffering

Samrat Choudhury
Phuket, December 29

DEATH HAS just had its day here; now, three days after the killer tsunami flattened its entire beachfront, life is fighting to make a comeback in Phuket.

"My shop is reopening tomorrow. Please come and have food," says the owner of Navrang Indian restaurant, Navtej Singh. Barely 100 m from where he stands, concrete slabs lie crushed as though a monstrous fist had smashed down on them. A little further down, the beach begins. The sea is placid with neither hint nor memory of malice.

On Sunday, this gentle sea rose to crash into the hundreds of shops, hotels, bars and spas that line the entire length of this tourist haven. The deaths for Patong alone have crossed 100. Not a single shop or hotel on the beachfront is left with anything but mangled debris inside - and a wet, fishy smell tinged in many places

ON THE SPOT

with the odour of rotting flesh. The hottest selling item at the roadside vendors now is face masks. Almost everybody on the Patong seafront went to work wearing one today.

The bulldozers have been at work clearing away the debris all day. The local people have been filling endless black garbage bags with the remains of their livelihood.

Yet, the smiles are back. On Bangla Road, famous for its seamy side and its katoeys or 'lady boys', the bars are back in business; one live band is playing "I hate myself for loving you", and a rather tortured Thai-sounding version of Carrie.

And the tourists haven't all gone away. What's more, there are fresh arrivals too. Michael from Germany was at the airport when the wave struck. Now he's sitting on the beach. "Why should I change my plans because of this?" he asks.



A Thai police officer in Phuket takes photographs of bodies on Wednesday for identification.

SURVIVOR'S TALE

On a treetop with a python for three days

Sujit Nath
Buniyadabad (Port Blair),
December 29

EVERY DISASTER throws up its heroes, people in peril, who won't go down like the rest, hold out till the tide turns and live on to tell us of the ultimate triumph of the human spirit.

Raj Ratnam was having his morning cup of tea when the tsunami waves swamped Napati on Car Nicobar Island, caught him unawares and literally tossed him up into the sky.

But Raj caught hold of a tree branch, clung on to it for close to three days and drank his own urine to wet his parched throat before rescue workers arrived. A civil contractor from Buniyadabad in Port Blair, Raj had arrived on the Car Nicobar Island some time ago.

Raj, recovering in hospital with many other survivors, told HT how the ground began to stir on December 26, how within seconds a 40-foot frothy wall of water, came rushing in and turned the entire area into a heaving sea. He recalled how the waters hauled him up and how he caught hold of a tree branch before a dull pain numbed his senses.

When he regained consciousness, Raj found himself perched on a treetop in the forests of Napati, a branch firmly in his grip. A few feet away, there was another survivor: a python entwined around another branch. "It was scary and I was trembling all over. The python probably sensed it. It left the branch after a few minutes. Soon the light faded and all I could hear was the distant roar of the sea. I was hungry and thirsty. When I got down the next morning my feet hit a hard object. I thought it was a piece of log. It turned out to be a woman's body," he said. There were other bodies strewn around. Raj could well have been one more such body, but held out till an air force team rescued him.

30 DEC 2004

THE HINDUSTAN TIMES

BRIEFLY

Leaders send condolences over tragedy

■ **NEW DELHI:** Pakistan President Pervez Musharraf, Russian President Vladimir Putin, Chinese President Hu Jintao, Nepal's King Gyanendra, Bangladesh President Iajuddin Ahmed and Swiss President Joseph Deiss have sent messages of condolence and support to the government and people of India, with regard to the loss of life and damage caused by the tsunami. Italian President Carlo Azeglio Ciampi, President of European Commission Jose Manuel Barroso and the managing director of IMF Rodrigo de Rato y Figaredo have also sent messages to the President.

Army medical team ready to fly to Lanka

■ **CHENNAI:** A team of Indian Army personnel, mostly from the medical field, is ready to fly to Sri Lanka, General Officer Commanding, Southern Command, Lt. General Balraj Singh said on Wednesday. After holding talks with senior Army officers here on the Army's relief work, Singh said that 136 Army personnel were waiting at Bhopal to be airlifted to Sri Lanka.

Kid found alive near mother's body

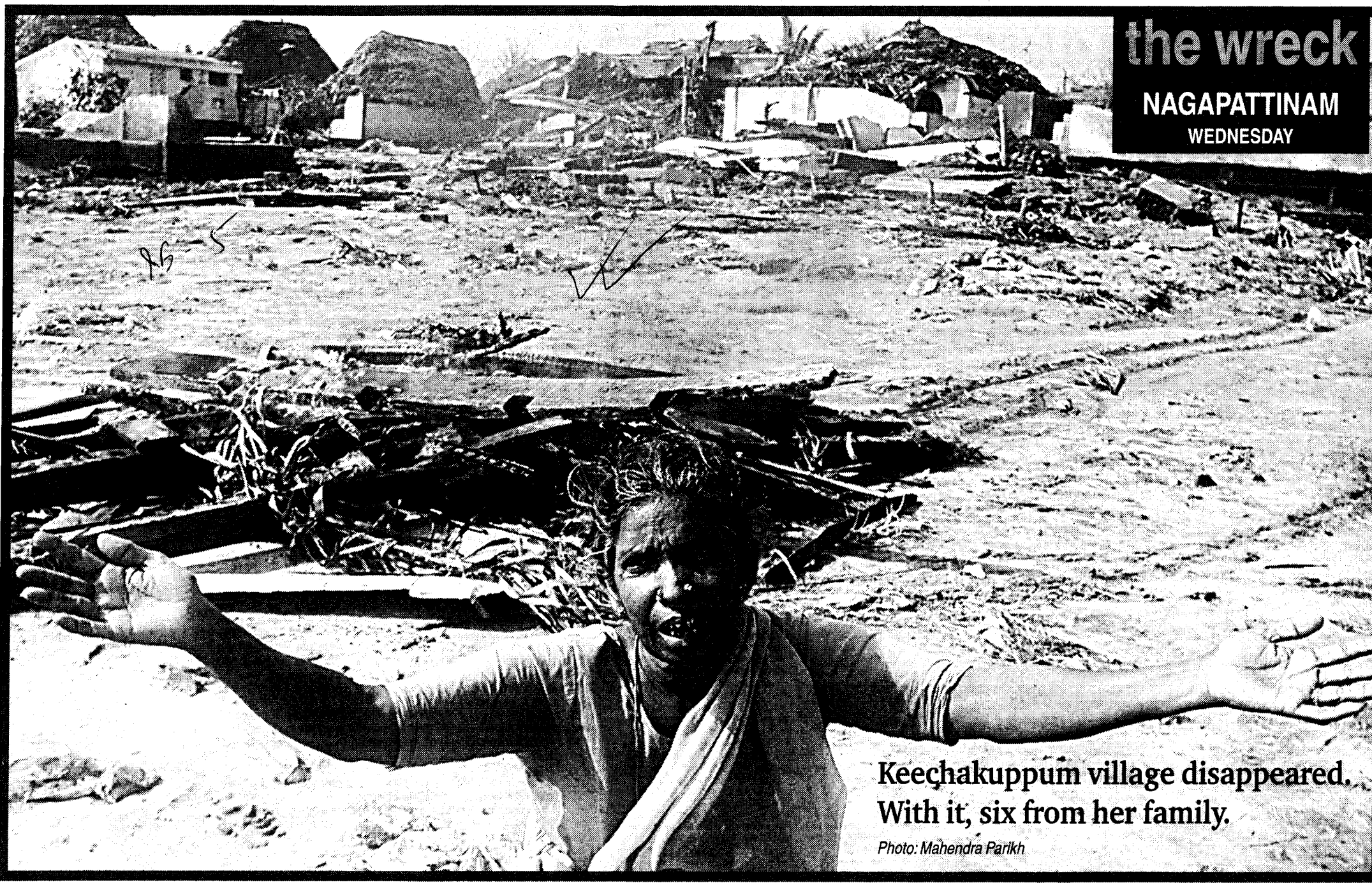
■ **COLACHAL (TN):** A two-year-old child was found alive beside the body of her mother in a graveyard near Periyavilla village near here, three days after she was believed to have been swallowed by the killer waves that struck the coastal belt here. The child was rescued and taken to the government hospital at Nagercoil, where she is now being nursed back to health by doctors, official sources here said. The child was found by people who had been to the graveyard to bury the dead bodies recovered on Tuesday.

Aftershocks rattle Andaman and Nicobar

■ **NEW DELHI:** Andaman and Nicobar Islands continued to be rattled by earthquakes with a series of strong aftershocks measuring between 5.1 and 6.1 on the Richter scale being recorded since Tuesday night in the region already devastated by Sunday's tremor and tsunami tidal waves. So far over 55 aftershocks have rocked the region after the Sunday's earthquake.

CFTRI rushes ready-to-eat meals

■ **MYSORE:** The Mysore-based Central Food Technological Research Institute has launched an 'Operation Food' to rush ready-to-eat meal packets, to cater to about 50,000 meals a day, for the tsunami-affected people in Tamil Nadu, Andhra Pradesh and Kerala. —ENS & PTI



Keechakuppum village disappeared. With it, six from her family.

Photo: Mahendra Parikh

the wreck
NAGAPATTINAM
WEDNESDAY

Looking for the pieces...

TN's largest fishing village loses 530, courage to fish

RAJESH ABRAHAM
CUDDALORE (TN), DECEMBER 29

VILLAGERS in Devanampattinam, Tamil Nadu's largest fishing village, which was devastated by the tsunami on Sunday, are yet to recover from the shock as they try to rebuild homes and continue with their lives.

The fishing village, which has over 3,500 families, has the casualty of about 110 deaths in Cuddalore district, where over 530 deaths have been reported. It would take at least 4-5 months for them to start venturing out into the sea again to earn a living. Hundreds of fishing boats lie scattered more than 800 metres away from the beach, all fully or partially damaged.

"We lost everything, in the sea, we encounter big waves. But, the waves on Sunday morning were bigger than the biggest we have ever seen," says R. Marsivakamani, a 57-year-old fisherman whose hut and fishing boat were washed away.

The fate of Marsivakamani's brother Natarajan, who was staying in a nearby house on the beach, was even worse. He lost his wife Krishnavani and daughter Ilavarasi in the waves, that hit the coastal regions of Tamil Nadu, Andhra Pradesh and Kerala on Sunday.

Natarajan had just returned from a pilgrimage to the Sabarimala shrine in Kerala on that day, where he prayed for his daughter's upcoming marriage. "Sir, tell me what wrong have I done to deserve this," said Natarajan, who is accommodated in a relief camp.

Ilavarasi, a 60-year-old woman, is among the few women searching through the debris of their homes as the waves roar in the background.

"We are yet to receive food packets and clothing still," she said. "This was my home," she said, pointing to a small pile of debris.

Cuddalore District Collector Gagandeep Singh Bedi said the deaths in the district were smaller compared to neighbouring Nagapattinam. The district, which was a cyclone-prone area, had been training the villagers on disaster management and this helped in reducing the casualties, he said.

The district administration's next task is to pull back the boats, which have been thrown far and wide, away from the beach to the sea.

"We have asked for cranes from the Neyveli Lignite Corporation. We hope to get back the boats to the sea in



A priest helps Navaneetha Krishnan and his youngest brother Vasantha Krishnan perform the last rites of their father at a cremation ground in Cuddalore on Wednesday. The brothers lost their parents and a third brother to the devastating tsunamis. Reuters

a couple of days," he said. On complaints that food packets were not reaching the site of the disaster, Bedi said it was decided that the food packets would be distributed only in relief camps. —PTI

13 from Kendrapara still missing in Andamans, Lanka

PRESS TRUST OF INDIA
KENDRAPARA (ORISSA), DECEMBER 29

AT LEAST 13 people from the coastal Kendrapara district of Orissa have been reported missing in the Andaman and Nicobar islands and Sri Lanka, following the tsunami strikes, a senior official said here today.

They had left for the two places on contractual engagements early this year, District Collector Hemant Sharma said. He said that 12 of them, belonging to Rajnagar Tehsil of the district, were stationed at the Andamans, while another person from Naranpur village near here was employed in a coir unit at Galle in Sri Lanka.

According to the collector, about 200 people from Rajnagar Tehsil had migrated to the Andamans early this year, seeking employment. The local tehsildar and block development officer and the district labour office are now preparing details of the migrants. As per the complaint received from their relatives, 12 of the migrants are yet to contact their families in Debendranarayanpur, Krushnapuriyapur and Bagapatia villages.

The names of the missing persons were sent to the Andaman administration today, through the state's Special Relief Commissioner.

No information had been received about Basudeb Sethi, who was working in Galle, the official said.

Though about 2,000 people from Kendrapara worked in Tamil Nadu, Pondicherry and Kerala, there was no information on any of them having fallen prey to the tsunami waves, Sharma said.

Meanwhile, a Rourkela report said that families of 94 of the 97 employees of the Rourkela Steel Plant (RSP) who had been to Andaman and Nicobar islands and were present there when the tsunami hit, had returned home safely.

Information about the other three families was being collected, Additional District Magistrate A.K. Pandian said.

About 200 people from Rajnagar Tehsil had migrated to Andamans this year

Ancient' tribes have survived tsunami: Govt

AASHA KHOSA
NEW DELHI, DECEMBER 29

THE government claims that the tsunami spared most of the 1,000 tribals living on the Car Nicobar and the Andamanas islands — the most ancient indigenous communities in the world. The government today announced that it would send a team of anthropologists to the An-

lied to be safe, since they live in Strait Island, in an archipelago. However, there is evidence of tsunami waves affecting Onges, a tribe of 100 people who inhabit Dungong Creek. Officials said that at least 40 people have been rescued so far and aerial surveys are being carried out to search for more survivors. The officials admitted that there is no information



Medical camp in Nagapattinam. The Union Health Ministry has released a set of guidelines for dealing with the spread of epidemics like cholera, diarrhoea and measles, a fear expressed by international organisations about the states devastated by the Tsunami. Mahendra Parekh

damans to assess the impact on the tribes.

The government will announce a special relief package for the tribals of Car Nicobar and the Andamans, based on the team's report. There are apprehensions that the tsunami may have wiped out four of the tribes. The world's last aboriginal tribes include the Jarawas, Onges, Shompens, Sentinelese, Nicobarese and Great Andamanese.

An official of the Ministry of Tribals Affairs told The Indian Express that 150 tribals are feared to have died in the tsunami. Ministry officials said they had received information from the chief secretary of the island territory. Officials said that the Jarawas are safe, as they inhabit the middle Andamans, which was unaffected by the waves. The population of the Jarawas tribe is about 225 and their forest-centric lifestyle tends to keep them away from the sea.

Officials claimed that the Andamanese are also be-

lieved to be safe, since they live in Strait Island, in an archipelago. However, there is evidence of tsunami waves affecting Onges, a tribe of 100 people who inhabit Dungong Creek. Officials said that at least 40 people have been rescued so far and aerial surveys are being carried out to search for more survivors. The officials admitted that there is no information

Dr Madhumala Chattopadhyay, the author of The Tribes of Car Nicobar, who studied the tribes of Andaman and Nicobar islands from 1995-99, said: "The Coastal Nicobarese, around 325 of them in 1999, may have borne the brunt of the killer waves". They "would have no place to hide", she said. Chattopadhyay fears the worst for the tribals of Car Nicobar. "As the islands are closest to the epicenter of the quake, it is possible they bore the brunt," she said. Various tribes inhabit 12 of the 48 Nicobar islands.

Lucky to be alive, say students

SABYASACHI BANDOPADHYAY
KOLKATA, DECEMBER 28

WHEN 52 students of the Jamshepur-based Loyola School left for the Andamans on Christmas eve, little did they realise their dream holiday would soon turn into a nightmare.

"We counted ourselves lucky to have gone to such a beautiful place. Today, we think we are lucky because we survived the disaster. This is for the first time since the morning of December 26 that we are laughing," said Anuradha Agarwal, a student, at Howrah station. The 61-member team, of which 51 were students, reached Kolkata by an Indian Airlines flight at 3.15 pm and left for Jamshepur by train at 5.30 pm. The students said they had almost

PARENTS REJOICE

■ **JAMSHEDPUR:** The 52 students of Loyola school returned to the steel city on Tuesday night after their excursion to the Andaman and Nicobar islands — they were trapped in Port Blair for two days. The students took the Howrah-Tata Steel Express and got down at Tatanagar railway station. —PTI

lost hope of making the journey back home. "We were so scared that we stayed awake for the last two days," said Anuradha, the trauma writ large on her face.

The students, all of class XI, and the teachers had travelled to Port Blair by ship on December 24. "We had a series of programmes

lined up. We were supposed to come back on December 31, but the tsunami changed everything," said another student Arumoy Dey.

Most of the students were sleeping when disaster struck that night. "All on a sudden, we woke up to see the entire hotel shaking violently. When it dawned upon us that it was an earthquake, we rushed out in the open, leaving all our belongings behind," said Anesha Swastik, another student. Only the boys went back to the hotel later to collect their bags.

For a whole day and night, on December 26, the students stayed out in a field near the hotel, surviving on water, biscuits and bread. "Let alone having a wash, we even brushed our teeth with water bought from shops. We saw hotels and buildings crack, cars washed away, dead bodies floating



near the shore," said Jash Karan. They comforted each other as stories of death and destruction trickled in.

On December 27, they moved to the airport and were provided food by the airport authorities. "Even on that day, we stayed in the open as the authorities told us it was not safe to stay indoors as fresh tremors were still

striking. We could not even talk to our parents. It was such a harrowing experience," Karan said.

But they also had their moments of joy. "Sonia Gandhi came to us and assured all help. And we are thankful to Tata Steel for making our return journey possible," said Gaurav Choudhury, a student.

Biswarup Dutta

THE WRECKAGE

NEW DELHI ■

'Disease risk from corpses a misconception'

ROSIE MESTEL

LOS ANGELES, DECEMBER 29

RESIDENTS of the Indian Ocean coastal areas where the massive tsunami struck on Sunday have grief and personal and economic upheaval to deal with, but face little serious disease risk from bodies of the dead, experts in disasters and infectious diseases said on Tuesday.

Indeed, serious outbreaks of disease caused by contaminated drinking water or crowding — while always a risk — do not automatically occur after large-scale disasters. The risk can be greatly reduced by aggressive attempts to provide clean drinking water, experts added.

"Infectious disease outbreaks and in particular epidemics are very, very rare in relation to natural disasters; that's one of the misconceptions that people have," said Dr. Mark Keim, a medical officer in the international emergency and refugee health branch of the Centers for Disease Control and Prevention. "We don't see it with earthquakes, with hurricanes and with tsunamis."

Some risks clearly do exist, particularly contaminated water. Damage to the regions' sewage systems and exposure of water to fecal material from survivors (who may be crowded

together with no clearly designated latrines to use) mean that the water people drink is more likely to contain disease-causing microbes and viruses.

"If people are thirsty, they are going to drink whatever water they can — thirst doesn't stop," said Dr. Martin Blaser, president elect of the Infectious Diseases Society of America and chair of medicine at New York University's school of medicine. The possible illnesses, including hepatitis, cholera and typhoid fever, are endemic in some of the areas hit by the tsunami. In addition, if large groups of refugees re-

main closely crowded, they are likely to pass respiratory infections among each other. Increased levels of diarrhoeal diseases have followed some disasters.

What dangers exist are unlikely to come from the dead. They did not die of disease. Moreover, infectious agents carried within cadavers do not survive long, said Oliver Morgan, an epidemiologist at the London School of Hygiene and Tropical Medicine. "When there are large numbers of fatalities there is a rush to dispose of the dead and a lot of scare stories about imminent epidemics," Morgan said. "But the risk of any disease transmission is really coming from the surviving population."

—LATIP



30 DEC 2004

INDIAN EXPRESS



The wreckage of the train derailed by the massive tidal waves that slammed into Sri Lanka, is seen in this television image. The derailment left 1,000 passengers dead or missing, police said on Tuesday. — AP

29 DEC 2004

THE HINDU

H10-12 23/12 Tsunami warning system

By N. Gopal Raj

Emirunna

A WARNING of an oncoming tsunami is more than a matter of detecting that an earthquake has occurred under or near an ocean. The experience in the Pacific Ocean, where most tsunamis happen, is that a number of complex steps have to be completed rapidly so that people can be evacuated to safer locations. Yet the system must also be robust enough to avoid false alerts, which would unnecessarily disrupt people's lives, cause substantial financial loss and ultimately lead to a loss of confidence in the system.

Unlike in the Pacific where over 790 tsunamis have been recorded since 1900, Sunday's tsunami was just the second to hit India during the same period. The first tsunami to reach the Indian mainland in the last 100 years was in 1941. Before that, a tsunami was recorded in December 1881.

Moreover, not every earthquake under or near the ocean causes a tsunami. About a dozen earthquakes of over magnitude 5 on the Richter scale have occurred in the vicinity of the Andaman and Nicobar islands since 1973, including two greater than magnitude 6. According to officials of the National Institute of Oceanography in Goa, no tsunamis followed. The magnitude 9 earthquake off Sumatra, which caused Sunday's tsunami, set off several earthquakes in the Andaman and Nicobar islands, including one that exceeded magnitude 7. None of these later earthquakes is known to have caused tsunamis that reached the Indian mainland.

In 1965, the Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organisation (UNESCO), established the International Tsunami Information Center (ITIC) in Hawaii. Three years later, the IOC formed an International Co-ordination Group for the Tsunami Warning System in the Pacific, with 26 countries in and around the Pacific as its members. The system issues tsunami information and warnings to over 100 places scattered across the Pacific.

Three distinct but overlapping physical processes have to be modelled accurately in order to understand whether an earthquake could have set off a tsunami and then to identify the places at risk. At the Pacific Tsunami Warning Center (PTWC) in Hawaii, computer systems continually monitor data from

Joining the international tsunami warning system will help, but even so there will be much that has to be done within the country.

seismic stations in the United States and abroad, and alert watch-standers whenever a significant earthquake has been detected, says Charles McCreery in a recent issue of the *Tsunami Newsletter*. "If the earthquake is shallow and is located under or very close to the sea, and if its magnitude exceeds a predetermined threshold, a warning is issued based on there being the potential that a destructive tsunami was generated."

Such computation is based on 30 to 50 independent measurements and, as Dr. McCreery points out, the PTWC's performance improved rapidly as high-quality seismic data from more seismic stations in the U.S. and other countries became available in real time. The time the PTWC needed to issue a warning fell from up to 90 minutes six years ago to the present level of 25 minutes or less.

It is reported that there are about 200 seismic observatories in the country under various organisations. The India Meteorological Department has some 58 seismic stations under it, only 17 of which are digital and networked. More Indian seismic stations must be networked so that their data immediately become available for analysis, says Kusala Rajendran of the Centre for Earth Science Studies in Thiruvananthapuram.

At least 10 parameters about the fracture in the earth's crust that caused the earthquake are needed to predict the tsunami's initial height, according to Frank Gonzalez, Tsunami Research Program Leader at the U.S. National Oceanic and Atmospheric Administration (NOAA). As only the orientation of the fracture and the quake's location, magnitude and depth can be obtained from the seismic data, all the other parameters must be estimated, he said in a 1999 article in the *Scientific American*. Consequently, the tsunami's height can be initially misjudged.

Computer models can then simulate how the tsunami would propagate in the deep ocean, also taking into account how underwater ridges and mounds would affect the wave. Although the tsunami could be travelling faster than a passenger jet, the wave may be only a few metres high. As a single wave can be more than

750 km long, the slope is so gentle that a tsunami can pass by unnoticed in the ocean.

After the first indication that an earthquake may have triggered a tsunami, "it is necessary to wait until a potential tsunami reaches the nearest sea level gauge to confirm or deny its existence and begin to evaluate its character," says Dr. McCreery. There are currently about a hundred such gauges around the Pacific, most of which can transmit their data via satellite back to the warning centres. But as these gauges are typically located in the harbours and protected bays, the characteristics of the tsunami would be greatly modified by the shallow depth. That severely limits the usefulness of the data from the gauges, according to Dr. McCreery.

Consequently, the NOAA developed the 'Deep Ocean Assessment and Reporting of Tsunamis' (DART) gauge. Each DART gauge has a highly sensitive pressure recorder installed on the ocean floor. From a depth of 6 km, the recorder is capable of detecting if the height of the ocean above it changes by just one cm. This data is transmitted acoustically to a surface buoy that then relays it over satellite to the warning centre. Seven DART gauges have already been deployed, and at least four more are being planned. The DART gauges are sited in deep water so that they can accurately record the tsunami waves as they pass unaltered, remarks Dr. McCreery.

As the tsunami approaches the shore and the depth decreases, the waves slow down but become higher. The last stage of evolution where the tsunami comes ashore as a breaking wave, a wall of water or a tide-like flood is perhaps the most difficult to model, according to Dr. Gonzalez. Wave heights can reach tens of metres, although waves two to three metres high are sufficient to cause damage.

The NOAA has developed a suite of computer models, collectively known as the MOST (Method of Splitting Tsunami), which are capable of simulating the generation of a tsunami, its transoceanic propagation and inundation of dry land. But the NOAA also points out: "The current state-of-the art in tsunami mod-

elling still requires considerable quality control, judgment and iterative, exploratory computations before a scenario is assumed to be reliable. This is why the efficient computation of many scenarios for the creation of a database of pre-computed scenarios that have been carefully analysed and interpreted by a knowledgeable and experienced tsunami modeller is an essential first step in the development of a reliable and robust tsunami forecasting and hazard assessment capability."

In Japan too, "virtual tsunamis" have been pre-calculated for thousands of possible sources for various magnitudes of earthquake from 6.5 upwards. A supercomputer sorts these "virtual tsunamis" when an earthquake occurs and makes the extrapolations necessary when it does not correspond precisely to any one of them.

Issuing a reliable warning is just the first step. It is then up to the civilian authorities to use the warning for evacuations. Plans have to be made and rehearsed so that all the agencies act quickly and in concert once an alert is issued. Sunday's tsunami swept across the ocean and reached India in just two hours. Countries who currently receive international tsunami warnings have found that they do not have the emergency response capacity, and the necessary communications infrastructure. Hence even though a warning may be received, their coastal communities are still extremely vulnerable.

Establishing a reliable and robust tsunami warning system for India is therefore a substantial undertaking. Many Indian seismic stations probably require upgradation and also need to be networked. The seismic station at Port Blair in the Andamans is, for instance, said to be of the old analog type. Sea-level gauges are needed and press reports say that the Government is looking at installing DART-type gauges. Simulation software that model the evolution of tsunamis from generation to landfall may need to be modified to suit the Indian situation. Hazard mapping to identify vulnerable areas would also probably be required. The satellite-based cyclone-warning system can be augmented for disseminating tsunami warning. Most important of all, local-level plans have to be drawn up for evacuating people at short notice. Joining the international tsunami warning system will help, but even so there will be much that has to be done within the country.

29 DEC 2004

THE HINDU

WEDNESDAY, DECEMBER 29, 2004

Environment
HD-12

A POOR RELIEF EFFORT

VV
29/12

WHILE INDIA WAS understandably unprepared for the tsunami that came without warning on Sunday morning, this does not explain the inexcusable tardiness in the relief work in some of the affected areas. The tsunami might be a stranger to India, but not the destruction brought by Nature to the country's eastern coastline, for long used to natural calamities such as cyclones and torrential rain. Given the swiftness with which the tsunami struck, the government's communication and warning system was no match. The Andamans, particularly Car Nicobar island, and Tamil Nadu are the worst hit, although other States such as Kerala and Andhra Pradesh have been affected by the killer waves in varying degrees. Final estimates of the magnitude of the human tragedy are still not available from the Andamans and more bodies are being cleared from backwaters, ponds, sand dunes, and debris in Tamil Nadu. No doubt, the demands made on civilian authorities in times like these are enormous, but quite inexplicably some of the villages in Tamil Nadu were untouched by relief operations more than 48 hours after the tsunami slammed the shore. Although the most devastating of the seismic sea waves came and went within 30 minutes, leaving the coast relatively calm and secure thereafter, government agencies were slow to reach some of the fishing hamlets in Nagapattinam and Kanyakumari districts.

A lack of coordination and foresight in making full use of the armed forces seems to have resulted in valuable time being lost. While the Coast Guard straightway plunged into search and rescue operations, a whole day was lost before the Army was called in to undertake rehabilitative measures and reconstruction work.

The experience and resources of the Army would have been of immense help in rescue efforts but bureaucratic delays kept them away during the critical hours. More experienced and better equipped for emergencies, they would have moved in fast to remove the bodies, clean up the coastline, and launch rehabilitation work. The administration in the States must get district-level coordination committees in place to ensure that the relief from private sources, the Centre, and the State Government reaches the victims expeditiously.

In Tamil Nadu, it was evident that politicians were keener on winning brownie points for meeting the aggrieved sections than on concerted action to bring effective relief. Central Ministers seemed to go one way, State Ministers another. Although there can be no argument against people's representatives visiting hospitals and the affected areas, an unconscionable amount of manpower, logistics support, and resources appears to have been soaked up by VVIP visits at the cost of reaching relief to the victims quickly and effectively. This evidently took a toll. The visual images generated from Nagapattinam district, the worst-hit part of Tamil Nadu, of bloated bodies rotting on the streets and pits dug hurriedly by local people to serve as mass graves show how those in charge of relief and succour got their priorities completely wrong. The Centre has announced a package and the State Governments are trying to come up with their relief programmes. It is time to coordinate efforts, pool resources, and enable the affected families to build a roof for shelter and get their boats and catamarans repaired. A majority of the victims are fisherfolk, and they must be steadfastly helped to resume their livelihood and rebuild their lives.

29 DEC 2004 THE HINDU

Kalpakkam reactors are safe: Kakodkar

By T.S. Subramanian

CHENNAI, DEC. 28. Both the nuclear power reactors of the Madras Atomic Power Station (MAPS) at Kalpakkam "are completely safe" and "there is no threat of any radiation leak from them," Anil Kakodkar, Chairman, Atomic Energy Commission, asserted today.

Addressing a press conference at the MAPS site, he said water had not entered the turbine or the reactor buildings. The second reactor, shut down "instantaneously" on December 26 after a tsunami hit the eastern sea coast, including Kalpakkam, would be started up in five days, Dr. Kakodkar said. The first reactor had already been shut down for changing its coolant channels.

Reporters, who went round the MAPS including its turbine and reactor buildings, control room, and the sea water pump house, found that everything was normal. The tsunami had knocked down a security wall on the beach for some metres and sea water entered the pump house.

Asked why the second unit was shut down, Dr. Kakodkar said that an underground tunnel ferried the sea water to the pump house for cooling the reactors' condensers. When the

tsunami struck, there was a rise in the sea water level, and the level in the pump house (which is a huge well) also built up. The equipment in the control room "sensed" this and the reactor shut down by itself. "Shutting down the reactor is a very fast process," he said. When the op-

erator got "a signal that something was wrong with the sea water pump house," he put it in the safe shutdown mode. There was no casualty at the MAPS.

T.S. Rajendran, Station Director, MAPS, said that Atomic Energy Regulatory Board personnel would visit the sec-

ond unit on December 29 and 30. After their inspection — the AERB is charged with maintaining safety in nuclear power stations — the reactor would be commissioned again in five days.

All over the world, nuclear power stations were located on the sea coast or near water bodies. Kalpakkam was chosen after taking into account the possibility of cyclones and tidal waves occurring. Tsunami was not factored into this, Dr. Kakodkar said.

The events at the MAPS and the PFBR construction site showed they could withstand tsunami.

For future nuclear power projects, tsunami would be taken into consideration.

The PFBR Project Director, Prabhat Kumar, said that the body of a woman construction worker was found this morning in the 17-metre deep foundation-pit of the Prototype Fast Breeder Reactor construction site.

Concreting the foundation was under way at a depth of 17 metres when waves surged in. When a lookout alerted the workers, they climbed out on to the slopes. But a woman standing at the ground level was washed in. The pit was flooded.

See also Page 13

Dixit allays fears

By Our Special Correspondent

NEW DELHI, DEC. 28. The Centre today allayed fears related to the Kalpakkam Atomic Power Station near Chennai after 61 people were killed in its vicinity on Sunday in the Tsunami onslaught.

Emerging from a meeting with the Prime Minister, the National Security Adviser, J.N. Dixit, said "the reactors and basic capacities of the plant are absolutely safe and there is no radiation whatsoever at the atomic power station."

Though there was no casualty inside the power station, 30 staffers and their kin living nearby were

killed. Of the two units at the station, one had been closed for maintenance even before the tsunami struck and the second unit was shut after sea water entered one of the pits.

The water in the pit was being pumped out and efforts were on to restart the reactors, Mr. Dixit said.

The Prime Minister has asked the Atomic Energy Commission Chairman, Anil Kakodkar, to stay in Kalpakkam as long as required.

The reactors would be restarted on the advice of the Atomic Energy Regulatory Board.

Its members would reach there tomorrow to check the facilities.

Jayalalithaa announces Rs.153.37-crore relief

By Our Special Correspondent

CHENNAI, DEC. 28. The Chief Minister, Jayalalithaa, today announced a Rs.153.37-crore relief package to those affected by Sunday's tsunami along the Tamil Nadu coast. Part of it is a general package for all the affected and a separate package for fishermen. Instead of the earlier announced relief of Rs. 1 lakh to the next of kin of the dead, each family would be given Rs. 1 lakh for every member killed. "This is only the first package. A detailed assessment is under way," she said.

A total of 3,925 persons were killed, 40 per cent of them children. Nagapattinam accounted for 2,414 deaths, Ms. Jayalalithaa said.

Each affected family will be given one dhoti, one sari, two bedsheets, 60 kg of rice, three litres of kerosene and Rs. 1,000 in cash to buy condiments, oil, pulses, etc; Rs. 1,000 to purchase utensils and Rs. 2,000 for putting up a hut. The package for each family will cost about Rs. 5000. This will be given to about one lakh families.

For fishermen

Fishermen will be given a special Rs. 65-crore package in addition to this. The Government will provide Rs. 20,000 to replace each gill net in 10,000 'vallams.' This will cost the Government Rs. 20 crores. An aid of Rs. 10,000 will be given to replace gill nets in 20,000 catamarans, which will cost the Government another Rs. 20 crores.

As many as 10,000 vallams will be repaired/rebuilt and the State will provide Rs. 15 crores towards this (at Rs. 15,000 for each unit). About 20,000 catamarans will be rebuilt at a cost of Rs. 10 crores (at Rs. 5,000 for

each unit). "This will enable fishermen to undertake fishing operations immediately and is based only on the immediate assessment made," she said.

Contributions — in cash or kind — could be sent to the District Collector. The Collector would ensure that the relief reached the affected districts. People from outside the State could send their donations in kind to the Chairman and Managing Director of the Tamil Nadu Civil Supplies Corporation, Chennai.

The State was conducting a study of the losses. Once it was completed, "a detailed package will be worked out for providing outboard motors [on] mechanised boats and trawl nets. So, funds have been provided to the Director of Fisheries to undertake this task."

Relocation

Permanent rehabilitation will be taken up later. This will include "reconstruction of houses, provision of boats and nets and anything they will require to start a new life. This will be an enormous package running into several hundred crores."

Ms. Jayalalithaa said she was keen that all the fishermen

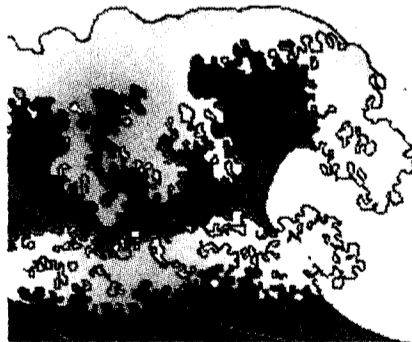


The Chief Minister, Jayalalithaa addressing the media at the Secretariat in Chennai on Tuesday.

Tamil Nadu tsunami havoc

Total dead	3,925
No. of people missing	344
Total No. displaced	About 1 Lakh families

Chennai	188
Kancheepuram	108
Tiruvallur	12
Cuddalore	486
Villupuram	42
Nagapattinam	2,414
Thanjavur	1
Tuticorin	3
Ramanathapuram	2
Tirunelveli	4
Kanyakumari	665



Graphic by Varghese Kallada

40% of killed are children

families were "suitably relocated with their consent at a safe location as near as possible to their existing habitation."

Ms. Jayalalithaa said that she had requested the Prime Minister, Manmohan Singh, and the Union Home Minister, Shivraj Patil, to provide a special assistance package to Tamil Nadu.

Her party, All-India Anna Dravida Munnetra Kazhagam, contributed Rs. 1 crore to the Chief Minister's Relief Fund, while Sri Jaya Publications, in which Ms. Jayalalithaa is a partner, has donated Rs. 25 lakhs.

On the complaint that relief had not been effective in some places in Nagapattinam, she said that this was not correct. No one had anticipated the tsu-

nami. Hence, the initial reaction was one of shock. But on Monday, the process of finding and cremating/burying bodies was undertaken on a war-footing. Today, debris was being cleared with the help of the Army.

Charge dismissed

She dismissed the charge that the State Government was lethargic, saying all the comments of "nincompoops" should be ignored.

"At a moment of national tragedy, it is sheer pettiness to make such unfortunate remarks. I feel it is best ignored so that we can concentrate on the task at hand which is enormous."

110-1
28/12

Centre reviews relief measures for tsunami victims

● Banks ordered to give easy loans

By Our New Delhi Bureau

NEW DELHI, DEC. 28. With relief and rehabilitation work in full swing, the Central Government today announced that banks and financial institutions would provide loans on easy terms to the survivors of the tsunami catastrophe to rebuild their lives.

The death toll in the killer wave that hit the coastal States on Sunday was officially over 4,370, with Tamil Nadu bearing the brunt; 3,618 people lost their lives there. According to the Union Home Ministry, 429 were killed in Pondicherry, 149 in Kerala, 90 in Car Nicobar and Great Nicobar, and 85 in Andhra Pradesh. The figure is likely to be revised.

Disposal of bodies

The Prime Minister, Manmohan Singh, today chaired a meeting of the special Group of Ministers set up to monitor and guide the relief and rehabilitation. Briefing correspondents, Union Ministers Shivraj Patil and Pranab Mukherjee said that special measures were being taken to speed up the disposal of bodies to prevent the outbreak of epidemics. The armed forces and the Central paramilitary forces, in collaboration with the State police forces and voluntary agencies, were engaged in this task.

Mr. Mukherjee said that till now about 80,000 people had been lodged in various relief camps in Tamil Nadu, 30,000 in Andhra Pradesh and 20,000 in Pondicherry. The scheme for relief operation and rehabilitation would be made district and area-specific.

Aid for Sri Lanka, Maldives

He said the Centre had also decided to provide an assistance of Rs. 100 crores to Sri Lanka and Rs. 5 crores to the Maldives. In addition, on Colombo's request, ships and helicopters had been sent there. Two ships were also sent to the Maldives.

The Ministers said the Reserve Bank had asked the banks and other financial institutions to provide loans on easy terms to the survivors.

The loans would be in addition to the assistance that would be provided by the States from the Rs. 500-crore Central package announced on Monday.

The insurance companies had been directed to accelerate the claims for damage, particularly for boats and other equipment of fishermen.

The Union Home Ministry, the nodal Ministry for coordinating relief and response, said that it was in constant touch with all the affected States and the Union Territories as well as the Ministries, departments and the armed forces.

Its control room had set up a helpline to provide information round the clock to the public about their relatives and friends. A senior officer had been deputed to Car Nicobar to coordinate massive relief and rescue operations there, an official release said.

Various State Governments such as Punjab, Uttar Pradesh and Madhya Pradesh had also offered assistance and logistics were being worked out. Some States have announced cash relief. They include Gujarat (Rs. 7 crores) Karnataka and Maharashtra (Rs 5 crores each) and Delhi (Rs. 2 crores).

Focus on Andamans

The focus of the relief effort by the armed forces was more on the Andaman & Nicobar Islands which have not only suffered heavy damage but are

difficult to access, official sources said. The IAF has pressed nearly every transport aircraft it could spare along with 30 helicopters for reconnaissance, ferrying the injured and dropping supplies in India, Sri Lanka and the Maldives. The Navy was transporting relief material and with no survivors having been found in the waters off Tamil Nadu and Andhra Pradesh, ships have been directed to set up relief camps ashore for providing food and medical assistance.

The Coast Guard is undertaking a search for fishermen and has reported damage to 27,000 fishing boats along the Tamil Nadu coast.

'Operation sea waves'

Calling its rehabilitation efforts "Operation sea waves," the Army has deployed elements from four regiments in the badly-affected areas of Kollam (Kerala) Kancheepuram, Cuddalore, Nagapattinam (all in Tamil Nadu) and Karaikal (Pondicherry).

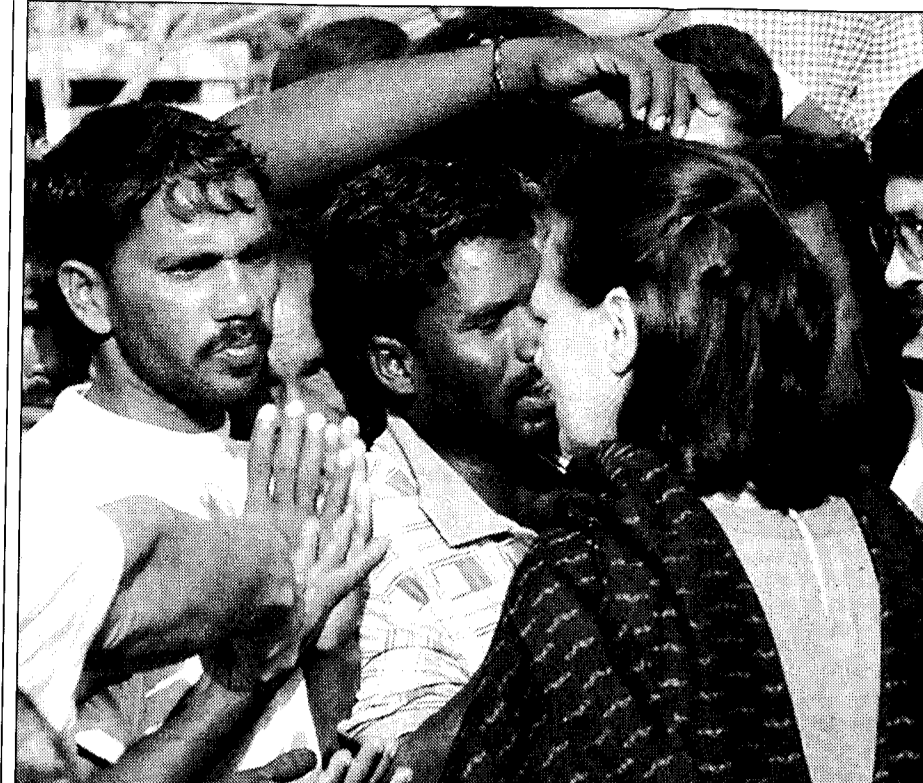
29 DEC 2004

THE HINDU

তীরে ফিরছে অসংখ্য শব, মৃত্যু ছাড়াতে পারে ২৫ হাজার

কলম্বো, ২৮ ডিসেম্বর: প্রলয়ের দুর্দিন পরে অগণিত শব ফিরিয়ে দিচ্ছে মহাসাগর। কাল আশঙ্কা করা হয়েছিল শ্রীলঙ্কার মৃতের সংখ্যা ১২ হাজারের আশেপাশ। কিন্তু রাত পোহাতে না-পোহাতেই বোঝা গিয়েছে, যতটা ভাষা হচ্ছিল ক্ষয়ক্ষতির পরিমাণ তার থেকে অনেক অনেক বেশি। শ্রীলঙ্কার সমাজকল্যাণমন্ত্রী সুমেশা জয়ানেন বলেছেন, "একের পর এক মৃতদের ভেঙ্গে আসছে। উদ্ধারকারী দলের কাছ থেকে যা খবর পাচ্ছি, তাতে মৃতের সংখ্যা ২৫ হাজার ছাড়িয়ে যাবে বলে মনে হয়। আমরা স্বীকার করছি না।"

শ্রীলঙ্কা



চোরাহিয়ে সুনামি বিধ্বস্ত মানুষের পাশে কয়েক সতানেন্দ্রী সনিয়া গাধী। মঙ্গলবার। — পি টি আই

আন্দামানেই মৃত অন্তত ৭ হাজার

প্রথম পাতার পর
সামাল দেওয়ার আগেই অনা দিকে
বিশিষ্টের তীরতা বেড়ে যাওয়ার খবর
আসছে। যেমন, ভারত মহাসাগর থেকে
জলস্রোতের তীরতা সূত্র আঙ্কিয়াম
কর্তা পৌঁছেছে, প্রথম দুর্দিনে তেমন
আইই মেনেছি। এখন জানা যাচ্ছে,
সোমালিয়া, তাজিকিস্তান, সেন্ট্রাল
শুবারিক লোকের মৃত্যু হয়েছে।
অনেকে নিখোঁজ। আঙ্কিয়াম ক্ষতিগ্রস্ত
এলাকার অনেকাই এত দুর্দিনে যে গ্রাম
পৌঁছতে দেরি হচ্ছে বলে রাষ্ট্রপুঞ্জের
কর্তারা জানিয়েছেন।
বিশিষ্ট নজর দেওয়া হচ্ছে। যে সব
মৃতদের মিলেছে, সেগুলি সংশ্লিষ্ট দেশে
ফেরত পাঠানোর ব্যবস্থা হচ্ছে।
সুনামির তীব্রতায় যেসব গ্রামে বেঁচে যাঁরা
আসে, তাদের নথিপত্রের
ফর্ম এড়িয়ে দেশে পাঠানো হচ্ছে।
ভারতীয় পর্যটনমন্ত্রী বেণুকা চৌধুরী
যেমন বলেন, "আজ বিদেশিদের জন্য
আস্রাহী ভিসার বন্দোবস্ত করা
হচ্ছে। নানা দেশ নানা অঞ্চল সাহায্য
বায়োনা করছে। এগিয়ে আসছে বিবিধ
সংস্থা। অন্যতম ক্ষতিগ্রস্ত রাজ্য
তামিলানাড়ুর মুখ্যমন্ত্রী ১৫০ কোটির
গ্রাম প্যাকেজ ঘোষণা করেছেন।
তামিলানাড়ুর কাছাড়লোর
ও ন্যাগাপটিনমে আজ সরেজমিনে ঘুরে
এসেছেন কংগ্রেস সতানেন্দ্রী সনিয়া
গাধী। বাহরিন সফর বাতিল করে দেশে
ফিরছেন বিদেশমন্ত্রী নটর সিংহ।
এ সবের সঙ্গে চলছে ভবিষ্যত
বিপর্যয় এড়ানোর প্রচেষ্টা। ভারতের
বিজ্ঞান ও প্রযুক্তি মন্ত্রী কপিল সিংহ
জানিয়েছেন, ২৬টি দেশের জ্যেষ্ঠ
যোগ দিলে ভারত। সমুদ্র-চাপের
পরিবর্তন হলেই সংশ্লিষ্ট দেশগুলি একে
অপসরণ অবহিত করবে। সুনামি
পূর্বাভাস যন্ত্র ক্রমের ব্যাপারে তৎপর
হতে নির্দেশ দিয়েছেন প্রধানমন্ত্রী।
তবে কিছুতেই আতঙ্ক কাটছে না।
আন্দামান-নিকোবর কিছু জায়গায় ভূকম্পের
পরবর্তী কম্পন এখনও মারোমধ্যে
অনুভূত হচ্ছে। সমুদ্রের ডেব বাহুতে
দেখাচ্ছে পালান্ডেন মানুয়। এখনও
জানিয়ে রয়েছে জল-আতঙ্ক।
— রয়টার্স, পি টি আই

মৃত পুত্র ফেরত দিয়েছে সমুদ্র, খোঁজ নেই স্বামীর

অশোককুমার কুণ্ড
কনাকুমারী
২৮ ডিসেম্বর: ভবানীপুরের রমেশ
মিত্র রোডের নীতা পিথোদিয়া এ
মুহুর্তে পাথরের মা। স্বামীর সঙ্গে ছোট
ছেলে দীপেশকে নিয়ে বড়দিনের ছুটি
কাটাতে এসেছিলেন কনাকুমারীর
সমুদ্রবর্তে। পিতা-পুত্র ছিলেন জলের
কাছকাছি। প্রানে নামকেন। মা নীতা
অনেকটা দুঃখ, নিদ্রা মুহুর্তা পিথোদিয়ার
সঙ্গে। জলোচ্ছ্বাস মুহুর্তে কেড়ে নিয়ে
গেল বাবা আর ছেলেকে।
দীপেশ ভবানীপুর জুড়িয়ে গেছে
কুলের ছাড়া। কাল সমুদ্রের ফিরতি
ডেউয়ে ডেবে আসা ১৪ বছরের
ছেলের দেহ শনাক্ত করেছেন নীতা।
তার পরই পাথর হয়ে গিয়েছেন। আজ
হোটেলের রিসেপশনে বসে কান্না
চাপতে পারছেন না। বলছেন, "সব
কেড়ে নিল সমুদ্র। ফেরত দিল
সুখকে। আমি ওকে শুধু (স্বামীকে)
একবার, শেষ বারের মতো দেখতে
চাই।" কে জানে, সাগরের ডেউ নীতার
স্বামীকে ফিরিয়ে দেবে কিনা। বছর
শেষে দেশের দুঃখ থেকে দু'হাত
একসঙ্গে বেড়াতে এসেছিলেন। "এ বার
শুনা হাতে ফিরতে হবে", বললেন
রাজকোট থেকে আসা মনুদুর্দা।
জানালেন, কনাকুমারী স্ববর দেওয়া
হয়েছে। নীতার বড় ছেলে আসছেন।
তারও বেড়াতে আসার কথাই ছিল।
পড়ার চাপে পারেননি। তবে, "এই
বিন্দু-বিন্দুইয়ে হোটেলের কর্মচারীরা
যে ভাবে সাহায্য করলেন, তা জেলার
নয়।" স্বাস্থ্যমন্ত্রী এন খালারাই সূদর্শন
আশ্বাস দিয়েছেন, "যে কোনও সাহায্য
দরকার হলে বসুন। বিবেচনা করব।"

ভ্রম সংশোধন

বার্কা, মালাকা, মুম্বই, টাঙ্গো
বিখ্যাপাতি নিকোবর দ্বীপপুঞ্জ) কা
নিকোবর নয়। মঙ্গলবার 'গাছে
মাথা এখনও শাটার টুকরে' শীর্ষ
প্রতিবেদনে গ্রামগুলি কার নিকোবরে
বলে উল্লেখ করা হয়েছিল।
এ অনিশ্চিত ত্রুটির জন্য আমরা দুঃখিত

জীবিত হোক বা মৃত, সকলেরই সামনে শুধু অনিশ্চিত ভবিষ্যৎ

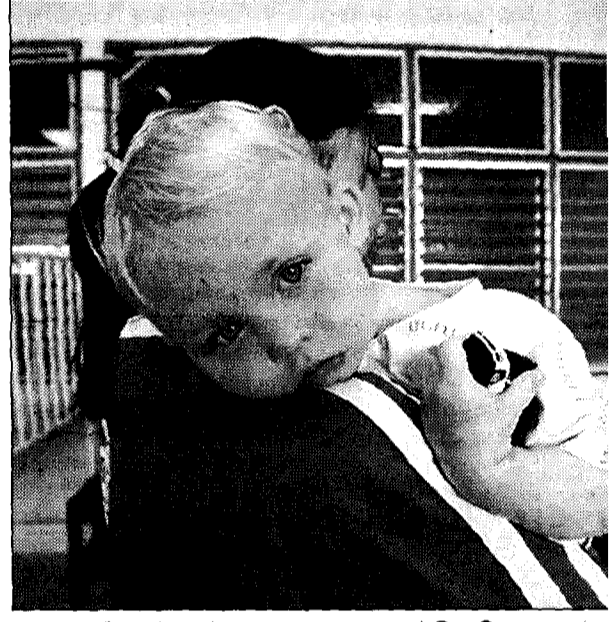
বাংলা আচে (ইন্দোনেশিয়া), ২৮
ডিসেম্বর: রবিবার সকালের ভয়াবহ
'সুনামি'র পর দুর্দিন কেটে গিয়েছে।
ইন্দোনেশিয়ার উত্তর-পশ্চিম
উপকূলের আচে জুড়ে এখন শুধু তীব্র
আর তীব্র। কয়েকটি ভাবুতে আশ্রয়
নিয়েছেন শরণার্থীরা, প্রবল জলোচ্ছ্বাসে
যাদের বাড়ি খড়-কুটার মতো ভেঙ্গে
গিয়েছে। অসংখ্য প্রান্তিকের তীব্র ভর্তি
হাজার হাজার, শনাক্ত না-হওয়া শব।
সরকারি সূত্রে ইন্দোনেশিয়ায়
উনিশ হাজার মৃত্যুর খবর পাওয়া
গিয়েছে। কিন্তু ভাইস-প্রেসিডেন্ট
ইউসুফ কালা জানিয়েছেন, মৃতের
সংখ্যা ২৭ হাজার ছাড়িয়েছে। ভাইস-
প্রেসিডেন্টকে উদ্ধৃত করে রাষ্ট্রীয়
সংবাদ সংস্থা 'আন্তারা' বলেছে, "সঠিক
হিসাব নেই। আশঙ্কা, ২৭ হাজারের
অনেক বেশি লোক মারা গিয়েছে।"
সুমাত্রার সমুদ্রে, ডুমিকপ্পের
উৎসস্থল থেকে মাত্র ১৫০

ইন্দোনেশিয়া

কিলামিটার দূরে আচে গ্রামে।
'সুনামি'র ডেউ সরে গিয়েছে, পিছনে
ফেলে গিয়েছে ধ্বংসস্তুপ আর
মৃতদেহ। রাস্তা রাস্তা শবের
ডিউ, শবের গাছে উপর আর ভাড়
বাজার দাঁড়িয়ে। ১৯৭৬ সাল থেকে
পরিচালিত সোমালিয়া দরকার, তা-
ও নেই। সম্রাট দেবা দিহেৎ পালীয়
জল, খাবার ও ঝালানির হাসপাতালে
ক্রত ওষুধ ফুরিয়ে যাচ্ছে। সেনাবাহিনী
পরিচালিত সোমালিয়া সামনে লস্যা
লাই। বাংলা আচের বাদিন্দা, ২৮ খবর
বয়সী মিরজার অভিযোগ, "সাহায্য
কোথায়? কিন্তু নেই। সরকার কি
ঘুমোচ্ছে?"
— রয়টার্স

স্বজন খুঁজছে কাড্ডালোর

প্রথম পাতার পর
ছাপিয়ে হ হ হওয়ায় পচা লাশের কু
গন্ধ ছড়িয়ে যাচ্ছে চরাচারে।
বুলভোগের আওতার বাইরে
ধ্বংসস্তুপের সামনে একই কান্না
ভেঙেচোকে খালা থেকে খিঁচুনি
নেড়ি কুকুর আর ন্যার মানুয়। একটা
দূরে আর্থা-মৃত্যুর চাকার তলায়
গুঁড়িয়ে যাচ্ছে তাদের জাগতিক
সম্পত্তির অবশেষটুকু। খাবার খেয়ে
তুণ্ড কুকুর গুঁড়িয়ে চালা টা মানুষের
ক্রন্দন শব্দ।
মাইলের পর মাইল জুড়ে এক
ছবি। একই রকম হাজারকো গ্রামের
পার গ্রাম, পাড়ার পর পাড়া, মহাবার
পর মহাবার দেখতে দেখতে মনে
হচ্ছিল— অতিকাল এক দানব হাতের
মুঠায় নিয়ে পিয়ে ফেলেছে উপকূল
জোতা বসতি। পিয়ে ফেলেছে সরকার
থেকে পাওয়া পাট্টা ভর্তিতে গড়া
সংসার। পিয়ে ফেলেছে স্বপ্ন। পিয়ে
ফেলেছে বেঁচে থাকার, শিরদাঁড়া
সোজা করে দাঁড়ানোর তাগদুটুকু।
ফিরে আসার পথে দেখা হল
শবের 'পেশাল ম্যানিটারি অফিয়ার'
কে ঠেরদের সঙ্গে। "এর পর কলেরা
আসবে। আসবে ডায়েরিয়া", হতস্ব
গলায় বলে যোগ করলেন, "আরও
লাশ উঠবে। খোঁজ নিয়ে দেখুন।"
৩১ ডিসেম্বর মরিচিয়েছিল। সাত
ফুট পর পেশাল মন কপি পাঠানোর
আগে খোঁজ মিলে। কাড্ডালোর
সরকারি হাসপাতালের গাধী গলা
বপল, "কোর হাতেও আচর নিইটি
সো। ফাঃ। আউট অব হাতে, ফটি
পার্পেট চিলডেন। থাঙ্ক ইউ।"



মায়ের খোঁজ নেই। তাইল্যান্ডের হাসপাতালে সুইডিশ শিশু। — রয়টার্স

৮০০-এরও বেশি বিদেশি পর্যটক মৃত

ব্যাকস, ২৮ ডিসেম্বর: সরকারি
হিসাব বলেছে, মৃতের সংখ্যা প্রায়
১৫১৬। আশঙ্কা বলেছে, সংখ্যাটা
দু'হাজার ছাড়তে পারে। মৃত বিদেশি
পর্যটকের সংখ্যা এখনই ৮০০রও
বেশি। সরকারি হিসাবে ১৬৭ জন
বিদেশি-সহ নিখোঁজ ১৪০০। আশঙ্কা,
সঠিক সংখ্যার ইয়ত্তা নেই।
৩৯ বছরের বৈইখান সাইথিং
ছেলের হাত ধরে খুঁজছেন তাঁর স্ত্রীকে।
বলছেন, "ছেলেটা মায়ের জন্য বড়
কাদিয়ে। হাতের গড়ন দেখে মনে হচ্ছে,
এটাই আমার স্ত্রীর দেহ।" ফুকেটা, পাং-
না আর জাবির সেকত জুড়ে এখন ঘুরে
বেড়াচ্ছে এমন অগুণ্ডি সব মুখ।
ভারতীয় সঙ্গীতা তুয়ারকে রেমন

তাইল্যান্ড

শনাক্ত করেছেন তাঁর স্বামী, সুমন
শ্রীধরকে তাঁর বন্ধুরা। ফুকেটে জরুরি
ভিত্তিতে গড়ে তোলা মর্গে জমাগত
আসছে সার সার দেহ। সমুদ্রের তীরেই
চলছে জরুরি চিকিৎসা পরিষেবা।
৮০টি হাসপাতালে ফুলে ওঠা শবগুলি
সাঙ্খিয়ে রাখা হয়েছে, শনাক্ত করার
জন্য। একটি শিশুর দেহে শুধু
লটকানো রয়েছে '৪৬ নম্বর'। পর্যটক
আকর্ষণে ফুকেটের সঙ্গে পাঠা দিল্লি
যে ষাও লোক, সেখানে উদ্ধার হয়েছে
৭৭০টি দেহ। লিওনার্দো দি ক্যাম্প্রিও
অভিনীত 'দ্য লিড' ছবির সুবাদে বিখ্যাত
হয়েছিল যে ফি ফি দীপ, ধ্বংস হয়ে
গিয়েছে তার ৭০ শতাব্দী। তাইল্যান্ডে
হলিউডের পরিচালক রিচার্ড

সার্কের আর্জি শ্রীলঙ্কার

নিজস্ব সর্বাঙ্গসহিত, ঢাকা, ২৮
ডিসেম্বর: বিধ্বংসী সুনামি এবং ভয়াবহ
ক্ষয়ক্ষতির পরিস্থিতিতে আসন্ন
ক্রয়েশন সার্ক শীর্ষ স্বেচ্ছা স্বেচ্ছিত রাখার
অনুরোধ জানিয়েছে শ্রীলঙ্কা।
জলোচ্ছ্বাসের এই মারণ-মূর্তিতে
এখনও পর্যন্ত সার্ক সদস্যদের মধ্যে
সর্বাঙ্গিক বিপর্যস্ত শ্রীলঙ্কা। মৃতের
সংখ্যা প্রায় ২০ হাজারের কাছকাছি।
বাংলাদেশের বিদেশসচিব

দক্ষিণেশ্বরে ০১.০১.২০০৫
তারিখে (শনিবার) "কল্পতরু
উৎসব" উপলক্ষ্যে বিশেষ ট্রেন
দক্ষিণেশ্বরে "কল্পতরু উৎসব" উপলক্ষ্যে শিয়ালদহ এবং ডানকুনি-
এর মধ্যে এক জোড়া বিশেষ ট্রেন ১.১.২০০৫ তারিখে (শনিবার)
চালানো হবে। চলাচলের সময়সূচী নিম্নরূপঃ -

আপ স্পেশাল	স্টেশন	ডাউন স্পেশাল
১০.০০ ঘঃ	ছাঃ শিয়ালদহ	পৌঃ ১৪.৫০ ঘঃ
১০.১৫ ঘঃ	পৌঃ দমদম জং	ছাঃ ১৪.২৬ ঘঃ
১০.১৬ ঘঃ	ছাঃ	পৌঃ ১৪.২৫ ঘঃ
১০.২৩ ঘঃ	পৌঃ দক্ষিণেশ্বর	ছাঃ ১৪.১৮ ঘঃ
১০.২৪ ঘঃ	ছাঃ	পৌঃ ১৪.১৭ ঘঃ
১০.৪৫ ঘঃ	পৌঃ ডানকুনি	ছাঃ ১৪.০০ ঘঃ

এই বিশেষ ট্রেন যাত্রাপথে উভয় দিকে সমস্ত স্টেশনেই থামবে।
ডিভিসনাল রেলওয়ে ম্যানেজার, শিয়ালদহ

পূর্ব রেলওয়ে

Fears, tears, helping hand



A tribal woman being flown out of Car Nicobar in an IAF aircraft. Most islands in the region remained inaccessible on Tuesday. (Right) Victims of the tsunami waves at a relief camp in Chennai on Tuesday. Tamil Nadu has revised its death toll to 4,100.

Wall of water also brought her home

Avirook Sen
Car Nicobar, December 28

THIS IS the story of how 77 missing came down to 76 missing. And it's fair to say that finding this one person took a miracle.

Her name is Meghna Rajshekhar. She is 13. And she rode the waves on a broken door for what must have seemed an eternity — 48 hours.

Meghna, an IAF officer's daughter, and her family were taken unawares when the tsunami hit on Sunday. The officers' quarters at the air force station are the closest to the sea. The women and children didn't have much of a chance. But not Meghna.

Today, she was discovered by locals, walking disoriented on the beach. What came to her rescue was a door that had been washed away — probably from her own house. Straddled on top of it, she rode the waves. She said that all she knew was the general direction in which land lay.

Flight-lieutenant Bhandarkar was there at Car Nicobar when Meghna was found. He says she told defence personnel she had cried out 11 times when choppers hovered over the ocean in search of survivors on Sunday. No one spotted her.

So she just kept floating: inching towards land even if completely at the mercy of the waves. She spotted a floating soft drink bottle and managed to drink a little to keep herself going.

In the end it was the waves, which had washed so many thousands of others away, that washed her ashore, probably on Monday night. She told officers that she was surrounded by snakes when she got to ground — Car Nicobar is infested with kraits and vipers.

Meghna has been shifted to Hyderabad, where her relatives stay, according to Lt-Governor Ram Kapse. Her parents, sadly, haven't survived.

Amid all the talk of thousands of missing people, Kapse chose to share Meghna's story as one of hope.

Sound of silence in domain of death

Sujit Nath
Campbell Bay and Car Nicobar Islands,
December 28

EVEN THE birds seemed dead. The propeller's metallic drone was the only sound trying to break the eerie silence, and even this sounded so much like a death rattle. All else was quiet on the Campbell Bay and Car Nicobar islands which, officials said, should take at least half a decade to support habitation again.

If death had a domain it would look like this vast, unrelieved picture of desolation. Even those who survived Sunday's deluge have reconciled to death. "Let me die. I have lost everything that mattered," Laxmi, with her grandson Lama in her lap, said. Lama had watched his parents whisked away by a gigantic wave.

Around 10 this morning, an air force plane took off with journalists and reached Joginder Nagar. The first sight that hit us on landing was a pile of six putrid bodies on the seashore — decomposed and crawling with maggots. "Unless they cremate the bodies quick, there will be an epidemic," an officer said.

Masked workers loaded the bodies on to the plane, which took off with us for the next stopover. We had spent a few brief minutes on the island but no one, neither crew nor journalist, saw any sign of life. The crew told us that Car Nicobar, our next destination, had been hit the worst.

Even before we had landed there, we could see shabby, half-naked survivors rushing in for relief. With bagfuls of veg-



Destroyed living quarters at the Car Nicobar air base, which was washed away on Sunday.

etables and medicine chests airdropped before and strewn all over the airbase runway, it all looked like a surrealistic picture of misery amid plenty. Out on a look-around, we found a piece of cardboard in front of a flattened hut. The smudged text was still legible: My name is Jayanthi. I used to stay here. I was a teacher at the local school.

All this while, half-clad children were crying for food and women begging to be allowed to board the plane. Then a man

appeared from somewhere and introduced himself as Ganesh. "Sir I need your help. For the last seven days I haven't spoken to my wife Chitra in Chennai. Can let her know I am OK?" There were others with one request or another.

We had to leave the island by 3 pm, three hours after our arrival. The propeller whirred into action and the plane took off. This time there was an eerie silence also on board.

Cloud over tribals' fate

Sujit Nath
Port Blair, December 28

THE DANCE of death has stopped. But apart from the rubble, the tsunami waves have left behind a sinister question mark against the fate and future of the Jarawas, Onges, Sentinelese, Shompens, Konduls — the original inhabitants of the Andaman and Nicobar Islands.

With most remote and smaller islands rendered inaccessible since the killer waves rolled in on Sunday morning, nobody knows for sure if the deluge has left any survivors in these last bastions of these long-endangered aboriginal tribes.

So far, rescue workers have just about managed to reach Car Nicobar and the Campbell Bay Islands. Katchal, Teresa, Pillomillow, Nancowry and numerous other islands are still out of bounds for them.

Officials are hoping that there will be survivors on these islands who will hold out till relief reaches them. But all of them fear that the tsunami waves may have killed at least 500 of assorted aboriginals — a potentially disastrous figure con-

sidering their dwindling numbers and the precarious state of their genetic pools.

S.P. Deol, the inspector-general of police, confessed that he had no information on the scale of devastation of these islands.

"We are prepared for the worst," A.L. Singh, a senior tribal welfare official, told HT. "If things continue like this, there is a high chance of epidemics breaking out among the tribals — a potential disaster."

An aerial survey of these islands this morning revealed a picture of near-complete desolation. This correspondent, who managed a ride on an army reconnaissance chopper, saw no sign of life on most of the islands. "We don't know whether anyone is alive on these islands. But we will have to look for survivors as long as there is even a slender hope," commanding officer Sarabjit said.

The only bit good news is: navy helicopters hovering over Katchal this morning spotted some tribals raising their arms towards the sky. But the copters could not land because there was no infrastructure.

Relief wave hits disaster zone

HTC & Agencies
New Delhi/Banda Aceh, Dec 28

AS THE death toll from Sunday's tsunami threatened to touch 60,000, history's biggest, costliest and most complex international relief effort got under way. Medical supplies, food aid and water purification systems poured into the region with governments and aid organisations worldwide pitching in.

The Indian government, too, stepped up relief and rehabilitation measures, announcing a sum of Rs 200 crore for building houses and asking banks to provide loans on liberal terms to the affected, including fishermen who bore the brunt of the tragedy.

The chief UN relief coordinator, Jan Egeland, said the recovery effort was unlike anything the UN had ever attempted be-

Atlas shrugged

SUNDAY'S EARTHQUAKE was so powerful it made the Earth wobble on its orbit and permanently altered the map of south and southeast Asia, US geophysicists have said. The 9.0-magnitude temblor, whose power equalled that of a million atom bombs, may have moved small islands as much as 20 metres.

See Page 2

cause so many different areas were affected. "This may be the worst natural disaster in recent history because it is affecting so many heavily populated, coastal areas," he said. "It's certainly

the costliest disaster."

Sri Lanka and Indonesia significantly increased their death tolls tonight, with Colombo counting 18,700 and Jakarta, a staggering 27,174. Thailand said at least 2,000 people — including 700 foreign tourists — died in that country and thousands were missing, among them 1,600 Swedish visitors.

Closer home, the revised Tamil Nadu death count stood at 4,100; the port town of Nagapattinam alone accounted for 2,300. With the Port Blair deputy commissioner of police, Gyanesh Bharti, estimating at least 6,500 deaths in the Andaman and Nicobar Islands, the Indian toll should be higher than 11,000. The Red Cross said malaria and cholera epidemics could add to the toll.

See also Pages 2,3,15 & Live

Counting the dead

SRI LANKA	18,700
INDONESIA	27,174
INDIA	11,000
THAILAND	2,000

- The Thailand toll includes at least 700 foreign tourists. Another 1,600 Swedes are missing in that country. At least 200 foreigners have died in Sri Lanka
- An estimated 4,500 people have died in Tamil Nadu
- Deaths were reported even in Africa — in Somalia, Tanzania and Seychelles, about 4,800 km from the quake's epicentre



Kamalvathi, a tsunami survivor, at a Cuddalore hospital on Tuesday.

UN Calls It Costliest-Ever Disaster, Puts Damages At 'Many Billions Of Dollars'

Tsunami death toll rises to 44,000

Team ET & Agencies
28 DECEMBER

MOURNERS continued to bury their dead as relief and rescue workers moved relentlessly providing succour to those who have lived through Sunday's horror. Alongside, efforts were on to scour the seas and beaches for more bodies. For the third day on Tuesday, South East Asia was united in grief. This may be history's costliest natural disaster, said the United Nations.

Scenes varied from graves being dug with bare hands in Sri Lanka to looting of stores by displaced and hungry islanders in Indonesia. The death toll rose to a stupendous 44,000, with officials expecting it to rise further. Almost a third of the dead were children, the UN children's agency estimated. A dozen nations in a band of destruction from South East Asia to Africa tallied corpses as they filled tropical beaches and choked hospital morgues. Thousands of people were still missing, and millions remained homeless.

Aid agencies feared malaria and cholera may add to the toll from Sunday's massive quake-sparked waves, and mounted what UN officials said would be the world's biggest relief effort. "This is unprecedented," said Yvette Stevens, an emergency relief coordinator of the UN office for the coordination of humanitarian affairs.

The disaster could be history's costliest, with "many billions of dollars" of damage, said UN undersecretary Jan Egeland, who is in charge of emergency relief coordination. Hundreds of thousands have lost everything and millions face a hazardous future because of polluted drinking water and a lack of health services, he said.

US dispatched disaster teams

and prepared an euro 11 million (\$15 million) aid package for the Asian countries, and the 25-nation European Union promised to deliver euro 3 million (\$4 million). Japan, Portugal, China and Russia were sending teams of experts. Egeland said, he expected hundreds of relief airplanes from two dozen countries.

Rescuers began reaching India's remote Andaman & Nicobar Islands on Tuesday, two days after the devastation, to find barely

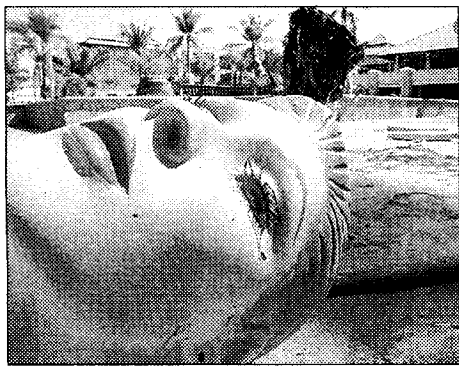
more than 550 islands. At the time of going to press, the death toll across India was close to 10,000.

In Tamil Nadu, the toll was put at nearly 4,000 with hundreds still missing. The state government on Tuesday announced a special relief package of around Rs 154 crore for immediate rehabilitation work, especially of the community of fishermen. Aid and politicians poured in to the state. Help kept coming from other parts of the world and the country to the affected southern Indian states, including from Indian corporates, some of whom extended their involvement to the physical act of servicing the temporary shelters.

The official death toll in Kerala was put at 160 this evening, with 127 deaths reported from Kollam, 29 deaths from Alappuzha and four casualties from Emakulam district. Additional secretary (revenue) M. Aravindakshan said, the number of people in relief camps had swelled from 55,000 on Monday to over 1,57,000 persons on Tuesday. In all, 224 relief camps have been set up across six districts in the state.

But, not everywhere was help reaching fast enough. For Indonesia's Sumatra island, where residents turned to looting to find food, "there is no help. It is each person for themselves here," district official Tengku Zulkarnain told el-Shinta radio from the island's devastated western coast. "We are working

24 hours to get out people out," said Red Cross worker Tamin Faisil in Banda Aceh on Sumatra. Red Cross official Irman Rachmat, also in Banda Aceh, said people on the island were in despair. "People are looting, but not because they are evil, but they are hungry," he said. "We don't have enough people to bury the dead. We are worried that all the corpses on the streets will lead to disease," he added.



FACE-OFF: A broken mannequin head lies at the poolside of a hotel, that was completely devastated, along the shoreline of Khao Lak, a province above Phuket island on Tuesday. — AP



SEARCH ENGINE: People look for their relatives among the debris of a damaged train coach at Telwatte, south of Colombo, on Tuesday. — AP

a-third of residents on one were still alive. On another, only piles of rubble and debris remained of the housing blocks of an air force base. There has still been no contact at all with several of the islands, including one of the biggest, Great Nicobar, which was closest to the epicentre of Sunday's earthquake and the resultant tsunami. Police say at least 5,000 people are confirmed or presumed dead in the group of



HOPE FLOATS: Villagers affected by tidal waves look on during a visit by Congress party president Sonia Gandhi at a relief centre at Nagapattinam in Tamil Nadu on Tuesday. — AP

BJP sets up relief fund for victims

Our Political Bureau
NEW DELHI 28 DECEMBER

THE BJP, which on Monday had instructed its MPs and MLAs to contribute one month's salary each for the relief and rehabilitation of the Tsunami victims, has decided to do its own bit to cope with the situation. It has set up its own "Calamity Relief Fund" in an attempt to mobilise resources for the affected people. This was announced on Tuesday by former Prime Minister Atal Bihari Vajpayee after a meeting attended by senior party leaders.

"Lakhs of people have been affected by the devastating natural calamity in different parts of the country. They need urgent relief. The BJP has set up an Aapda Rahat Kosh (Calamity Relief Fund) and we appeal to all countrymen to contribute to it with an open mind," Mr Vajpayee told reporters after the meeting, which was held at short notice.

BJP spokesperson Sushma Swaraj, who is also the party's deputy leader in the Rajya Sab-

ha, later told newsmen that a committee headed by former Union finance minister Jaswant Singh, with party treasurer Ved Prakash Goyal as its convenor, would oversee the distribution of money and material to different parts of the country in accordance with the requirements specified by the local units after assessing the situation.

"Our objective is not only to provide temporary relief, but also rehabilitate the affected people. The party and BJP-ruled state governments would be adopting villages for their reconstruction," Ms Swaraj pointed out. She also said the party would be setting up a central control room at its party headquarters under the supervision of Mr Mukhtar Abbas Naqvi, which would be the nodal point for distribution of money and material.

The party would carry out its relief and rehabilitation operation in coordination with the other sangh parivar affiliates at the local level and would "supplement" the Union government's efforts in this direction.

Patil denies lapses, lauds relief efforts

New Delhi
28 DECEMBER

TERMING as "incorrect" suggestions that the disaster management system was not in place in tsunami-hit areas Union home minister Shivra Patil on Tuesday said the immediate rescue and relief operations following the tidal wave were made possible due to the system.

"It is incorrect to say that the disaster management system is not in place. It was because of the various agencies and ministries involved in the system that immediate relief could be provided to the victims," Mr Patil told reporters on board the BSF aircraft while returning from Chennai. "Though many people are still unaware, there is a system in place at the central, state and even district level to react immediately if any natural calamity strikes. Each experience teaches us a lot and necessary improvements will be made accordingly," he said.

— PTI

ISRO unequipped to predict tsunami

Indian Satellites Can Only Assess Damage On Inundated Land

By Paawana Poonacha/TNN

Bangalore: The wave of death and destruction that lashed India's eastern coast on Sunday could not have been predicted. According to the Indian Space Research Organisation (ISRO), there are no Indian satellites designed to predict and monitor tsunami waves or any such turbulence in the sea. They are only equipped to assess damage on inundated land, and not for sea imagery.

As for the aftermath, on Monday, one of the four Indian remote sensing satellites captured images of the inundated Indian coast to assess the extent of damage. An aerial survey was also done for the purpose. The images will help the Hyderabad-based National Remote Sensing Agency to assess the damage on the shores, which will be forwarded to the disaster management team set up by the Centre on Sunday.

"None of the satellites had been positioned near the epicentre at the time of the disaster. Even if they had been placed, they could have only picked up a plain blue image of the sea," ISRO sources said. On Sunday, the four Indian remote sensing satellites had been positioned in fixed orbits somewhere around the northern latitude. Positioned about 700-800 km above the surface, they move at a velocity of 7.5 km per second and take about 100 minutes to rotate in orbit. Depending upon the satellite's resolution (high or low), it takes about 13 to 22 days to cover the entire earth.

"Even if it had been positioned above the sea surface, the movement of the waves are so strong that they cannot be captured by the satellite," ISRO officials said. According to



Survivors make a grab for water packets at a relief camp in Chennai on Tuesday

them, the role of ISRO, which is a signatory to the International Charter on Disaster Management promoted by the Canadian and European Space Agencies, is to capture images only from the area where the satellite is positioned at that time and to provide data on damage assessment.

Satellites are also equipped to monitor the sea surface temperature, through which, any sudden temperature change in the gradient can identify accumulation of fish and other aquatic fauna around that area. "This concept does not help in predicting wave movements," sources clarified.

29 DEC 2004

THE TIMES OF INDIA

Tsunami death toll in India 6,400

Nicobar islands bear the brunt Relief operations under way

By Our Bureau

CHENNAI, DEC. 27. As southern India and the Andaman and Nicobar Islands struggled to recover from Sunday's tsunami strike, armed forces and civilian agencies took up massive rescue and relief operations, looking for survivors along the coastline and rushing food, clothes and medicines to the tens of thousands displaced. The toll has gone up to 6,400. Hundreds of bodies were found buried in the sand.

As the seawater receded, rescue teams gained access to the badly battered areas. However, in Tamil Nadu's Nagapattinam district, which accounted for 1,500 deaths, heavy rain hampered relief operations. Some parts of the district were untou-

full extent of the catastrophe was not clear as the authorities in the capital, Port Blair, were struggling to establish contact with the affected areas.

The Navy and the Coast Guard were engaged in the rescue and relief operations. The India Reserve Battalion, based in Port Blair, was rushed to the Nancowrie islands. Relief material and doctors were flown out. The Defence Minister, Pranab Mukherjee, and the Congress president, Sonia Gandhi, reached Port Blair today.

Aid for Pondy

The Union Home Minister, Shivraj Patil, met the Tamil Nadu Chief Minister, Jayalalithaa, at the Secretariat and offered all Central assistance, including special financial aid. Mr. Patil

Rs. 500-crore Central relief

By Our New Delhi Bureau

NEW DELHI, DEC. 27. Signalling an all-out mobilisation of national resources to meet the relief and rehabilitation in Tamil Nadu and other tsunami-hit parts of South India, the Union Cabinet today allocated Rs. 500 crores from the National Calamity

Contingency Fund to meet the relief and rehabilitation requirements of the victims.

It decided to treat the disaster as equivalent to the '99 supercyclone in Orissa.

A special Cabinet committee will meet twice a day to monitor and guide relief and rehabilitation measures.

ched by the relief teams, resulting in complaints of neglect by the dispossessed in fishing hamlets. But in Cuddalore, another badly-affected district in the State, relief measures gathered momentum as the day wore on.

Aftershocks in the Andamans

The Andaman and Nicobar Islands, which continued to suffer from aftershocks of the quake, accounted for 3,000 deaths, most of them in the Nicobar group. Another 2,000 were reported missing. At 8.17 p.m. tonight a quake measuring 5.2 on the Richter scale hit the islands.

The number of dead in Tamil Nadu has gone up to 2,758. Neighbouring Pondicherry accounted for 377 deaths, 265 of them in Karaikal that borders Nagapattinam. The toll in Kerala rose to 161 and in Andhra Pradesh to 104.

The Centre coordinated relief measures with the State Governments. Although the Andaman island was not badly affected, the Nicobar islands reported heavy casualties. The

also visited Pondicherry, where he announced an emergency Central assistance of Rs. 25 crores.

Tamil Nadu, he said, had suffered extensive damage, and the quantum of relief given to the State would also be in proportion to the damage. In his estimation, about 70,000 to 80,000 people have been displaced in Tamil Nadu while 30,000 have been displaced in Pondicherry.

"The situation is quite grim," he said. But the people, the State and Central Governments were capable of rising to the occasion to provide relief.

Manmohan puts off visit

The Prime Minister, Manmohan Singh, has postponed his proposed trip to Tamil Nadu and other affected areas scheduled for tomorrow. Many of the bodies could not be handed over to relatives as entire families had been wiped out in some areas. Mass burial was ordered as the bodies began to pile up in government hospitals.

Relief centres have been set up in several areas, but these



Tsunami victims are laid to rest in a mass grave in Nagapattinam, Tamil Nadu, on Monday. In the background other bodies are being cremated.— AP

proved inadequate with fishing hamlets all along the Tamil Nadu coast being wiped out by the tsunami. Fishermen who survived have lost their catamarans

and fishing nets and were left facing an unfriendly sea with no means of livelihood. Government buildings, educational institutions and temples and

churches have been converted as makeshift shelters for the dispossessed.

Ms. Jayalalithaa, who visited the affected areas for the second day today, promised all help to the victims.

"I have come here to assure you that the Government will not let you down in this hour of crisis. All those affected will be rehabilitated," she told people in Nagercoil.

More reports on Pages 11, 12, 13; When the beach vanished: Page 22

Over 11,500 killed in Sri Lanka

By V.S. Sambandan

COLOMBO, DEC. 27. The tsunami toll in Sri Lanka has risen to at least 11,500 persons and shows signs of increasing by a few more thousands, according to officials today.

As the waters receded from the coasts and a devastated nation started counting its dead, the magnitude of the devastation became more obvious. "We are expecting a few more thousands of victims," a senior official said.

According to official figures, a total of 10,029 civilians and 48 army personnel were killed on Sunday, when the islanders woke up to a calm morning after Christmas festivities. In LTTE-held northern and eastern Sri Lanka, at least 1,500 per-

sons are feared dead, defence sources said.

The President, Chandrika Kumaratunga, who returned from London today, is to hold an emergency meeting tonight. A special unit has been set up at the President's office.

The former Prime Minister, Ranil Wickremesinghe today said the tsunami had caused massive destruction and struck at the heart of the regional economy of the island-nation. Mr. Wickremesinghe thanked the Indian Government for the assistance being rendered, despite its own disaster.

Terming the disaster as "the worst disaster Sri Lanka has faced in its modern history," Mr. Wickremesinghe said the north-east was "very badly affected" by the tsunami.

Situation under control at Kalpakkam: Kakodkar

By T.S. Subramanian

CHENNAI, DEC. 27. Five employees of the nuclear facilities at Kalpakkam, about 60 km from Chennai, lost their lives on Sunday morning when they were on the beach in the employees' township, about six km from the plant. They were drowned when giant waves slammed the township.

One of those killed was A. Selvaraj, Design Engineer, Reactor Engineering Group, Indira Gandhi Centre for Atomic Research (IGCAR).

Anil Kakodkar, Chairman, Atomic Energy Commission (AEC), who visited the nuclear facilities at Kalpakkam and the township today, said: "Five employees have been killed. They were all in the township. They were essentially outdoors and swept away. Dr. Selvaraj was in a mass going on in the church. The situation is under control."

Water supply restored

Electricity and water supply to the township had been restored, he said. There was a limited restoration of telecommunication supply. A team of doctors from the Bhabha Atomic Research Centre, Trombay, Mumbai, were in the township to provide support for the medical staff attending on

the employees and their families. Buildings close to the coast suffered damage.

The AEC Chairman said the Madras Atomic Power Station (MAPS) at Kalpakkam, which has two Pressurised Heavy Water Reactors, was all right.

On shutdown mode

"Nothing happened to the plant. The second reactor was quickly shut down. The first reactor was not in operation because it was undergoing retubing. A massive pump-house drew water from the sea for condenser cooling. When the water level in the sea rose, the water level in the pump-house also went up. The operator in the control room detected this and stopped the reactor. So it is in the safe shutdown mode now," he said.

According to him nothing happened to the turbine or the reactor buildings of the two reactors. "Both the units are safe," he said.

'No radiation leak'

The construction site of the 500 MWe Prototype Fast Breeder Reactor (PFBR) was flooded. Water was being pumped out. Dr. Kakodkar firmly denied that there was any leak from the reactors. "There is absolutely no radiation leak" he said.

28 DEC 2004



People walk on a road damaged by tsunami waves at Silver Beach area of Cuddalore on Monday. — AP

A tragic end for many Velankanni pilgrims

By S. Ganesan

VELANKANNI, DEC. 27. The famous pilgrimage centre of Velankanni in the coastal belt of Nagapattinam district has witnessed the worst calamity in its history due to the havoc caused by the tsunami.

It proved to be black Sunday for hundreds of pilgrims who had gathered here to celebrate Christmas here as a single massive tidal wave snuffed out several lives in a flicker. Twenty-four hours after the tragedy, the authorities are yet to think in terms of relief and are still largely concentrating on extrication, retrieval and disposal of corpses. A deceptive calm hung over the village this morning, while a few prayed silently at the Shrine of Basilica.

The exact number of dead may not be known at all as hundreds of people from various parts of the country have

been washed away. Scores of fishermen and residents of the town are also reported missing.

According to eyewitnesses, a large number of the pilgrims were on the beach after attending the Tamil mass at the shrine around 9.20 a.m. when the wave rising to a height of over 12 feet came crashing over them. (With the Malayalam mass under way, a large number of devotees from Kerala managed to have a fortuitous escape.) Eyewitnesses estimate that there would have been about a 1,000 people on the beachfront when the wave struck.

Though those on the seashore scurried for cover, most of them were blown away in the force. Though the wave receded in the same lightning speed, scores of people were caught in the swirling wave and pulled back into the sea. A large number of shops and fishermen

dwellings on the seashore were wiped out. Several shops and houses suffered extensive damages. Though the waters did not enter the shrine, it gushed up to the bus stand inundating several shops and houses. Two of the escape routes, including North Street, were blocked by boats, buses, cars and debris.

'Total surprise'

"We were taken by total surprise. Initially, we did not suspect such a major tragedy as we were just told that seawater was gushing into the village," the Rector of the shrine, Rev. Fr. P. Xavier, told *The Hindu*.

Godwin of Neyveli, a survivor, said he and his family members first noticed an unusually big wave. "I asked my children and wife to get back and just as we were trying to move to safety, the massive wave engulfed us." Godwin's wife was found dead while he is

still searching for his two children. Several pilgrims have lost their near and dear ones in groups. The *Dinamani* reporter of Tuticorin, Aruldasan, lost six of his family members. A pall of gloom hung over the village as relatives searched for kin among the bodies piled up at the shrine complex.

Heartrending scenes were witnessed every time a body was identified. The body count crossed over 100 by 9 a.m. today. With a large number of bodies remaining unidentified the shrine authorities have started digging mass graves to bury them. "The unidentified would be buried after being photographed," says Fr. Xavier.

No rescue effort

There has hardly been any rescue effort in the aftermath of the havoc.

There was hardly any relief initiative from government

agencies and it was left to the shrine management to come to the rescue of the victims.

The shrine authorities and the Thanjavur Diocese have managed to mobilise about 30 Diocesan youth volunteers from Thanjavur to arrange for retrieval of bodies many of which were found lying on the seashore this morning.

Police teams formed

The Nagapattinam range DIG, Ramesh Kudawla, arrived at Velankanni in the morning to mobilise a police team to help the volunteers in retrieving the bodies.

Shortage of earthmovers, to extricate the bodies from badly-damaged houses and shops and to remove the road blocks, hampered the works. Some machines were later moved to the village.

There were also very few vehicles to transport the dead.

28 DEC 2004

THE HINDU

ভূকম্পে সুমাত্রা সরেছে না উঠে এসেছে, বিতর্ক শুরু

স্টাফ রিপোর্টার: প্রবল এই ভূমিকম্পের প্রভাবে সুমাত্রা সরে গিয়েছে, নাকি সমুদ্রতল থেকে আরও কিছুটা উঠে গিয়েছে, তা নিয়ে শুরু হয়েছে বিতর্ক।

মার্কিন ভূবিজ্ঞানীদের একটা অংশ বলছেন, ৮.৯ রিখটার স্কেলের ওই ভূমিকম্পের ধ্বংসাত্মক ক্ষমতা এতটাই ছিল যে, সুমাত্রার ছোট দ্বীপগুলিকে তা দক্ষিণ-পশ্চিম দিকে ঝানিকটা সরিয়ে দিয়েছে। সুমাত্রা এই ভাবে অসুত ২০ থেকে ২৫ ফুট সরে গিয়েছে বলে ওই বিশেষজ্ঞদের অভিমত।

অন্য এক দল বিজ্ঞানী বলছেন, সুমাত্রার দক্ষিণ-পশ্চিম প্রান্তের ছোট দ্বীপগুলির স্থান পরিবর্তন ঘটেছে ঠিকই, কিন্তু তা অন্য ভাবে যে-ভাবে ভূমিকম্প হয়েছে, তাতে মনে হচ্ছে, ওই দ্বীপগুলি পাশের দিকে না-সরে ঠেলে উঠেছে উপরের দিকে। তবে এই কম্পন সেগুলিকে ঠিক কতটা উপরে ঠেলে তুলেছে, তা এখনও স্পষ্ট নয়।

১৮৯৭ সালের ভূমিকম্পে উত্তর-পূর্ব ভারতের শিলংয়ে খাসি পাহাড়ের পাথরের স্তরে আভ্যুত্থিত ভাবে বিরাট চওড়া ফাটল ধরে ব্যবধান দাঁড়িয়েছিল প্রায় ৩৫ ফুট। বড় ভূমিকম্পে এমন ভাবে জমি সরে যাওয়ার বা 'আউট ডিসপ্লেসমেন্ট'-এর ঘটনা ঘটে। ধরন নিয়ে মতভেদ থাকলেও সুমাত্রার কাছে সমুদ্রগর্ভের ভয়াবহ ভূমিকম্পে ওই দ্বীপপুঞ্জেরও যে ভৌগোলিক পরিবর্তন

এর পর দশের পাতায়

ভূমিকম্পে সুমাত্রা সরেছে না উঠে এসেছে

সুমাত্রার তলার ফাটল দিয়ে পাক খেয়ে জল ওঠে উপরের দিকে, তৈরি হয় ঢেউ।

সেই ঢেউ ঘটায় ৫০০ কিলোমিটার বেগে গভীর সমুদ্র দিয়ে ধেয়ে যায়।

১০ মিটারের উচ্চতা নিয়ে জলরাশি সামনে যা পায় সব গুঁড়িয়ে দেয়।

৩ মিটারের কাছে এসে জলরাশি গতিবেগ বৃদ্ধি পায় উচ্চতা বাড়িয়ে উপরের দিকে ওঠে।

প্রশান্ত মহাসাগরে 'অগ্নিবলয়' বা 'রিং অব ফায়ার'-এর কাছাকাছি রয়েছে ইন্দোনেশিয়া। সমুদ্রের নীচে আয়েম্যগিরি থাকার জন্যই নাম হয়েছে অগ্নিবলয়। আয়েম্যগিরি থেকে ক্রমাগত অগ্নিঃপাতে সব সময়েই অস্থায়ী থাকে সেখানকার সমুদ্রতলা। একাধিক টেকটনিক প্লেট সেখানে একে অপরকে ভেদ করায় এলাকাটি ভূকম্পপ্রবণ হয়ে উঠেছে।

গ্রাফিক্স: স্বরূপ দত্তপাট

The day after... a trail of devastation in Azheekal

By G. Mahadevan and N.J. Nair

KOLLAM, DEC. 27. At first it was fun for the residents of Azheekal in Kollam district. On Sunday morning the sea began pouring onto the beach in wave after wave. A short while later, the mirth turned into wondrous delight when the sea suddenly retreated about 100 metres, revealing a lot of crabs and fish. Many people rushed onto the newly visible sea floor and began collecting the thrashing fish and the scurrying crabs. Then the horror began.

Somebody looked up and screamed that the sea was coming in. The people on the beach looked up to see a wall of water many metres high and hundreds of metres long advancing towards them. They ran... knowing full well that caught as they were between the swooping waves and the impassive Travancore-Shoranur canal, they really had no place to run.

The killer moment

The moments of uncontrolled panic and sheer terror that followed are etched in the minds of the local people — and would probably be never erased. "Men and women ran for their lives. Mothers and children cried out to one another. By then the water had started crashing over the houses," said Gopakumar, a fisherman whose family narrowly escaped the tsunami.

Many of the women who died at Azheekal died because they tried to save their children first. As the mass of fleeing people reached the shore of the canal,

they were quickly ushered on to the few canoes that were moored there and taken across to safety. Some people scrambled up coconut trees nearby and clung on till the water receded. Others were not so lucky. Eyewitnesses said that Geedas, a physically challenged man who was holding on to his two children while trying to run, was tossed aside by the rush of water and saw his two children being swept away.

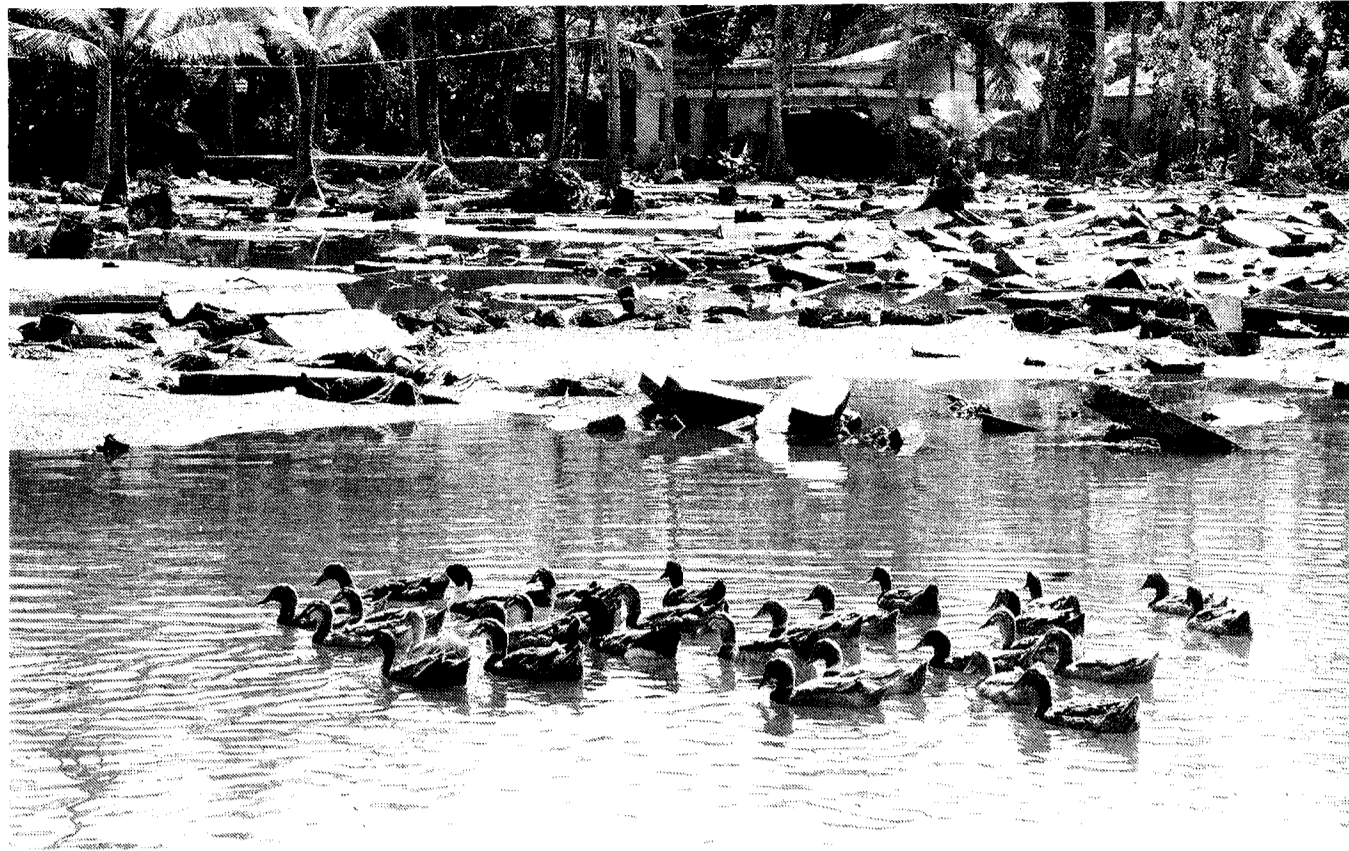
Though the sea gave vent to its fury on this narrow strip of land on Sunday afternoon, it was only today morning that the full magnitude of the waves' might became clear.

The 17 km from Panikkar Kadavu to the Azheekal 'pozhi' was a trail of destruction. Huge quantities of black sea sand topped the winding road. Concrete roofs of houses on the side of the road near the beach had been lifted up and flung across the road.

All along the coast, a few pieces of brick and concrete was all that remained of what was till Sunday homes to thousands. The body of a physically challenged woman was recovered from the debris by local youth around 11 a.m. At once place, the carcass of a cow could be seen amidst the debris of the shed in which it was tied.

People returning

Some of the local people who had fled on Sunday started coming back today to see what was left of their homes. They were greeted by the harsh growl of excavators clawing through the debris, searching for bodies



Concrete houses flattened by the tsunami at Azheekal near Karunagapally in Kollam district. — Photo: S. Mahinsha

trapped beneath flattened buildings. "We needed these yesterday," said Vinod, a fisherman, angrily as he made a bundle of his few clothes.

The arrival of the Fire and Rescue Service and the excavators was greeted with anger by local people: they demanded to know of the police where they were on Sunday evening and night. "Not a single MLA, MP or

Minister has come to see our tragedy," shouted a man who lost his house. "We don't want you here now, go back," he told the Fire Force personnel. Later, some people surrounded the District Collector, B. Sreenivas, who came to Azheekal to oversee the rescue activities, and refused to let him go till either the local MLA or a Minister came to the spot.

Asokan, who lives near the canal at Azheekal, told *The Hindu* that had there been a bridge at Ayiram Thengu — a long unfulfilled demand of the people — so many people would not have died. "More people could have escaped and the death toll reduced considerably had there been a bridge at Ayiram Thengu," said Gopi, a local resident.

Hospital scenes

The Karunagapally taluk hospital witnessed moving scenes when the bodies of those who were caught in the debris were brought there in the morning.

A huge crowd that assembled before the hospital rushed forward to see whether any of their relatives were there in the ambulances.

When Sachidanandan, a fishworker, left for work on Sunday morning, he never knew that his wife Susheela and 13-year-old son Sujith would be killed by the deadly tide. The three-member family had been staying near the Paschimeswari temple at Srayikad. On getting information from a friend about the surge of waves, he rushed to his house around 12.15 p.m. His wife's body was found a few kilometres from where his house stood, and Sujith was missing. Later, his body was recovered and both were taken to hospital. "My son was exceptionally good in studies and extracurricular activities and fared well in all the examinations. I have lost everything. The waves could have taken me too," he broke down.

Temple washed away

The 150-year-old Paschimeswari temple of Durga and Subramanian being managed by the Araya Samajam was washed away. Only the imposing flag mast remains. Waves swept Srayikad even as pujas were in progress in the temple, Satheesan Thekkamanni, a local resident, said. Satheesan was searching amidst the dead and the injured in the hospital for his relatives who were missing since Sunday afternoon.

Usha, 45, was seen running around those admitted to the hospital to find her mother who she had lost in the melee on Sunday. "I had a narrow escape since I went to the town for some personal needs," she said. Coffins were kept in a row in front of the hospital, and after

identifying each body they were taken in. Men and women were seen wailing when small coffins to carry the bodies of children were taken in. The crowd that waited at the hospital complained that the Government machinery had not acted effectively to search for those trapped in the debris. The locals said that the search operations were being carried out till 11.30 a.m. at the initiative of the youth in each locality. But for deploying some policemen and hiring two excavators there was no serious effort on the part of the Government, they said.

"They had a word of praise for N.K. Premachandran, MP, who had reached the spot immediately on getting news about the incident. He took the lead in making arrangements to keep the bodies at the mortuary and transport the dead and the injured to the hospitals.

Many voluntary organisations, including the Ideal Relief Wing, a local group, today stepped in to provide food, medicine and clothes to those housed in the relief camps and admitted to hospitals. Lack of facilities at the taluk hospital as well as the private hospitals in the area where the injured have been admitted was a matter of concern. At times the crowd on the taluk hospital premises, especially before the mortuary, swelled beyond control and the hospital authorities kept on announcing that all bodies that reached there from time to time have been identified and handed over to the relatives. The policemen on duty had a tough time controlling the crowd.



The devastated Kottilpadu hamlet near Colachel in Kanyakumari district of Tamil Nadu. — Photo: K. Ganesan

Satellite captures images of havoc

By Our Staff Reporter

HYDERABAD, DEC. 27. One of the four Indian Remote Sensing (IRS) satellites of the Indian Space Research Organisation (ISRO) has captured images of the Andhra Pradesh coastline that was devastated by the tsunami on Sunday.

The images were captured between 9.30 a.m. and 10.30 a.m., when the tsunami was pounding the region.

The images, which are now being analysed by experts at the National Remote Sensing Agency (NRSA) here, are expected to help administrators in the affected areas to coordinate and plan rescue and relief operations, provide information on the pattern in which the tsunami struck the Andhra Pradesh coast as well as inputs for disaster monitoring and environmental studies.

Sources in the NRSA say two

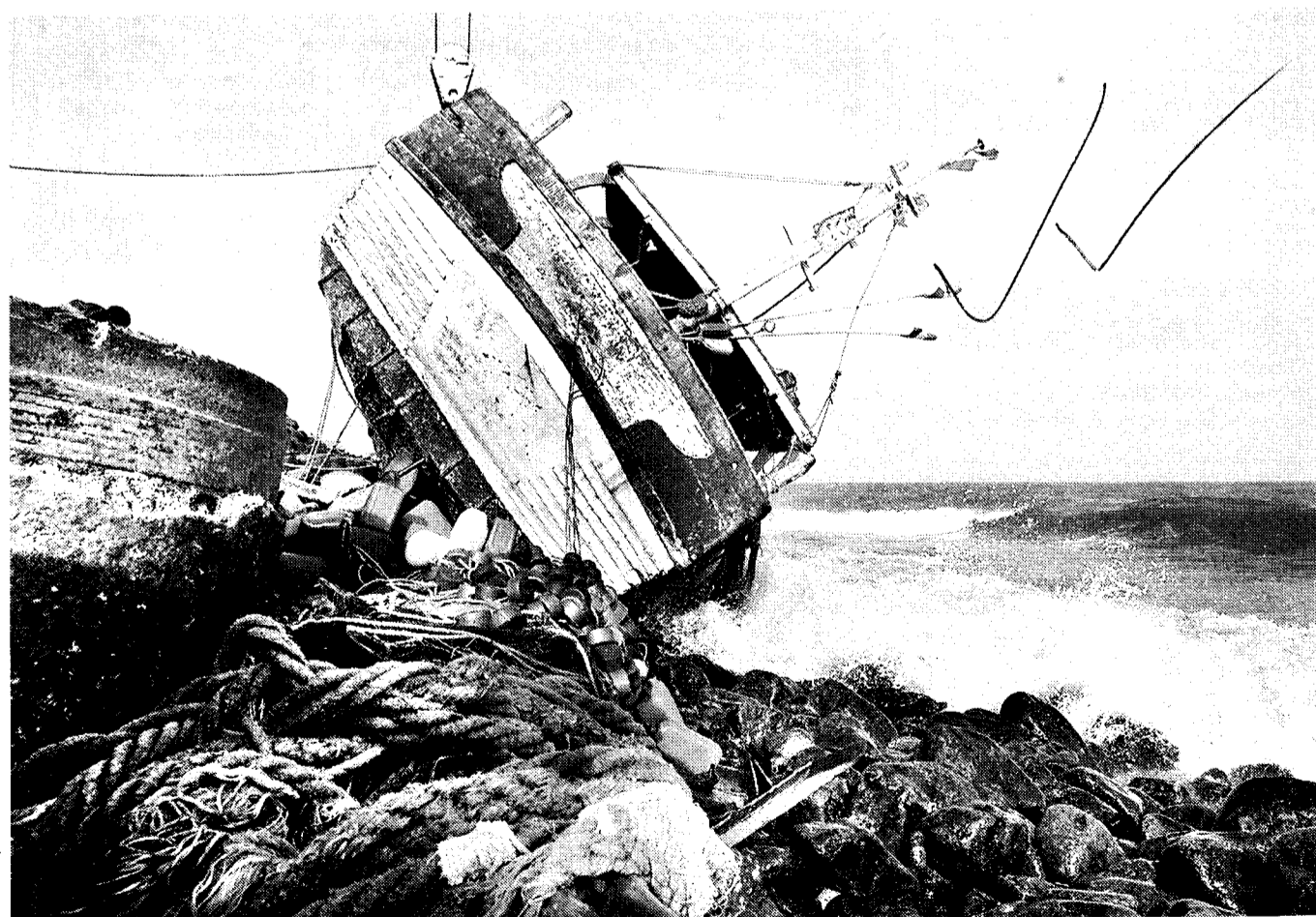
of the images captured by an IRS satellite which passed over the region between 9.30 a.m. and 10.30 a.m. on Sunday were blurred by clouds obstructing a clear view. But there was a "high volume" of data from the satellite, which would take time to be analysed. Better pictures could be available by Tuesday noon, the sources said.

The sources said the NRSA, as part of its mandate, had been receiving satellite data on the

region every day, but that there were no signs of any impending calamity.

Since earthquakes cannot be predicted, there was no chance of any warnings as well.

An NRSA official, confirming the receipt of images of the disaster-ravaged areas on Sunday, said the presence of clouds was concealing details in the images analysed so far. "But wait till Tuesday, we will surely get something clearer," he said.



A mechanised fishing vessel washed ashore near Royapuram, along the Ennore High Road. — Photo: Shaju John

Indian ships reach Sri Lanka

By V.S. Sambandan

COLOMBO, DEC. 27. A massive Indian relief operation involving naval ships and helicopters is under way in Sri Lanka ravaged by the tsunami on Sunday.

Two Indian naval ships have arrived in Sri Lanka's eastern and southern ports. Last night, an Indian Air Force Dornier aircraft brought 600 kg of medical supplies and a medical team. The High Commission of India said four ships would be involved in Sri Lanka for relief work.

The INS Sandhyak, which arrived in Trincomalee this morning, carried medical and general relief items, diving teams, inflatable boats etc.

The INS Sharda reached Galle at noon with medical teams and other relief supplies. The INS Sutlej and the INS Sukanya are the other two ships which would arrive in Sri Lanka.

Six Mi-17 helicopters are to arrive in Sri Lanka's only international airport with medical teams and medical and general relief items.

A large transport aircraft, IL-76, is also arriving at Colombo International Airport with medical teams and medical and general relief provisions.

'Friendship, solidarity'

India described the relief assistance, extended at a time



A statue of the Buddha stands among the debris in a street hit by the tsunami, as policemen guard buildings from looters in the Sri Lankan town of Galle on Monday. — AP

when there was massive loss of life and property in India, as "emblematic of the friendship, solidarity and fellow-feeling that India has for Sri Lanka and a symbol also of the close and friendly ties existing between the Governments of India and Sri Lanka."

The Indian High Commissioner, Nitupama Rao, who is on a visit to India is advancing her return to Sri Lanka "to co-

ordinate relief and assistance work." The Indian High Commission has established a 24-hour control room on its premises in Colombo to answer "all queries relating to Indian nationals affected by the tragedy."

The Sri Lankan High Commission has established a Control Room on the High Commission premises in Colombo to answer all queries relating to affected Indian

nationals in Sri Lanka. The control room numbers are: 0094112422788, 0094112327587, 0094112421605, 009472234183 and (Fax) 0094112446403, 0094112448166

Three consular teams have been sent to Galle, Yala and Trincomalee to "provide all assistance to any stranded Indian tourists and Indian nationals in different parts of Sri Lanka."

GSI to study tsunami soon

By K.T. Sangameswaran

CHENNAI, DEC. 27. With the country having the first experience of tsunami, the Geological Survey of India is to take up a study of the phenomenon soon.

The study will be conducted by three teams along the Chennai-Nagapattinam-Kanyakumari-Alappuzha coastline, the Director-in-Charge, GSI, Operations, Tamil Nadu, Kerala and Pondicherry, M.M. Nair, told *The Hindu* here.

Soon after the disaster struck, a team from the GSI rushed to the Chennai coast and collected as much information as possible for a distance of 35 km about the "Seismic Ocean Waves" which had inundated the coastal areas. The epicentre of the earthquake was off the coast of Sumatra in Indonesia and the wave propagation brought about the devastation. The distance between the epicentre and Chennai coast is about 2,000 km. Sri Lanka buffered the effect of the waves on the Tamil Nadu coast. As regards the ingress of sea water along the Kerala coast, Dr. Nair said this was possibly because of the wave action (hitting back effect) from the Lakshadweep Islands. Adding to this is the presence of sandy stretch and the low level of Kollam and Alappuzha.

Dr. Nair and G. Rajagopalan, Director, Engineering Geology Division, Operations, said that it was for the first time that the effect of tsunami on the Indian sub-continent was being experienced. The phenomenon and its mechanism should be studied so that it would be possible to suggest corrective measures.

2 Indians killed in Thailand

By P.S. Suryanarayana

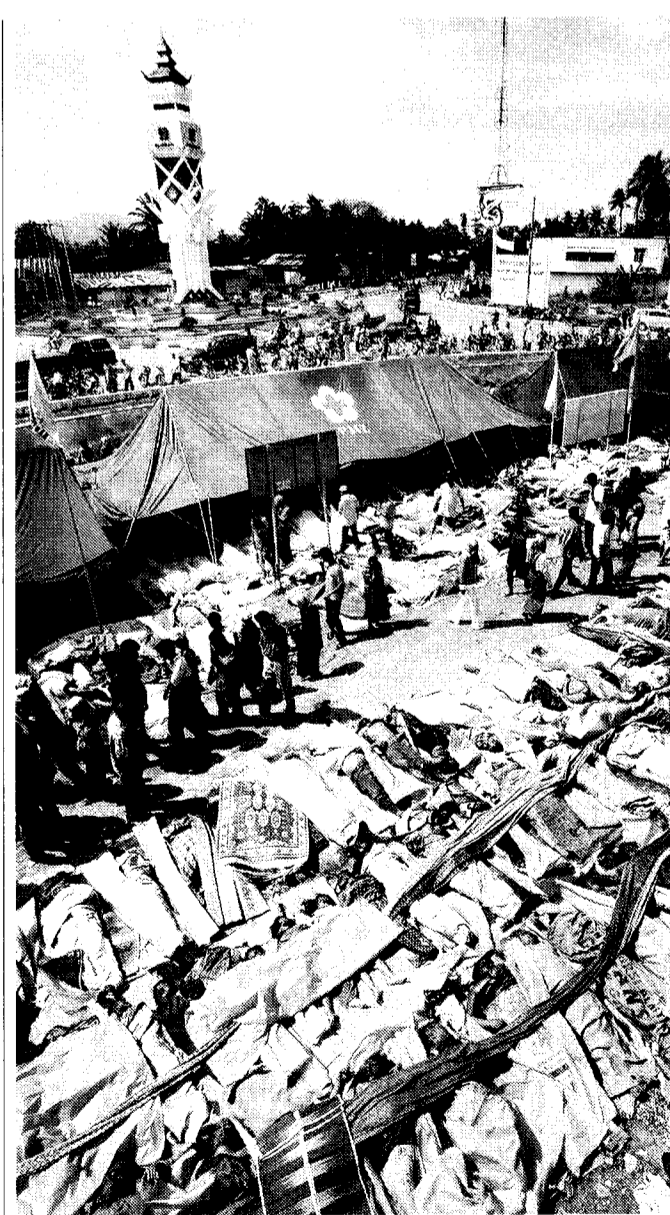
SINGAPORE, DEC. 27. At least two Indian citizens have died in Sunday's tsunami strike at the Phuket holiday resort in Thailand, according to Indian and local officials.

The Thai officials indicated that at least one more person of Indian origin, whose nationality was yet to be ascertained, had been hospitalised.

With the Thai authorities requiring proper identification methods for tracing those who might be missing, India's Charge d'Affaires in Bangkok, T.P. Seetharam, today suggested that those seeking the whereabouts of their friends or relatives should e-mail their latest photographs to the e-mail: Indiaemb@mozart.inet.co.th

Of the two Indian fatalities, identified by nightfall on Monday, the body of a woman was consigned to the flames in Phuket itself, as suggested by her husband. The body of the other victim, a man, was being sent to India, as per the wishes of his friends who were with him at the time of the disaster, Mr. Seetharam said.

In Malaysia, the authorities said there were no foreigners among the fatalities. Confirming that no Indian nationals were among the dead or those hospitalised, India's Deputy High Commissioner in Kuala Lumpur, Sanjay Panda, said that an Information Centre had been set up at the Embassy to monitor the situation and render assistance (Telephone: (3) 20953369 and e-mail: highcomm@po.jaring.my)



An aerial view of the bodies of victims in the Indonesian city of Banda Aceh on Sunday. — Reuters (Report on Page 15)

PREDICTING QUAKE

Keeping an eye on the calendar — and coral heads

■ JOEL ACHENBACH

KERRY Sieh, a Caltech geologist, was planning to fly next week to Sumatra to continue his study of the coral heads off the western coast of the Indonesian island. Biology, he knew, can be shaped by geology. Coral preserves an astonishing archival record of the planet's tectonic violence.

The coral head grows at sea level. Sometimes, however, giant chunks of the Earth's crust lurch up or down, leaving the coral either too deeply submerged or suddenly high and dry. The coral then adjusts to the new sea level. In the shape of the coral heads is a diary of past earthquakes.

But to be an earthquake scientist is to deal with a subject that doesn't want to be fully understood. Humans search for patterns, but certain things in the world aren't very linear. There are scientists who break rocks in laboratories, trying to figure out what exactly pushes stone over the edge. They study earthquake fault lines with powerful microscopes, scrutinizing the fracture zone like biologists looking for a virus. They put Global Positioning System transmitters on mountaintops and island outcroppings, tracking the motion of the planetary surface by satellite.

Sieh knew for a fact that the crust would move again, catastrophically, off the coast of Sumatra. But when? Sunday, it turned out. The 9.0 magnitude earthquake appears to be the fourth most powerful anywhere on the planet since 1900.

Sieh spent much of Sunday scrambling to find out what happened to his friends in villages along the coast of Sumatra. And he worried about what would happen next.

"There's no doubt that the earthquake heightens the stakes," he said. Sieh, who spoke about his Sumatra research earlier this month at a meeting of the American Geophysical Union in San Francisco, said the first thing he thought about when he heard of the quake is that these major events sometimes come in clusters.

He doesn't want to be alarmist. There's no evidence at the moment that earthquakes are suddenly going to earth-

on that scale until Sunday.

This latest earthquake apparently broke along a 600-mile section of the Sumatran "subduction zone," starting just north of where Sieh does his research. A subduction zone is a plate boundary where a slab of the Earth's crust surges downward beneath another slab. "I worry about my segment of the subduction zone," he said. "My section of the subduction zone is still locked, as far as I know."

Along the curving western coast of the Indonesian archipelago, the piece of crust known as the India plate is sinking beneath another expanse of crust called the Burma plate. This process of subduction isn't smooth. It happens violently, joltingly, sometimes here and sometimes there, occasionally prefigured by a less powerful quake (a 7.7 magnitude event occurred in the same area near Sumatra two years ago), but usually without any obvious hint that a disaster is in the offing.

One of the original objections to the theory of continental drift was that no one could understand how something as heavy as a continent could move. Now scientists know that plates of the Earth are pulled downward into the planet's mantle by their own weight, that gravity is the force that puts everything in motion, and these plates are sinking at the leading edge. Subduction zones line the Pacific Rim, create the deepest oceanic trenches on the planet, and gradually pull entire continents for thousands of miles, rearranging the land masses over tens of millions of years.

India has slammed into Asia, creating the Himalayas. The Atlantic Ocean has opened, spreading from a subterranean volcanic ridge in the middle. And the floor

Major quakes occurred in Sumatra in 1797 and 1833. Sieh's research on the coral indicated that there have been clusters of giant quakes in the region every 230 years or so. So he knew that, generally speaking, it was about time for another big one

planet the way hurricanes pounded Florida this year. But although minor earthquakes happen regularly all over the world, the truly huge earthquakes occasionally come in bunches. There were a number of large quakes around the time of the 1906 earthquake that destroyed San Francisco. Of the 11 earthquakes of magnitude 8.5 or larger that have occurred since 1900, six happened between 1952 and 1965. And there hadn't been another



The bodies of tsunami victims in Aceh, Indonesia. Reuters

of the Indian Ocean is determined to duck beneath Sumatra, come hell or high water.

"We know a huge amount about the context in which earthquakes occur," Sieh said. But he added, "When it comes to the actual individual parsing out of the rupturing of these giant plate boundaries, they don't occur that regularly."

Major quakes occurred in Sumatra in 1797 and 1833. Sieh's research on the coral indicated that there have been clusters of giant earthquakes in this part of the world every 230 years or so, on average. So he knew that, generally speaking, it was getting to be about time for another big one. But a general forecast of a major quake sometime in the coming decades is not the same thing as a prediction. It's not a prediction unless the time window is so narrow that it can incite dramatic changes in the behavior of people who are vulnerable.

"No one has a reliable prediction scheme," said Brian Tucker, president of GeoHazards International, a non-profit group that tries to reduce the toll of natural disasters in developing countries. "Even if they did, the most reliable prediction would be in terms of probability. So you'd be saying that in the next six months, plus or minus three months, an earthquake of magnitude 6, plus or minus one unit, will occur" — and even there there'd be uncertainty about the exact location. "The public can't respond to that. What would a mayor do or a governor do with such a probabilistic prediction?" Tucker said.

Sieh said that he had hoped to find federal funding for more community outreach programmes in Sumatra, but found out that the US government didn't want to spend money on such a project outside the States. He learned, however, that he could get federal funding to produce a brochure to hand to tourists outside the earthquake ride at Universal Studios in Florida.

Sounding the alarm

NO human power could have stopped the wall of water that washed over low-lying coastlines from Indonesia to East Africa on Sunday. But human foresight could, and should, have mitigated the resulting tragedy. As it was, more than 25,000 people lost their lives in the flooding, and thousands more may die in epidemics spread by waterborne diseases. That death toll could have been cut at least in half if the affected region had had the same kind of international warning network the US has set up to protect the adjacent Pacific basin. Of all the world's vulnerable regions, only the Pacific has such a warning network in place. Sunday's events suggest the value of extending such a system. Within 15 minutes of the earthquake, the Pacific warning center in Honolulu is-

ground — if they had been told in advance and evacuation plans were in place. Such an avoidable tragedy should never be allowed again.

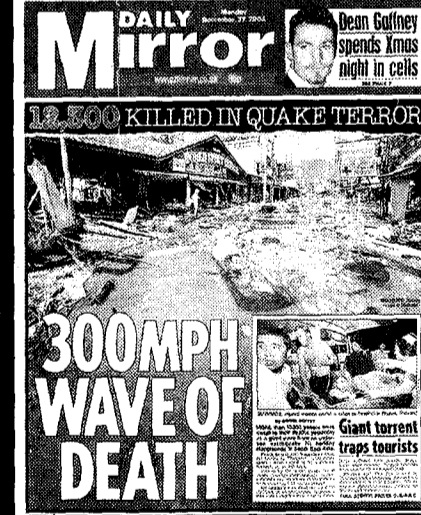
The lengthy unprotected coastline vulnerable to such cataclysms stretches from Indonesia to South Africa. It includes teeming cities like Madras and Mumbai and internationally famous beach resorts in Thailand and Sri Lanka and India's Andaman and Nicobar islands. In a 21st-century age of global Internet, satellite and cellphone communications, there can be no excuse for failing to make sure that lifesaving information reaches everyone in the path of these killer waves. Once a strong earthquake has been detected and analyzed, the waves' trajectories can be reliably predicted, and timely and specific warnings can be transmitted to those ly-



sued alerts to its member countries. These included Thailand and Indonesia, which were unfortunately so close to the original epicenter that towering walls of water were already claiming their first victims. But another two hours remained before 40-foot seas crashed into Sri Lanka, and three to four hours before the huge waves reached southern India. That could have given low-lying residents time to escape to high

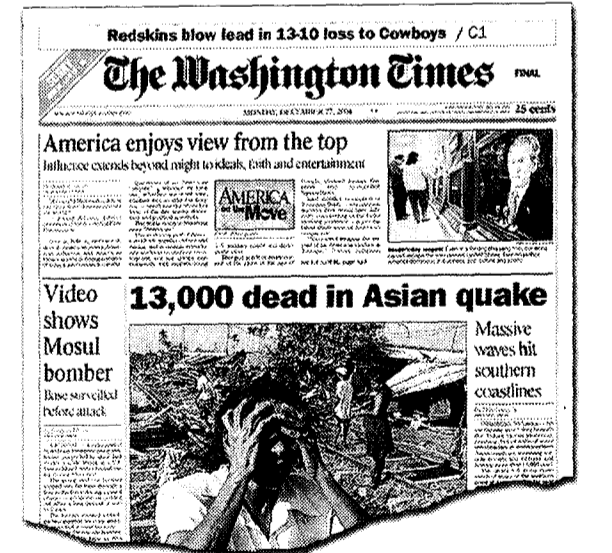
ground in their expected paths. There are certain to be additional tsunamis in this region in the future, although the historical record suggests that it may be several decades before the next one strikes. That time should be used to create a reliable warning system that reaches all coastal areas. Washington is uniquely qualified to provide the needed technical and humanitarian help.

Editorial in The New York Times



A helping hand

THE shaky video and fragmentary breathless descriptions are like something from a disaster movie: giant waves appearing without warning, houses and trees swept away, tall hotels toppled. The world's most powerful earthquake in four decades struck beneath the sea off the coast of Indonesia's island of Sumatra, and the deadly consequences were felt across thousands of miles of coastline. Thousands have died — how many exactly will probably never be known. "Thousands" of miles, "thousands" of deaths and injuries; such abstractions are almost impossible to grasp. But they stand for children whose families have disappeared, villages that have been washed away, breadwinners who will have lost their livelihoods. Coming the day after Christmas, when so many people around the world were gathered with families and celebrating blessings, the monster quake is a reminder of the unpredictability



of nature and of fate. But it is also a reminder that fate alone does not determine who suffers from such tragedies. Poverty that forces millions to crowd into vulnerable areas and to live in flimsy housing also plays a role. The coming hours and days may bring aftershocks and more tidal waves, and they will surely bring more details of loss and suffering. Malaysia, Sri Lanka, Indonesia, India, Thailand — these are countries with varying levels of development, but none is wealthy, all are democracies and all will need help. This is a moment for the US, and for Americans, to reach out and offer as much assistance as we can muster.

Editorial in The Washington Post

DEAD OR LOST: 1 OUT OF 5

Not a house spared on Car Nicobar

BAPPA MAJUMDAR

Car Nicobar, Dec. 28: Struggling to cope with death and destruction, the Andaman and Nicobar administration was staring at a 10,000-plus toll two days after an earthquake-triggered tsunami swept away villages and killed thousands.

The centre of all relief and rescue activity today was Car Nicobar, with Indian Air Force sorties flown in every half an hour to the cluster of 13 islands.

"The latest reports reaching us from Car Nicobar suggest that every one out of five islanders is either dead or missing. With a population of 50,000 people, one can well imagine what the death toll will be," said an official overseeing relief and rescue.

Rakesh Kala, rear admiral and chief of staff of the Andaman and Nicobar command, said: "The devastation has been total, not a single house seems to have been spared in the villages. We are realistically looking at a more than 5,000 death toll in Car Nicobar alone, so the overall toll here should be around 10,000 at least."

Survivors — Nicobarese, Tamilians and tribals — sat on both sides of the air-

field, waiting for their turn to hop on to an Indian Air Force aircraft and move to safer ground.

The devastation is complete, from Great Nicobar, the biggest of the islands that covers about 1,000 sq. km, to Pilemillo, the smallest. Other islands in the Car Nicobar group — Lavathi, Musu and Malacca — have been wiped away.

"Everywhere, the sea has eaten up nearly 150-200 feet. Is this the beginning of the end?" asked Raj Amma, a 45-year-old woman who lost her two children and husband.

"A few seconds after the ground shook, I heard a huge rumble and could see even the rocks at the bottom of the sea as the waves rose from both sides like a pair of twin demons, and lashed us in a fraction of a second," said Muthu Krishna, who had migrated from Tamil Nadu several years ago.

Lt. governor Ram Khapse

and S.B. Deol, the inspector-general of the Andamans, took charge of relief and evacuation through the day on Car Nicobar.

"With the death toll rising every day, things are looking bleak, but there was nothing one could do about it because Car Nicobar, being to the south of Port Blair and right on the path of the tsunami, bore the brunt of the waves," Deol said.

Till 11 pm, IAF aircraft were dropping food, clothes, cans of drinking water and other relief material. In the death-laden darkness of Car Nicobar, a few kerosene lamps placed on both sides of the runway were the only illumination that guided pilots to land.

About 2,000 people were evacuated. "We have been taking out people from Camp Belbay and Car Nicobar to Port Blair. Our efforts will continue tomorrow as well," said wing commander P. Maheshwar.

In capital Port Blair, people are still scared to venture out in the streets. Last night and this morning, there were several tremors.

"I was thrown out of bed around 1 am today. I rushed out into the streets and found hundreds of people there," said Ashish Ganguly, who was rushing to the airport for a flight out.



Sunday morning's devastating tsunami has taken thousands of lives in India and several other countries. It has caused human misery on a scale that, according to the UN, will require relief efforts unheard of in recent memory. In India alone, over 11,000 people are feared to have died, many are still missing. As our heart goes out to the victims, every Indian would also want to participate in the rebuilding of lives in the ravaged southern part of the country and the Andamans. In their own small way, *The Telegraph* and *Anandabazar Patrika* wish to join this effort by starting the **ABP Tsunami Fund**. As a token of its commitment, ABP Pvt Ltd is opening the fund with a contribution of Rs 5 lakh. We appeal to our readers, and others, to donate generously. Contributions of Rs 500 and above will be acknowledged by publishing donors' names in *The Telegraph* and *Anandabazar Patrika*.

Please make out your cheque/bank draft to **ABP Tsunami Fund**. The cheque/draft should be put in an envelope on which please write ABP Tsunami Fund, your name and address. It can be mailed to or delivered at ABP Private Ltd, 6 Prafulla Sarkar Street, Calcutta 700 001.

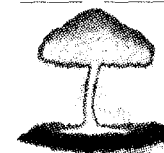
Little known big facts

Sunday's earthquake and tsunami caused widespread devastation. Science is beginning to get a picture of the havoc the quake wrought that is invisible to the eye



An extra spin?

The ground beneath the feet of people in the disaster zone and in areas close to it shook but it is possible that the earth itself may have got a push. Big quakes can change the rate of the earth's rotation. It's not clear yet if Sunday's did. But if it indeed happened, the earth would have rotated that wee bit faster — less than three microseconds — and earthlings would not have noticed the change. A microsecond is one-millionth of a second. A faster rotating earth would also have meant a shorter day. Did all this happen? We should know in about three weeks, according to geophysicist Thomas Herring of MIT. The 9-plus magnitude quake in Chile in 1960 did change the rotation rate, scientists believe



Million atom bombs?

Scientists are describing the quake as a "megathrust", which denotes the most powerful shifts in the earth's crust. Sumatra — the epicentre lay off its coast — sits on top of a site where several plates of the earth's crust overlap and grind. Huge pressures build up over decades only to release in a snap. The quake and tsunami occurred when the Indian plate went under the Burma plate, pushing it up. What kind of force was generated or how powerful is a "megathrust"? By some estimates, it was equal to detonating a million atomic bombs



A changed map?

Some US scientists were quoted as saying on Monday that the grind and bump may have caused Sumatra to shift as much as 100 feet southwest. "That earthquake has changed the map," AFP reported quoting US Geological Survey expert Ken Hudnut. Some of

the smaller islands off the southwest coast of Sumatra may have moved southwest by about 20 metres. Other scientists doubted this theory. Stuart Sipkin, of the same organisation, said it was more likely that the islands had risen higher out of the sea than they had moved laterally. "The Indian plate dived below the Burma plate, causing uplift, so most of the motion to the islands would have been vertical, not horizontal," he said

Graphic: RAJ



NUDGING 60,000

The sea and wreckage of coastal towns all around the Indian Ocean yielded up tens of thousands of bodies on Tuesday, pushing the tsunami toll close to 60,000 and calling for the world's biggest as well as most complex relief effort. The number of deaths in India is close to 11,500.

The apocalyptic destruction dwarfed the efforts of governments and relief agencies as they turned from rescuing survivors to trying to care for millions of homeless, increasingly threatened by disease amid the rotting corpses. (AFP picture above shows two children sharing a packet of water at a camp in Chennai)

Indonesia reported casualties of over 27,000 and Sri Lanka 19,900. Relief agencies said recovery and rebuild-

ing would cost billions of dollars. "The enormity of the disaster is unbelievable," said Bekele Geleta, the head of the International Federation of Red Cross and Red Crescent Societies (IFRC) in Southeast Asia. A top WHO official warned that disease could double the death toll from the tsunami.

The toll in Thailand crossed 1,500 — hundreds of them foreign tourists. Around the ring of devastation, Sweden reported 1,500 citizens missing, the Czech Republic almost 400, Finland 200 and Italy and Germany 100. Britain has lost 17 citizens and several are missing while 11 Americans have been found dead.

Deaths have been reported from as far away as Africa, where at least 122 died in Somalia and Seychelles.

QUOTE

There is certainly a chance that we could have as many dying from communicable diseases as from the tsunami

A WHO OFFICIAL

TSUNAMI SHOCK

UN faces costliest relief effort

WORLD REACHES OUT

Bangkok, Dec. 28 (Reuters): The tsunami that crashed into coastlines across southern Asia is likely to present the United Nations with its biggest and costliest relief effort, the UN emergency relief coordinator said yesterday.

It will take "many billions of dollars" and a number of years to bury the dead, battle disease and recover from the wall of water that has killed more than 23,000 people, said Jan Egeland, who heads the UN office for the Coordination of Humanitarian Affairs.

Today, aid agencies struggle to cope with the scale of the disaster, with the International Red Cross saying it may have to treble its appeal for funds.

"The enormity of the disaster is unbelievable," said Bekele Gelela, head of the International Federation of Red Cross and Red Crescent Societies (IFRC) in Southeast Asia.

The IFRC issued a flash appeal on Sunday for 7.5 million Swiss francs (\$6.57 million) for survivors after the tsunami hit six Asian nations following

a massive 9.0-magnitude earthquake under the Indian Ocean off Indonesia's Sumatra island.

"We realise now by dispatching emergency units that there is a big gap already, so we will be revising our appeal up very soon," Gelela said. "I would not be surprised if Geneva made it three times or more."

For many desperate survivors, aid has been too slow in coming. In Indonesia's Banda Aceh, fear was mixed with anger as residents queued outside the few open shops guarded by soldiers.

"Where is the assistance? There is nothing. All the government are asleep," said Mirza, a 28-year-old resident. In southern Thailand, local people were using spades, hoes and hand saws to try to reach survivors and the dead.

Several Asian nations have sent naval ships carrying emergency supplies and doctors to devastated coastal areas. A Thai naval ship with an onboard hospital was headed to the devastated island re-

sort of Phuket, where 203 people are known to have died and many more were injured. Doctors and nurses operated in makeshift surgeries on Thailand's west coast.

Relief teams in Sri Lanka and Indonesia, two of the worst affected nations, sought to prevent the spread of disease from rotting corpses and putrefied water by burying corpses in mass graves and flying in shelter and water sanitation kits.

"Hundreds of thousands of people fought to survive the tsunamis on Sunday. Now we need to help them survive the aftermath," said Unicef executive director Carol Bellamy.

"We're concerned about providing safe water, which is urgent in all these countries, and about preventing the spread of disease. For children, the next few days will be the most critical," said Bellamy from the UN children's fund.

Unicef said Sri Lankan survivors faced a new threat from land-mines dislodged by the tsunami.

◆ **INDIA:** Plane with 600 kg of medicines and doctors to Sri Lanka; navy ships for rescue work in Sri Lanka and the Maldives

◆ **JAPAN:** Around \$30 million to countries hit by the tsunami; in addition to emergency medical team and equipment to Sri Lanka and a damage survey team to Indonesia; emergency grant aid to Indonesia; Sri Lanka and the Maldives

◆ **KUWAIT:** Aid worth \$1 million

◆ **The NETHERLANDS:** 2 million euros to the International Federation of Red Cross and Red Crescent Societies appeal plus participation in the EU programme

◆ **SINGAPORE:** Around \$1.2 million to the global effort and armed forces medical teams and relief supplies to Indonesia

◆ **SPAIN:** Plane with first-aid and sanitary equipment to Sri Lanka; 1 million euros in aid and planes and specialists to help with distribution

◆ **SWEDEN:** Two communications specialists to help UN relief efforts in Sri Lanka and tents and communications equipment to the Maldives.

◆ **UAE:** \$2 million in aid; its Red Crescent sending three plane-loads of aid to India, Indonesia and Sri Lanka

◆ **US:** Initial \$15 million in aid plus \$100,000 each to India, Indonesia, Sri Lanka and the Maldives; its Pacific Command has sent three patrol aircraft to assess damage

◆ **AUSTRALIA:** Four air force transport planes with supplies and medical specialists to Sumatra; \$7.6 million to the international relief effort

◆ **BELGIUM:** Military Airbus with 22 tonnes of aid to Sri Lanka from Medecins Sans Frontieres and Unicef

◆ **BRITAIN:** Aircraft with plastic sheets and tents worth £250,000 (\$481,500) to Sri Lanka; £370,000 to the European Union aid effort and a further \$100,000 to the World Health Organisation

◆ **CANADA:** Initial contribution of 1 million Canadian dollars (\$814,300)

◆ **CHINA:** 21.6 million yuan (\$2.6 million) worth of emergency humanitarian aid to India, Indonesia, Thailand, Sri Lanka and the Maldives

◆ **CZECH REPUBLIC:** Plane to Sri Lanka with drinking water; aid worth \$444,400

◆ **EUROPEAN UNION:** 3 million euros (\$4.06 million); could mobilise up to 30 million euros for aid groups

◆ **FRANCE:** 100,000 euros for initial rescue efforts in Thailand; about 100 rescue workers and five tonnes of aid to Sri Lanka

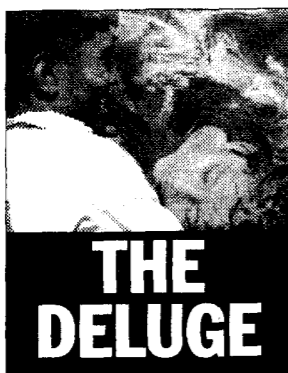
◆ **GERMANY:** 1 million euros in emergency aid to the international effort; disaster relief team to Sri Lanka

◆ **GREECE:** Medical assistance to Sri Lanka, including 17 doctors and staff

◆ **ISRAEL:** Medical teams with medicines and equipment to Sri Lanka and Thailand; military search and rescue team to Sri Lanka



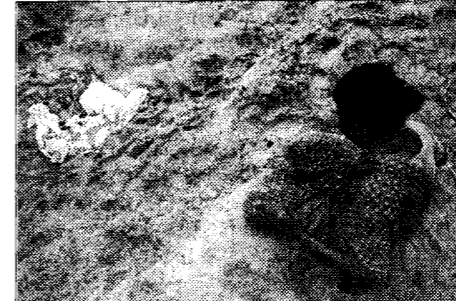
The living count the dead



TOP: A man sits atop the rubble of his house in Cuddalore, 180 km south of Chennai. Reuters

RIGHT: Relatives bury the dead in Cuddalore. Reuters

BELOW: Women look at the ruins of their house in Cuddalore. Reuters



TOP: A grieving relative in Chennai. Reuters

ABOVE: A man walks past his damaged house near Chennai. Reuters

In the eye of the storm

■ EPUNNY

CHENNAI'S morning people aren't there at the beach on Monday. The walkers have been asked to stay away for a couple of days. We aren't taking any chances, says a policeman, it all happened so suddenly. There were no "symptoms". True, we didn't see any "symptoms" either. The morning before, Marina was in its Sunday best. Some of us morning walkers lingered a little longer than usual because it was a leisurely weekend. When we left at 8 am, kids on their Christmas holidays were settling down to a long day's cricket — the game Chennai loves.

Meanwhile, the Music Academy, a mere 10 minutes drive from the beach, was getting ready for the city's next passion — Carnatic music. This is the time of the year when the city has its "season" when over a thousand music and dance performances



are zipped into some five weeks. The music buffs on their way to the academy are suddenly overtaken by crowds fleeing in panic. From the surging sea, we are told, "Waves are advancing into the land and cars and motorbikes are floating!"

It all sounds too filmy. Autorickshaws are ferrying women and children to the safety of high-rise apartments. Unwelcome guests run up the stairway to the terrace. Flat-dwellers stand around in utter disbelief, incapable of resisting the muscular auto-drivers. Muffled whispers suggest whether this is some new gimmick to invade and cart away our treasured white goods. How can the sea misbehave unwarned? Chennai has seen its share of cyclones and hurricanes which come with tell-tale signs: rains, gales and weather bulletins that go on and on about depression, wind velocity and the eye of the storm.

But before the flat-dwellers can ponder more, the auto drivers are back to fetch the women and children. They say it's all over. The damage has been done and the sea has receded.

The flat-dweller goes back to his living room TV set and the 30-minute refugees to whatever is left of their homes. And the music buffs resume their walk. The concerts are on. Just as well. You have to switch off your cellphones inside the concert hall. If those many people were at their cellphones, the networks would have been jammed. Unlike the onlookers who gathered at the beach, the flat-dweller and the music buff leave the authorities alone to do their job.

If anyone felt a little guilty about making a song and dance of the tragedy, this morning's paper brought the welcome relief. There is a photograph of a rehab activist carrying the body of a young girl and grinning merrily into the camera.

WAVES OF BODIES

Forgotten islands emptied of life

BAPPA MAJUMDAR FROM PORT BLAIR AND REUTERS

Dec. 27: People gathered on beaches in southern India and scattered flower petals into the sea at dawn to pray for the safe return of those washed away by Sunday's tsunami as the death toll in the disaster rose beyond 24,000 across seven countries in South Asia.

Over 6,500 of the deaths were in India.

Some 700 nautical miles from Tamil Nadu, which bore the brunt of the 33-foot wall of water that crashed into its shores, in a remote part of the Andaman and Nicobar Islands virtually no one was left to come to the beach and pray.

Around 3,000 people were feared killed on Car Nicobar and islands near it. These islands lie close to the epicentre of the world's worst earthquake in 40 years off Sumatra, which gave birth to the killer tsunami, or train of waves.

Such was the power of the earthquake that US scientists said Sumatra, an Indonesian island, shifted some 100 feet under its impact.

The inspector-general of police of the Andamans, S.B. Deol, said: "Another 2,000 people are missing and are believed to have died."

There was no information from some of the more remote, southern islands in the group spread over around 800 km. Twenty-eight tremors, or "after-shocks", were felt in the Andamans since yesterday. One, at 9 this morning, meas-

ured 6.9 on the Richter scale. Yesterday's quake off Sumatra had a magnitude of 9.

Since early this morning, air force planes made sorties, some to locate stranded vil-

THE TOLL

India	6,500+
Andamans	3,000
TN	3,200
Kerala	170+
Andhra	134+
Sri Lanka	10,029
Indonesia	4,912
Thailand	866
Malaysia	52
Maldives	52
Somalia	38
Myanmar	36
Bangladesh	2

lagers, others to drop food and supplies. "The destruction has been enormous," Deol said. "About 60 per cent of Car Nicobar has been destroyed and huts and men washed away."

A PTI correspondent reported seeing bodies strewn all over the beach.

Rescue workers said the impact of the waves had been so severe in Car Nicobar that people were flung into the forests and some had even been found on top of trees.

The majority of those missing were from Nancowry island, not too far from the epicentre of the quake. Till evening, no rescue worker had been able to reach the island.

At a shelter in Port Blair, Ambika Rai who had been rescued with her two children from Car Nicobar, said her husband was washed away in

front of her eyes.

"One second I see him some distance away and then in an instant he is swallowed up by this wave and sucked into the ocean. The sight will haunt me for the rest of my life."

Officials in Tamil Nadu reported more deaths today, bringing the toll there to 3,200. Some 1,700 had died at Nagapattinam alone, where bodies lay in piles in village after village. Most of the dead were women and children.

Residents feared a much higher toll than what was being put out officially. At the Muslim pilgrim centre of Nagore, volunteers from a cluster of 11 mosques were digging for bodies through a thick layer of silt.

"It may take at least a week for all the bodies to be recovered and properly accounted for," said M. Haroon Ismail, a schoolteacher.

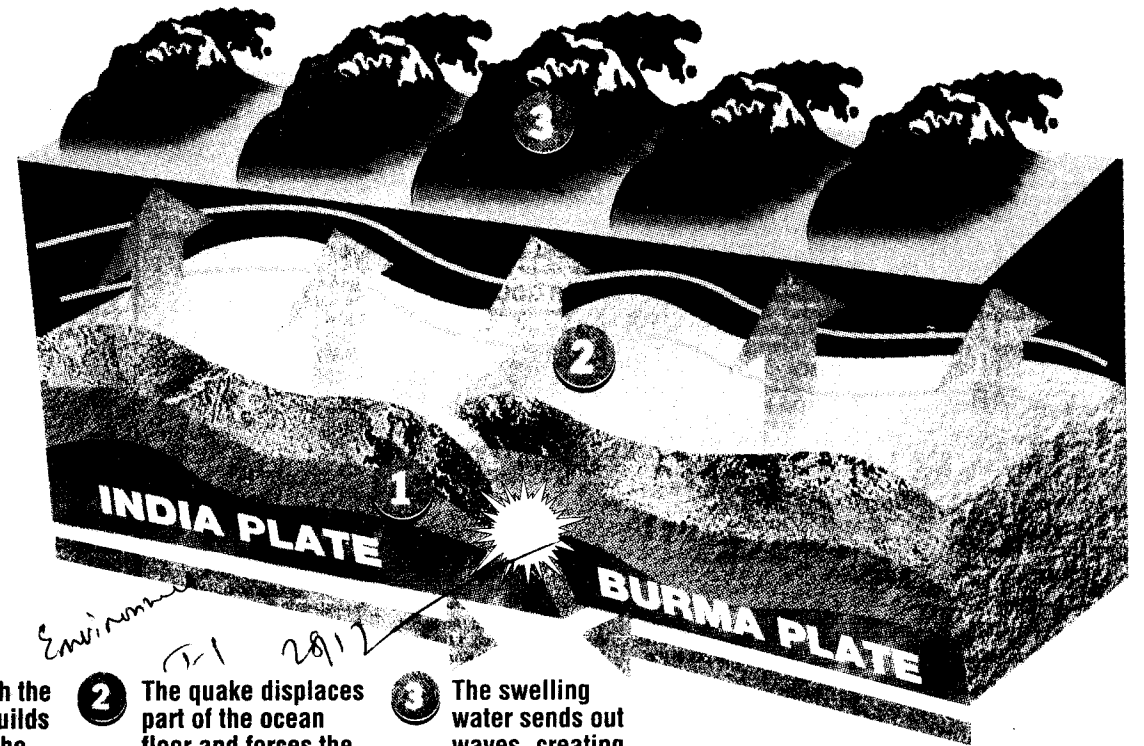
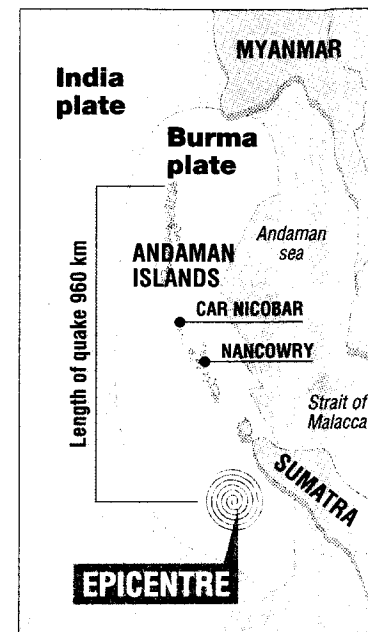
Farther up north in Cuddalore, mass graves were being dug. "We must have dug some seven or eight pits and buried 25, 30, 35 bodies in each of them," Reuters quoted gravedigger Shekhar as saying.

In neighbouring Sri Lanka, military spokesman Daya Ratnayaka said 10,029 people had been killed. About 200 of them were foreign tourists.

Indonesia feared the number of dead could swell to as much as 10,000 in north Sumatra alone.

Thailand evacuated injured survivors from its southern tourist beaches and officials said the national death toll was expected to top 1,000.

WHAT CAUSED THE TSUNAMI

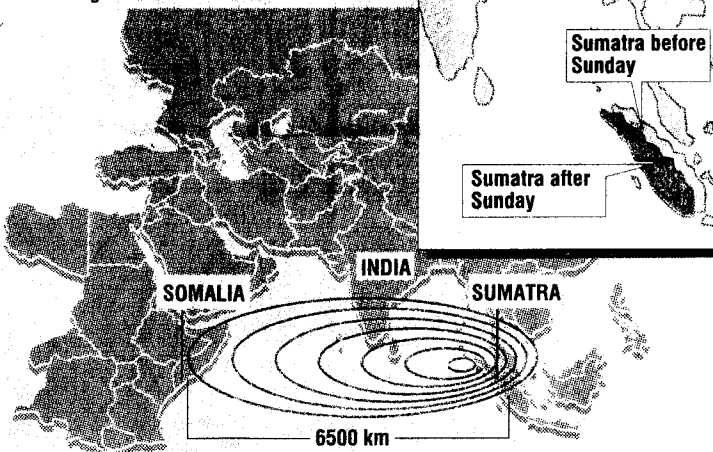


1 The India plate slips beneath the Burma plate and pressure builds up. A sudden movement of the plates causes the earthquake

2 The quake displaces part of the ocean floor and forces the water upwards

3 The swelling water sends out waves, creating tsunamis

The tsunami, which originated near Sumatra, has ravaged countries as distant as Somalia



WHY ANDAMAN AND NICOBAR BORE THE BRUNT

Andaman and Nicobar Islands fall on the Burma plate and are close to the subduction zone — a plate boundary where a slab of the Earth's crust surges downwards beneath another slab. When the India plate sank beneath the Burma plate, the islands were among those regions hit hardest by the spasmodic process

THE DAMAGE

- Over 3,000 killed and 2,000 missing
- Car Nicobar and Nancowry, close to the epicentre, worst hit
- Entire air force base and police outpost on Car Nicobar washed away. About 100 IAF personnel feared dead
- Fresh tremors strike on Monday morning. First at 6.20 am, measuring 6.0 on the Richter scale. The second, measuring 6.9, was at 9 am
- Nearly 80 per cent jetties destroyed
- Several houses and roads completely under water

Graphic: RAJ

Environ 28/12

TSUNAMI: THE DAY AFTER

Shattered India wakes up to alert drill

Dec. 27: Sitting in Honolulu, Charles McCreery could sense that a deadly water wall was creeping up on Southeast Asia.

The head of the Pacific Tsunami Warning Center frantically tried to look up a number he could dial. "We don't have contacts in our address book for anybody in that part of the world," McCreery said.

It no longer may remain so.

Almost 24 hours after the killer wave devastated several countries that did not have a tsunami warning mechanism, India has decided to join a network of around 20 countries which alert one another to changes in the sea pressure and possibility of the onset of high waves related to earthquakes.

India had not joined the group yet because most experts believed that a tsunami is an alien phenomenon to the subcontinent.

But tsunamis had struck India before: one killed several hundred people near Mumbai in 1945 and another — one of the earliest tsunamis recorded in the region — ravaged what is now Bangladesh and other parts of the Bay of Bengal in 1762.

Jolted, the Union government has now decided to instal a sea floor pressure recording system in the Indian Ocean to send warnings in the event of a tsunami building up in the seas.

The new system would be linked to an existing device called data buoy which records sea surface parameters, minister of state for science and technology Kapil Sibal said in New Delhi today. "If the country had had such an alert system in place, we could have warned the coastal areas of the imminent danger and avoided the loss of life," he said.

Since a tsunami is generated at the source of an underwater earthquake, there is usually time — from 20 minutes to two hours — to get people away as it builds in the ocean.



The hand of a dead child appears from a body cover in Galle district on the southwestern coast of Sri Lanka, on Monday. (AFP)

Experts feel that a warning could have given India a probable headstart of over an hour and a half to mount rescue operations.

"It took an hour and a half for the wave to get from the earthquake to Sri Lanka and an hour for it to get ... to the west coast of Thailand and Malaysia," McCreery said. "You can walk inland for 15 minutes to get to a safe area."

Part of the warning group,

Indonesia was alerted about the train of waves but since the epicentre was too close, it could not have acted fast enough to stave off the tragedy, the experts said.

Although waves swamped parts of the Sumatran coast and nearby islands within minutes, there would have been time to alert more distant communities if the Indian Ocean had a warning network like that in the Pacific, said Tad Murty, an expert on the re-

gion's tsunamis who is affiliated with the University of Manitoba in Winnipeg.

Within 15 minutes of the earthquake, in fact, scientists running the existing tsunami warning system for the Pacific, where such waves are far more common, sent an alert from their Honolulu hub to 26 participating countries, including Thailand and Indonesia, that destructive waves might be generated by the Sumatra tremors.

But there was no way to convey that information speedily to countries or communities an ocean away, said Laura S.L. Kong, a commerce department seismologist and director of the International Tsunami Information Center, an office run under the auspices of the US.

Phone calls were hurriedly made to countries in the Indian Ocean danger zone, she said, but not with the speed that comes from pre-estab-

lished emergency planning.

"Outside the Pacific these things don't occur very often at all so the challenge is how to make people and government officials aware," she said.

However, Murty, who is originally from India, said that with population densities enormously high in many parts of coastal southern Asia, the region should have started setting up such a network long ago.

McCreery said it takes a

substantial investment and long-term commitment to set up 24-hour communications infrastructure, operational capabilities and specialised training but declined to estimate the cost.

US agencies are now trying to help officials in the region set up some sort of an informal warning system and feeling badly that more couldn't have been done, McCreery said.

WRITTEN WITH AGENCY REPORTS AND NYTNS

How a quake is measured

The method of measuring quakes has been upgraded and improved upon since Charles F. Richter developed a scale in 1935 that has been in common usage for decades and often called the Richter Scale.

"All the formulas that we use originally came from variations and upgrades of Richter's original formulas," said Don Blakeman, USGS earthquake analyst at Golden, Colorado. Seismologists indicate the size of an earthquake in units of magnitude, a logarithmic measure.

In simple terms, this means that at the same distance from the earthquake, the shaking will be 10 times as large during a magnitude 5 earthquake as during a magnitude 4 earthquake. The total amount of energy released by the earthquake, however, goes up by a factor of 32.

Magnitude can be measured as duration, local, surface wave, moment or body, according to the USGS website.

"What it amounts to is that there are a number of different formulas and they are applied in specific cases to get the best representation of the size of the earthquake," Blakeman said.

Yesterday's earthquake had a moment magnitude of 9.0, the USGS said.

SOURCE: US GEOGRAPHICAL SURVEY

Tsunami Killer

minimum
sr Emergency effort needed *28/12*

Tsunamis used to be the stuff of Japanese folklore. But they swept into millions of real lives in coastal south and southeast Asia in the morning of 26 December. They have destroyed, at last count, 15,000 lives, with an estimated 4,700 deaths in five different provinces of India. Tamil Nadu and Andaman and Nicobar islands are the worst affected; indeed the full extent of devastation in the Andaman and Nicobar islands, strung out over 800 km and with poor communication links, is not known. But Andhra Pradesh, Kerala and Pondicherry have also taken their share of casualties.

Current death tolls may not be the final ones and are likely to rise in the coming days. Could anything have been done to lessen the devastation? The undersea earthquake that triggered the tsunami had its epicentre 250 km south of Banda Aceh on the Indonesian island of Sumatra; it measured 8.9 on the Richter scale which makes it the largest in the last 40 years. In Cuddalore district in Tamil Nadu, 60 villages are reported to have been simply washed away. Over a thousand are reported killed in Tamil Nadu's Nagapattinam district, and two hundred in Chennai.

The tsunami's effects were felt even as far away as Somalia, where nine people were reported killed. In a country where even patently man-made events like railway accidents are put down to the will of Lord Vishwakarma, as the rail minister did recently, it may be too much to expect evasive action when nature vents its fury on this scale. Countries on the Pacific rim are, however, part of a tsunami warning system, and it took the killer waves two to three hours to reach the Indian coast from their point of origin. An early warning system could conceivably have detected the arrival of tsunami and put out warnings to people in coastal areas in time, but in fact neither India nor Sri Lanka are members of the international warning system.

The head of the Pacific Tsunami Warning Centre in Los Angeles had said that its officials had indeed detected the arrival of tsunami and tried to get a warning out, but couldn't as they didn't know whom to contact in this part of the world. Thereby hangs a tale. Regardless of what could have been done, there are still plenty of things that remain to be done as the administration has to reach aid and relief quickly to tens of thousands affected but still alive.

Communications must be restored, shelters provided for the homeless, funds for long-term relief and rehabilitation arranged. An epidemic can be triggered by bodies rotting in the water. Medicines must be provided, water supply restored, doctors available to treat disease. Those cut off in Andaman and Nicobar's far flung islands must be brought to safe shelters, and food packets dropped. Damaged infrastructure must be repaired.

Delhi must not be squeamish about asking for international aid wherever necessary — the stakes are too high and this is the wrong place to stress national self-reliance. After all, New Delhi itself is providing aid to Colombo and the Maldives, so there cannot be anything intrinsically wrong with it. We must inevitably join up with international tsunami warning systems in order to get that little bit of advance warning, the next time a disaster like this strikes.

28 DEC 2004

THE STATESMAN

Tourism under water, struggles for breath

Asia News Network

MUMBAI/COLOMBO/BANGKOK, Dec. 27. — From Goa to the beaches of southern Thailand and Colombo, the wall of water that hit coastal South-east and South Asia in the middle of the peak tourism season of the Christmas holidays has left the tourism industry gasping for breath.

Tourism in Goa might take a hit owing to the fear psychosis generated by the killer tsunami that wreaked havoc in remaining parts of the country. Although no casualties have been reported from the beach-lined state, the after-effects of the "tidal terror" were nevertheless felt in Goa late last night.

Tidal waves, though not as high as those that devastated the eastern coast of the country, hit the southern beaches of Palolem, Patnem, Colomb, Maxem, Babrem, Mashem and Galgibaga close to around midnight last night, nearing high-tide time.

Meanwhile, tour operators and hotels are keeping their fingers crossed on the possible impact of the tsunami on the tourism industry. They are not ruling out cancellations, especially from western tourists, who have booked their stay for the coming week. Some of those who have arrived are leaving for home. There was a crowd of tourists at the outstation bus terminus at Panaji today, hoping to get a bus ticket for Mumbai or Pune.

The period between Christmas and New Year is the peak season in Goa and hotels and lodges are packed choc-a-bloc with tourists with not a room available. One estimate says Goa attracts some 2.5-3 lakh tourists this week, of whom nearly 50,000 are foreigners.

In Phuket, Thailand, more than 24 hours after the tsunami struck the region, destroying hotels and several buildings in its wake, tour operators, hotel owners and others in the tourism industry here and in the adjacent provinces were left to pick up the pieces today.

No official figures on the damage, are, however,



REMAINS OF THE HOLIDAY: Tourists make their way through a quake-ravaged business zone in Phi Phi Island in southern Thailand on Monday. — AFP

available till now. People in the industry were scrambling for information to calculate the damage, both in human and financial terms.

"We don't know the exact extent of the damage yet. But many foreign and local tourists have been killed," Mr Chidchai Sakornbadee, secretary-general of the Association of Thai Travel Agents (ATTA), said.

He said several commercial buildings and hotels on the beaches in Phuket were destroyed by the waves, which measured up to 10 metres in height. Tourism minister Mr Sontaya Kunplome has called a meeting this morning to discuss the impact that the disaster will have on the tourism sector with industry representatives. Measures to help tourist operators will also be discussed.

The Navy has been trying to airlift stranded tourists from hotels and bungalows near the affected beaches. Industry officials are hopeful that the damage to the tourism industry would not be lasting in this case as it

would have been had the destruction been the result of an act of terrorism or a political conflict.

Thai Hotel Association president Mr Chanin Donavanik said his associates were gathering all the information they could on the impact of the disaster. "We can't estimate how this will impact the hotel business. But it should be big money," he said. Phuket alone is visited by more than four million foreign tourists visit every year, especially during the peak season that runs between November and February. Officials said the number of foreign tourists visiting Phuket accounts for one third of the total 12 million visitors arriving in the Kingdom every year.

Meanwhile, the killer waves that killed hundreds, displaced thousands and caused widespread damage and destruction in the coastal areas in Sri Lanka on Sunday will adversely impact the country's economy.

Among the major sectors affected are the country's hotel and tourism industry, which is a key contributor

to the economy.

Telecommunication links to the southern areas have been completely cut off and cellular networks are struggling to cope with the increased traffic.

Some reports say that the worst-hit area appears to be the tourist region in the south and east. The chairman of the John Keells hotel chain said five of his hotels had been badly flooded.

The general manager of the Confi Hotels in Colombo said she expected their hotels to be affected as the tidal wave had caused havoc in the Beruwala, Bentota area. Most of the Sri Lankan hotels, which use the sun and sand to promote tourism, are located in the coastal belt. Hotel officials said the entire ground floor was washed away. "Most of the hotel's belongings, such as furniture and mattresses, are floating in the Hamilton Canal, a hotel manager said.

(Combined report from *The Statesman*, *The Nation*, *The Island*)

Asian markets on selling spree

KUALA LUMPUR, Dec. 27. — Stock markets in the tsunami-affected region were on a selling spree today, with most economies being hit to varying extents. Some bourses, however, managed to recover and finish the day higher.

The Thai market registered the biggest fall in the region amid worries that the tsunami would badly hurt the country's tourism-dependent economy. The SET Index skidded 14.4 points or 2 per cent to a day's low of 655.6 points before recouping some losses to close at 664, down 6.5 points or nearly one per cent. Other bourses in Asia that ended in the negative were Bursa Malaysia and Singapore, although the island republic was not affected by the tsunami. The KLSE Composite index closed 0.31 point lower at 906.9, recovering from a low of 901 in the afternoon. Singapore's Straits Times index dropped 4.6 points or 0.22 per cent to 2,051, from a low of 2,043.

In Indonesia and India, the two worst-hit countries, stock markets finished the day on a high note. Analysts said Thailand was likely to suffer the most, as tourism accounted for about 6 per cent of its economy.

The stocks of Thai Airways, Air Asia Bhd and Thai-based hotel Royal Garden Resort PCL came under selling pressure due to fears that travel will dwindle following the disaster that swept across more than five countries. "Tourism will be at a standstill in this region for now," CLAS investment analyst Mr Prabodh Agarwal said. Construction companies would benefit from rebuilding activities, especially in India, an expert said.

— The Star/ANN

Early warning wake-up call

The Star/ANN

BUTTERWORTH (Malaysia) Dec. 27. — The government has proposed to establish an early warning system that would warn against tsunamis.

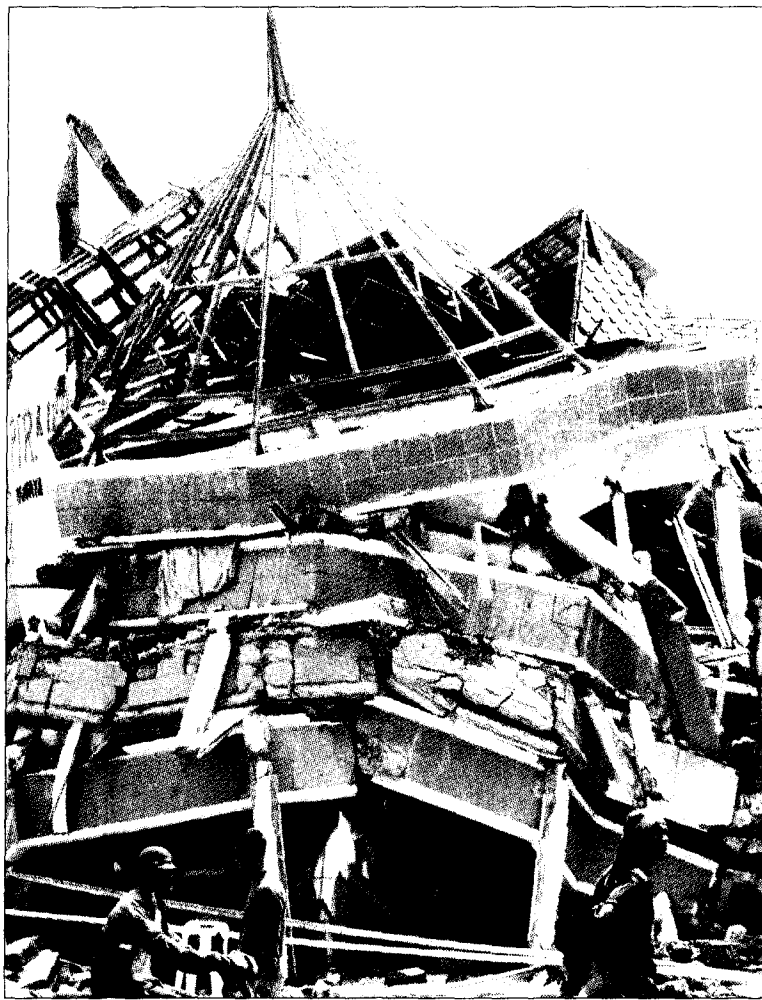
Deputy Prime Minister Mr Najib Razak said today that the setting up of this system would help prevent a tragedy similar to the one experienced by the country yesterday.

"We will get all the appropriate agencies to help us in establishing the early warning system," he said, adding, that experts from Japan would be invited for this purpose because the country had a comprehensive early warning system.

Mr Najib also said the country had been put on alert for a possible second tsunami because the epicentre of the earthquake near Sumatra was yet to stabilise.

He said aftershocks registering 5 on the Richter scale could still be felt around the earthquake area and advised the public to avoid coastal areas. "There is a possibility that the country would experience a second tsunami and those living along the coastal area are advised not to return home until further notice," he said at the Royal Malaysian Air Force Butterworth air base here today.

Responding to a question, Mr Najib said the Meteorological



A destroyed building in Banda Aceh. In Indonesia on Monday. — AFP

Dirty water danger

infections," Mr Oliver Morgan, of the London School of Hygiene and Tropical Medicine, said. "The risk that dead bodies pose for the public is extremely small."

That said, bodies can contaminate water supplies and lead to the spread of gastrointestinal diseases. These, Dr Morgan, concluded in a recent review

in the *Pan American Journal of Public Health*, pose the greatest threat "although communities will rarely use a water supply where they know it to be contaminated by dead bodies".

The International Federation of Red Cross and Red Crescent Societies said on Monday, meanwhile, that the first shipment of aid to Sri Lanka

Pacific-style system could have worked

GENEVA, Dec. 27. — An alert system similar to that installed around the Pacific could have helped reduce the loss caused by the tidal waves that hit south-Asian countries in the Indian Ocean this weekend, a UN agency said today. Early warnings for tsunamis have existed in the Pacific basin since 1948, but a similar system does not exist in the Indian Ocean.

Coastal villages on the Pacific Ocean were also more aware of what measures to take if the sea recedes after an earthquake, while signs on beaches there warned of the risk of a sudden return wave. — AFP

Service Department's seismology division could only obtain information on shocks but it did not have the facility to predict tidal waves.

Elaborating on the tsunami alert system, Meteorological Services' seismology division director Mr Low Kong Chiew said that Malaysia planned to work with other Asian countries on a regional basis.

The countries in the proposed network were likely to include Singapore, Brunei, Thailand and Sri Lanka. Mr Low said that for this system to work, certain instruments must be placed in the oceans to detect tsunamis. "Without such sensors, we can't detect possible waves" or future tragedies.

would include enough medicine to treat 2,000 cases of diarrhoeal diseases. This will form part of a shipment of medical supplies for 100,000 people that left Copenhagen today.

"The biggest health challenge we are facing is the spread of waterborne diseases, particularly malaria and diarrhoea, as well as respiratory infections," Hakan Sandblad, senior health officer at the federation's headquarters in Geneva, said.

— The 1

Killer tsunami claims Thai prince

BANGKOK (Thailand), Dec. 27. — The Thai-American grandson of Thailand's King was reportedly killed in the tsunami waves that struck the resorts of southern Thailand, official sources said today.

The body of 21-year-old Khun Bhoomi Jensen, accompanied by his mother, Princess Ubolratana, was flown to Bangkok aboard a private airplane, Prime Minister Mr Thaksin Shinawatra told reporters.

The plane was piloted by Crown Prince Vajiralongkorn, Princess Ubolratana's brother. The princess and her son were on a vacation in Phuket when the tidal waves triggered by an earthquake struck the beaches and islands in the region, which are popular among Thais and international tourists alike.

Officials had earlier said that Jensen, a lover of outdoor sports, was jet-skiing when the huge waves surged toward the beach. According to the interior ministry, the death toll is now above 860.

Given that Thailand's royal family and especially King Bhumibol Adulyadej, is highly revered by the people, this tragedy is likely to generate a great deal of sympathy.

The King's eldest daughter was studying in the United States when she married American businessman Mr Peter Jensen in 1972. They were divorced after 20 years of marriage and in recent years the princess and her son lived in Thailand. Jensen was studying in Bangkok.

A seven-day Buddhist funeral service for Jensen began today at the Grand Palace in Bangkok, ITV said. Photographers were not allowed to take photos of his coffin when it arrived at Bangkok's military airport.

— The Nation/ANN

গাছের মাথায় এখনও শাড়ির টুকরো

২৪ ঘণ্টা পরেও সমুদ্র-আতঙ্কে দিশাহারা দৌড়

মনোরঞ্জন ভক্ত •
কার নিকোবর

২৭ ডিসেম্বর: বিমান বাহিনীর ঘাটরি ন হাজার ফুট দীর্ঘ টারম্যাকের তিন হাজার ফুটই ভেঙে চুরমার। বাকি ছ' হাজার ফুট কাঁচ করছে। সেখানে গিয়ে আজ কোনওক্রমে নামানো আমরা। চ্যাপ্টা কার নিকোবর দ্বীপে একমাত্র এই টারম্যাকটাই কচ্ছপের পিঠের মতো একটু উচুতে। রবিবার সকালে মারাত্মক ঠেটুগুলো আছড়ে পড়ার মুহূর্তে ঝাঁরা এখানে উঠে আসতে পেরেছিলেন, তাঁরা বেচেছেন। বীচেনি বিমানবাহিনীর কর্মী ও তাঁদের পরিবারের সন্ধ্যা সমেত ১০২ জন। তার মধ্যে রয়েছে ছ'টি পরিবার রক্ষা পাননি স্কোয়াড্রন লিডারও। কারণ সমুদ্র তটের প্রায় উপরেই ছবি মতো কোয়ার্টারে থাকতেন তাঁরা। পালানোর সময় পাননি। এখনও অবধি ২৫টি দেহ পাওয়া গিয়েছে। বাকিরা অতল সমুদ্রগর্ভে।

বিমানঘাটি লাগোয়া এলাকার আরও অজস্র মানুষ নিখোঁজ। ঘটনার প্রায় ৩৬ ঘণ্টা পরেও সমুদ্রের ধারে ২০-২৫ ফুট লম্বা গাছের মাথায় আটকে ছিল শাড়ির টুকরো। আন্দাজ করা যায় কত উঁচু হয়েছিল সে। বিমানবাহিনীর বেঁচে যাওয়া কর্মী থেকে শুরু করে টারম্যাকে ও বিলম্বিত এয়ার ট্রাফিক কন্ট্রোল আক্রমণ নেওয়া সাধারণ মানুষ, প্রত্যেকেই এখনও এত আতঙ্কিত যে ভাল করে বর্ণনাও দিতে পারছেন না সে দিনের ঘটনার। এরই মধ্যে ক্ষতিগ্রস্ত গ্রামগুলি থেকে মানুষকে সরিয়ে নিয়ে যাওয়ার কাজ শুরু হয়েছে। সেই অভিজানে নেমে পড়েছেন বিমানবাহিনীর অফিসার-কর্মীরা। এঁদের অনেকেই পরিজনের রক্ষা পাননি স্কোয়াড্রন লিডারও। কারণ সমুদ্র তটের প্রায় উপরেই ছবি মতো কোয়ার্টারে থাকতেন তাঁরা। পালানোর সময় পাননি। এখনও অবধি ২৫টি দেহ পাওয়া গিয়েছে। বাকিরা অতল সমুদ্রগর্ভে।

পড়ে, রাস্তা ভেঙে একাকার কাণ্ড। টারম্যাকে নামার আগে আকাশ থেকেও চোখে পড়েনি প্রাণের কোনও স্পন্দন। প্রশাসনের কর্তারা বলছেন, শুধু এই দ্বীপেই মৃতের সংখ্যা ২৪ হাজার ছাড়াতে পারে। কিন্তু মৃত্যু আরও অনেক অনেক বেশি হলেও আশ্চর্য হব না। গোটা দ্বীপে বিদ্যুৎ নেই, পানীয় জল নেই, টেলিফোন বিকল। খবর পেয়েছিলেন নিকোবর দ্বীপপুঞ্জেরই মানিকৌর, চৌরা, তেরাসা, কাচাল, ভিলমিলো, কুডুল কিংবা ব্রিংকারে মতো দ্বীপগুলোও ধুয়ে মুছে প্রায় সাফ। পরিস্থিতিটা ঠিক কী, সাংসদ হিসাবে তা সরেজমিনে যাচাই করতে চেয়েছিলেন।

কার নিকোবরের মাথায় পক্ষেও শিউরে শিউরে উঠেছি। দেশেই জলের উপরে ভেসে বেড়াচ্ছে দরজা, জানলা, খাট, নৌকার ধরসোপায়ে। আকাশ থেকেই দেখছিলাম চতুর্দিকে শুধু জল আর জল। তখনও জানতাম না, এয়ারস্ট্রিপে আদৌ নামতে পারব কি না। শেষ পর্যন্ত নৌবাহিনীর ছোট বিমানটি নামল। মাটিতে নেমেই অসহায় এক দল মানুষের মুখোমুখি হলো। পরনের কাপড় নেই। মাথা গোঁজার ঠাই নেই। খাওয়ার খুঁটুকুও মজুত নেই ঘরে। সমুদ্রতটে ছড়িয়ে ছিটিয়ে রয়েছে মৃতদেহ। পোড়ানোর কোনও ব্যবস্থা নেই। চার দিকে ভয়াবহ ধ্বংসলীলা। শ্বাসন হয়ে গিয়েছে। কে বলবে, এখানেই শুক্র ও শনিবার বড়দিনের উৎসব হয়েছে।

কার নিকোবরের কতটা ক্ষতি হয়েছে, বুঝতে সমুদ্রতীরের গ্রামগুলির খোঁজ নিতে শুরু করলাম। বাকী, মালাক্কা, মুফস, টাকসা, বিঘলাপাড়ি গ্রামগুলি তো বলতে গেলে সমুদ্রের উপরেই। জানলাম, ওই পাঁচটি গ্রামই চলে গিয়েছে সমুদ্রগর্ভে। ১৫টি গ্রামের যে-১০টি কোনও মতে টিকে আছে, সেসবানকার বাসিন্দারাও এখন পুরোপুরি নিঃস্ব। ঠিক কত লোক মারা গিয়েছেন, তা নিয়ে নানা রকম ভাব আসছিল। সব মিলিয়ে যা বুঝলাম, তা

এক কথায় ভাবব। নিকোবরের অন্যান্য দ্বীপেও কত লোক যে মারা গিয়েছেন, তার ঠিক হিসাবই বা কে করবে? সমুদ্রের বিশাল ঠেটু গিলে নিয়েছে পুরো জনপদ। জল নামছে ধীরে ধীরে, আর ধরসের বিজীভিকাও পরিষ্কার হচ্ছে একটু একটু করে। যে-সব মৃতদেহ সমুদ্রতীরেই পড়ে আছে কিংবা কোথাও আটকে আছে, সেগুলির শনাক্তকরণ চলছে। কিন্তু বহু দেহই তো চলে গিয়েছে ডেউয়ের সঙ্গে গভীর সমুদ্রে। সমুদ্র কিরিয়ে না-দিলে ওই মৃতদের হিসাবের মধ্যেই আনা যাবে না। কয়েক দিন দম ফেলার সময় পাবে না প্রশাসন। এত উদ্বেগে কখনও থাকতে হয়নি আমাদের। শুধু ভূমিকম্প হলে তবু হত। বড় ক্ষতিটা কোন দিল ভয়াবহ জলোচ্ছ্বাস। এত বছর এই দ্বীপে আছি, সমুদ্রের জলকে এতটা উঁচু হয়ে তীরে আছাড় মারতে কখনও দেখিনি। আশামান-নিকোবরের আই জি এল বি দেল জানিয়েছেন, তিন

হাজারেরও বেশি মানুষ গ্রাম হারিয়েছেন। নিখোঁজ অন্তত ২ হাজার। কিন্তু যে সব এলাকার কোনও খবর এখনও পাওয়া যায়নি, যে সব জায়গায় পৌঁছানোই যাচ্ছে না, সেগুলি হিসাবে আমলে মৃতের সংখ্যাটা কে কত দাঁড়াবে, তাতেও পারছি না। তবে একটা কথা জানানো জরুরি। পোর্ট ব্রোয়ারে পর্যটকেরা নিরাপদেই আছেন। দূরের দ্বীপগুলিতে যারা গিয়েছিলেন, তাঁদের সংখ্যা জানারও চেষ্টা হচ্ছে। কেউ আটকে আছে কি না, উপকূলবর্তী বাহিনীকে তা দেখতে বলা হয়েছে। পোর্ট ব্রোয়ারের অবস্থা শোচনীয়। প্রায় সব বাড়িতেই জল ঢুকছে। জল-কাঠায় শহর মাখামাখি। পানীয় জল নেই। বিদ্যুৎ নেই। যেন একটা ভূতুড়ে শহর। বন্দরের বড় ক্ষতি হয়নি। সব বড় জাহাজই নিজের জায়গায় রয়েছে। তবে তিনটি ছোট জাহাজ ভেসে গিয়েছে জলোচ্ছ্বাসে। যেমন ভাবে ভেসে গিয়েছে এক-একটি জনপদ।

অনিলা জানা • চেমাই

২৭ ডিসেম্বর: পো! পো! পো! পো! মানে ভাগো ভাগো ভাগো ভাগো! বেলা প্রায় সাড়ে ১২টা। চেমাইয়ের সমুদ্রতীরে দাঁড়িয়ে আছি। আচমকা সামনে দাঁড়ানো পুলিশের বোলরোয় লাগানো 'পাবলিক অ্যাক্সেস সিস্টেম' থেকে ছিটকে এল শব্দটা। ছড়িয়ে গেল চারিদিকে ভৃত্য। ভৃত্যতর ফঁকা হতে শুরু করল গোটা এলাকা। ছড়মুড়িয়ে বেরোতে শুরু করল গাড়িগুলো। হট্টর উপর হুড়ি গুটিয়ে দৌড়তে শুরু করলেন সমবেদনা জানাতে আসা তামিল রাজনীতিকরা। এই বোধহয় যাড়ে এসে পড়ল সমুদ্র। ২৪ ঘণ্টা আগের মতো।

শেষ পর্যন্ত অবশ্য কিছু হয়নি। শোনা যাচ্ছিল, আন্দামান-নিকোবরে যে 'অফটার শক' হয়েছে বেলা সাড়ে ১১টা নাগাদ, তারই ফলে আবার বিধবৎ হতে চলেছে তামিলনাড়ু উপকূল। আতঙ্ক এই একটা শব্দই চেমাইয়ের সাগরতীরে বোঝানোর পক্ষে যথেষ্ট। এবং বোধহয় যথেষ্ট নয়। এর সঙ্গে আষ্টেপৃষ্ঠে জড়িয়ে আছে অসহায়তা, নিরাপত্তাহীনতা ও জীবনহানির আশঙ্কা। জায়গাটার নাম 'ফোরশোর এস্টেট'। চেমাই সাগরতীরে সবচেয়ে ক্ষতিগ্রস্ত এলাকা। আজ সকাল পর্যন্তই ৬০টি মৃতদেহ উদ্ধার হল বসতি থেকে। নিখোঁজ যে কত, তার লেখাজোখা নেই। পুলিশের নিচুতলার কর্মীদের হিসাবে কয়েকশ শ। তাঁদেরই অনুমান আরও দেহ পড়ে আছে ধ্বংসস্থলের নীচে। ধ্বংসস্থলই বটে! মেরিনা বিচ একেবারে সুনসান। আত্মদুরাইয়ের সমাধির আশেপাশে আজ সকালের কী সব হাতড়ে বেড়াচ্ছেন কিছু লোক। কথা বলার অবস্থায় নেই তারা। কিছু জিজ্ঞাসা করতে গেলে কপাল চাপন আর ফঁকা দুটি নিয়ে তাকান সমুদ্রের দিকে। আরও এগিয়ে সাগরতীরে বিখ্যাত 'লাইট হাউস'। তার কাছেই জেলেদের বস্ত্র নিক্ষেপণ। এখানে কেউ মারা যায়নি। কিন্তু ভেঙেচুরে নষ্ট হয়ে গিয়েছে অসংখ্য নৌকা, টলার। জলের প্রচণ্ড তোড়ে কয়েকটা উড়ে গিয়ে পড়েছে বিচ রোডের উপর। সমুদ্র তার জায়গায় ফিরে গিয়েছে। কিন্তু দাপটের চিহ্ন রেখে গিয়েছে সর্বত্র।

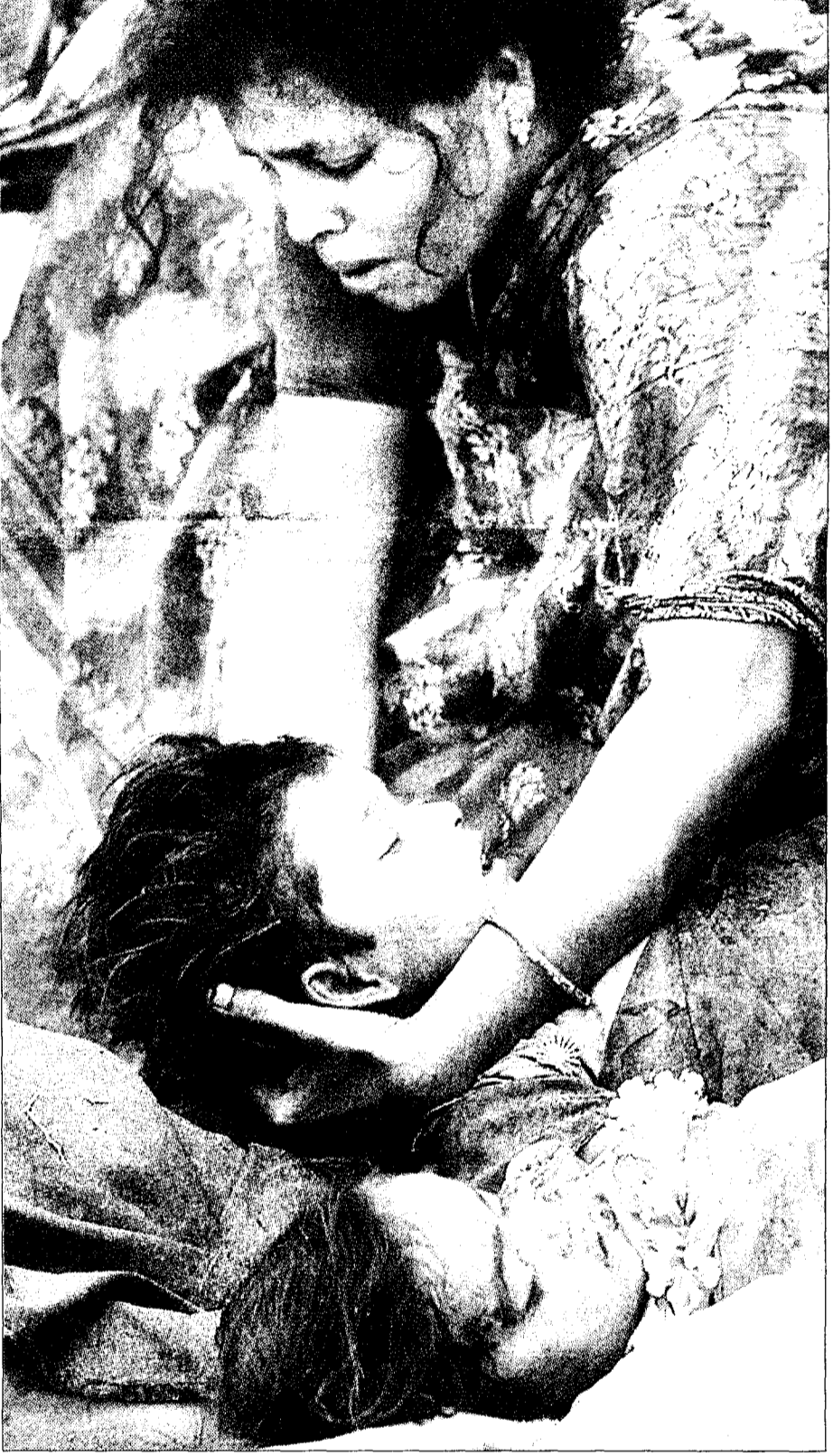
মৃত্যু বেড়ে ২৪ হাজার প্রতি মুহূর্তে বদলে যাচ্ছে মৃতের হিসাব

চেমাই, ২৭ ডিসেম্বর: প্রকৃতির রোমের কাছে হারের পরে এখন চলছে আর এক যুদ্ধ। প্রতি মুহূর্তে উল্টে যাচ্ছে যাবতীয় হিসাব। সুনামি-বিপত্ত সাত দেশে মৃতের সংখ্যা ২৪ হাজার ছাড়িয়েছে। কোথায় থামবে, বলতে পারছেন না কেউ। দক্ষিণ-পূর্ব এশিয়ার বিপর্যস্ত সাতটি দেশে আজ দিনভর চলছে উদ্ধার অভিযান। আসলে উদ্ধার অভিযান বলতে বোঝাচ্ছে, শব খুঁজে বার করা। মৃতের সংখ্যার হিসাব রাখা যাচ্ছে না, তেমনই মেলানো যাচ্ছে না কোথায় কত লোক নিখোঁজ রয়ে গিয়েছেন। শ্রীলঙ্কা, ইন্দোনেশিয়া, তাইল্যান্ড, মালয়েশিয়া, মালদীপের মতো দেশে ছুটি কাটাতে যাওয়া বহু বিদেশি পর্যটক মারা গিয়েছেন। মৃত বা নিখোঁজ পর্যটকদের মধ্যে কত ভারতীয় রয়েছেন, সেটাও নিশ্চিত করে বলা যাচ্ছে না। এখনও পর্যন্ত শ্রীলঙ্কায় তিন ও তাইল্যান্ডে দু'জন ভারতীয়ের মৃত্যুর খবর জানা গিয়েছে। তাইল্যান্ড, শ্রীলঙ্কা ও মালদীপে ১৩ জন ব্রিটিশ পর্যটকের মৃত্যু হয়েছে। বিভিন্ন পর্যটন সংস্থা পর্যটকদের ফেরানোর চেষ্টা করছে। যোগাযোগ ব্যবস্থা ভেঙে পড়ায় আরও কঠিন হয়ে গিয়েছে কাজ। ভারতে মারা গিয়েছেন অন্তত ৭১০০ মানুষ। শ্রীলঙ্কায় মৃতের সংখ্যা কাল রাত্রে ৩৫০০ ছিল। পরবর্তী ২৪ ঘণ্টায় সংখ্যাটা পৌঁছে গিয়েছে ১২ হাজার। ইন্দোনেশিয়ায় প্রায় ৫০০০, তাইল্যান্ডে ৮৬৬, মালয়েশিয়ায় ৫২, মালদীপে ৫২, মায়ানমারে ৩৬—মৃতের খতিয়ান রাখতে সর্বত্র হিমশিমিত প্রশাসন। ভূমিকম্পের উৎসকেন্দ্র থেকে সাড়ে ৬ হাজার কিলোমিটারেরও বেশি দূরে সোমালিয়ার উত্তর উপকূলে শ্বানেকের বেশি মানুষের খোঁজ নেই। ভারতে ছবিটা একই। তামিলনাড়ুতে মৃত ও হাজারের বেশি, নাগাপাট্টিনমেই মারা গিয়েছেন অন্তত ১৭০০ লোক। কন্যাকুমারীতে মৃত ৫২৬ জন, কাডলুরে কমপক্ষে ৪০০, চেমাই শহরে অন্তত ২০০। হু হু করে বেড়েছে আন্দামান ও নিকোবরে মৃতের সংখ্যা। এখনও পর্যন্ত ৩০০০ লোক সেখানে মারা গিয়েছেন। কোথাও গাছ থেকে নামিয়ে আনতে হচ্ছে আটকে থাকা দেহ। কোথাও যন্ত্র দিয়ে গর্ত খুঁড়ে শুইয়ে দেওয়া হচ্ছে সার সার শব। কোথাও সামান্য হ্রিপন আর চানর টাঙিয়ে মর্গের ব্যবস্থা হয়েছে। কোথাও বৃষ্টি বাদ সবেবেছে ব্রাণে। সমুদ্রের গ্রাস থেকে কোনও মতে বেঁচে গিয়েছেন ঘাঁরা, তাঁরা পরিষ্কার জলটুকু পর্যন্ত পানছেন না। তার মধ্যেই নিখোঁজের খোঁজে অকুল চেষ্টা, ত্রিয়জনের জন্য প্রার্থনা। সামুদ্রিক জলোচ্ছ্বাসের ধ্বংসলীলা সামলাতে বাস্তব সব ক'টি দেশের জন্যই বিশ্বের বিভিন্ন প্রান্ত থেকে সাহায্য আসতে শুরু করেছে। রাষ্ট্রপুঞ্জ বিশেষ দল পাঠাচ্ছে, ক্ষতিগ্রস্ত দেশগুলিতে ইউনেকস্কোর দক্ষতরকে ত্রাণ ও উদ্ধার কার্যে বাঁপিয়ে পড়তে বলা হয়েছে। ভারতীয় প্রধানমন্ত্রীর জাতীয় ত্রাণ তহবিল থেকে

কেন্দ্রীয় স্বরাষ্ট্র মন্ত্রকের হেল্প-লাইন: (০১১) ২৩০৯ ২৯২৩, ২৮০৯ ৩০৫৪, ২৩০৯ ২৮৮৫ এবং ২৩০৯ ২৭৬৩। ব্যান্ডকে ভারতীয় দূতাবাসের হেল্প-লাইন ০০-৬৬২-২৬০৪ ১৬৬।

মৃতদের পরিবারপিছু ১ লক্ষ টাকা এককালীন সাহায্য যোগা করা হয়েছে। ত্রাণের জন্য ৫০০ কোটি বরাদ্দ করেছে কেন্দ্রীয় সরকার। ক্ষতিগ্রস্ত ৫টি রাজ্যকে সাহায্য দিচ্ছে অন্যান্য রাজ্য। সাহায্য দিচ্ছে রেলও। আগামী কাল চার রাজ্যে যাবেন স্থির করেও রাতে সফর স্থগিত রেখেছেন প্রধানমন্ত্রী মনমোহন সিংহ। তামিলনাড়ুর মুখ্যমন্ত্রীকে যাবতীয় সাহায্যের আশ্বাস দিয়েছেন স্বরাষ্ট্রমন্ত্রী শিবরাজ পাটিল। প্রতিরক্ষামন্ত্রী প্রবল মুখোপাধায়ক নিয়ে আন্দামান ও নিকোবরে গিয়েছেন ক্যাপ্টেন সত্যনেন্দ্রী সনিয়া গাধী। অস্ত্র ও তামিলনাড়ুতে যাবেন বলে কাল রাত্রে ঠিক করেছিলেন সনিয়া। প্রতিরক্ষামন্ত্রীর সঙ্গে কথা বলে তিনি সিদ্ধান্ত বদল করেন। রওনা হওয়ার আগে প্রণববাবু বলেন, "প্রতিরক্ষা মন্ত্রকের কর্মী, পরিচালকসহ সব সামরিক ক্ষতিগ্রস্ত। কার নিকোবরের বিমানঘাটি ভেঙে গিয়েছে।" সনিয়া-প্রণবকে নিয়ে বিশেষ বোয়িং বিমান সরাসরি কার নিকোবরেই গিয়ে নেমে। আন্দামান থেকে বিমানে আজ কলকাতায় ফিরেছেন কিছু মানুষ। মেরিনা বিচে দুই বেলা পালের কলিনবদিলি দেহ ফিরেছে কলকাতায়। কেন্দ্রীয় স্বরাষ্ট্র মন্ত্রক যে হেল্প-লাইন খুলেছে তাতে যে কোনও সময়ে ফোন করে নিখোঁজ বা মৃতের সম্পর্কে খোঁজ নিতে পারেন উদ্বিগ্ন আত্মীয়স্বজন। ব্যান্ডকের ভারতীয় দূতাবাস সূত্রে জানা গিয়েছে, সঙ্গীতা শাহ ও সুমনম শ্রীধর নামে দুই ভারতীয় মারা গিয়েছেন। শ্রীধরের বাড়ি অন্ধ্রা। শ্রীলঙ্কায় অন্তত ৭০ জন বিদেশি পর্যটক মারা গিয়েছেন। ইন্দোনেশিয়ায় মৃতের ৮০ শতাংশই বিদেশি বলে আশঙ্কা করা হচ্ছে। প্রধানমন্ত্রীর দক্ষতর সূত্রের খবর, ইন্দোনেশিয়া, তাইল্যান্ড, মালদীপ ও মালয়েশিয়ার জন্য ৮টি উড্ডানের ব্যবস্থা করা হয়েছে। দেশে দেশে ত্রাণকর্মীদের একই অভিজ্ঞতা হচ্ছে। সমুদ্রের ভয়াল আঙুরের জেরে স্বাধরাযোগ্য কালের মধ্যে এমন লণ্ডভণ্ড পরিষ্কারিতির মোকাবিলা তাঁদের করতে হয়নি। ইন্দোনেশিয়ায় তখনই হয়ে যাওয়া ঘরের ছবিশিট আর গাছের ভাল থেকে দেহ উদ্ধার করছে সেনা। একের পর এক শিশুর নিখর দেহ রাখতে হচ্ছে মাছ রাখার ব্রাণে। একটি উদ্ধারকারী দলের নেতা বৃষ্টি সোললার কথায়, "মারা কুকুর, বিড়াল, ছাগল, মাছের সঙ্গে মানুষের শব রাখতে হচ্ছে। কী দুর্গন্ধ..."। আকাশে চক্কর দিচ্ছে হেলিকপ্টার। রাজপরিবার, মৎসজীবী, পর্যটক, সাংবাদিক, ছাত্র—কাউকে রেগাত করেনি সমুদ্র। পশ্চিমের সত্য কুমারী বলাছিলেন, "সমুদ্র থেকে মরণ উঠে এল। ডেউগো যেন পিছনে তড়া করছিল।" ৪৮ ঘণ্টায় সমুদ্রে ডেউয়ের প্রাবল্য বাড়তে পারে বলে সতর্ক করে দিয়েছে গোয়া প্রশাসন। সমুদ্রে জল বাড়ায় রাত্রে আতঙ্ক ছড়িয়েছে কেবলে।

সুনামি সত্যি এখনও তড়া করছে। — পি টি আই, রয়টার্স



সন্তানের নিখর দেহ পরমা মমতায় সমাধিতে শুইয়ে দিচ্ছেন মা। কাডলুরে। — রয়টার্স

যন্ত্র নেই, তাই তিন ঘণ্টাতেও দেওয়া যায়নি সুনামির পূর্বাভাস

দেবদুত ঘোষাঠাকুর

রবিবারের ভূমিকম্প ও সুনামি এক দিকে যেমন আন্দামান-নিকোবরকে বিপদের মধ্যে ঢেলে দিয়েছে, তেমনই প্রশা উঠেছে দেশের প্রাকৃতিক দুর্ভাগ্য সংক্রান্ত পূর্বাভাসের পক্ষে দিয়েও। উত্তর সুমাত্রায় কেন্দ্রীভূত ওই ভূকম্প সমুদ্রতলে হাজার কিলোমিটার লম্বা ফাটল তৈরি করেছে। যার ব্যাপ্তি পৌঁছেছে উত্তর আন্দামান পর্যন্ত। তা যে ওই দ্বীপপুঞ্জের পক্ষে বিপজ্জনক, সোমবারেই তার প্রাণঘন্য নিলোছে। এ দিন সকালে উত্তর আন্দামানে কেন্দ্রীভূত ও গোটা কাঁপিয়ে দেয় পোর্ট ব্রোয়ার-সহ গোটা আন্দামানকে। বিশেষজ্ঞেরা বলছেন, সমুদ্রতলের ওই ফাটল উত্তর আন্দামান পর্যন্ত বিস্তৃত থাকলেই এ দিন আন্দামানে ওই কম্পনের সৃষ্টি হয়। রবিবারের সুনামি ভারতীয় আবহবিজ্ঞান মন্ত্রকের দরশিনী নিয়েও প্রশংসার সৃষ্টি করেছে। আন্দামান-সহ ভারতীয় উপকূলভাগে কেন সুনামির

পূর্বাভাস দেওয়া গেল না, সেই প্রশ্ন উঠেছে। ভূমিকম্পের আগাম পূর্বাভাস দেওয়া না-গেলেও সুনামির পূর্বাভাস দেওয়া সম্ভব। প্রশান্ত মহাসাগর সংলগ্ন ৪২টি দেশ এ বাপারের নির্দিষ্ট প্রযুক্তির সাহায্য নিচ্ছে। ভারত মহাসাগর বা বঙ্গোপসাগরে সুনামি হয় না বলে ভারত ও শ্রীলঙ্কা এই প্রযুক্তির সাহায্য করেনি। তাই সুনামির পূর্বাভাসও দেওয়া যায়নি। তিন ঘণ্টা সময় পেলেও সতর্ক করা যায়নি উপকূলবর্তী

ফের কাপল আন্দামান

অঞ্চলকে। ওই পূর্বাভাস পাওয়া গেলে জলোচ্ছ্বাস হয়তো ঠেকানো যেত না, কিন্তু বাঁচানো যেত কয়েক হাজার প্রাণ। উত্তর সুমাত্রায় রবিবার সকাল সাড়ে ৬টা নাগাদ ভূমিকম্প কেন্দ্রীভূত হলেও ভারতীয় উপকূল এবং শ্রীলঙ্কায় তা পৌঁছেছে সকাল ১টা থেকে সাড়ে ৯টা পর্যন্ত। এতটা সময় দিয়েছিল ওই তরঙ্গরাশি। মৌসম ভবনের এক আবহবিজ্ঞানীর কথায়, "ভারত

মহাসাগর ও বঙ্গোপসাগরে সুনামি অপরিচিত নাম। এখানে যে সুনামির সৃষ্টি হতে পারে, তা ধারণা করতে পারেননি কেউই। ১৯৬৪ সালে আলাস্কায় ভয়াবহ সুনামি আছড়ে পড়ার পরে বিভিন্ন দেশ সুনামি নিয়ন্ত্রণ কমিটির সদস্য হয়েছিল। ভারত আর শ্রীলঙ্কা হয়নি। আমরা যুগিরাড়ের মোকাবিলা নিয়েই বেশি ব্যস্ত। ওটাই আমাদের ভোগায়। এ বার ঠেকে শিখিছি। মন্ত্রী জানিয়েছেন, আমরা সুনামির পূর্বাভাস দেওয়ার যত্ন কিচ্ছ।" আন্দামানে এ দিনের ভূমিকম্পে আবহবিদ ও ভূকম্প-বিশেষজ্ঞদের নতুন করে ভাবিয়ে তুলেছে। সকালে ভাবা গিয়েছিল, ওটা বৃষ্টি নতুন ভূকম্প হবে। কিন্তু আবহ-বিশেষজ্ঞেরা জানিয়েছেন, সুমাত্রা ওই ভূমিকম্পের ভূকম্প-পরবর্তী কম্পন ওটা। তার কেন্দ্রস্থল তবে উত্তর আন্দামানে কেন? বিশেষজ্ঞেরা জানিয়েছেন, উত্তর সুমাত্রায় কেন্দ্রীভূত ৮.৯ স্কেলের ওই ভূমিকম্পটি এখন

এর পর ছয়ের পাঁচতা

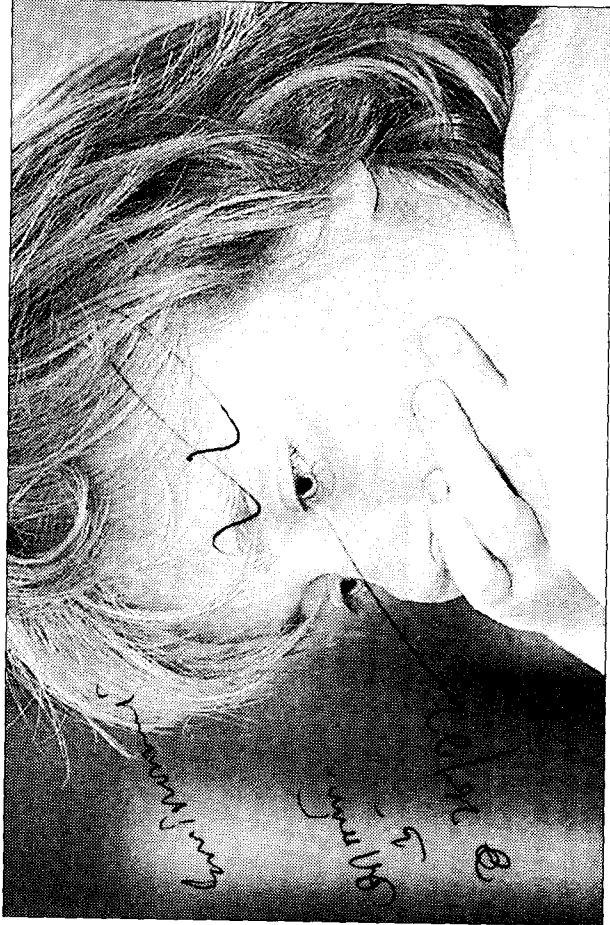
জলোচ্ছ্বাসে মৃত বিজ্ঞানী

চেমাই, ২৭ ডিসেম্বর: রবিবারের জলোচ্ছ্বাসে প্রাণ হারিয়েছেন কলকাত্নমে ইন্দিরা গাধী সেন্টার ফর অ্যাটমিক রিসার্চ (আইজিআর) এর কর্মরত পরমাণু বিজ্ঞানী এ এ মেলভাচার। আইজিআর-এর সূত্র থেকে বলা হয়েছে সেন্সরেরাজের মৃতদেহ শনাক্ত করা হয়েছে। তবে আইজিআর-এর আর কোনও কর্মী মারা গিয়েছেন কিনা এখনও জানা যায়নি। পুলিশ সূত্রে জানা গিয়েছে, কলকাত্নমে অন্তত ৬০ জন গ্রাম হারিয়েছেন। আরও কতজন নিখোঁজ তার কোনও হিসাব নেই। সমুদ্রের জলোচ্ছ্বাসে পরমাণু বিদ্যুৎ কেন্দ্রের টাউনশিপের প্রচণ্ড ক্ষতি হয়েছে। এমনিতে স্টাক কোয়ার্টার চারতলা বাড়ি হলেও সমুদ্রের জল এসেছিল একতলা স্তরান উঁচু হয়ে। ফলে, টাউনশিপের প্রায় সব বাড়ির একতলা ক্ষতিগ্রস্ত। টাউনশিপের রাস্তায় জলের মধ্যে অসংখ্য ছুটার ও গাড়ি ভেসে বেড়াতে দেখা গেছে। তবে কলকাত্নম বিদ্যুৎ কেন্দ্রটির তেমন ক্ষতি হয়নি। সমুদ্রের জলোচ্ছ্বাসে বিদ্যুৎ কেন্দ্রের বেড়া হলেও সমুদ্রের জল এসেছিল, সে দুটি ইউনিটে নিরাপদেই বন্ধ করে দেওয়া গিয়েছে। এ গুণি জি জানিয়েছে, প্রাকৃতিক বিপর্যয়ের ফলে আপাতত পূর্ব উপকূলে তেলকূপে উৎপাদন বন্ধ রেখেছে।— পি টি আই

নিখোঁজ বহু পর্যটক, বিশ্ব জুড়ে উৎকর্ষা

লন্ডন, ২৭ ডিসেম্বর: তেউ থেকে বাঁচতে লোকগুলো হোটেলের ছাদে উঠে এসেছে। কী, তিড়! অতগুলো মানুষের পিছনে ওই যে সবুজ টি শাট পরা একজন, অনেকটা বাবার মতো লাগছে না! টেলিভিশনের একদম কাছে গিয়ে ভাল করে দেখার চেষ্টা করছিল বহুর দশকের ডেনিস। দেখার কী, চোখ দুটো যে বারবার ঝাপসা হয়ে যাচ্ছে জলে। গলার কাছটায় দম বন্ধ হয়ে যাচ্ছে উৎকর্ষায়। সুনামি বলে একটা ভয়নক বস্তুর কথা কালই প্রথম জানল ডেনিস। বড়দিনের ছুটিতে তাইল্যান্ডে বেড়াতে গিয়েছিলেন বাবা। শনিবারের পর থেকে আর কোনও খোঁজ নেই। সেলফোন নিকসুর। তবু ছোট্ট আঙুলে একনাগাড়ে বাবার নম্বর ডায়াল করে চলেছে ছেলে।

লন্ডনের ডেনিসই হোক বা অস্ট্রেলিয়ার স্টেকান, জার্মানির মাথু, রাশিয়ার ইরিনা কিংবা ফ্রান্সের ফিলিপ, সকলকে মানসিক বিপর্যয়ের একেবারে শেষ পর্যায় এনে দাঁড় করিয়েছে সেই পূর্ব এশিয়ার বিভিন্ন দেশে বেড়াতে গিয়েছিলেন এদের প্রিয়জনরা। তার পর কাল সকালেই এল ভয়াবহ জলোচ্ছ্বাস। ভাসিয়ে নিয়ে গেল সব, সেইসঙ্গে ভাসিয়ে দিয়ে গেল ডেনিসদের। প্রিয়জনরা বাঁচল কী মরল সেই খবরটুকু পর্যন্ত না পেয়ে তারা অকুল পাথারে। প্রবল জলোচ্ছ্বাসে স্থান-কাল-পাত্র ধুমোমুছে



খোঁজ নেই বাড়ির কারও / হাসপাতালে অমল প্রতীক্ষা সুইডিশ শিশুর / — এ এফ পি

এখন অবশিষ্ট কেবল দুর্ভিক্ষ আর “কী উত্তর দেব বলুন তো? কোথাও যোগাযোগ করা যাচ্ছে না। চারদিকে ফোনের লাইন খারাপ। নিজে একে অসহায় আর কখনও মনে হয়নি।” — লন্ডনের টার অপারেটর নিকির গলায় একরশ হতাশা। যোগাযোগ বিপর্যস্ত বলেই বিভ্রান্তি, গুজব বাড়াচ্ছে। মৃত পর্যটকদের সংখ্যা নিয়ে বিভিন্ন দেশের সরকার এক এক সময় এক এক রকম প্রশ্নের উত্তর দিতে তারা ক্লান্ত।

তথা জানিয়ে সেই বিভ্রান্তিতে ইন্ধন জুগিয়েছে। শ্রীলঙ্কা সরকারের বক্তব্য, ইয়েলা ন্যাশনাল পার্ক থেকে ২২ জন জাপানি পর্যটকের দেহ পাওয়া গিয়েছে, অথচ জাপান সরকার জানিয়েছেন তারা এ ব্যাপারে কিছুই জানেন না। তাইল্যান্ডের বিপর্যয় শোকাবিন্দ্য দফতরের কথা অনুযায়ী, নিহত ৩৯২ জনের মধ্যে কত জন

বিদেশি পর্যটক রয়েছেন, জানা যায়নি, অন্যদিকে স্বাস্থ্য মন্ত্রকের খবর, এঁদের ৮০ শতাংশই পর্যটক। জাপানের বিভিন্ন সরকারি দফতর থেকেও পরস্পরবিরোধী বিবৃতি দেওয়া হয়েছে। জাপান সরকার জানিয়েছে, তাইল্যান্ডে নিখোঁজ প্রায় ৪০ জাপানির খোঁজ চলেছে। এঁদের মধ্যে এক জন জাপানি কূটনীতিকও রয়েছেন বলে জানা গিয়েছে। দক্ষিণ ও দক্ষিণ-পূর্ব এশিয়ায় নিখোঁজ প্রায় ১৭৭ জন জাপানি পর্যটকের সঙ্গে যোগাযোগের সর্বকম চেষ্টা চলেছে বলে জাপানি পর্যটন সংস্থার লি জানিয়েছে।

পরিস্থিতি মোকাবিলায় বিশ্বের বিভিন্ন দেশে আপদকালীন তথ্য সরবরাহ কেন্দ্র ও টেলিফোন হটলাইন বসেছে। ব্রিটিশ বিদেশসচিব জ্যাক স্ট্র বলেছেন, “সর্বকম ভাবে আমরা চেষ্টা চালাচ্ছি। কিন্তু জলোচ্ছ্বাস-বিধ্বস্ত এলাকাগুলির সঙ্গে যোগাযোগ বিচ্ছিন্ন হয়ে যাওয়ায় সমস্যা হচ্ছে।”

যুক্তিতে প্রায় ১৫০০ রুশ পর্যটক আটকে রয়েছেন। বেলজিয়াম, আমেরিকা, ডেনমার্ক, ইতালি, অস্ট্রিয়া থেকে দক্ষিণ-পূর্ব এশিয়ায় বেড়াতে আসা বহু পর্যটক ভেঙ্গে গিয়েছেন। বিশেষজ্ঞরা যতই বলুন সুনামির প্রভাব পড়েছে কেবল দক্ষিণ ও দক্ষিণ-পূর্ব এশিয়ায়, উৎকর্ষা, আতঙ্কের পরিধি কিন্তু অন্য হিসেব দিচ্ছে। ভয়ঙ্কর সুনামি আছড়ে পড়েছে গোটা পৃথিবীর বাসিন্দাদের হৃদয়ে। — পি টি আই

WAVE OF DEATH

97 Rourkela Steel Plant staff missing

Soumyajit Pattnaik
Bhubaneswar, December 27

NINETY-SEVEN EMPLOYEES of Rourkela Steel Plant, who had taken their annual leave travel concessions to visit Andaman and Nicobar Islands, are reportedly missing after the killer waves slammed the islands.

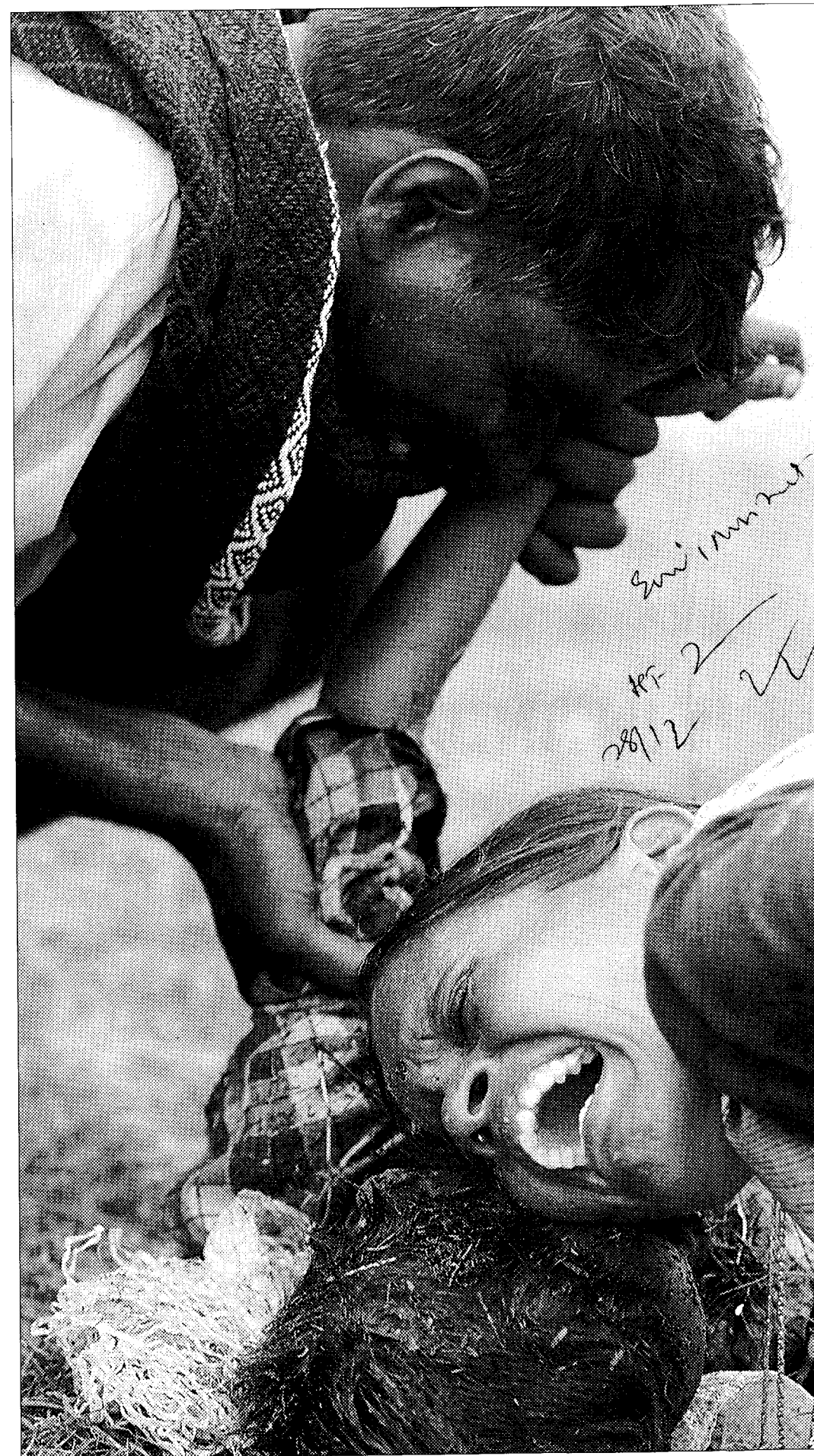
Rourkela superintendent of police Dharendra S. Kuttey said, "According to information provided by RSP officials, at least ninety-seven employees are supposed to be in the Andamans after taking their LTC. We have no information about them as yet."

The state government has asked the additional district magistrate of Rourkela to submit a detailed report on the actual number of persons who had already reached Andamans before the tsunami waves struck. Additional district magistrate V. Kartik Pandian said, "The RSP authorities are still collecting information on the employees' whereabouts."

Apart from ascertaining the whereabouts of the missing RSP employees, the state government on Monday started organising relief for the marooned people of Andamans. The first aircraft carrying at least 4-tonnes of relief materials—foodstuff, candles, matchboxes and other essential items—will take off from the Bhubaneswar airport within a couple of hours.

Deputy relief commissioner Naba Kishore Nayak said more relief materials would be sent in the next couple of days. The Orissa State Disaster Mitigation Authority, which was formed to co-ordinate relief and reconstruction works after the super-cyclone, will also send its experts to Andamans. The Orissa Disaster Rapid Action Force raised after the cyclone to aid civil authorities in relief and rescue operations may also be sent to the affected areas of Andamans.

In Puri, the local fishermen assembled at the beach in the evening and lit candles as a mark of respect to those who perished on Black Sunday. DRDO officials on Monday visited the 2-km long Wheeler Island, which is the missile test facility for Agni. According to sources, the launch pad, missile assembly/check-out buildings along with the administrative and support buildings in this 390-acre island are safe.



REUTERS

A tearful farewell for their kid who was buried on the beach in Cuddalore, near Chennai, on Monday.

Bodies everywhere, too many to count

Srinivasa Prasad
Nagapattinam, December 27

MORE THAN 24 hours after the colossal tidal onslaught on this Tamil Nadu coastal town, a wailing woman in her twenties brought the body of her three-year-old son to the district hospital here, only to be told that he is dead.

Earlier in the day, many visiting reporters stumbled upon bodies of men, women and children not accounted for, as yet. This correspondent found two two-wheelers buried under sand and slush, close to the coastline, less than 2 km from the town. The rear-view mirror and part of the handlebar of one of the two-wheeler's were seen above the debris. The silencer and wheels of the other bike could also be seen. A red sari was found floating near one bike. Locals had no clue of what happened to those who were riding the bikes. Or how the sari got there.

There was no official or policemen around. But there were plenty of them on the roads of Nagapattinam, regulating traffic and shouting at bystanders in anticipation of chief minister Jayalithaa's scheduled visit later in the day.

Twenty kilometres away, at Velankanni, volunteers and social workers fished out bodies from under crushed furniture in shops, restaurants, mangled cars or heaps of concrete with depressing regularity. All this makes the official toll, some 1,700 deaths in the district, a gross understatement though it is impossible to arrive at an accurate estimate with bodies tumbling out of almost everywhere and with officials or volunteers yet to reach many remote villages on the coastline.

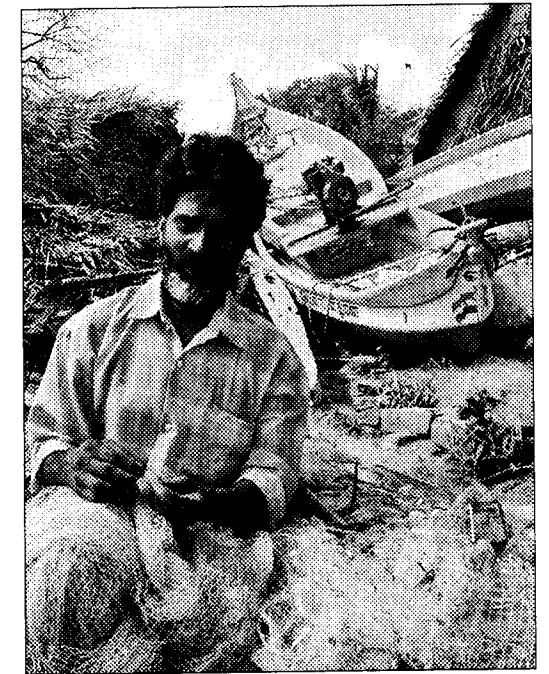
"The people are helpless and so is the government," said Ranganathan, a local schoolteacher, adding: "It's their fate." Nobody expected a tiny district to be well prepared to cope with a calamity of this scale on its own. But it was clear that the governments, both in Chennai and Delhi, failed to press the right kind of panic button at the precise hour when the tsunamis struck.

There were plenty of policemen all round, brought in from neighbouring districts. They appeared to be clueless about which parts of Nagapattinam the calamity struck; they simply stood around at streetcorners, gaping at passing ambulances or dealing with VVIP visits.

A flurry of visits by AIADMK ministers and other busybodies only helped distract the attention of officials, who kept repeating and explaining what happened and how. The army's presence was not felt till late on Monday, and equipment like cranes and dredgers to flush out bodies appeared on the scene in small numbers a full 24 hours after the tragedy.

All day long, women were wailing outside the district hospital. Above them a huge hoarding advertising shirts and trousers depicted a handsome model playing the piano, reminding one of a fiddling Nero. Contrast this with the dedication of the volunteers, though not in large numbers, from the nearby Tanjore. Many wore no masks or gloves and handled the discoloured and decomposed bodies with understanding and efficiency.

Policemen, wearing face masks to guard them



REUTERS

A fisherman repairs a net outside his damaged hut in Nagapattinam on Monday.

against the stink and infections stood by; some were seen giving instructions to volunteers on how they should go about their job.

Residents trickle back: Many who deserted Nagapattinam after the calamity in panic began to trickle back into the town today only to stare at an uncertain future. Many did not even know whether their family members were alive or dead.

They came back the same way they left yesterday — on every available mode of transport or even on foot. A large number of them left for the nearby town of Thiruvavur where they were huddled in bus station, marriage halls, schools and offices.

Each had a heartrending story to tell. Said fisherman Shanmuganathan, 35, "I didn't know where my wife and two children were when it happened. I still don't know whether they are alive. I have also lost my boat." He returned, hoping that even if they were dead, their bodies would at least be washed ashore. Murugan, who runs a tea shop and who was on the beach when the killer waves struck, said, "The waves were as high as the tree," he said, pointing to a palm-tree which stood some 25 feet tall. He saw a group of children playing cricket on the beach washed away. "Only the bodies of some were found."

The tragedy has redrawn the boundary of the coastline. On what was once a beach, there were helmets, utensils, clothes, motorbikes, books, children's playthings and cars half buried in the sand. The local people keep looking at the debris, wondering how many more could be lying dead in the sand. The tidal wave was so powerful that it ripped off not just the number plate of a car but even its seats, leaving just the steering wheel and the dashboard. Another car was seen perching precariously on two walls.

Africa joins casualty list

Hundreds die as waves hit Somalia

Associated Press
Nairobi, December 27

HUNDREDS OF people died and entire villages and towns disappeared when tidal waves hit Somalia's coastline along its central and northeastern regions, a Somali presidential spokesman said on Monday.

The waves, which hit on Sunday, were triggered by the 9.0-magnitude undersea quake centered off the Indonesian island of Sumatra, 4,500 kilometers away.

The "human loss is in the hundreds in the central and northeastern coastal area. ... Entire villages and coastal town have been swept away by the tidal waves and there is severe damage to property," said Yusuf Ismail, spokesman of Somalia's President Abdullahi Yusuf Ahmed.

The spokesman is based in the Kenyan capital, Nairobi, where the Somali Parliament is based because the Somali capital is considered too dangerous.

He said he could not give an exact figure on the number of dead because "we're focussing on extending our limited relief to the badly affected people."

An AP reporter in the Somali capital, Mogadishu, said that, according to elders speaking on two-way radios and local journalists, the death toll had risen to more than 50 people, up from Sunday's count of nine dead.

Ismail said the worst affected coastlines were along the semi-autonomous northeastern region of Puntland and the central regions of Mudug and Upper Shabelle.

"All of the fishermen who went to sea on Sunday haven't come back," Ismail said. "We make an urgent and important appeal to the international community for immediate relief supplies." In some parts of Somalia, waves traveled three kilometers inland, along riverbeds, said

Umar Haji Ali, a fisherman in Kabaal, 800 km northeast of Mogadishu.

In Mogadishu, the ocean rose two metres when the waves hit on Sunday, causing damage to docks. There were no reports of deaths in Mogadishu.

"This is the first time we ever saw such waves in our lives," Bishiro Farah Kulmiye, a 53-year old businessman said on Monday in Marka, about 75 km southwest of Mogadishu. Ismail said Prime Minister Ali Mohammed Gedi will consult on Tuesday with diplomats accredited to Somalia but based in Nairobi to find out what can be done.

Somalia has been split among clan-based militias since dictator Mohamed Siad Barre was ousted in 1991. More than 500,000 people have died in the conflict since Barre's fall and some 2 million have been driven from their homes, 1.5 million of them refugees in neighbouring countries.

In the Kenyan port town of Malindi, where a 20-year-old swimmer reportedly drowned, fishermen ventured back in the water on Monday to gather the remains of their boats.

Beaches that were closed on Sunday reopened, amid government warnings to tourists to take precautions.

There was also damage in the Seychelles where a bridge linking the main airport and capital Victoria was destroyed while a village in northern Mauritius was submerged for almost three hours following the surges.

"I am asking people to remain calm and help those in need," Seychelles President James Michel said. About 15 fishing boats were damaged in the French territory of Reunion.

Officials in Tanzania and its semi-autonomous Zanzibar and Pemba islands are giving hourly warnings, advising fishermen to look out for more waves.



RAZED TO THE GROUND A general view of the destroyed central bus terminal in Galle, 125 km south of Colombo, on Monday.

AFP

UN warns of serial epidemics in days

Reuters
Geneva, December 27

THE UNITED Nations warned on Monday of epidemics within days unless health systems in southern Asia can cope after more than 15,500 people were killed and hundreds of thousands left homeless by a giant tsunami.

Aid agencies round the world rushed staff, equipment and money to southern Asia after huge waves, triggered by a massive underwater earthquake, pummelled and swamped coastal communities in at least six countries on Sunday.

"This may be the worst natural disaster in recent history because it is affecting so many

heavily populated coastal areas ... so many vulnerable communities," the UN's Emergency Relief Coordinator Jan Egeland said.

"The longer term effects may be as devastating as ... the tsunami itself," said Egeland.

"Many more people are now affected by polluted drinking water. We could have epidemics within a few days unless we get health systems up and running. Many people will have (had) their livelihoods, their whole future destroyed in a few seconds."

Sri Lanka, India and Indonesia suffered the highest death tolls but Thailand, Malaysia, Myanmar and Bangladesh were also hit by the surging walls of water. Government officials es-

timate in Sri Lanka alone, 800,000 people were forced from their homes.

Experts said the top five issues to be addressed were water, sanitation, food, shelter and health. "We've had reports already from the south of India of bodies rotting where they have fallen and that will immediately affect the water supply especially for the most impoverished people," said Christian Aid emergency officer Dominic Nutt.

Some affected areas have had communications cut. Others are so remote it is impossible to know the extent of the damage. "This is a massive humanitarian disaster and the communications are so bad we still

don't know the full scale of it. Unless we get aid quickly to the people many more could die," said Phil Esmond, head of Oxfam in Sri Lanka.

The Geneva-based International Federation of Red Cross and Red Crescent Societies said it was seeking an immediate \$6.5 million for emergency aid funding. "This is a preliminary appeal. It will be revised after exact needs are evaluated," said Simon Missiri, head of the federation's Asia Pacific department.

Earlier, the federation released \$870,000 from its disaster relief emergency fund to get assistance moving to the region.

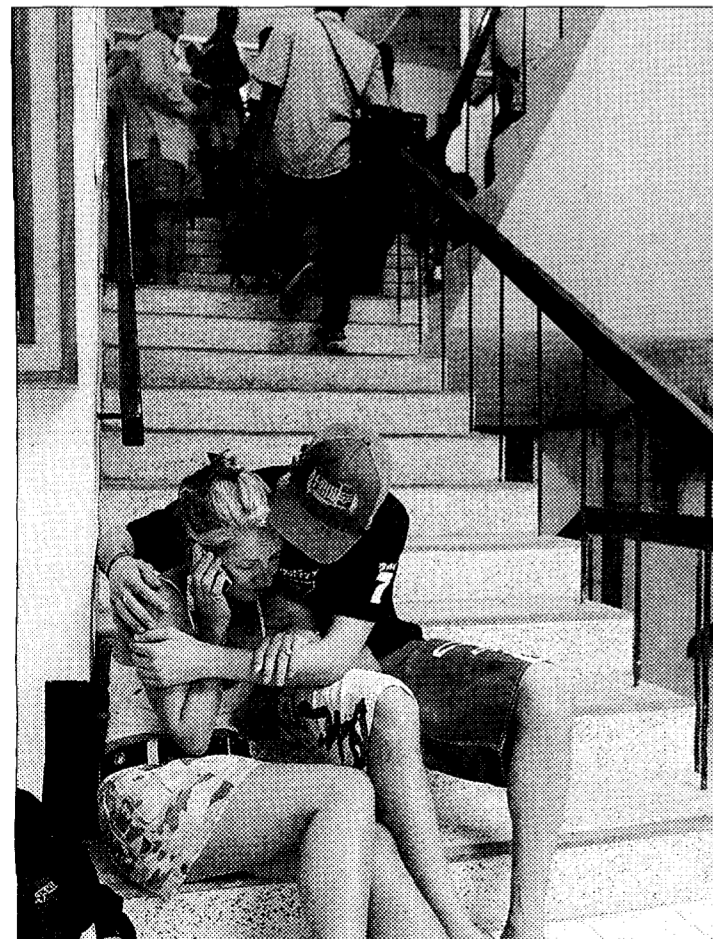
"The biggest health challenges we face is the spread of

waterborne diseases, particularly malaria and diarrhoea, as well as respiratory tract infections," said the Red Cross Federation's senior health officer Hakan Sandbladh.

The federation said it would send an assessment and coordination team to Sri Lanka, and had on standby several emergency response units specialised in water and sanitation as well as field hospitals.

The United States said it would offer "all appropriate assistance" to Asian countries,

with some aid already on its way to Sri Lanka and the Maldives. "We're prepared to be very responsive," said State Department spokesman Noel Clay



SHAKEN British tourists, who survived the devastating tsunami, make a call back home in the Thai resort town of Phuket on Sunday.

REUTERS

Laughter turns to terror for couple

AMERICAN TOURIST Matthew O'Connell started laughing when he awoke to find his hotel room filling with water.

But when a raging wall of tidalwave water ripped him and Israeli friend Sue Mor apart, the laughter turned to sheer terror.

O'Connell and Mor on Monday told how they survived after being separated by floodwaters at Ambalangoda, lucky to escape being among an estimated 70 foreign tourists among a nationwide death toll of 5,880 dead.

Mor recounted the drama after having spent the night sleeping between the bodies of two dead women in a hospital.

She said she woke up O'Connell when the first waves brought in water, but he did not take her seriously. He got up, went out and on his way back found he could not close the door behind him as water surged into their guest house. "I was laughing as I tried to close the door. Then it went from really amusing to deadly serious," O'Connell said dressed in clothes given by local people. Both were bruised and ended up at the main Karapitiya hospital which is overflowing with the dead and the wounded.

AFP Galle

'0.1 seconds' that changed 2 lives

Reuters
Phuket, December 27

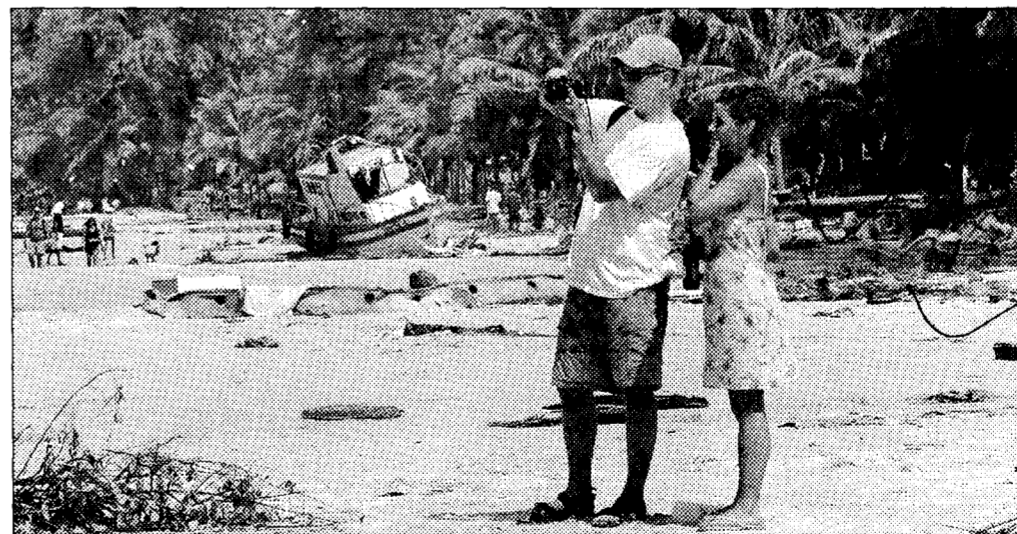
WILLIAM ROBINS vowed on Monday to change his life forever after the professional golfer from California and his new bride, Amanda, narrowly escaped death in the grip of a tsunami.

The newlyweds were honeymooning on Phi Phi island — made famous by the film *The Beach* starring Leonardo DiCaprio — when a giant tsunami wave slammed into it on Sunday.

"I honestly thought this is the worst way to die. I thought I'm not meant to die like this," Robins, 26, said as he lay in a hospital bed in Phuket, his collar bone broken and most of his right ear torn off.

Robins and Amanda, who lay next to him with a fractured pelvis, were among hundreds of tourists stranded on Phi Phi after the massive wave washed onto the island.

The couple were strolling near the beach on Sunday when they heard people screaming and saw tourists jumping off boats. "We thought it was a terrorist bomb, so we jumped over a hotel fence and hid in a storage room," Robins said



PARADISE LOST Honeymooning couple Todd and Alicia Yetman of Toronto take a photograph along the damaged shores of Patong Beach in Phuket on Monday.

AP

"We held hands and crouched in the corner. Then we heard a rumbling explosion that didn't end."

Moments later, their hiding place collapsed around them, Amanda said.

"We were pushed through two layers of concrete and forced to let go of each other's hands," said the 27-year-old teacher

They were pulled underwater and swept 150 yards out to sea. "There were broken pieces of wood and bits of metal everywhere. It smelled of gasoline," Robins said.

Suddenly, they saw a hotel employee in a boat searching for lost family members. "We were screaming. We said if we don't get on this boat we're

dead," Robins said. The man tossed them a line and pulled them into the boat. By nightfall, they were in hospital on Phuket.

"We both came within 0.1 seconds of not seeing each other. There are going to be changes in our life from now on. We're going to take a lot of the bulls*** out," Robins said

TSUNAMI SHOCK



A woman wails over the death of a relative in Cuddalore near Chennai on Tuesday. (Reuters)

28 DEC 2004

DEATH WAVE HITS SOUTH INDIA

Tidal waves from Sumatra quake swallow coasts, lives in peninsular India, southeast Asia; Tamil Nadu is worst hit



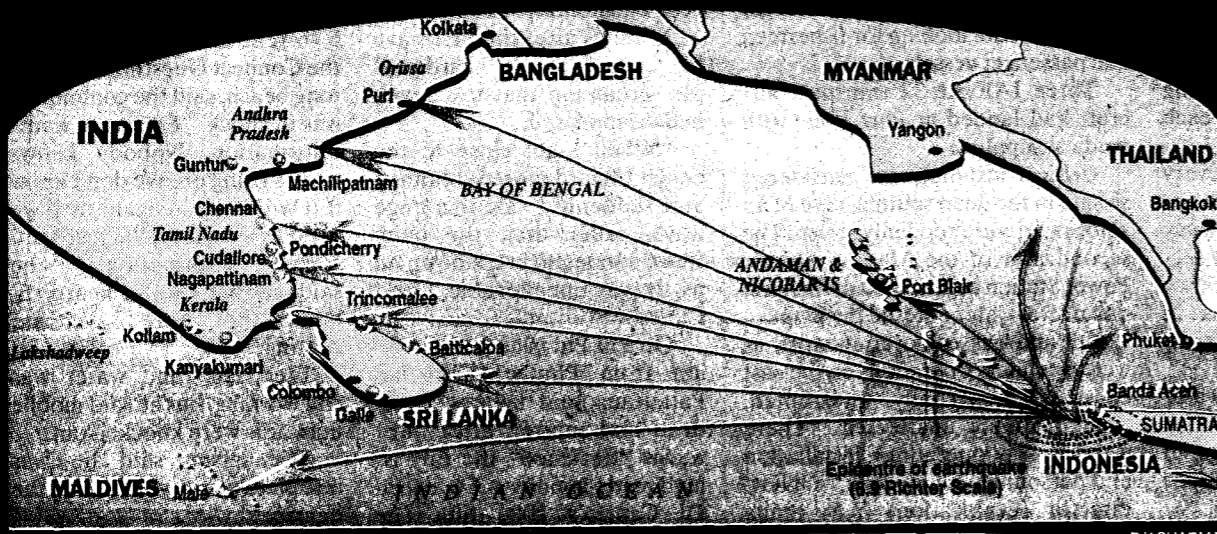
6,000*
+ AND COUNTING

DEATH TOLL

INDIA 1,759
Tamil Nadu 1,467 Pondicherry 102
Andhra Pradesh 61 Kerala 109
Andaman & Nicobar 20

SRI LANKA 2,200 INDONESIA 1,873 THAILAND 257 MALAYSIA 28 MALDIVES 10 MYANMAR 10

* Figures based on agency reports



A girl being taken away in Chennai (above) and an aerial view of the city's Marina beach. Reuters

বাংলার সাগরে জলোচ্ছ্বাস

২৯/১২/০৫

মোরিনা বিচ শেষ তিন চেউয়েই

অনিম্যা জানা ● চেমাই

২৬ ডিসেম্বর রবিবার সকালেই এমনটা হতে হল!

‘সুন্সামি’র জলোচ্ছ্বাসে বিপর্যস্ত চেমাই এবং তামিলনাড়ুর অন্য এখন ঘুরছে এই কথাটা। প্রাকৃতিক দুর্যোগের হাতে মার খাওয়ার অসহায়তা, প্রিয়জনকে হারানোর শোক তো আছেই। সঙ্গে প্রবল ভাবে আছে নিয়তির নিষ্ঠুরতায় বিময়। রবিবার সকাল না-হলে সমুদ্র সৈকতে এত লোক হয়তো থাকত না। বেশি বেলা পর্যন্ত সমুদ্রের ধারে কাটানোর লোক হয়তো কম থাকত। হয়তো একটু কমত ক্ষয়ক্ষতি।

তবুও জনতার মুখে এখন ‘হয়তো...!’

যেমন, বৃদ্ধা গোণ্ডা। চেমাইয়ের মেরিনা বিচে মাশালি আটের অনুশীলন করতে গিয়েছিলেন তার মাতি দীপক। রবিবার সকাল, সঙ্গে বন্ধুবান্ধব, একটু বেশি ক্ষণই সমুদ্রের ধারে কাটাছিলেন তরতাজা বুবক দীপক। বিকালে রম্যেস্টা হাসপাতালের দাশকাটা ঘরে মাটিকে পনাজ করে এসেছেন গোণ্ডা।

যেমন, ৩২ বছরের রবিচন্দ্র। মানবাকৃতি চেউ যখন আছড়ে পড়ছে, রামচন্দ্র ছিলেন ইলিয়ট বিচ। বলছিলেন, “যা যা মাহ পেয়েছিলাম, সেগুলো বাছবাছি করছিলাম। একটু দেবিই হয়ে গিয়েছিল হকচো। হঠাৎ দেখি ওই রকম চেউ। দৌড়ে বাড়ি গিয়ে দেখি, জল ঢুকতে শুরু করেছে। বউ আর বাচ্চাকে বার করে নিয়ে প্রাণভয়ে আবার দৌড়েছি।” রামচন্দ্রই জানিয়েছেন, তাঁদের বতি তখনই হয়ে গিয়েছে। নিখোঁজ বহু।

যেমন, গৃহবধু লক্ষ্মী। তাঁর অভিজ্ঞতা, “সকালে বাচ্চাদের খাওয়াচ্ছিলাম। আমার স্বামী জান করছিলেন। আচমকা দেখি ঘরের ভিতরে জল। কোনও দিকে না-তাকিয়ে সবাই মিলে ছড়াছড়ি করে বেরিয়ে পড়ি।” রবিবার বলে লাভালাভে করতে চাইছিলেন না লক্ষ্মী। জল এসে কিন্তু দাঁড়ানোর ফুরসত দেয়নি লক্ষ্মীদের।

যেমন, মালেশা। রবিবার সকালে বেঁচেছিলেন। বাড়ি ফিরে স্ত্রী, কন্যাও কোনও খোঁজ পাননি।

তবে এর বাইরেও আছে একটা ‘হয়তো’। রবিবার সকালের জায়গায় দুপুর বা বিকাল হলে সমুদ্রতটে ভিড় বাতাস। বিপর্যয়ের চেহারাও হত আরও ভয়ঙ্কর।

শুধু চেমাই শহরেই মৃতের সংখ্যা কম করে ৩০০ ছুয়েছে। পৃথিবীর দ্বিতীয় দীর্ঘতম যে মেরিনা বিচ চেমাইয়ের গর্ভ, তাকে এখন চেমা ডার। সৈকতে এম জি আর এবং আন্নারাইয়ের স্মৃতিসৌধ ঘিরে যে গিজগিজ দোকানপাট, সেখানেই মারা গিয়েছেন অন্তত ১০০ লোক। সকাল ৯টা, ১১টা এবং দুপুর ১২টায় ভিনটে চেউ এসেছিল। তাতেই মেরিনা বিধ্বস্ত। রাতের আতঙ্কিত মেরিনার জন্য মাইকে চলছে পুলিশের ঘোষণা, বস্তি ফাঁকা করে দেওয়ার আর্জি। চেমাই পুলিশের তেপুটি কমিশনার আর সিদ্দিকানামের কথায়, “চেমাইয়ের ইতিহাসে এমন বিপর্যয় কখনও হয়নি।” বিপর্যয়ের পরে মেরিনায় গাদাগাদা পুলিশ, দুটো স্মৃতিসৌধ সাক্ষী সেই তৎপরতার আরও চেউ যে আসবে না, আশ্বস্ত

এর পর ছয়ের পাতায়



চেমাইয়ের মেরিনা বিচ। সর্বশাসা জলোচ্ছ্বাসের পরে। রবিবার। — রঘুর্দাস

জলতলে ভয়াল ভূকম্পের শক্তিতেই জেগে উঠল সমুদ্রদানব ‘সুন্সামি’

দেবদূত ঘোষণাকর

সমুদ্রতলের প্রচণ্ড ভূমিকম্প এক দিকে যেমন সমুদ্রের জলকে ঠেলে তুলে দিয়ে তৈরি করেছে ভয়ঙ্কর জলোচ্ছ্বাস বা ‘সুন্সামি’, তেমনি গোটা দক্ষিণ-পূর্ব এশিয়া জুড়ে ভূপৃষ্ঠে তৈরি করেছে কম্পন।

তামিলনাড়ু ও অন্ধ্রপ্রদেশের উপকূলে যেখানে যেখানে সুন্সামি আঘাত করেছে, সেখানেই ধুমুহায়ে গিয়েছে জনপদ, দ্বন্দ্বাস হয়ে গিয়েছে গোটা এলাকা। আর ভূকম্পের ফলে উদ্ভূত ভূপৃষ্ঠের উপরিভাগের কম্পনে খাল, বিল পুকুরের মতো আবহ জলাশয়েও প্রায় সমুদ্রের মতো চেউ উঠেছে। পুকুরের জলস্তর চার-পাঁচ ফুট উঠে ভাসিয়ে দিয়েছে রাস্তা। জলের মাছ উঠে গিয়েছে ডাঙর।

ভূতত্ত্ববিদ ও আবহবিজ্ঞানীদের কথায়, ভূকম্পের কেন্দ্র থেকে পশ্চিমবঙ্গ বহু দূরে থাকায় ভূস্তরের কম্পন বাড়িঘরে চিড় ধরতে পারেনি বা ফাটল ধরতে পারেনি রাস্তায়। তবে ভূকম্পের কেন্দ্রের কাছাকাছি থাকায় আন্দামানে বাড়িঘরে চিড় ধরেছে। বিমানবন্দরের রানওয়েতেও এড়ানো যায়নি ফাটল। তামিলনাড়ু ও অন্ধ্রের মতো পশ্চিমবঙ্গের উপকূলে হামলা চালানি সুন্সামি। দূরত্বের জন্য স্তিমিত হয়ে গিয়েছে কম্পন। তবু দিঘা বা সাগরদীপে এ দিন ভোরে ভাটার সময় সমুদ্রে জোয়ার এসেছিল। সুন্সামির প্রত্যক্ষ প্রভাব থেকে তাই এ-যাত্রা বেঁচে গেল পশ্চিমবঙ্গের উপকূল।

ইন্দোনেশিয়ার সুমাত্রা উপকূলের কাছে ভারত মহাসাগরের ৪০ কিলোমিটার নীচে কেন্দ্রীভূত ৮.৯ রিখটার স্কেলের ভূকম্পটাই দক্ষিণ-পূর্ব এশিয়ার ছ’টি উপকূলবর্তী দেশে এই ভয়াল বিপর্যয় মূলে। ওই ভূমিকম্পের পরবর্তী কম্পনগুলির শক্তি ছিল ৭ রিখটার স্কেলের।



প্রাকিক্স: নীলরঙে মাইতি

ভূমিকম্প একটা না দুটো, তা নিয়ে রাত পর্যন্ত আবহবিদদেরা সোতানায় ছিলেন। রাত নব্বাটিকির মৌসম ভবন সূত্রে বলা হয়, সুমাত্রার সমুদ্রতলের ভূমিকম্পের পরে পরেই আন্দামানের কাছে সমুদ্রতলে আর একটা কম্পন হয়। আর সেটাই সমস্যাকে আরও জটিল করেছে। তবে সুমাত্রার সমুদ্রতলের ভূকম্পটাই ছিল মারাত্মক। জিওলাজিকাল সার্ভে অব ইন্ডিয়ার

ভূকম্প-বিশেষজ্ঞ জানরঞ্জন কয়াল বলেন, “সুমাত্রার কাছে সমুদ্রের নীচে যে ভূমিকম্প কেন্দ্রীভূত হয়েছিল, তার শক্তি অপরিমিত। একটা পরমাণু বোমার থেকে তার ধসাত্মক শক্তি ১০ লক্ষ গুণ বেশি। ফলে তার প্রভাব যে অত্যন্ত ভয়াল হবে, তা বলাই বাহুল্য। ওই ভূকম্পটির ভয়ঙ্কর শক্তি সমুদ্রের জলস্তরের কম্পন বাড়িয়ে তাকে ‘সুন্সামি’তে পরিবর্তিত করেছে।

এর পর ছয়ের পাতায়

তামিলনাড়ু, অন্ধ্র, আন্দামানে মৃত ৩৫০০

চেমাই, ২৬ ডিসেম্বর: চল্লিশ বছরের মধ্যে সবচেয়ে ভয়ঙ্কর। বহুদিনের ছুটির আমেজ-মোড়া রবিবারের সকালকে সমুদ্রগর্ভ থেকে ওঠা যে ভূমিকম্প কাঁপিয়ে দিয়ে গেল, একশো বছরের হিসাব বলাহে শক্তির নিরিখে সেটা পঞ্চম। অতল জলে এই ভূমিকম্পেই তৈরি হল তীব্র জলোচ্ছ্বাস বা ‘সুন্সামি’। এই জলোচ্ছ্বাসের সঙ্গে এককাল পরিচয় ছিল মূলত প্রশান্ত মহাসাগরেরই। এ বার তার তাওবলীলা প্রত্যক্ষ করল ভারত মহাসাগর ও বঙ্গোপসাগর। সুন্সামি জেরে ইন্দোনেশিয়া, তায়ল্যান্ড, মালদ্বীপ, মালয়েশিয়া, শ্রীলঙ্কায় মারা যান মোট আট হাজার মানুষ। বাংলার সাগরে ঘণ্টায় ৮০০ কিলোমিটার বেগে ধোয়ে আসে জলোচ্ছ্বাস। আন্দামান-নিকোবর, তামিলনাড়ু, অন্ধ্রপ্রদেশ ও কেরলে আছে পড়ে কমপক্ষে কুড়ি ফুট উঁচু চেউ। আক্ষরিক অর্থেই দুঃসংসার হয়ে যায় ভারতের বিস্তীর্ণ উপকূল অঞ্চল। এ দেশে মৃতের সংখ্যা অন্তত তিন হাজার। গোটা দক্ষিণ-পূর্ব এশিয়ায় সাড়ে ১১ হাজার।

ভূমিকম্পের কেন্দ্র ইন্দোনেশিয়ার সুমাত্রার পশ্চিম উপকূলের কাছে। আমেরিকার ভূতত্ত্ব গবেষণা কেন্দ্র জানাচ্ছে, ব্যাঙ্ককের দক্ষিণ, দক্ষিণ-পশ্চিমে প্রায় ১২৬০ কিলোমিটার দূরে সমুদ্রতলের ৪০ কিলোমিটার নীচের মাটি আচমকা কেঁপে ওঠে। রিখটার স্কেলে যে কম্পনের মাপ ৮.৯। নব্যাদিলির মৌসম ভবন অবশ্য জানাচ্ছে, সুমাত্রার ওই ভূমিকম্পের পরে পরেই আন্দামানের কাছে সমুদ্রের নীচে আর একটা ভূমিকম্প হয়। রিখটার স্কেলে তার মাত্রা ছিল ৬.২। তবে বাবতীয় ক্ষয়ক্ষতির জন্য সুমাত্রার ভূমিকম্পই দায়ী।

সুন্সামির বিশেষত্বই হল, মার মতের তার প্রভাব তখন একটা বোমা যায় না। তার বাবতীয় রোষ আছড়ে পড়ে উপকূলে। তার জেরেই তেলে যায় ইন্দোনেশিয়ার সমুদ্রতীর লাগোয়া শহরগুলি। সুমাত্রা দ্বীপের আশে প্রদেশের গারেই আঁচ মারে সবচেয়ে বেশি। ইন্দোনেশিয়ার সব মিলিয়ে নিহতের সংখ্যা ৪৪২২। তাইল্যান্ডে মারা গিয়েছেন ৩১০ জন। মালয়েশিয়ায় ২৮ জন।

মহাসাগরের অতলে যখন ভূমিকম্প হয়, ভারতের ঘড়িতে তখন সকাল ছটা আঠাশ। সুন্সামির ধাক্কা এ দেশের গায়ে লাগতে সময় নেয় আরও ঘণ্টা দেড়েক। রবিবার, বহুদিনের পরে মেরিনা বিচের মেরিনা বিচ উপচে পড়া ভিড়। প্রান্তরঙ্গমকারীরা তো ছিলেনই, ব্যাটলে মেশগুলি বেশ কিছু কচিকাটাও। সমুদ্র হঠাৎ কেন্দ্রে উঠে কেউ কিছু বোঝার আগেই ভাসিয়ে নিয়ে যায় অনেককে। মেরিনা বিচ থেকে মহালকীপুরম পর্যন্ত প্রায় পাঁচ কিলোমিটার সমুদ্রতট একেবারে বিধ্বস্ত। জল ঢুক আসে চেমাই শহরের ভিতরেও। পাশাপাশি শ্রীলঙ্কায় তেলে গিয়েছেন অন্তত সাড়ে তিন হাজার মানুষ। মালদ্বীপে মারা গিয়েছেন দশ জন।

বলতে গেলে প্রায় গোটা তামিলনাড়ু উপকূলই জলোচ্ছ্বাসে বিধ্বস্ত। সবচেয়ে খারাপ অবস্থা মংগলুরী অধ্যুষিত কাডলুর আর নাগাপটিনমের। কাডলুর এলাকায় প্রায় ৫০টি ছোট ছোট গ্রাম আছে। প্রায় সব গ্রামই ধুয়ে গিয়েছে জলোচ্ছ্বাসে। মারা গিয়েছেন অন্তত তিনশো জন। তাঁদের বেশির ভাগই হয়ে ঘীবর, না-হয় শিশু। সকালে সব ভাসিয়েও শান্ত হয়নি সমুদ্র। সন্ধ্যায় আবার জল বাড়ার সঙ্গে সঙ্গেই কাডলুর দুটি পাহাড়ে আশ্রয় নিয়েছে হাজার দশকে আতঙ্কিত মানুষ। নাগাপটিনমে মৃতের সংখ্যা আর বেশি, প্রায় এক হাজার।

বিধ্বস্ত কন্যাকুমারীও। সেখানে এ পর্যন্ত ৩৯২ জন মারা গিয়েছেন। বিধ্বস্তকাল রকম বেড়াতে গিয়ে আটকে পড়েন শ’শ’কে মানুষ। সমুদ্রে তুমুল চেউয়ের জন্য একটা সময় অনেকটাই অনিশ্চিত হয়ে পড়েছিল তাঁদের ভাগ্য। হেলিকপ্টার পাঠিয়ে উদ্ধার করার কথা ভাবা হলেও খারাপ আবহাওয়ার কারণে তা কার্যকর করা যায়নি। অধম হেউ চেউ জেলে ডিউ কর আড়াইশো জনকে মূল ভূত্রে নিয়ে আসা হয়। গভীর রাতে উদ্ধার করা হয় থাকিদের।

এর পর ছয়ের পাতায়

জলোচ্ছ্বাসের আরও খবর

- মর দুলাছিল পেড়লানোর মতো, চিড় বিমানবন্দরে... পৃঃ ৫
- ত্রাণকাজে বাঁপিয়ে পড়েছে সরকার... পৃঃ ৫
- সুন্সামি বিধ্বস্ত অন্ধ্র মৃত ৩০০, নিখোঁজ হাজার... পৃঃ ৫
- বিবেকানন্দ রকে ৫০০ পর্যটক উদ্ধার... পৃঃ ৫
- শ্রীলঙ্কায় মৃত ৩৫০০, জাতীয় বিপর্যয়... পৃঃ ৬
- চার হাজারেরও বেশি মৃত দক্ষিণ-পূর্ব এশিয়ায়... পৃঃ ৬
- ২৬-এর গোরো... পৃঃ ৬
- তালগাছের থেকে উঁচু চেউ চতুর্দিকে শবদে... পৃঃ ৬
- ২৬-এর গোরো... পৃঃ ৬
- ফিরে দেখা... পৃঃ ৬

জলাশয়ে আলোড়ন, রাজ্যে আতঙ্ক ভোর থেকেই

স্টাক রিপোর্টার: রবিবার ছুটির দিনে দক্ষিণবঙ্গের ঘুম ডাঙল শাখের শব্দে। সঙ্গে অসময়ের আঁজান। পুকুরের জলে তখন স্তিমিতমতো চেউ। সাঁ সাঁ শব্দ হচ্ছে। দু’তিন ফুট উঠে আসছে পুকুরের জল। চার সেকেন্ড পরে এক বার তা ধামল। কয়েক সেকেন্ডের বিরতি। ফের একই ঘটনা। সেকেন্ডখানেক থাকার পরে সেটাও বন্ধ হল। তার পরে আধ ঘণ্টা ধরে তিরতির করে কাঁপতে লাগল জল। কোথাও ছোট ছোট ঘূর্ণি। প্রথমে বিময়। তার পরে ভয়। পুকুরের ওই কম্পনের কারণটা যে ভূমিকম্প, তা পরিষ্কার হয়ে যায় কিছু ক্ষণের মধ্যেই। শাখের শব্দ ঘুমন্ত মানুষের টেনে এনেছিল পুকুরের ধারে। কীতুল হল মোচাতে রেডিও আর টি ভি-র শরণাপন্ন হয় মানুষ। তার দৌলতেই সারা দিনে মানুষের কাছে পরিষ্কার হয়ে যায়, তামিলনাড়ু ও অন্ধ্র উপকূলে ভূমিকম্প-উদ্ভূত জলোচ্ছ্বাস

কী ভয়ঙ্কর তাওব চািলিয়েছে। তামিলনাড়ু, অন্ধ্রপ্রদেশে ঘূর্ণিঝড় থাকা মারলে তার ব্যাপক প্রভাব পড়ে পশ্চিমবঙ্গে। এ ক্ষেত্রে কিন্তু তা হয়নি। বড় বাঁচা বেঁচে গিয়েছে পশ্চিমবঙ্গ। পুকুরের জলই শুধু কাঁপেনি, বাড়িঘরের আসবাব নড়েছে, টেবিলের রাখা পুতুল মুখ ধুবড়ে পড়েছে, বাসন বনবান করে পড়ে গিয়েছে মেয়েয়। যাঁরা পুকুরের জলকম্প দেখেননি, তাঁদের অনেকে ঘরে বসেই টের পেয়েছেন ভূমিকম্প। আতঙ্কে বাড়ি থেকে বেরিয়ে এসেছেন তারা। আবার মহানগরীর বহুতল বাড়ির অনেক বাসিন্দা কিছুই অনুভব করতে পারেননি বলে জানিয়েছেন। কাথি, দিঘার উপকূলবর্তী এলাকায় মংসাজীবীদের বস্তুতে কান্নার রোল ওঠে। গভীর সমুদ্রে থাকা জাহাজগুলির কী অবস্থা, তা নিয়েও শঙ্কা বাড়ছে। পরে অবশ্য জানা যায়, গভীর সমুদ্রে এই প্রাকৃতিক দুর্যোগের তেমন প্রভাব পড়েনি।

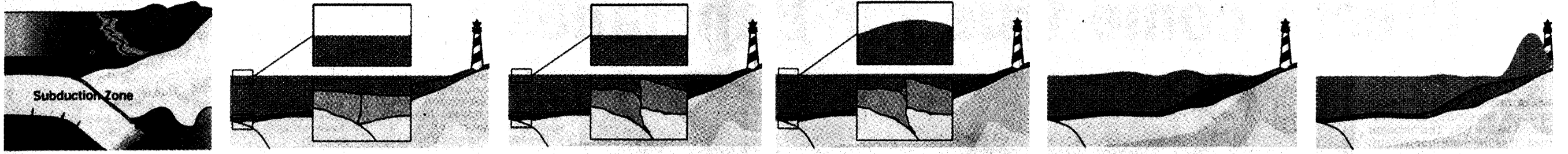
রাজ্যে ভূমিকম্পের তীব্রতা তেমন বেশি না-হলেও মৃত্যু হয়েছে এক জনের। কৃষ্ণনগরে মনোরঞ্জন বিশ্বাস (৫০) নামে এক ব্যক্তি হঠাৎটা সন্ধ্যায় একটা পুকুরে প্রাতঃস্নান করছিলেন। হঠাৎ পুকুরের জল তুলে ওঠে। তলিয়ে যান মনোরঞ্জনবাবু। আর ঘণ্টা পড়ে পুকুরের জলের তাওব ধামলে মনোরঞ্জনবাবুর নিখর দেহ তোলা হয়। দিঘা বা সাগরদীপের সমুদ্রে জলোচ্ছ্বাস তেমন হয়নি। ভাটার সময়ে জোয়ার হয়েছে মাত্র। প্রাকৃতিক দুর্যোগের জেরে দিঘা-সহ পশ্চিমবঙ্গের সমুদ্রোপকূলে উপকূলবর্তী বাহিনীর পাহারা আরও জোরদার করার জন্য কেন্দ্রের কাছে আর্জি জানিয়েছে রাজ্য। এ ব্যাপারে কেন্দ্রীয় প্রতিরক্ষামন্ত্রী প্রণব মুখোপাধ্যায়ের সঙ্গে টেলিফোনে মুখামন্ত্রী বৃন্দাবন ভট্টাচার্যের দীর্ঘ কথা হয়। প্রণববাবু এ দিন কলকাতায় ছিলেন। জলোচ্ছ্বাসে এ রাজ্যে বিশেষ ক্ষয়ক্ষতি না-হলেও মুখামন্ত্রী তাঁর

উদ্বেগের কথা জানান। দিঘা ও শঙ্করপুর থেকে মাছ ধরার বহু ট্রলারও সমুদ্রে গিয়েছে। প্রণববাবু মুখামন্ত্রীর কাছে আশ্বস্ত করে জানান, প্রয়োজনীয় সব রকম সাহায্যের ব্যবস্থা করা হবে। আগামী কয়েক দিন দিঘা-সহ রাজ্যের সমুদ্রোপকূলে টহলপাহারি বাজবে উপকূলরক্ষা বাহিনী। এ দিকে, আন্দামানের একটা যাত্রিবাহী তাহাজ্জের খোঁজ না-পাওয়ায় কেরল মুখামন্ত্রী নন, আলিমুদ্দিন স্ট্রিটে সি পি এম নেতৃত্ব গৃহীত হয়ে পড়েন। দলের রাজ্য সম্পাদক অনিল বিশ্বাস জানান, আন্দামানের সঙ্গে যোগাযোগ বিধ্বস্ত হয়ে গিয়েছে। প্রয়োজনে কেন্দ্রও মন্ত্রীকে সেখানে পাঠানো হবে। শিপিং কর্পোরেশন অব ইন্ডিয়া পরে জানায়, আন্দামান ছেড়ে যাওয়া ২৫০ জন যাত্রিবাহী তাহাজ্জটি মাঝসমুদ্রে নিরাপদেই রয়েছে।

রবিবার সকালে পূর্ব আকাশে তখন সবে সূর্য উঠি দিয়েছে। প্রান্তরঙ্গমে বোরোনো মানুষজন রাস্তার পাশে পুকুরগুলিতে অস্থিত এক দৃশ্য দেখে ধমকে দাঁড়ান। নিস্তরঙ্গ পুকুরের জল স্তিমিতমতো দুলাছে। গামলায় জল রেখে সেটিকে দোলালে যেমন হয়, ঠিক তেমনিই অবস্থা পুকুরের। জল প্রায় ৩-৪ ফুট ফুলে গিয়ে পুকুরের এক দিক থেকে অন্য দিকে গড়িয়ে যাচ্ছিল। কলকাতা-সহ দক্ষিণবঙ্গের বিভিন্ন জেলায় এই দৃশ্য দেখা গিয়েছে। ওই ঘটনার আড়মোড়া ভেঙে সাতসকালই জেগে গিয়েছিল দক্ষিণবঙ্গ।

এর পর ছয়ের পাতায়

How a tsunami starts, moves and strikes



Tsunamis are usually caused by underwater earthquakes. These often occur offshore at subduction zones (places where a tectonic plate carries an ocean is gradually slipping under a continental plate).

Part of the sea floor can snap upward abruptly, while other areas sink downward, when sections of the plates that have been locked together for a while move suddenly under the strain. In the instant after such an underwater earthquake, the shape of the sea surface mirrors the new contours of the sea floor--some areas of water are pushed upwards, and others sink.

This starts a series of waves that rush outwards--the beginning of a tsunami. These waves travel very far and very fast (more than 500 miles/hour, or the speed of a jet airplane). At first, out at sea in deep water, the waves are very far apart--sometimes hundreds of miles--and their crests are not very high, perhaps only a few feet above the rest of the surface (although these crests are only the tips of vast masses of water in motion). Seen from a passing ship or low-flying plane, they would probably not even be noticeable. When a tsunami leaves deep water and approaches the shore, however, it slows down and its height grows. The wave crests also squeeze closer together. Depending on the shapes of the sea floor off the coast and of the coastline, a tsunami hitting the coast may appear as a series of towering walls of water that can level buildings.

Source: www.pbs.org

Tsunamis return after 60 years

By N. Gopal Raj

THIRUVANANTHAPURAM, DEC. 26. Tsunamis returned to devastate India after an interval of more than 60 years. The tsunamis of 1941 and, before that, of 1881 were set off by earthquakes in the Andaman and Nicobar Islands.

The islands are earthquake-prone as they are close to the zone where the section of the earth's crust carrying India and Australia is sliding below the section that holds Asia. The two sections are converging at an estimated rate of 5.4 cm a year, according to a paper in the scientific journal, *Current Science*, last year. As the sections slowly slip past one another, strains develop at various points and they are released in the form of earthquakes.

Today's undersea earthquake off Sumatra appears to have set off smaller quakes in the vicinity of the Andaman and Nicobar islands. At least one of them had a magnitude of over 7, according to data on the United States Geological Survey (USGS) website.

Trigger earthquakes?

The USGS data also showed that earthquakes in the Andaman and Nicobar islands had occurred up to 9 degrees northwards and 2 degrees westwards of the one in Sumatra. Tremors from the Sumatran earthquake might have caused "trigger earthquakes" at faults in and around the Andaman and Nicobar islands where strain had been

building up, said C.P. Rajendran of the Centre for Earth Science Studies (CESS) here. Dr. Rajendran was the lead author of the *Current Science* paper.

The earthquake that occurred on June 26, 1941 is thought to have exceeded a magnitude of 8.5. "It is quite likely that the magnitude of this earthquake has been underestimated," the authors said in their *Current Science* paper. The quake caused extensive damage in the Andamans, including bringing down the central tower of the infamous Cellular Jail where many freedom fighters were imprisoned. The earthquake set off a tsunami that inundated the western coast of the Andaman Island and then hit the Indian east coast, destroying property and killing people.

The magnitude 7.5 earthquake of December 31, 1881 is thought to have occurred under the sea off the Car Nicobar Island. It too generated a tsunami.

Nearly a dozen earthquakes bigger than magnitude 5 have occurred in the region since 1973, with the one over magnitude 6 occurring in January 1983, according to the *Current Science* paper. But data from the country's tide gauges, available from the mid-1970s, do not indicate that any tsunamis had occurred, said Satish Shetye, Director of the National Institute of Oceanography at Dona Paula in Goa.

Although undersea earthquakes are the most common cause of tsunamis, submarine landslides, underwater volcanic

eruptions and the large meteorites plunging into the sea can also set off these killer waves. A tsunami can race across the water at speeds of 500 to 1,000 km per hour. In the open ocean, however, the waves of a tsunami may be only 30 cm to 60 cm in height and can pass unnoticed. But as the tsunami nears a coastline and the water depth falls sharply, the waves slow down but gain in height.

Series of waves

A tsunami can be 10 to 20 m high when it hits the shore. One with waves almost half a kilometre high slammed into Alaska in 1958. Moreover, a tsunami is not one giant wave, but a series of waves that come ashore at intervals of 10 to 45 minutes.

With nearly 800 of them recorded between 1900 and 2001, the Pacific Ocean is where the most tsunamis occur, and 17 per cent of them are generated in or near Japan. As a result, countries in and around the Pacific established a Tsunami Warning System. Seismic stations pinpoint the earthquakes while seafloor pressure recorders detect tsunamis even one centimetre high and promptly pass this data over satellite. All this information is combined with extensive computer modelling to find out which places could be at risk.

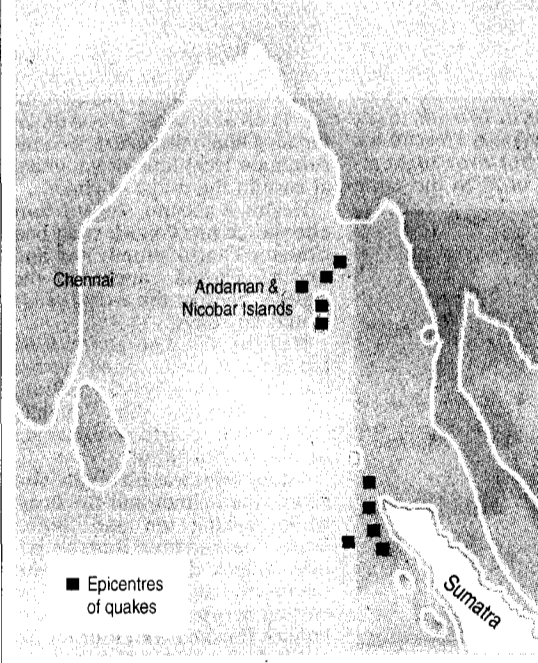
Open sea tidal gauges would help in detecting if a tsunami had been generated, Dr. Shetye observed. Such gauges would be expensive and not easy to set up.



It is pell-mell near the Vivekananda Rock Memorial, Kanyakumari, where three passenger boats were washed ashore. — Photo: A. Shaikmohideen



Where the sea and the road merged. A scene on the Marina beach in Chennai. — AP

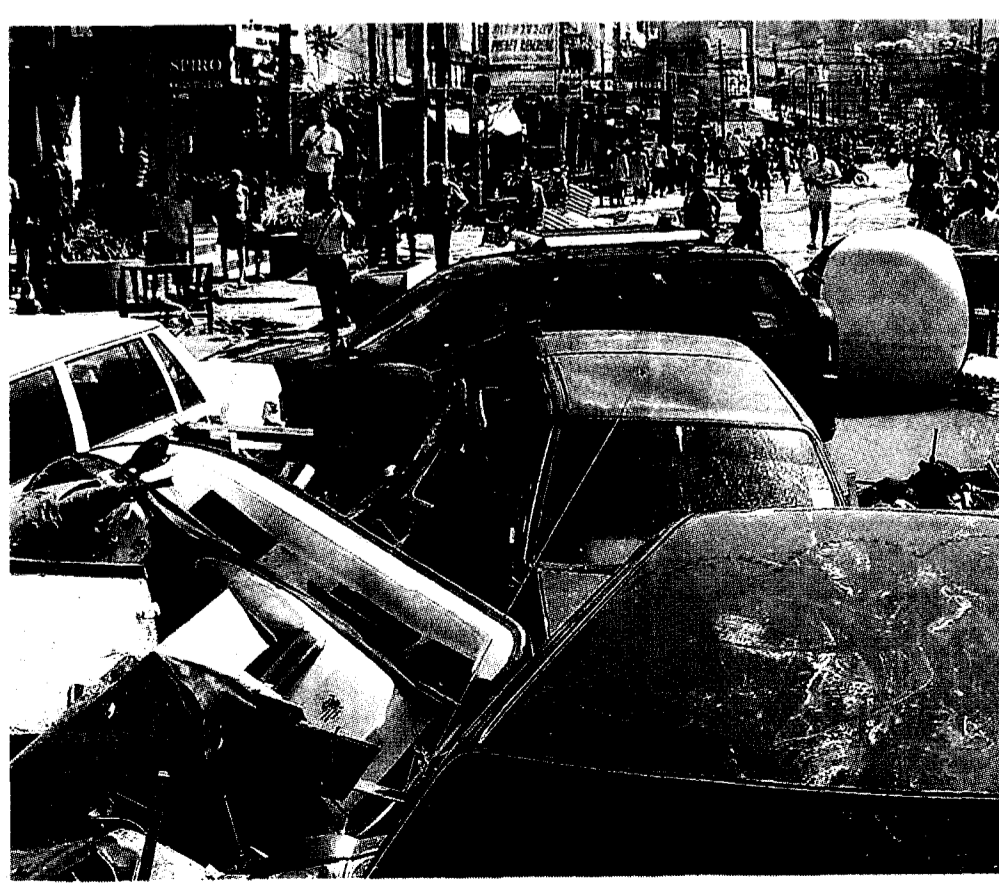


The day of quakes		
Time (IST)	Magnitude*	Location
06:28	8.9	Off W.coast of North Sumatra
07:18	5.9	Northern Sumatra, Indonesia
07:45	5.8	Andaman Islands
07:52	6.0	Nicobar Islands
08:04	5.8	Off W.coast of North Sumatra
08:06	5.8	Andaman Islands
08:21	6.0	Andaman Islands
08:29	5.9	Off W.coast of North Sumatra
08:38	6.1	Andaman Islands
09:51	7.3	Nicobar Islands
11:52	5.7	Andaman Islands
12:37	5.7	Andaman Islands
13:08	5.8	Andaman Islands
14:50	6.5	Nicobar Islands
15:49	6.2	Andaman Islands
16:35	6.3	Andaman Islands

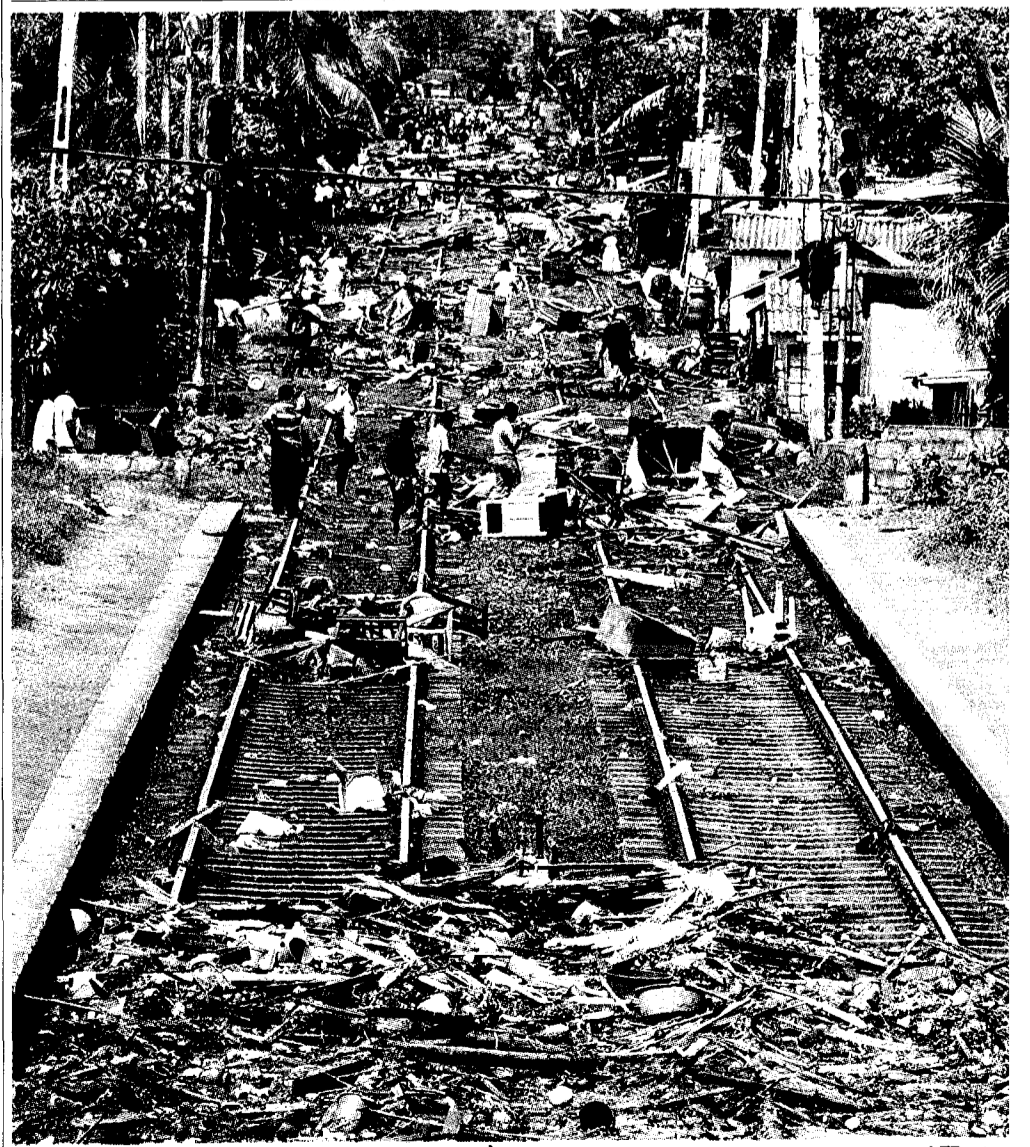
*Richter scale Source: U.S. Geological Survey



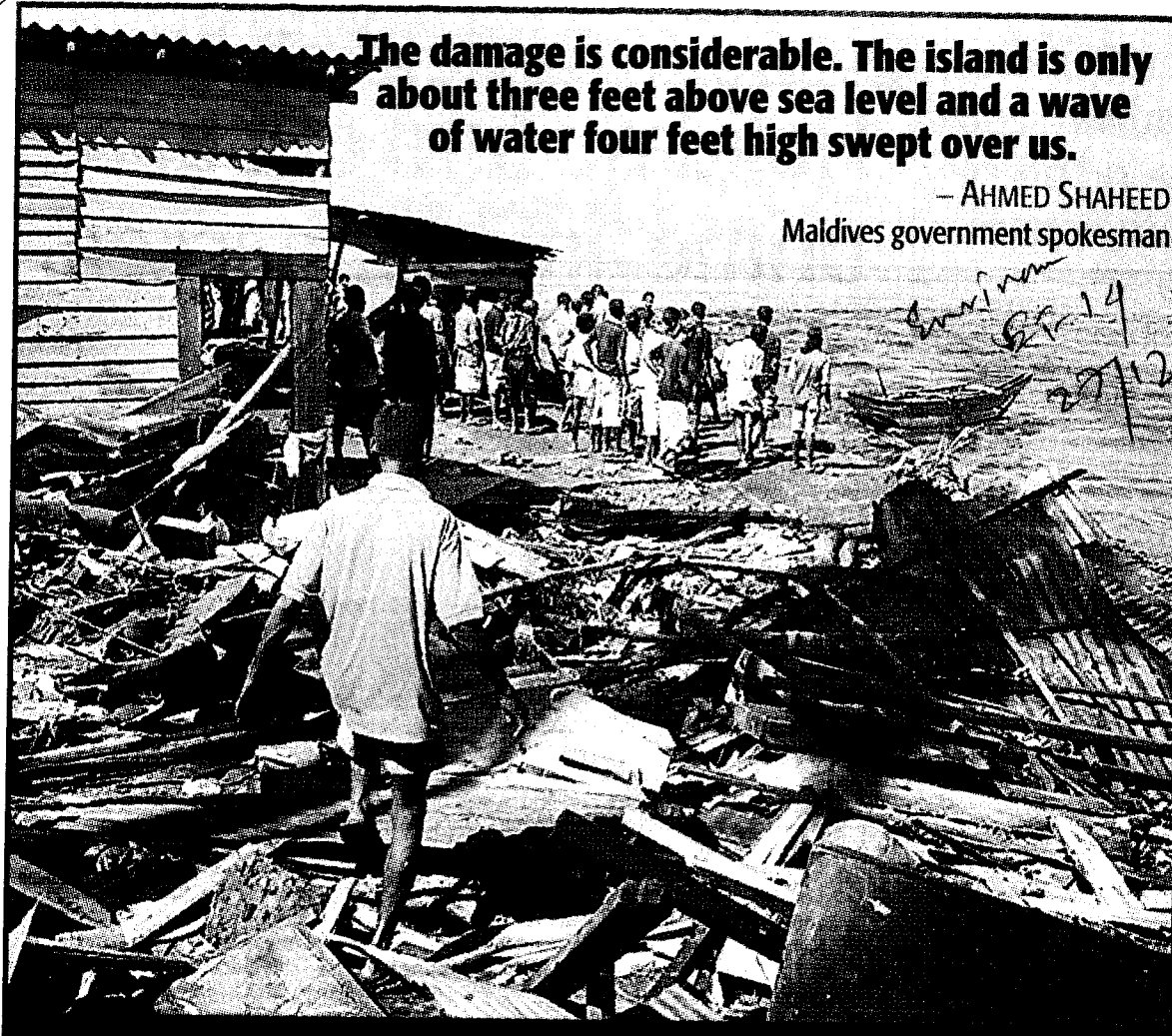
Fish abandoned at the Visakhapatnam Fishing Harbour. — Photo: K.R. Deepak



In Phuket, the southern beach resort in Thailand, a jumble of cars. — Reuters



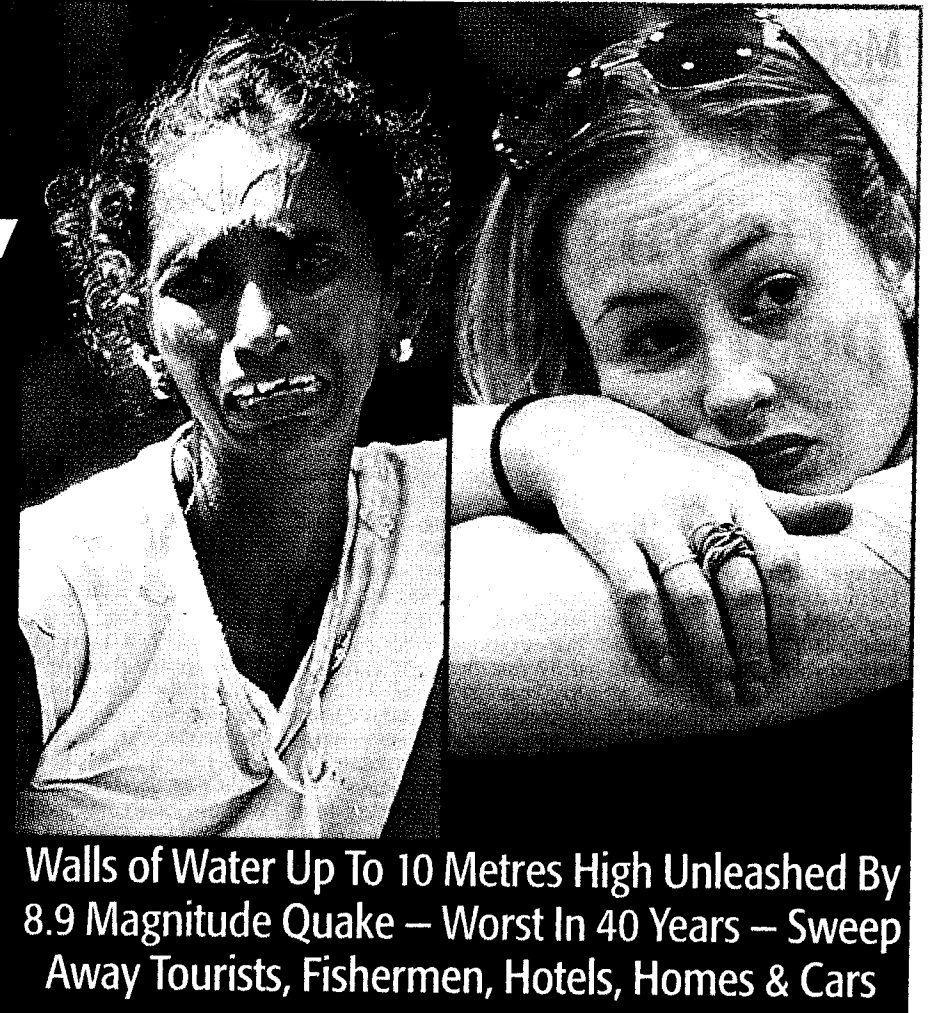
Debris on a coastal railway line in the southern Sri Lankan town of Lunawa. — AFP



The damage is considerable. The island is only about three feet above sea level and a wave of water four feet high swept over us.

— AHMED SHAHEED
Maldives government spokesman

Quake, Tidal Waves Slam Asia



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DURGAPUR: Landmark Building, Opp. Central Library, City Centre HOWRAH: H. M. C. Stadium Complex, 5-P.M. G. Road, Howrah Maidan BEHRAMPUR: 314 Netaji Road, Khagra SILIGURI: Hill Cart Road

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AUTHORISED STOCKISTS: KOLKATA: Armanian Street Saaket Textiles (P) Ltd • B. T. Road Sanjay Textiles • Unvashi • Bentinck Street Siddhartha • The OMCO Textiles • Bidan Sarani Madan Mohan Stores • Siddhartha • College Street Market Rajhans • Cotton Street Sajawat • Diamond Harbour Road Bhaskar • New Swapnalaya • Dr. K. S. Roy Road Sarkar Textiles • Garden Reach Road Monarch • Gariahat Madras Textiles • Raj Selection (P) Ltd • Gol Park Kadambari • Gora Bazar Jashoda Silk House • Grant Street A. G. Halimhai & Co. • Hazra Junction The Madan Mohan Stores • Jadavpur Ratna Stores • Jamunata Baja Street Arham Synthetics • Kalakar Street Shyam Sunder Narayan Prasad • Khidderpore New Waves • Trinity • M.G. Road Bhimjee Jhinabhai • Channia Enterprises • Gangh Brothers • Gangh & Sons • Indraroop • Kamani Bros • Satnarayan Manicklal • Shreeji Textiles • Narayan Prasad Babu Lane Cut Piece Centre • New Barrackpore, Station Road Style House • New Market Nu-Fab • Noormal Lohia Lane Art Fabric • Matching Centre • Pandit Purusottam Roy Street Indrapuri Stores Pvt. Ltd. • Rashbehari Avenue The Minakshi • S. P. Mukherjee Road Uberoi & Sons • Salt Lake (C.A. Market) The Dress Emporium • Sealadh (Acharya Praful Chandra Road) Sagar • Shyam Bazar The Shyam Bazar Cloth Stores • Uita Danga Appu ANDUL: Yadav Bastralaya ALIPURDUAR: Rupayani ALIPURDUAR JUNCTION: Railway Bazar Laxminarayan Bastralaya ASANSOL: G. T. Road Ghanty & Co. • Variety Stores • Munshi Bazar Shyamshree BANGAON: Pushpak Textiles BANDEL: Station Road Chandra BANKURA: Subhas Road Amardeep • Umadut Ramkishan BARAKAR: Station Road Ankit • Archanan BARASAT: Barackpore Road Stree Guru Bastralaya BARUIPUR: Radheshyam Textiles BEHRAMPUR: Kadai Bagrecha Brothers BINNAGURI CANTT: Badluram Agarwal Enterprise BOLPUR: Bishnupur Abhishek • Biharilal Jalan • Santiniketan Road Radheshyam Agrawal • Visva Bharati Road Gharana Commercial Mart Pvt. Ltd. BURDWAN: B. C. Road Chhiti Mahal • Samrat • Sarada • Kalitola Nivedita BURNPUR: Station Road The Dutta Brothers CHANDANNAGAR: Station Road Chitri Mahal CONTAL: Main Road Panchali COOCHBEHAR: Laxminarayan Bastralaya • Chandrakona Road The Vimal Shop CHINSURAH Rainbow • Bosco DARJEELING: Chowk Bazar Bombay Stores • Delhi Cloth Bhandar • Hetram Gokulchand • Neel Kamal • Darga Bazar Sheetal • Motor Stand Rameshwar Cloth Bhandar DHULIYAN: Jain Colony Dhannal Mohantlal Jain DIAMOND HARBOUR: Decent DURGAPUR: Bennachity Mill-Jeet • Vikas Agencies • Station Road Kanta Cloth Stores GUWAHATI: Babu Bazar Mangaldeep • Fancy Bazar Gentelman • Sanjay • Tiwari Market Arvind Stores HABRA: Laxmi Cheap Cloth Depot • Sohaniel Tapania Grand Sons • The Auro Tex HOWRAH: G. T. Road Sanjwalaya • Ghushri Mangaldeep • Salkia Dwivedi Textiles KALIMPONG: Gurung Road Shree Kanta Store • Main Road Lotus KALINA: Municipality Road The Galaxy KANCHRAPARA: K. G. R. Path Agarwala Stores • Bimal Saree Centre KANDI: Kathal Tala Manasa Bastralaya • Krishna Bagan Road Nupur KATWA: Kachari Road Debnath Cloth House • Station Bazar Ananya KHAGRA: B. B. Gupta Road Nivedita • B. B. Sen Road Mondal Cloth House • Hatta Lane Paramhansa • Netaji Road Sunita KHARAGPUR: Gole Bazar Mangal Jyoti • Navjeevan KOLAGHAT: Boser Kapader Dokan KRISHNANAGAR: Dr. D. N. Roy Road Sundar Manpasand MALBAZAR: Opp. Malbazar Thana Sudarshan MALDA: B. S. Road Gouri Bastralaya • Rabindra Avenue Sriniketan Fashions • Rathbhari Janaki Bastra Bipani MADHYAMGRAM: Sodepur Road Modern Cloth Stores NALHATI: SBI Building Krishna Cloth Stores NOWGONG: Daccapatty Ganesh Tailoring PURULIA: Main Road Kothari Cloth Emporium RANIGANJ: J. L. Nehru Road Kamalalaya Traders • Raghunathganj Om Prakash Agarwala SALKIA: Shree Aravinda Road Nani Gopal Paul & Co. SANTHA: Station Road Usha Cloth Stores SHRIRAMPUR: Benia Patty Lane Narayan Textiles • Dey Market Akash SILCHAR: Dewan Ji Bazar Nahata Tex • Janigang Bazar Shree Jain Textiles • Surana Textiles • Nazirpatty Suraj Mal Jivraj SILIGURI: Bichan Market Alpina Dresses • Ashok Textiles • Hill Cart Road Choudhary Stores • Prince Textiles • Swastika Dresses • Seth Srilal Market Parjat SODEPUR: Sriniketan Fashions (P) Ltd. SURI C R Das Road Bhabani Textiles UTTARPARA: G. T. Road Parul Selection.

*Seconds Shop

Over 9,500 killed, Lanka severely hit

Simon Gardner
COLOMBO 26 DECEMBER

ONE of the most powerful earthquakes in history hit southern Asia on Sunday, unleashing a tsunami on Sri Lanka and India and swamping tourist isles in Thailand and the Maldives to kill over 9,500 people.

The tsunami — a menacing wall of water — caused death, chaos and devastation across southern Asia. The earthquake of magnitude 8.9, as measured by the US Geological Survey, struck at 7:59 am (0059 GMT) off the Indonesian island of Sumatra and swung north with multiple tremors into the Andaman islands.

Emergency services were stretched throughout the region popular with Western tourists flying east for Christmas sunshine. Some areas were totally unprepared and the tourists found themselves flung into the jaws of disaster.

In Sri Lanka, where the death toll was nearly 2,500, corpses floated in floodwaters, while thousands fled homes and cars floated out to sea.

Idyllic beaches were turned into fields of debris and destruction. "I think this is the worst-ever natural disaster in Sri Lanka," said N.D. Hettiarachchi, director of the National Disaster Management Centre.

The worst-hit area appeared to be the tourist region of the south and east where beach hotels were inundated or swept away.

Sri Lanka appealed to the world for aid, saying that one million people, or 5% of its population, were affected. In Indonesia, where 2,437 people were listed as killed, raging waters dragged villagers out to sea and tore children from their parents' arms. The total death toll was more than 9,500 people.

Waiting relatives gathered around bodies in the south of India, where the death toll was more than 1,870. Beaches were littered with submerged cars and wrecked boats. Shanties on the coast of Madras, where 100 people died, were under water.

"The whole area has been turned into a cemetery," said Chellappa, a 55-year-old fisherman in Madras. "This is one of the largest earthquakes ever on record," said Peter Rees, of the International Federation of the Red Cross in Geneva.

"I just couldn't believe what was happening before my eyes," Boree Carlsson said from a hotel 500 metres from Phuket's Patong beach in Thailand. "As I was standing there, a car actually floated into the lobby and overturned because the current was so strong," said the 45-year-old Swede. "Nothing like this has ever happened in our country before," said Prime Minister Thaksin Shinawatra of Thailand, where the death toll was 257.

Pope John Paul said the enormous tragedy made for a sad Christmas. In the Maldives, none of the thousands of foreign visitors holidaying in the beach paradise — a magnet for honeymooners and well-heeled tourists from around the globe and famed for its world-class scuba diving — was believed to have been killed, though some had even

suffered minor injuries.

Two-thirds of the Maldives capital, Male, was flooded and the international airport, itself lying just a few feet above sea level on an island of its own, was unusable. In popular holiday islands off southern Thailand, emergency workers rescued about 70 Thai and foreign divers from the famed Emerald Cave and several dozen were found and evacuated from

Leonardo DiCaprio.

The Thai government ordered the evacuation of stricken coastal areas, which included popular beach resorts on the islands of Phuket and Krabi. Thousands were injured in Thailand. Belgian tourist Christian Patauraux said he saw many dead. "There are a lot of dead bodies and a lot of injured. I'm not sure when the next ferry is coming. Everything has been flattened," he added.

Indonesia, an archipelago of 17,000 islands, lies along the Pacific Ring of Fire where plate boundaries intersect and volcanoes regularly erupt. The worst affected area was Banda Aceh, the capital of Aceh province, where 1,400 had been killed. More than 200 prisoners escaped from a jail when the tsunami knocked down its walls.

The earthquake was the world's biggest since 1964, said Julie Martinez, geophysicist at the US Geological Survey in Colorado. "It is multiple earthquakes along the same faultline." It was the fifth-largest earthquake since 1900, she said.

"These big earthquakes, when they occur in shallow water, slosh the ocean floor... and it's as if you're rocking water in the bathtub and that wave can travel throughout the ocean," pointed out USGS geophysicist Bruce Presgrave. The world's worst tsunami in recent history struck on July 17, 1998, when three waves ripped through Papua New Guinea's northwest coast, killing 2,500.



It's as if you're rocking water in the bathtub and that wave can travel throughout the ocean.

— BRUCE PRESGRAVE
USGS geophysicist

around other islands, officials said. Two Thais were killed at Emerald cave, a major attraction for divers who have to swim underwater to its tiny beach and water illuminated by sunshine pouring through a hole in the roof. Officials said over 600 tourists and residents were being evacuated by air and sea from Ko Phi Phi, the tiny island made famous by the 2000 film The Beach starring

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A scene at the Nagapattinam Government Hospital on Sunday. — Photo: R. ShivajiRao



27 DEC 2008

THE HINDU

97th Anniversary

Maldives declares emergency

HQ-17 *29/12*

COLOMBO, DEC. 26. The Maldives declared a state of emergency today after a tsunami wave deluged the remote Indian Ocean island cluster and flooded two thirds of the capital, officials said, adding that 10 people were feared dead.

"The scale of the damage is such that we have decided to declare a state of emergency," chief government spokesman Ahmed Shaheed told Reuters by mobile telephone from Male. "Fatalities are feared to be 10, with around 30 injured," he

added. "We are still unable to get through to some of the people stranded in the islands."

None of the thousands of foreign visitors holidaying in the beach paradise, a magnet for honeymooners and well-heeled tourists from around the globe and famed for its world-class scuba diving, was believed to have been killed although some had suffered minor injuries, he added.

The Maldives President, Maumoon Abdul Gayoom, has spent much of his 26 years in

power warning of the dangers that global warming, erosion and shifting weather patterns pose to low-lying island nations like his own.

The chain of 1,200 tiny palm-fringed coral islands dotted across 800 km off the toe of India stand just a few feet above sea level.

"The damage is considerable," Mr. Shaheed said. "(Male) is only about three feet (one metre) above sea level and a wave of water four feet high swept over us."

The Government was still trying to establish communication with smaller islands where many buildings, including houses, had been flattened. "There is damage on a very wide scale. We are awaiting a full report but certainly thousands are displaced," Mr. Shaheed said.

"It is a very bad situation. It is terrible," he said after a tour of Male.

The international airport, itself lying just a few feet above sea level on an island of its own, was unusable. — Reuters

27 DEC 2004

THE HINDU

Centre takes stock of situation

By Our Special Correspondent

NEW DELHI, DEC. 26. The Union Home Minister, Shivrāj Patil, today said the Centre was getting information on the magnitude of the devastation from the tsunami-affected States, but estimated the toll to cross the 1,000 mark. Of particular concern was the fate of the 45,000-strong population of the 400-km-long island chain from the Car Nicobar to Greater Nicobar, where communication links had snapped.

"Among the worst affected are Tamil Nadu and the Andaman and Nicobar islands. The Centre is in touch with the Chief Ministers of the affected States. We are rushing food, medicines, doctors, blankets and arranging for other material which may be needed," Mr. Patil said, adding that all safety precautions have been taken and the Kalpakkam atomic plant was safe.

Talking to reporters before leaving for Hyderabad this evening to monitor the rescue, relief and rehabilitation measures, Mr. Patil said the Crisis Management Group (CMG), headed by the Cabinet Secretary, B.K. Chaturvedi, met earlier in the day and took stock of the situation. The extent of damage had not been "very extensive" in Kerala, Pondicherry, Orissa and West Bengal. Barring the West Bengal Chief Minister, Mr. Patil said he had talked to all other Chief Ministers and the Lt-Governors of Andaman and Nicobar and Pondicherry. He is scheduled to visit Chennai and Pondicherry tomorrow.

Constant watch

Mr. Patil said the disaster management machinery in the Home Ministry would keep a

constant watch over the situation and coordinate with other departments for arranging relief and assistance in any manner that may be required by the affected States.

The Union Home Secretary, Dharendra Singh, said that soon after receiving the news of tsunami waves hitting the east coast, a Dornier aircraft of the Indian Air Force (IAF) was despatched for aerial survey to Port Blair from the Tambaram air base near Chennai.

Two more IAF aircraft — a Tupolov and an AN-32 — have

landed in Port Blair, Mr. Singh said. He said extensive damage was caused in the Andaman and Nicobar islands by a second tremor at 9.53 a.m., measuring 7.3 on the Richter scale, that was closer to Greater Nicobar, about 96 km west of Indira point. He said two naval ships had also set sail for Car Nicobar from Vizag, but would take nearly 30 hours to reach there.

The Crisis Management Group decided that the Defence Ministry would immediately arrange for supply of relief material and food items from the Chennai

and Tambaram airports to Andaman and Nicobar Islands.

The Home Ministry will coordinate with the Defence authorities for making available the relief materials. An advisory has been issued, asking the ships and fishermen in the sea to stay away from the coast for the next 24 hours.

Aid to Sri Lanka

The Government has also extended support to Sri Lanka, which has suffered extensive damage. Two naval ships have set sail for Colombo and Trinco-

malee. International flights from the Maldives have been diverted to Thiruvananthapuram.

The CMG noted that due to damage to the runway at the Port Blair airport, two flights — one of Jet Airways and the other of Indian Airlines — were operated.

The airport has been inspected by the Navy. About 21,000 persons in the south of Car Nicobar Island and about 24,000 persons in the Great Nicobar Island have been affected. The other affected areas are the Kamota, Campbell Bay and Havelock Islands.

Manmohan promises all help, speaks to Chief Ministers



By Our Special Correspondent

NEW DELHI, DEC. 26. The Prime Minister, Manmohan Singh, has promised all help to the States hit by the earthquake and subsequent tsunamis, which have resulted in huge loss of lives and destruction of property in Tamil Nadu, Andhra Pradesh, Pondicherry, Kerala and the Andaman and Nicobar Islands.

Dr. Singh expressed shock and sorrow at the magnitude of the disaster and spoke over telephone to the Tamil Nadu Chief Minister, Jayalithaa, the Andhra Pradesh Chief Minister, Y. Rajeshwara Reddy, the Lieutenant-Governor of the Andaman and Nicobar Islands, Ramchandra Ganesh Kapase, and the Lieutenant-Governor of Pondicherry, M.M. Lakshana.

In a televised address to the

coordinate with the Centre to get this organised.

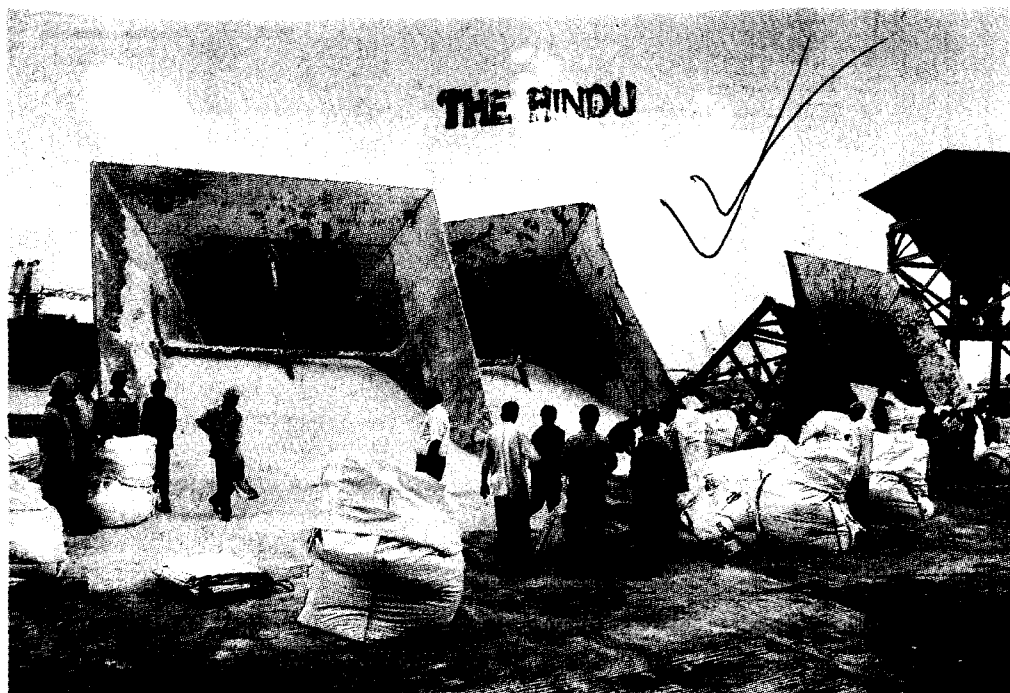
The Prime Minister said he had asked the Defence Minister, Pranab Mukherjee, and the Home Minister, Shivrāj Patil, to extend whatever help the armed forces and the para-military forces could provide. Mr. Patil has left for Hyderabad to monitor the relief and rescue operations. Mr. Mukherjee announced that the Air Force and the Navy have been put on alert, and rescue and relief work was being carried out on a war footing.

Dr. Singh said the Cabinet Secretary had held a meeting of the Crisis Management group and "all Government departments are on alert to provide maximum possible assistance." Early in the morning he learnt with deep shock the devastation caused by an earthquake in the Andaman

seas and the consequent tsunami striking the country's eastern coastline. He had received reports of extensive loss of life, severe damage to public and private property and disruption of communication.

"At this juncture, I would appeal to all citizens in the affected coastal districts to remain calm, and to assist wherever possible in the provision of relief," Dr. Singh said and added that there was no cause for alarm as "the situation is being monitored very closely."

The Prime Minister disclosed that he had sent messages of sympathy to the Presidents of the Maldives, Indonesia and Sri Lanka and to the Prime Minister of Thailand, from where reports of heavy damage had been received. "India stands ready to assist these friendly nations, should our help be required," he said.



A hopper that crashed after having been hit by a ship in the Chennai harbour on Sunday.
— Photo: S.R. Raghunathan

27 DEC 2004

THE HINDU

MONDAY, DECEMBER 27, 2004

DEATH FROM THE SEA

CUTTING A SWATHE of death and destruction across the coastal areas of half a dozen littoral countries of the Indian Ocean, the titanic tsunami rising from the fifth largest earthquake since the beginning of the 20th century — and the biggest in 40 years — has plunged the whole region in shock and grief. India and Sri Lanka are the most grievously hit, with south India and Tamil Nadu in particular suffering the highest death toll of all. *The Hindu* joins the country in mourning the death of the thousands of people who have fallen victim to nature's fury. It expresses solidarity with the hundreds of thousands of people who have lost their relatives or been rendered homeless and destitute. The Governments of Tamil Nadu, Andhra Pradesh, Orissa, Kerala, and Pondicherry, the Central Government, and civil society must do everything in their power to heal wounds, provide relief and rehabilitation on a huge scale, and help reconstruct the lives, livelihood, and assets of the mostly poor people who, on account of the vulnerability of their lives, were the tsunami's principal victims. This is not to underestimate the trauma inflicted by the killer waves on Sri Lanka, Indonesia, and other South East Asian nations close to the epicentre of the quake off Sumatra Island. The epic devastation of the Bhuj and Latur earthquakes on land remain etched in the country's collective consciousness. But nature's ferocity in the form of the tsunami is such a rare phenomenon in the South Asian region that unsuspecting people were completely unprepared for it. The tsunami is a giant sea wave that results from displacements caused by large earthquakes, major submarine slides, or exploding volcanic islands — a phenomenon usually associated with the Pacific. India has experienced it at least twice in the past, in 1881 and 1941.

The element of surprise in the tsunami's strike on a holiday morning explains, in part, the calamitous effects in the cities, towns, and villages that were engulfed by the sea. Fishermen who put out to sea in their catamarans and other boats, and their families in coastal hamlets, account for a huge part of the still unknown death toll. Other victims were on the beaches for their

normal routine or swim or were tourists trapped by happenstance in the death zone. A couple of hours earlier, many had been frightened out of bed by tremors from the primary undersea earthquake, which measured 8.9 on the Richter scale (at the epicentre off the West Coast of Northern Sumatra, 2,028 km South East of Chennai). Even for a nation with a recorded toll of over a hundred thousand fatalities in earthquakes in the past two centuries and a long history of cyclonic havoc, the tsunami of 2004 will go down as an unprecedented display of nature's cruelty. The 2001 earthquake in Bhuj challenged the capacity of the Indian republic to handle emergencies on a gigantic scale. Given the country's geological history and also the surprise factor, it must be prepared to do so again.

The emergency in the tsunami-hit parts of peninsular India calls for a well-coordinated relief, rehabilitation, and reconstruction effort. People belonging to all sections of society must respond to the challenge and contribute generously in various ways. The developmental experience available from the Latur and Bhuj rehabilitation programme can be drawn upon. Caring relief apart, a massive re-housing programme is a top priority. Task forces working with a timeframe and in a non-bureaucratic way can, in partnership with citizen sector organisations, ensure both efficiency and accountability. The loss of livelihood must be specially addressed and women and children provided safe shelter and sustenance. Looking beyond the tsunami tragedy, the country has to prepare for earthquakes with a greater measure of mission and scientific clarity. A close hard look at seismic zoning maps for various cities and the implementation of codes for quake-resistant buildings should not be delayed any longer. Meteorologists and experts will feel helpless in the realisation that their formidable scientific capabilities could not generate so much as a hint that a killer wave might follow the first and strongest of the 14 earthquakes in the region. The death toll is the more poignant for the fact that the tsunami took more than two hours to reach the Indian coast — enough time to clear the most vulnerable areas, the beaches in particular, if only a warning had come.

27 DEC 2004

THE HINDU

Handwritten scribbles and numbers: 110 6 27/12

Handwritten scribbles and text: Environment



WATER, WATER EVERYWHERE: Seawater surging on the Marina beach when the tsunami struck Chennai on Sunday. — Photo: S. R. Raghunathan

27 DEC 2004 THE HINDU

Tsunami kills thousands across nations

- Tamil Nadu, Sri Lanka worst hit
- Pondicherry, Andhra Pradesh, Andamans, Kerala hit
- Thousands of fishermen missing
- Sequel to Richter 8.9 undersea earthquake
- Massive relief under way

By Our Bureaux and agencies

CHENNAI, DEC. 26. Huge seismic sea waves, triggered by a massive undersea earthquake off Sumatra in Indonesia, left over 10,000 people dead and tens of thousands homeless in India, Sri Lanka and South-East Asia on Sunday.

The earthquake, which had its epicentre 257 km south-southwest of Banda Aceh, Sumatra, measured 8.9 on the Richter scale making it the most powerful in the world in the last 40 years. At least 2,200 people were killed in Indonesia floods and collapsing buildings, officials said. But, most of the destruction was caused by seismic waves or tsunami that hit India, Sri Lanka, Malaysia and Thailand within two hours of the first impact of the quake.

Caught unawares

Fishermen, tourists and people living on the coast were unprepared for the waves that rose as high as six metres (20 feet) throughout the Indian Ocean and the Andaman Sea.

In India, more than 3,000 people were killed in Tamil Nadu, Pondicherry, Andhra Pradesh and Kerala. Tamil Nadu alone accounted for 1,705 deaths.

The toll is expected to rise. In Chennai, early morning walkers and children playing cricket on the beach were washed away. The toll: 131. Nagapattinam was worst hit in the State with the toll put at 788. In

PM promises all help: Page 11
When Marina became a nightmare: Page 13
India to join global warning system: Page 14
More photos: Page 20

Kanyakumari, 392 people died. Both units of the Madras Atomic Power Station in Tamil Nadu were shut down as a precautionary measure. Officials said there was no damage or radiation leak.

1000 killed in Andamans

Late reports said at least 1,000 people died in the Andamans. Pondicherry reported 280 deaths, 211 in Karaikal alone. In Kerala, at least 100 people have died. The toll in



WHEN THE SEA SURGED ON TO THE LAND: Residents of a Chennai suburb scramble for safety as the waves come menacingly at them on Sunday morning. — Photo: Bijoy Ghosh

Andhra Pradesh was 84.

The Port Blair airport in Andaman and Nicobar Islands was damaged and it will not be operational for at least a month. However, flights have not been affected in Chennai and other cities.

Railway tracks on the east coast of India were also damaged in the tsunami and train services have been suspended in some sectors. West Bengal and Orissa escaped unscathed.

Pranab coming to Chennai

The Defence Minister, Pranab Mukherjee, will be leaving for Chennai tomorrow to personally coordinate all relief and rescue operations being carried out by the defence forces.

Sri Lanka calls it a national disaster

Sri Lanka, whose capital, Colombo, is 1,806 km west of

the epicentre, suffered extensive damage with reports putting the number of people killed at 4,500.

One million more were affected by the surging seawater that flooded coastal towns including Colombo.

The Government called Sunday's events a national disaster

and appealed for emergency relief.

Nearly 300 were confirmed dead in Thailand, among them holiday revellers from around the world. The toll in Malaysia was 428, including foreign tourists. Thousands of people, mostly fishermen, were reported missing.

What is a tsunami?

CHENNAI, DEC. 26. What is a tsunami? This city, and many others in south coastal India, woke up to ponder this question on Sunday as monster waves triggered by seismic activity temporarily rearranged the coastline.

Tsunami (pronounced tsoo-nah-mee) is a Japanese word which means "harbour wave." Tsu means harbour

and nami stands for wave. Tsunamis are large waves that are generated when the sea floor is deformed by seismic activity, vertically displacing the overlying water in the ocean.

Throughout recorded history, tsunamis have caused significant damage to coastal communities all over the world.

The United States Geological Survey recorded the magnitude 8.9 earthquake off Sumatra as lying centred 10 km below the seabed. Aftershocks struck in the magnitude 7 range.

The earthquake was the world's fifth most powerful since 1900 and the strongest since a 9.2 temblor slammed Alaska in 1964, U.S. earthquake experts said.

The quake occurred at a place where several massive geological plates push against each other with massive force.

The survey said a 1,000-kilometre section along the boundary of the plates shifted, a motion that triggered the sudden displacement of a huge volume of water.

The force of it shook unusually far afield, causing buildings to sway hundreds of miles away, from Singapore to the city of Chiang Mai in northern Thailand, and in Bangladesh.

Initial damage centred on the Indonesian province of Aceh, northern Sumatra. But more people were killed in the tsunami that came in the wake of the quake.

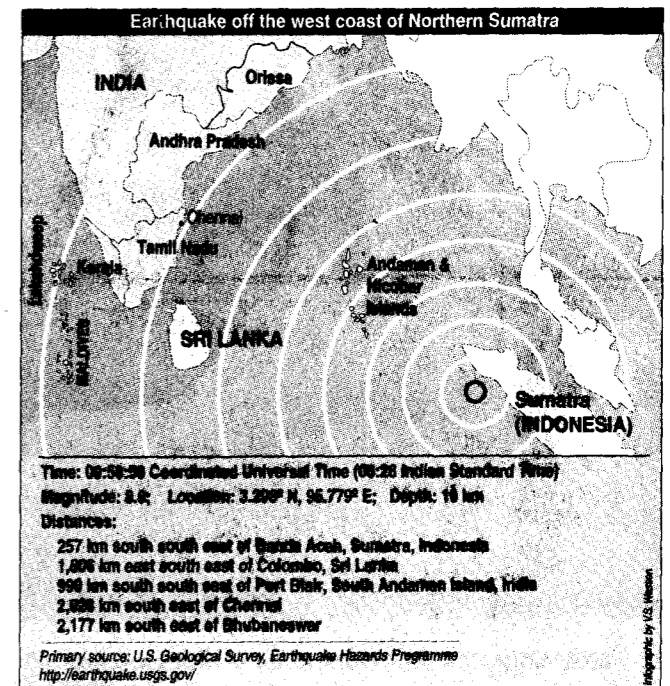
At least two children were killed when a boat capsized in Bangladesh, local authorities said.

High waves in Maldives

High waves inundated the Maldives, a string of 1,192 coral atolls off the southwestern coast of India, injuring one tourist and forcing the airport to close, an official said.

Late tonight, the tsunami hit the east African coast, smashing fishing boats and flooding low-lying areas.

One person was killed and many feared missing on Kenya's coast where thousands of are visiting for the Christmas holidays.



27 DEC 2004 THE HINDU

Wake-up call with three whiplashes



An aerial view of the tsunami-struck Marina beach in Chennai. (Reuters)

M.R. VENKATESH

Chennai, Dec. 26: Giant waves churned up by a massive earthquake across the ocean came crashing on the Tamil Nadu coast as most people were waking to a lazy winter Sunday, killing 1,567 people.

The tremors, measuring 8.9 on the Richter scale, originated under the sea off Indonesia's Sumatra island, triggering a train of tsunamis that lashed the Tamil Nadu shore at least thrice.

They wreaked havoc across Chennai, Pondicherry, Cuddalore and Nagapattinam down to Kanyakumari on the southern tip of peninsular India.

The first — and most ferocious — tsunami to hit India in living memory touched land around 7.30 am, 45 minutes after mild tremors were felt in Chennai. The wave, said to be about 10 metres high, swamped large swathes of Chennai and washed away

fishing villages in minutes.

"I saw five bodies floating suddenly," said a witness at Tiruvottiyur in north Chennai. Altogether, 128 persons were drowned in Chennai.

Half-submerged cars and wrecked boats lay on the famed 12-km Marina Beach. "My mother had gone to the seaside to buy fish when the wave came and lifted her," said a dazed Muthulakshmi, a fisherman's wife, standing on a pavement with hundreds of refugees.

"It took an hour for us to go and recover her body. Thank God my husband had not gone to sea as he was unwell."

The second tsunami hit around 9 am and a more modest one after noon, a fisherman on the Marina beach here said. Nagapattinam was the worst-hit district, accounting for nearly 800 deaths. Cuddalore and Kanyakumari recorded 290 and 261 deaths, respectively.

Chief minister Jayalithaa surveyed the affected

areas by air in the afternoon.

Touching down, she regretted "everything seems to have happened in 20 minutes". She spoke to Prime Minister Manmohan Singh on telephone.

"Never in my life I have had such an experience. The whole area has been turned into a cemetery," said Chellappa, a 55-year-old fisherman.

"I was standing by the seashore when I noticed the sea level rising but I was not concerned then because I only thought it was an unusually high tide," said Chellappa. "Then I heard an eerie sound that I have never heard before. It was a high-pitched sound followed by a deafening roar. I told everyone to run for their life and I started sprinting inland."

The mild tremors here at 6.33 am, four minutes after the sea-floor convulsion off Sumatra, jolted the people here, but could never have prepared them for the death and destruction that the tsunamis

were bearing towards the shore.

The army, navy and the coast guard have been pressed into relief and rescue operations. The Southern Air Command is making sorties to rescue over 500 people feared

stranded on the Vivekananda Rock off Kanyakumari.

Chennai was last rocked by a 5.6 quake on September 25, 2001. Some 60 years ago, meteorologist P.C.S. Rao said a tsunami was reported to have struck Chennai.

OUR SPECIAL CORRESPONDENT

Scientist words ring true

Chennai, Dec. 26: As India mourned, a group of people at Madras University's Applied Geology department could barely hide their glee.

December 26, Sumatra, 03.54 degrees latitude and 097.17 degrees longitude — a team of seismologists led by Dr N. Rajeshwara Rao and N. Venkatanathan had predicted. The forecast was near perfect.

Flaunting the relevant information downloaded from the site of the World Data Center for Seismology, Denver, Venkatanathan said the data put out by the US Geological Survey read: "December 26, 2004, off the West Coast of Northern Sumatra, 03.298 degrees latitude and 095.779 degrees longitude."

"We had predicted the earthquake in Sumatra as occurring at 6 am this morning, but it happened there at 6.29 am. And there was a 150 km difference in the distance from where we had predicted," added Venkatanathan, whose recent prediction about an earthquake had kept most of Jorhat, Assam, on the roads early this month.

He said their earthquake prediction model could be fine-tuned if there was more actual data on the physical characteristics of an area from remote sensing satellite maps.

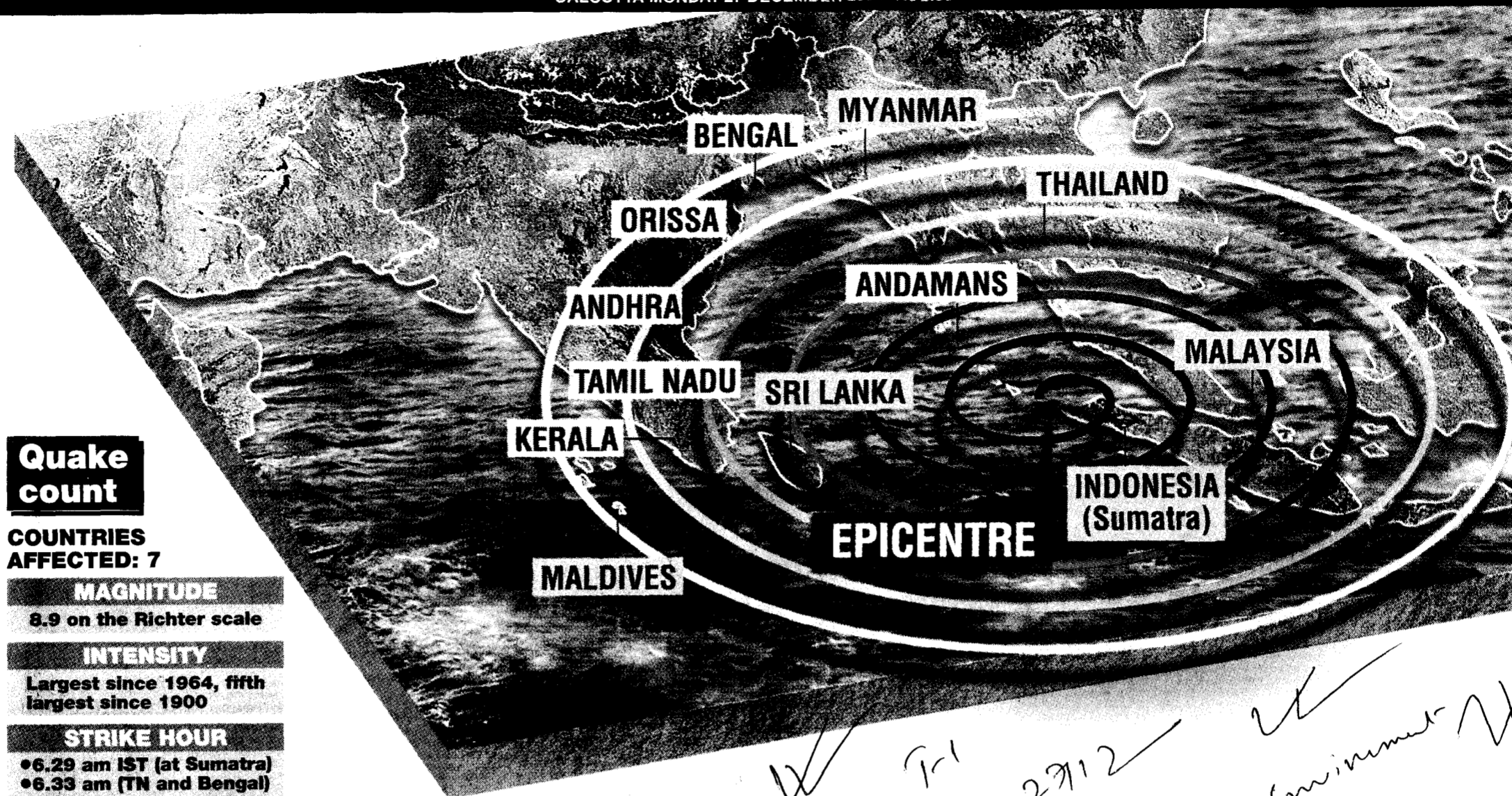
They went wide off the mark when it came to the magnitude of the quake. They

km away, "disturbing the total tectonic setting", said Venkatanathan.

The researcher and his colleagues use a predictive model, based on the position and alignment of various planets with the earth. Four heavenly bodies — Mercury, Venus, Sun and Moon — had aligned with the Earth today, he said.

As the researchers rejoiced, some are speaking of celestial retribution. One contention going around is that the Gods are angry that the Kanchi seer has been jailed.

didn't expect the Sumatra tremors to be stronger than 7 on the Richter scale, but they were recorded at 8.9. Therefore, the tremors were felt as far as Chennai, some 1,700



Quake count

COUNTRIES AFFECTED: 7

MAGNITUDE

8.9 on the Richter scale

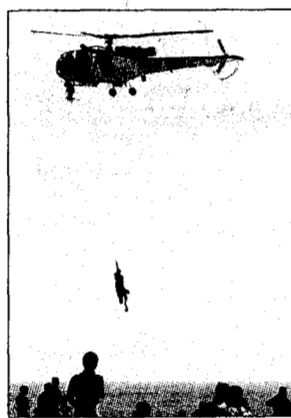
INTENSITY

Largest since 1964, fifth largest since 1900

STRIKE HOUR

• 6.29 am IST (at Sumatra)
• 6.33 am (TN and Bengal)

ASSASSIN OCEAN



Fishermen being rescued in Chennai

I heard an eerie sound that I have never heard before. It was a high-pitched sound followed by a deafening roar which seemed to be getting louder. I told everyone to run for their life and I started sprinting inland

— A Chennai fisherman



Cars damaged at Phuket in Thailand

Before the wave hit, I saw sea water fall back around 100 metres from the beach and some minutes later there was a three-storey-high wave moving towards the beach and everything collapsed

— A hotel worker in Thailand



Residents flee home in Indonesia

The weather was fine with no clouds and suddenly the sea water just hit the city.

— A resident of Aceh in Indonesia

A wave up to 10 ft in height hit this area and everything was swept away, including my three-wheeler taxi

— A fisherman near Colombo



A Lankan in front of her wrecked home

Earth churn spawns killer

OUR BUREAU

Dec. 26: Over 11,000 people died a day after Christmas when the world's biggest earthquake in four decades and a train of waves it churned up in the sea smashed India and six other countries in south Asia.

Some 3,100 people were feared killed in India alone this morning when a tsunami — a chain of high waves — crashed into the shores of the three coastal states of Tamil Nadu, Andhra Pradesh and Kerala and the Andaman and Nicobar islands.

The earthquake struck at 6.29 am (IST) off the Indonesian island of Sumatra and swung north with multiple tremors into the Andamans, where the southern cluster of islands from Car Nicobar to Indira Point were the worst affected with communication lines almost completely broken down.

Casualties were high in Sri Lanka — over 3,500 — which appealed for emergency international aid, a request India immediately responded to.

The Indian government itself faced the daunting task of repairing the lives and property of lakhs of people almost all along the Tamil Nadu coast from Chennai in the north to Kanyakumari in the south. Huge waves rising up to a maximum of 10 metres entered

homes and flooded fishing villages, all within 15 minutes. Officials said over 1,500 people were dead.

Four minutes after the earthquake struck Indonesia, tremors were felt in Tamil Nadu at 6.33, sending people rushing out of homes in Chennai. According to witnesses, the first wave from the sea crashed into

hundred are confirmed dead, mostly in worst-hit Car Nicobar, while 700 are untraced for a long time and believed to be dead. The death toll will go up to at least 1,000."

In Indonesia, where the killer convulsions began, over 4,400 people lost their lives but it was not clear if the deaths had been caused by the quake

THE TOLL

INDIA	3,100+
TN	1,567
Andamans	1,000
Pondicherry	270
Andhra	200
Kerala	100
Bengal	1
INDONESIA	4,422
SRI LANKA	3,500
THAILAND	279
MALAYSIA	28
MYANMAR	10

Estimates till midnight

the shore about an hour later, between 7.30 and 7.45. It was followed by two more waves.

A witness at Tiruvottiyur in north Chennai said: "Huge ferocious sheets of sea water simply broke open into the coast and nothing else could be seen for a while."

Another 200 were estimated to have died in Andhra and 100 in Kerala.

A PTI report from Port Blair quoted the inspector-general of police of the Andaman and Nicobar Islands, S.B. Deol, as saying: "Three

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measuring 8.9 on the Richter scale or the tsunami.

This is the third time an earthquake has struck a day after Christmas. On December 26 last year, 41,000 people were killed in a quake in Iran's Bam. On the same date in 1939, 33,000 people died when Turkey was devastated.

There were reports of raging waters washing residents out to sea and tearing children from their parents' arms in the Indonesian provinces of rebellious Aceh and North Sumatra. In neighbouring

Malaysia, lashed by the tsunami, at least 28 people died and many were missing at sea.

As the wall of water raced across thousands of miles over sea, it swamped tourist isles in Thailand and Maldives and, driving through the Andaman Sea, struck southeast Myanmar where 10 people died in a bridge collapse.

Two-thirds of the Maldives capital, Male, was flooded and officials voiced anxiety for the fate of dozens of low-lying, palm-ringed coral atolls crowded with tourists from around the world. India is sending help to Maldives.

In Thailand, around 280 people had been killed and more than 1,000 injured, officials said. They said more than 600 tourists and locals were being evacuated by air and sea from Ko Phi Phi, the tiny island made famous by the 2000 film *The Beach* starring Leonardo DiCaprio.

Officials reported that a wave 5 to 10 metres high hit hotel-lined beaches in the popular Thai resort Phuket.

"There would be a surge and then it would retreat and then there would be a next surge which was more violent and it went on like that," said Paul Ramsbottom, a tourist.

"Then there was this one almighty surge. I mean literally this was the one which was picking up pickup trucks and motorcycles and throwing them around in front of us."

Swelling seas, walls of water

Tamil Nadu bears the brunt of nature's fury

HT Correspondent
Chennai, December 26

MORE THAN 1,400 people perished in Tamil Nadu's worst ever natural disaster on Sunday morning as tsunami waves triggered by the Indonesian earthquake submerged hundreds of coastal villages in the state and neighbouring Pondicherry.

State officials kept stumbling upon bodies as waters from tidal waves, measuring up to 10 metres, receded and the final toll is expected to cross 1,500. Officially, 870 people have died so far. A police officer cautioned that the figure is bound to rise as reports from distant coastal villages were trickling in. Among the worst affected is Nagapattinam district, where more than 400 people drowned in Nagapattinam town alone, with another 80 fishing villages swept away by the tidal waves that caught many virtually napping.

The precursor to the disaster was a mild tremor felt in and around Chennai at about 6.30 a.m., which forced many people to run out of their homes. Those living in flats and houses near the beach, fearing another round of tremors, found the open seashore a safer haven and lingered on in a typically Sunday mood. But they were taken by surprise when the sea suddenly swelled and huge waves crashed in on people standing even 30 metres inside.

Caught unawares, women and children were swept away by the waters on the Marina Beach that even breached the compound wall of the DGP's office, almost 800 metres away from the shoreline. In north Chennai, many beachgoers and revellers were simply swept back into the sea or drowned as the beach turned into a swathe of watery graveyard.

But worse was happening elsewhere — down south where the tides swallowed village after village. In Cuddalore district, more than 60 villages vanished without trace, while in Nagapattinam the remnants of the disaster left a to-



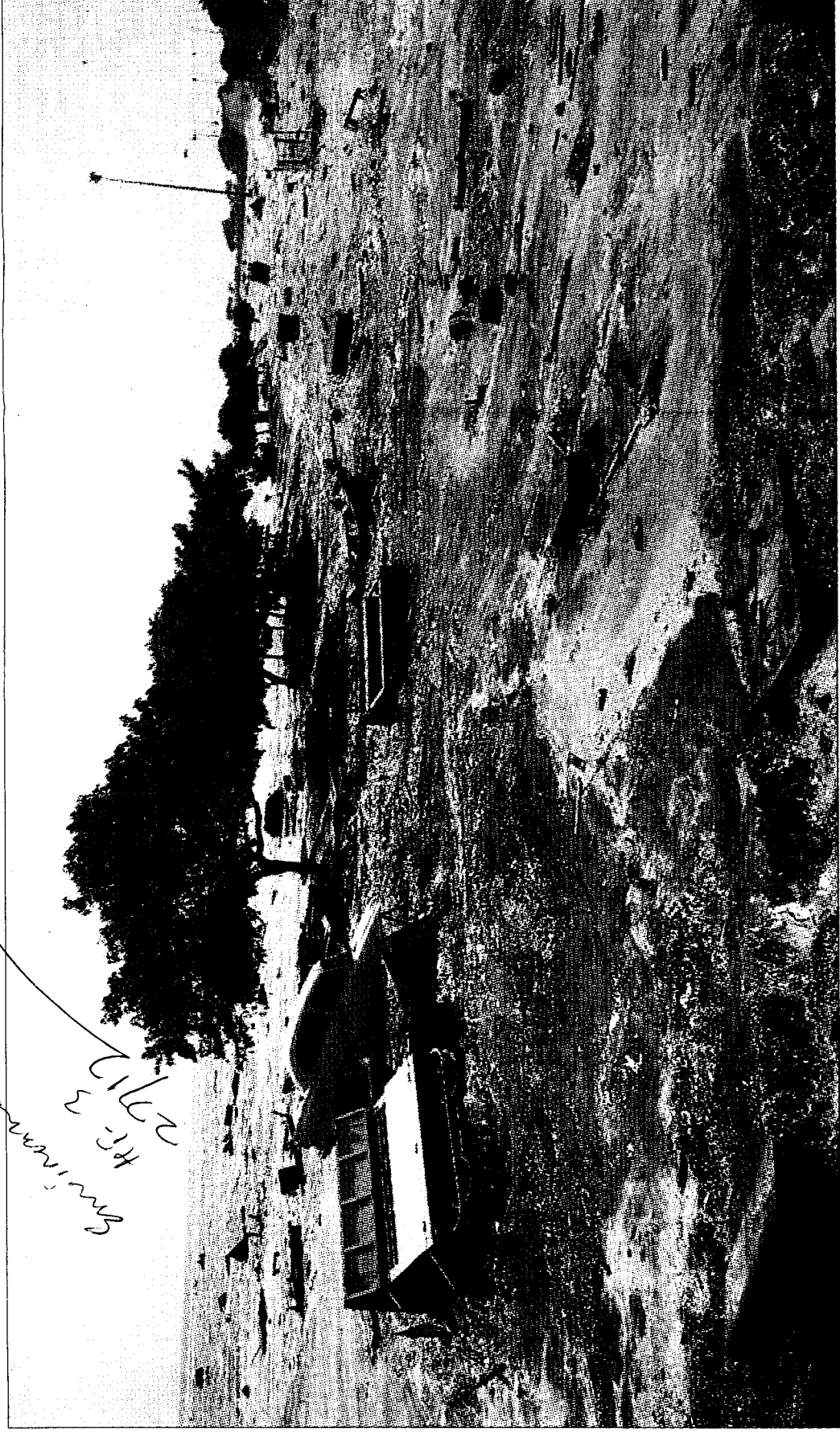
REUTERS
DEATH ROW A TV grab of a Chennai hospital mortuary.

tally unprepared administration. In Kancheepuram, 40 people who had gathered for their Sunday mass were killed when the waves caused the church to collapse within seconds. Another 15 patients admitted to the Department of Atomic Energy Hospital in the Kalpakkam township were drowned by the sudden gush of sea water, even as the staff panicked and ran away.

The DAE's atomic power plants in Kalpakkam were swiftly shut down by the authorities as sea water gushed in into the plant. With hundreds of fishermen having ventured into the sea, their remains unknown and authorities say they would be very lucky to have survived the onslaught.

For a state ravaged regularly by cyclones, whose death tolls never crossed 100 a year, Sunday's tsunami was a widely unexpected disaster that went beyond the wildest nightmares of the state's people or the administration.

"Who would have imagined tsunami waves hitting the Tamil Nadu coast? At least the cyclones bring in much-needed rain. But this nature's freak had only death written all over it," said a senior IAS officer.



AFP
LETHAL TIDE A devastated Marina Beach in Chennai after tidal waves hit the southern Indian coastline, killing over 1,400 people in Tamil Nadu on Sunday.

When their guardian angel let them down

G.C. Shekhar
Chennai, December 26

FORTY-YEAR-OLD Velankanni refuses to believe that the goddess, after whom she was named and who is said to be the protector of seagoing fishermen and their families, would let her down so badly. After all, only yesterday the entire family had gone to the Velankanni Church in Besnagar for their Christmas mass.

Her 19-year-old daughter, Mary, had decided to go to Marina Beach

with her friends for a Sunday outing, but they were rudely wakened up by early morning tremors that made Velankanni's family run out from their slum tenement.

"I asked them to remain on the beach for their own safety, even as I returned home to prepare breakfast. But suddenly a neighbour called me around 9.30 and said she had seen some men carrying Mary's body on a cot.

"I wanted to go there, but my neighbours caught me and said it was unsafe to go out. Only

my Velankanni Amma would bring the seas into our homes and do this to my only daughter," she sobbed, as she waited outside the Royapettah Hospital's morgue. Her husband who had gone to visit a relative outside Chennai was still unaware of the tragedy.

Similar stories abounded the hospital compound, as bereaved fathers, mothers, brothers or sisters waited to collect the bodies that were "living till the sea gods turned unreasonably angry".

These folks, most of whom battle the seas for a living, may for some time curse the gods over lives and property lost, and a bleak future.

But as their sorrows recede with the waters, they will start praying to the very same guardian angel. Only their future prayers may have a minor variation: "Protect us, not only when we venture out into those wild open oceans, but also on our shores when the oceans turn violent for no reason."

Tsunami triggers wave of death

29712
Sri Lanka

Killer Storm Claims 1400 In Tamil Nadu

Chennai: An estimated 1,800 people, including 1,400 in Tamil Nadu alone, were feared killed and hundreds more were missing when high tsunami tidal waves lashed homes along the coast in south-eastern India after a massive earthquake hit the Sumatra Island in Indonesia on Sunday morning. Tamil Nadu bore the brunt of the attack while neighbouring Andhra Pradesh also reported about 200 deaths, mostly in Guntur, Prakasam and Krishna districts. In Pondicherry, about 100 people lost their lives.

Andaman and Nicobar Islands, whose Car Nicobar islands are just 115 nautical miles from Sumatra, the epicentre of the quake measuring 8.9 on the richter scale, were also hit by the tidal waves that claimed 20 lives and damaged property including the airport in Car Nicobar. Campbell Bay, just about 25 nautical miles off the Indonesian coast, suffered extensive damage.

In the southern tip, Kerala accounted for a toll of 29 people while one person lost his life in West Bengal. Tsunami waves are triggered by seismic disturbances landslides that jolt the ocean floor. The result is a deep wave that reaches from the sea's surface to the floor and travels horizontally at speeds upto 800 km and reaches height between 50 and 100 feet.

Home minister Shivraj Patil before leaving on a visit to Andhra and TN



Running For Life In Madras Beach

2400 Washed Away In Coastal Lanka

Colombo: More than 2,400 people were killed and many more missing in Sri Lanka as killer tsunami waves lashed the eastern and southern coastal regions of the island on Sunday following a massive quake in Indonesia leaving a trail of destruction, a top official said.

Reports of fatalities from across the affected coastal regions of the island added up to at least 2,425 dead, Lalith Weerasingga, the senior-most official in Premier Mahinda Rajapakse's office said.

Weerasingga, who is co-ordinating relief operations, said "We have police reports which place the death toll at 2,425. We don't have the full picture from some places which have been cut off."

Flash floods swept through villages which were totally unprepared, to the main hospital while another 115 were taken to another hospital nearby. Many others were reported missing from the coastal regions of the island.

Hundred of villages along the island's coastal regions were flooded and many houses completely destroyed. Sri Lankan President, who is

India despatches aid to Colombo

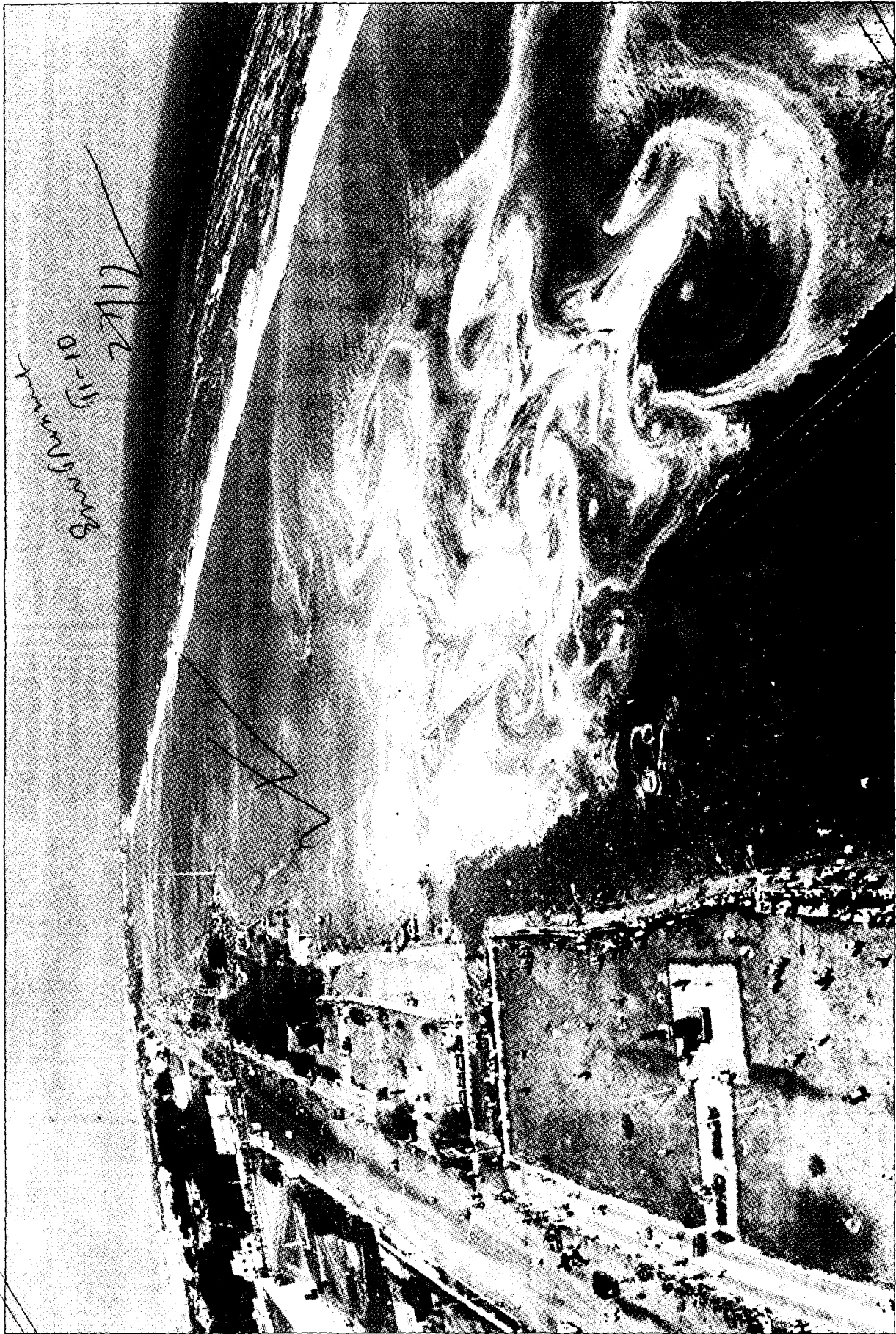
New Delhi: Five naval warships loaded with relief supplies have left for Sri Lanka as Indian Air Force despatched three AN-32 transport aircraft carrying relief and medical supplies.

Naval chief Admiral Arun Prakash has directed that five naval warships from Mumbai, Cochin and Vishakhapatnam to set sail for Trincomalee and Galle ports in Sri Lanka in response to a SOS received from the Sri Lankan government. He said warships are carrying rescue helicopters and boats, naval divers and relief and medical supplies and will be assisting the Sri Lankan navy in rescue operations.

The southern Lankan town of Matara, 160 kms from here, was badly hit and police said nearly 200 bodies were taken to the main hospital while another 115 were taken to another hospital nearby. Many others were reported missing from the coastal regions of the island.

Hundred of villages along the island's coastal regions were flooded and many houses completely destroyed. Sri Lankan President, who is

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An aerial view of Chennai's Marina Beach after it was hit by a tsunami on Sunday

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