

**SEARO Regional Strategy**

**Water Supply and Sanitation in  
Emergencies**

**Paul Deverill**

**STP  
WHO SEARO**

**8 November 2002**

**Abbreviations**

CHAD	Conflict and Humanitarian Affairs Department (DFID)
DFID	Department for International Development (UK)
EHA	Emergency and Humanitarian Action (WHO)
Env. Health	Environmental Health
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
IDP	Internally Displaced Person
OFDA	Office for Disaster Assistance (USAID)
Red-R	Register of Engineers for Disaster Relief (UK based Charity)
SEAR	South East Asia Region (WHO)
SEARO	South East Asia Region Office (WHO)
SOP	Standard Operational Procedure
Watsan	water supply and sanitation
WPRO	Western Pacific Regional Office (WHO)
WSH	Water, Sanitation and Health (WHO)

## 1. Introduction

This document presents WHO SEARO's regional strategy for water supply and sanitation in emergencies. The strategy has been developed between June and November 2002 as part of a short term assignment (for terms of reference see Annex A). The strategy is not the work on one individual but the product of an effective partnership between EHA and WSH. It is also the result of collaboration between WHO SEARO and WHO country offices in Thailand, Indonesia, East Timor, Bangladesh, Nepal, India and Sri-Lanka, whose support is gratefully acknowledged.

Following this introduction, Section 2 describes the background to the regional strategy and explains why its development was identified as a priority by both WSH and EHA. Section 3 clarifies the meaning of the terms 'disaster' and 'emergency' as they are used in this document.

These definitions are followed by a brief description of the different types of disaster that can be expected to occur in the Region<sup>1</sup>, focusing on their likely impact on water supply and sanitation, and related health concerns. In this context, it is important to reflect that the WHO definition of health has a non-physical (i.e. psychological) as well as a physiological dimension.

The objective, scope and underlying principles of the regional strategy are set out in Section 4. This is followed in Section 5 by a description of proposed activities which are needed to implement the strategy. Some of these are focused on developing WHO's in-house capacity in water supply and sanitation in emergencies<sup>2</sup>. A proposal to fund internal capacity building has been prepared.

Another group of activities concern the provision of advice and information on matters of disaster preparedness. The latter's outputs are primarily targeted at WHO's national counterparts in government and other organizations. However, they will also contribute to the strengthening WHO's internal capacity.

Section 6 completes the regional strategy with a description of follow-up activities needed to institute the strategy within WHO SEARO. Project proposals developed to translate the strategy into action are attached at Annex B.

## 2. Background

The need for a regional strategy for water supply and sanitation in emergencies was highlighted following the January 2001 Gujarat earthquake disaster. WHO India and SEARO responded to requests for support made by the Government of India by sending a team of health professionals to assess the health impact of the disaster. This was undertaken as part of the UN Disaster Management Team. WHO also provided essential medical supplies. WHO India was later requested by the Gujarat State government to coordinate the health sector response.

Three weeks after the disaster, WHO's field team was reinforced by two water supply and sanitation (WSH) consultants. The two-man team was able to develop an effective emergency water quality surveillance system (linked to the health surveillance system), and coordinate other water supply and sanitation (watsan) activities. With an integrated surveillance system,

---

<sup>1</sup> 'Region' in this context refers to WHO's South East Asia Region

<sup>2</sup> This includes a proposal to establish a system which can reinforce WSH human resources with qualified experts during a major emergency

rapid response and good coordination, the health authorities were able to avoid the threat of epidemic.

Based in Bhuj, WHO's WSH team eventually became the focal point for water supply and sanitation activities, taking over this role from Oxfam (GB), which was based near the small town of Bachau<sup>3</sup> some 70 kms to the East.

The impact of WHO's intervention in water supply and sanitation was considerable, but was only possible because individuals with appropriate experience, knowledge and personal qualities could be rapidly identified and mobilized. External funding was also made available at relatively short notice (in this case from OFDA).

With much of the SEAR population vulnerable to a range of disaster hazards, it was recognized that a regional emergency strategy was needed to strengthen the capacity of WHO's WSH<sup>4</sup> staff to respond to any major future emergency.

In June 2001, funding from Emergency and Humanitarian Action (EHA) in WHO HQ Geneva was made available for a consultant to develop a regional strategy for water supply and sanitation in emergencies. The consultant was contracted for 5.5 months. During that time, detailed capacity assessments were undertaken in Thailand, Indonesia, East Timor, Bangladesh, India and Nepal<sup>5</sup>. The results were used to inform an informal consultation of WSH staff in Bangkok, in October 2002.

The purpose of the meeting, together with information gathered during later visits to Gujarat and Sri Lanka, have been used in develop the strategy presented in this document.

### 3. Regional Disaster Profile

Before considering the scope for disasters in the Region, it is necessary to clarify the meaning of the terms 'disaster' and 'emergency'. In the context of this strategy, the following definitions (also used by EHA in WHO HQ Geneva) have been adopted:

#### Disaster

A serious disruption of the functioning society, causing widespread human, material or environmental losses which exceed the ability of the affected society to cope using its own resources.

#### Emergency

A state in which normal procedures are suspended and extraordinary measures are taken to avert a disaster.

In this context, it is important to recognize and reinforce the *coping strategies* adopted by people in a disaster, rather than to attempt to provide an alternative based on assumed priorities and solutions. It is also important to note that some people are more *vulnerable* to specific hazards and their health impact. Vulnerable communities, households and individuals should be identified and targeted with specific interventions. Within the household, women

<sup>3</sup> For further information of WHO relief efforts in water supply and sanitation following the Gujarat earthquake disaster, see Dr Dennis Warner's report (July 2001) available from the WHO India office.

<sup>4</sup> WHO environmental health staff cover a broad range of areas (e.g. indoor air pollution and chemical safety) and may not have a background in water supply and sanitation. Those that do are referred to in this document as 'WHO WSH staff'.

<sup>5</sup> Reports from these visits are available from the WHO Country Offices involved and also from the WSH unit in SEARO.

and children and the aged are often particularly vulnerable to physical and non-physical dimensions of a disaster's health impact.

It is also important to recognize that emergencies are time-bound and are usually short-term, the situation developing from an emergency into a recovery phase. During this transition, circumstances and priorities change. This reinforces the need for any emergency response to include an effective exit strategy, that contributes to (rather than undermines) 'normal' development.

In terms of disasters and their impact on water, sanitation and related health concerns, the Region is particularly prone to major natural disasters (earthquake, cyclone, flood and drought) as well as complex emergencies that result from civil unrest and/or armed conflict.

The main characteristics of these disasters are summarized below. The list presented is not exhaustive. More complete, country-specific, disaster inventories form part of the country assessment reports already referred to.

### Earthquake

Much of Northern India and Nepal, Sri Lanka, Bangladesh, Indonesia, and East Timor is earthquake prone. Other countries are associated with a moderate risk, including Thailand and Myanmar. The January 2001 earthquake centred in Katchchh district, Gujarat (80% of which is classified as a Zone V area<sup>6</sup>) has demonstrated the potentially devastating consequences of a major earthquake, and the extent of the damage and disruption it can cause.

'Earthquakes do not kill people, buildings do'. In overall terms, people living in densely populated built-up areas are particularly vulnerable to the immediate effects of an earthquake. Much of the Region is rapidly urbanizing, which many people living in closely-packed, multi-level buildings. Many of these would not comply with safe building standards applicable in earthquake-prone areas. In this respect, much of the population living in Kathmandu valley is particularly vulnerable.

People's behaviour following an earthquake deserves mention. Many leave their homes, as much motivated by fear as by the damage caused. Whilst many people move to the safer homes of friends or relations, those without this option may remain in the vicinity, in relatively small neighbourhood groups. This has important implications for water supply and sanitation.

In terms of water supply and sanitation, piped water systems are particularly susceptible, disruption being caused by power failure, physical damage<sup>7</sup> and contamination. By comparison, individual point water sources are more resilient, though poor sanitation and hygiene increases their vulnerability to contamination.

### Cyclone

Much of the coast of East India and North West India, Sri Lanka, Bangladesh, Southern Thailand, Indonesia and East Timor is prone to cyclone. In the last five years, three major cyclones and one super-cyclone have crossed the India coastline, causing extensive wind-based destruction and flood damage. The latter is caused not only by torrential rainfall but

---

<sup>6</sup> This classification system, developed and used in India, takes into account the likelihood of earthquake, its intensity and mean return period. Zone V is liable to seismic activity IX on the Modified Mercalli Scale and above. It is also referred to as a Very High Damage Risk Zone.

<sup>7</sup> In Gujarat, most damage was caused to ground-level tanks, pump mountings and pipelines (especially where they ridged gaps or depressions). Elevated storage reservoirs were less susceptible to damage compared to ground-level tanks, primarily because they were built to a higher standard.

also by storm surges. The height of these can exceed 6 metres above mean sea level, the 'design height' of many cyclone shelters. Depending on the area's geography, the resulting damage can extend many kilometres inland.

Early warning systems have been developed and are being integrated with community-based disaster preparedness measures. Depending how effective these are, people may be able (or forced) to move to safer locations, returning to recover their homes and belongings as soon as the storm winds and flood waters have abated.

Whilst piped water systems may survive more or less intact, service levels are disrupted by widespread power failure, and they are also vulnerable to contamination. Point water sources are often damaged by flying debris and are likely to be contaminated. Salt-water contamination presents an additional problem - something that can ruin agricultural productivity for years.

### Flood

The risk of extensive flooding is increasing in many areas in the region. This year, severe floods have affected many districts in Bihar and Assam in India, parts of Nepal (specifically in the Terai) and, as usual, much of Bangladesh. The severity and extent of flooding is linked to environmental degradation and population pressure on limited land resources, as well as extreme rainfall events. Flood warning systems are being developed but systems to communicate messages effectively to isolated rural villages still need to be strengthened.

With few other options, many rural households in flood-prone areas have developed a raft of coping strategies to deal with floods. Annual flooding can also bring long-term benefits in terms of soil fertility. However, a prolonged or unexpectedly severe flood can still result in a major disaster. Whilst access to safe water may be extremely limited, sanitation presents a particular challenge and may be a major concern for women in particular. These issues are often overlooked, not least because it is difficult to come up with practical, socially acceptable solutions.

### Drought

Like flood, drought is increasingly linked to human activity. Water scarcity is exacerbated by poor water management, not only due to catchment degradation and increased run-off, but also because of perverse financial incentives and a lack of economic water pricing. For example, in Gujarat, a water-scarce state in India, the water imbalance is linked to electricity subsidies for irrigation. As a result, the landless poor face the consequences and are most vulnerable to the effects of drought.

The usual and very expensive solution imposed by government is to provide drinking water using tankers (browsers)<sup>8</sup>. Limited access to water also limits the scope for personal and domestic hygiene. The resulting health impact is only one dimension of a complex problem that often requires long-term political, economic and environmental solutions.

### Civil Unrest and Conflict

The scope for civil unrest and armed conflict in the Region should not be underestimated. This has the potential to displace large numbers of people. Whilst some may choose to stay with relations or in 'friendly communities', a significant proportion end up in IDP (Internally Displaced Person) or refugee centres. Sanitary conditions in these are often very poor, this

---

<sup>8</sup> It was the availability of tankers in drought-prone Gujarat that greatly helped the relief efforts following the 2001 earthquake.

issue receiving little priority, resulting in potential health risks. Many IDP and refugee centres are established temporary measures, but end up becoming semi-permanent with a lifetime measured in decades.

The presence of large numbers of IDPs or refugees may be a highly sensitive issue for government authorities, who may also want to encourage people to leave. For these reasons there is a particular need to ensure that at least minimum services are maintained and these are monitored, including water supply and sanitation facilities.

#### 4. Objective and Underlying Principles

The following objective is proposed for the regional strategy. This was drafted in Bangkok in early October, during the consultation with environmental health and EHA staff from India, Bangladesh, Thailand and Nepal.

*To support national counterparts and other organizations involved in disaster preparation and response with authoritative advice and information on water supply and sanitation, in order to improve the health and wellbeing of vulnerable populations.*

##### Justification

The need for such a strategy is justified by the following arguments:

- The frequency, severity and economic cost of disasters across the region are increasing, caused or exacerbated by population pressure, environmental degradation and civil unrest.
- There is better global understanding of how disasters impact on people's livelihoods, health and wellbeing. Disasters cannot be ignored as an 'isolated issue' but must be treated as an integral component of development.
- It is increasingly recognized that the poor are often most vulnerable to disasters and their health impact. Disasters are obstructing progress towards achieving Millennium Development Goals. Conversely, disaster preparedness and response can help achieve these goals.
- Disasters often disrupt water supplies, sanitation facilities and people's hygiene practices, exposing the affected population to significant health risks. Safe water supplies and sanitation are usually *priority health concerns* in an emergency.
- The Gujarat earthquake has demonstrated the potential contribution that WHO WSH staff *could* make, complementing the work of other organizations by linking well-focused interventions with health.
- WHO's counterparts in the watsan sector are expected to include disaster preparedness and response planning in their activities. In the same way, WHO WSH staff will be expected to support their counterparts.
- WHO's 'in house' capacity in water supply and sanitation is limited, both in terms of staff numbers and emergency management (communication, logistics, and administration).
- A regional strategy is therefore needed to establish a clear role and *modus operandi* for WHO environmental health staff, focusing on high-impact areas where the organization has a comparative advantage, whilst optimizing the use of limited resources.

### Underlying Principles

The strategy should be guided by the following principles. These have been developed from those identified during the regional consultation in Bangkok. The principles can be used to define the extent of WHO's involvement in water supply and sanitation in emergencies. They can also be used as a simple checklist to assess a project proposal.

1. The strategy should be reinforced by a number of related disaster preparedness activities designed in part to increase in-house capacity.
2. Preparedness and response activities should be focused where WHO has a comparative advantage, avoiding overlap with other organizations.
3. Activities should reflect a realistic assessment of WHO's capacity to deliver outputs.
4. WHO's main thrust should be the provision of advice and information (as set out in the strategic objective). This may concern disaster preparedness or form part of an emergency response.
5. WSH staff should work in partnership with a range of partners, complementing, rather than competing with, the work of other agencies. This applies in particular to UNICEF.
6. Emergency response activities should reflect demand, demonstrate *added value*<sup>9</sup> and should be designed with exit strategies that strengthen longer-term developmental goals.
7. Opportunities to learn lessons and share knowledge should be identified and taken whenever possible. This applies both within the organization and externally.
8. WHO should use opportunities to advocate strongly the importance of disaster management in water supply and sanitation and its impact on the health of vulnerable populations.
9. Disaster preparedness activities should contribute to strengthening the capacity of WHO, reinforcing links between Environmental Health and EHA at country level in particular.
10. All WSH staff should be prepared to undertake certain activities in an emergency, irrespective of where this occurs in the Region.

### Scope of Involvement

WSH staff (and their counterparts) must know in which circumstances they are expected to provide water and sanitation emergency support. This should be based on the following criteria:

- Whether or not a formal *needs assessment* has been completed. If not, WSH staff must be prepared to participate in a needs assessment, focusing on water supply and sanitation.
- The likely impact of the emergency on people's health, related to water supply and sanitation.

---

<sup>9</sup> The term 'added value' reflects the fact that WHO should make an active contribution by generating new knowledge or developing new approaches, rather than repackaging existing material developed by other organizations.

- The type of support being requested or likely to be required. This should reflect WHO's comparative advantage in water and sanitation (see below).
- The capacity of WHO to provide the support required (in the context of water supply and sanitation).
- Government initiation or support for a request for assistance.

#### WHO's Comparative Advantage in Water Supply and Sanitation

WHO is not an operational agency, but exists to provide national counterparts with authoritative, specialist advice on health concerns. The few environmental staff with a background in water supply and sanitation in the region (currently six individuals<sup>10</sup>) are better placed to provide advice on disaster preparedness rather than engage in emergency response activities. However, this does not mean that they should not have an emergency response role.

In terms of the emergency response, as an absolute minimum, WSH staff should be prepared to *participate in a rapid needs assessment* related to water supply, sanitation and hygiene, focusing on those most vulnerable to associated health risks. Assessments should be linked to a simple reporting format that can be used as the basis of a proposal. WSH staff should also be prepared to *coordinate water, sanitation and health activities*.

WSH staff should also be prepared to provide practical advice on:

- Emergency water treatment (including disinfection) and sanitation.
- The design and dissemination of essential hygiene messages related to water supply and sanitation.
- Establishment and development of effective water, sanitation and hygiene surveillance systems in rural and urban scenarios and IDP/refugee centres, focusing on vulnerable individuals, households and communities.
- Emergency water supplies, sanitation and disposal of hazardous waste, associated with health care facilities.

#### Resources

With only six WSH staff in the region, should an emergency arise, it will often be necessary to reinforce these numbers. Whilst assistance could be provided from the West Pacific Regional Office (WPRO), it is sensible to think in terms of a *register* to experts willing to augment WHO capacity in this field at relatively short notice. Whilst procedures can be developed to do this (see below), WSH staff should still be prepared to support emergency efforts as set-out above.

Systems should also be developed to expedite the provision of essential supplies and materials. These will necessarily be limited and will not include items which are generally available to other agencies. Examples of material that WHO could be expected to supply include chloroscopes, emergency water quality test kits and emergency sanitation kits. It is essential that advice and training is provided on how to use whatever is being supplied.

---

<sup>10</sup> WHO WSH staff currently include two individuals in India (one in the country office, the other being the regional advisor), two in Nepal, one in Bangladesh and one in Indonesia.

### Standard Operational Procedures

Many points in the previous section suggest the need for simple standard operational procedures (SOPs) and a number of administrative support systems. These should include:

- Criteria for WHO involvement in emergencies (water supply and sanitation);
- Operational readiness requirements (i.e. what to take, what to leave);
- Administrative arrangements (including medical arrangements and personal and health insurance);
- Mobilization;
- Briefing and debriefing (including post traumatic stress counselling if appropriate);
- Field communications and security;
- Rapid assessment formats and reporting systems;
- Proposal formats and transmission;
- Situation reports;
- Financial management in the field;
- Rapid procurement of essential supplies and materials;
- Emergency fact sheets, focusing on core areas.

SOPs should not be developed in isolation but together with the EHA section in SEARO. SOPs should also reflect guidance provided by EHA Geneva.

### **5. Preparedness Activities**

SOPs should be developed into a practical document. This could form part of an in-house project to strengthen WHO capacity for water and sanitation in emergencies.

Other 'in-house' preparedness activities should include the following:

- WHO staff training. Both environmental health and EHA staff could be involved. This activity could be conducted with WPRO environmental health and EHA staff. Training would include, *inter alia*, familiarization with SOPs, technical 'refreshers', field security and administration, financial management systems.
- Developing a database of specialist expertise available within the SEARO and WPRO regions. This could be linked to a register (see below). Procedures for SEARO and WPRO providing mutual support in emergencies should also be explored, building on the links developed by EHA.

- Establishing a register of experts able to reinforce WSH staff in emergencies. This could be nested in an existing register, for example, that managed by the Register of Engineers for Disaster Relief<sup>11</sup> (Red-R). This would greatly simplify call-down arrangements.
- The preparation of emergency kits. These would contain essential equipment, reference material and fact sheets. Emergency kits would be issued to each environmental health adviser.
- Establishment of an emergency environmental health web pages, nested within WHO SEARO's web-site. This would include essential information, formats for reporting and links to other disaster sites.
- The establishment of an emergency fund for water supply and sanitation within SEARO, sufficient to mobilize an expert from the register and employ him/her for a period of two months, and fund the provision of emergency supplies.

Together, these activities form the basis of a project proposal being developed by WHO SEARO. A project summary sheet is attached at Annex B.

### Preparedness Projects

Preparedness activities should also include a number of 'external' projects, the objective of which is to provide guidance (for example, guidelines, training modules, awareness or advocacy material) on a particular concern, related to WHO's focus in this area.

An example of such an activity concerns how to establish, develop and sustain an emergency water, sanitation and hygiene surveillance system, linking this with a disease surveillance system, and taking into account the need for a clear exit strategy.

Such a proposal is being developed for WHO India, based on lessons learn in Gujarat following the earthquake. Outputs include practical guidelines, piloted training modules and advocacy for disaster preparedness. A project summary sheet is attached at Annex B.

Although the target audience for such projects is primarily WHO counterparts, WSH staff will benefit from the outputs in terms of strengthening their own capacity. Ideally WSH staff should also be involved in the development of the outputs. With this in mind it is proposed that WSH staff should be included on project review panels, responsible for commenting on draft outputs and providing other assistance as required. This principle also extends to the 'in-house' capacity building project referred to earlier.

Project proposals which are in the process of being developed include the following:

#### 1. India I

Based on lessons learnt in Gujarat, guidance on assessing, planning and implementing emergency water supply, sanitation and hygiene interventions. Outputs include guidelines (including guidelines on surveillance) and piloted training modules. Target audience includes middle-ranking health officials, government watsan staff and relief agencies. Proposal to be submitted to DFID (CHAD) by 21 December 2002.

---

<sup>11</sup> Red-R were recently considering establishing a regional office in South East Asia, probably managed from Australia. Following the Gujarat earthquake, it was proposed to open an office in India.

2. India II

Proposal in pipeline to strengthen health care water supply and sanitation facilities in disaster affected areas of Gujarat (8 districts). As part of this proposal, health centres will be established as nodal points to promote hygiene and sanitation. Proposal approved by Dutch Government and Government of Gujarat, awaiting clearance from Government of India. Proposal may be extended to include establishment of post-disaster water quality health surveillance systems.

3. Thailand

Proposal concerns the development of an environmental health surveillance system focusing on vulnerable households and communities not within official IDP centres on the Thai-Myanmar border.

4. Indonesia

Proposal associated with urban flooding in Jakarta. Details awaited.

5. Sri-Lanka

Proposal to develop a provincial water, sanitation and health surveillance system focusing on vulnerable rural communities in Northern and Eastern Provinces. To be submitted to DFID (CHAD) and possibly GTZ by 21December 2002.

6. Bangladesh

Proposal concerning vulnerable communities in cyclone prone rural areas. Details awaited.

Gap Areas and Overlap

Potential gaps that are addressed by these proposals include slow onset flooding, severe drought and water supply and sanitation in IDP/refugee centres. There is some overlap in what is being proposed but it is unlikely that every project will receive funding.

**6. Follow-On Activities**

One comment made by a major donor agency in Nepal was that WHO, like many UN agencies, is very good at developing strategies but very poor at taking them forward. With this in mind, this strategy is associated with several project proposals designed to initiate its implementation. This includes a proposal to strengthen in-house capacity, and several 'strategic' disaster preparedness projects which will indirectly do the same.

These proposals and the others being developed will reinforce long term WSH staff with appropriately qualified STPs. However, the main thrust of the strategy is to build capacity from within. Clearly there is a risk that the proposals will not be funded. This would effectively cut short progress. However, it seems likely that some proposals will succeed, giving a foundation to build on. Remaining issues that still need to be addressed include the following:

- Linking capacity development for watsan in emergencies with other aspects of environmental health (e.g. chemical hazards and hygiene promotion). Although outside the scope of this strategy, it would seem to make sense to have a holistic emergency

strategy for Sustainable Development and Environment, rather than focusing exclusively on water and sanitation.

- Reinforcing links between environmental health and EHA. Although this strategy will reinforce (and in some cases develop) links between these two sections, there is a need to clarify whether WSH staff will become the automatic point of reference for all EHA activities associated with water supply and sanitation. In some cases, EHA brings in its own watsan expertise.
- Reinforcing links between SEARO and WPRO. There are already good opportunities to reinforce existing links with WPRO, many of which have been developed by EHA (including bi-regional disaster training in Bangkok, with a follow-up course planned for next year).
- Forming strategic partnerships with international agencies and other UN organizations. WHO tends to work with government, with some notable exceptions. In the context of water supply and sanitation, there maybe advantages and opportunities to form strategic partnerships with non-governmental organizations with a strong regional presence. The obvious example is the International Federation of Red Cross and Red Crescent Societies and UNICEF. WHO is in a potentially strong position to support both with technical advice, benefiting from their field presence and leverage.
- Developing relations with donors. It is apparent that in some cases, WSH staff have not had reason to develop strong links with donors. This was evident during discussions with donors during the country assessments, many of which do not have a clear idea of WHO's role, activities or capacity in water supply and sanitation. If WHO is to become more activity focused in this area, it will be necessary to develop these links.
- Finally, developing relations with NGOs. Many of the NGOs consulted during the country assessments have an excellent international reputation. Several are now working closely with government, both in advisory and in advocacy capacities. Others are referred to as 'cutting edge' by major bilateral donors. In general, relations between WHO and many NGOs are weak, reducing opportunities for co-learning, collaboration and combined advocacy.

Paul Deverill  
STP-WSH

11 November 2002

- Annex A

**Terms of Reference for STP-WSH**

1. Assess the capacities of SEAR member states to prepare for and to mitigate health consequences associated with the effects of natural and man-made disasters on water supply and sanitation services, and develop a regional strategy for strengthening countries' in this regard.
2. Develop various training and learning materials relevant to water supply and sanitation in emergencies.
3. Coordinate and conduct country and inter-country training activities, short courses and consultations.
4. Develop and disseminate various information and advocacy tools in support of disaster prevention and mitigation activities, specially addressing the water supply and sanitation aspect.
5. Support disaster relief field operations as assigned following natural or man-made disasters.
6. Develop project proposals and support resource mobilization efforts for projects and activities related to water and sanitation in emergencies.
7. Provide direct technical support to member states, WHO Representatives and other development partners as and when requested.
8. Perform other tasks as assigned.

**Proposal Summary Sheets**

Proposal summary sheets are attached for the following projects:

1. Establishing an Environmental Health Surveillance System in Sri Lanka's North-East
2. Learning from the Gujarat Earthquake: water supply, sanitation and hygiene
3. Water and Sanitation in Emergencies: Building a Regional Response Capability

## **1. BASIC DATA SHEET**

Name of Agency: World Health Organization (Sri Lanka Office)

Contact: Dr A. N. A. Abeyesundere  
 WHO Sri-Lanka Tel: ++94 (1) 502842  
 PO Box 780 Fax: ++94 (1) 502845  
 226 Bauddhaloka Mawatha E-mail: [mj@who.lanka.net](mailto:mj@who.lanka.net)  
 Colombo Sri Lanka

Name of Project: **Establishing an Environmental Health Surveillance System in Sri Lanka's North-East**

Location: Sri Lanka  
Project Cost: Total Cost: **\$ 176,788**  
 Duration: 16 months (1 April 2003 – 31 July 2004)

### **DFID Contribution**

Year 1: 2003/2004	Year 2: 2004/2005	Total
\$ 81,953	\$ 94,835	\$ 176,788

Payment Details: Bank Account No: Name:  
 Bank Address:  
 Sort code:

Problem Addressed: In February 2002 the warring parties in Sri Lanka agreed to cease hostilities and initiate a peace process. Families are returning to the North-East and, together with those who stayed, they are re-building their lives. In urban and rural areas access to essential services remains inadequate, exposing a vulnerable and rapidly growing population to serious environmental health risks and compromising its future prospects. Environmental health staff should be playing a pivotal role by identifying and tackling priority concerns, promoting safer practices and providing advice and information to inform decision making. To do this an effective, sustainable and vulnerability-focused environmental health surveillance system is urgently required.

Project summary: This project fills this important gap by re-building the capacity of the environmental health system throughout the North-East. An inter-sectoral working group will be established in which all major stakeholders will be represented. Its members will participate in the development of an appropriate environmental health surveillance system. At the same time, critical resource constraints will be addressed, taking into account plans for the sector. Simple guidelines, manuals and training modules will be developed to help pilot the system in two nodal districts before it is introduced throughout the North-East.

**1. BASIC DATA SHEET**

Name of Agency: World Health Organization (South East Asia Regional Office)

Contact: Terrence Thompson Tel: ++91 (11) 337 0804 Ext. 26442  
 Regional Advisor WSH Fax: ++91 (11) 337 9507  
 WHO SEARO E-mail: [thompson@whosea.org](mailto:thompson@whosea.org)  
 Mahatma Gandhi Marg  
 Indraprastha Estate  
 New Delhi - 110 002

Name of Project: **Learning from the Gujarat Earthquake: water supply, sanitation and hygiene**

Location: India

Project Cost: Total Cost: **\$ 119498**

Duration: 17 months (1 April 2003 – 31 August 2004)

**DFID Contribution**

Year 1: 2003/2004	Year 2: 2004/2005	Total
\$ 61,698	\$ 57,800	\$ 119,498

Payment Details: Bank Account No: Name:  
 Bank Address:  
 Sort code:

Problem Addressed: WHO’s South East Asia Region is highly prone to earthquake, The devastating Gujarat earthquake demonstrated the importance of safe water supplies and sanitation. Existing guidelines do not explain how local authorities and relief agencies can plan and implement an effective, coordinated response in this context, dealing with both rural and urban areas, focusing efforts on the most vulnerable and describing the difficult transition from emergency response to sustained improvement. The project aims to fill what is now recognized as a critical gap.

Project summary: This project will identify and develop important lessons learnt by WHO and other organizations involved in the Gujarat earthquake disaster. Guidelines and training modules will demonstrate how authorities and agencies responsible for water supply and sanitation can plan and implement an effective response. The importance of focusing measures on the most vulnerable will be demonstrated. The target audience for outputs includes public health officials, water and sanitation providers and relief agencies. Outputs will be disseminated throughout the WHO’s South East Asia Region using existing networks and links with government departments and training institutions.

## **1. BASIC DATA SHEET**

Name of Agency: World Health Organization (South East Asia Regional Office)

Contact: Terrence Thompson  
Regional Advisor WSH  
WHO SEARO  
Mahatma Gandhi Marg  
Indraprastha Estate  
New Delhi - 110 002

Tel: ++91 (11) 337 0804 Ext. 26442  
Fax: ++91 (11) 337 9507  
E-mail: [thompson@whosea.org](mailto:thompson@whosea.org)

Name of Project: **Water and Sanitation in Emergencies: Building a Regional Response Capability**

Location: SEARO

Project Cost: Total Cost: **\$ 36,800**  
Duration: 4 months (1<sup>st</sup> April 2003 to 31<sup>st</sup> July 2003)

### **ICP Funds Requested**

Year 1: 2003/2004	Year 2: 2004/2005	Total
\$ 36,800	Nil	\$ 36,800

Payment Details: N/A

Problem Addressed: The SEARO region is uniquely disaster-prone, a consequence of the various hazards that people face and their growing vulnerability to these hazards. To some extent this is an accident of geography: the region is particularly prone to earthquake, cyclone, flood, landslides, drought, and volcano. However, 'natural' disasters are being compounded by a number of human factors. Water and sanitation are *priority* concerns following a disaster and WHO should be able to support its national counterparts in this respect. Recent country-assessments<sup>12</sup> have concluded that in order to fulfil this role, WHO must strengthen its country-level and regional capacity in a number of critical areas.

Project summary: This project is designed to fill this important gap, and is based on the recommendations of a 6 month consultancy undertaken by a STP in WSH.

Well defined, focused outputs will be delivered within four months and will include (i) A register of qualified expertise able to support WHO WSH emergency field operations; (ii) a data-base of WSH expertise available within SEARO and WPRO; (iii) critical emergency SOPs for WSH; (iv) emergency WSH field kits issued to every WSH office in the region; (v) emergency web pages nested in the WHO SEARO web site; and (vi) training on emergency response provided to all WSH staff in the region.

<sup>12</sup> These were undertaken as part of the recent STP-WSH assignment to SEARO. Assessments were conducted in Thailand, Indonesia, East Timor, Bangladesh, Nepal and India.