OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS

Overview of Humanitarian and Short Term Needs

following the

Samoa

"Earthquake and Tsunami"

FINAL

UNOCHA
On behalf of the Pacific Humanitarian Team and the
UN Resident Coordinator

25 November 2009

Executive Summary

This document presents a brief overview of humanitarian and short term needs three weeks after the tsunami struck Samoa on 29 September 2009. Following the disaster, the Government of Samoa, Samoa Red Cross and other national and local organizations and international organizations and bilateral partners responded to the needs with great effort. As a result operations moved rapidly from response to recovery. The government of Samoa requested within a week the UN to take the lead in the formulation of an early recovery framework. Following discussions in the IASC meeting of the Pacific Humanitarian Team, OCHA was requested to provide the IASC an overview of humanitarian and/or short term needs that would not necessarily covered in the Early Recovery Framework and planning.

Following the impact of the tsunami, the Government of Samoa immediately activated the National Emergency Operational Centre at the Faleata Fire station and Government ministries and departments immediately activated emergency plans and response under the leadership of the National Disaster Council.

The Inter-Agency Standing Committee (IASC) of the Pacific Humanitarian Team (PHT) under the guidance of the United Nations Resident Coordinator (UNRC) activated, for the first time in the Pacific, the cluster approach for coordination of the international response. Seven clusters were activated for a coordinated international response: WASH, Health, Education, Protection, Information Management and Logistics.

Following the swift response and resources mobilized by the Government of Samoa, bilateral government donations, particularly Australia and New Zealand, the Red Cross movement, churches, communities and NGO's for relief, the Government requested the UN to take the lead in the development of an early recovery framework. As the Early Recovery cluster therefore focused on a timeframe of 3-8 months, the IASC requested the clusters to provide an overview of the humanitarian and other short term needs during the emergency phase and first 3 months, which was to be compiled by UNOCHA.

The summary of identified humanitarian and other short term needs in each cluster/sector is as follows, INCLUDING Emergency Shelter and Non-Food Items (NFIs).

Cluster	Cost
Water, Sanitation and Hygiene(WASH)	260.000
Health	83.000
Education	114.470
Protection	Nil
Emergency Shelter	Nil
NFI	Nil
TOTAL	**USD 457.470**

Background

In the morning of 29 September 2009, a powerful 8.3M earthquake struck south of the main Samoan Island chain with its epicenter 190 kilometers south of the Samoan capital of Apia. Few minutes later a series of quake-triggered tsunami waves hit American Samoa, Samoa and the small northern island of Niuatoputapu in Tonga. The tsunami waves, some of which are said to have been as high as 6 meters, caused fatalities,

casualties and serious damage to Samoa. As of 16 October, the official death toll stands at 143 with five missing and 310 injured. Data from the Ministry of Health (MOH) and the Samoa Red Cross suggest that the directly affected population, most of who were displaced, is around 4,500. However, this figure is assumed to be the lower estimate since the assessment information compilation is still on going by Ministry of Health to cover the entire affected areas. According to the draft Early Recovery Framework, the affected population is estimated to be 5,275 people, based on the 2006 population census. The maps on annexes 3 and 4 show the areas and population affected.

The coastal areas of Samoa sustained damages with extensive destruction mainly to the south eastern coast of Upolu Island. Damages were caused to family homes, community buildings, schools, resorts, roads, power lines and water supply located along the coastline of the affected areas.

The Government immediately activated the National Emergency Operational Centre at the Faleata Fire station and this remains the central control point for the response operation. Government ministries and departments immediately activated emergency plans and response under the leadership of the National Disaster Council.

The Inter-Agency Standing Committee (IASC) of the Pacific Humanitarian Team (PHT) under the guidance of the United Nations Resident Coordinator (UNRC) immediately convened a meeting and decided on 1 October to activate cluster approach for coordination of the international response. This was the first occasion to introduce the cluster approach in the Pacific since the “Pacific cluster approach” has been endorsed by the PHT in July 2008, and disaster preparedness activities have been conducted since then based on the agreed regional cluster arrangement.

The IASC humanitarian cluster system agreed in Samoa was as follows (after revision on 9 October). UNOCHA took the leading role in Information Management.

Cluster / Activity	Lead Agency
Water, Sanitation and Hygiene(WASH)	UNICEF/OXFAM
Health	WHO (with support of UNICEF for nutrition)
Education	UNICEF/Save the Children (with support of UNESCO)
Protection	OHCHR (UNICEF/Save the Children lead the working group on child protection and psycho-social support)
Early Recovery	UNDP (supported by FAO as the co-lead for Agriculture and Fisheries Working Group and UNEP as the co-lead for the Environmental Working Group)
Logistics	WFP

The above clusters cover key humanitarian sectors which required coordination support. Emergency shelter was identified as a key priority and was rapidly addressed by relief mechanisms in place. The emergency shelter cluster system was not activated as the actors involved in the emergency shelter were limited, emergency shelter needs were addressed early on and the scale of the disaster did not warrant cluster activation. IFRC

FACT, the designated emergency shelter cluster convener at the global level, participated in and concurred with this decision.

From the onset of the disaster there was a strong collaborative effort by government, UN and humanitarian organizations and all involved partners. Various organizations immediately dispatched their emergency team and cluster coordination staff. IFRC dispatched a FACT team to Samoa to provide support to the national society. The team consists of technical experts of various sectors including WASH, health, logistics, relief, psycho-social, shelter and tracing. OXFAM dispatched emergency coordinators, UNOCHA dispatched an UNDAC team to provide coordination support to the UNRC and NEOC, UNICEF mobilized human resources to support clusters where its leads and supports and WFP dispatched a logistics coordinator to support the logistics cluster. WHO deployed an emergency coordinator for the Health cluster and strengthened their health sector support with additional staff. UNDP also formed a team to coordinate the development of the early recovery framework and leads the early recovery cluster. OHCHR dispatched staff to lead the protection cluster.

Summary of identified needs:
The matrix below is a summary of identified needs in each cluster/sector. It makes a distinction between humanitarian (i.e. life saving) needs and other short term needs for a period up to 3 months. The matrix does not include the early recovery needs as the Early Recovery cluster has its own early recovery framework which focuses on early recovery needs with a timeframe of 3-8 months. Hence this document aims to provide an overview of the humanitarian and other short term needs during the emergency phase and first 3 months.

Two supporting clusters, namely the Information Management (IM) cluster and Logistics cluster are also not included as they do not have operational programmatic interventions, but rather provide support to other operational clusters. IM was the cluster in which UNDAC and UNOCHA, with the support of the Pacific Disaster Net (PDN) team, SOPAC and SPREP, provide IM services including issuance of situational reports, maintenance of the Pacific Disaster Net "Samoa/Tonga Tsunami" website, sharing of documents (meeting schedules, contact lists, minutes, maps, photos, etc) for inter-cluster coordination. The Logistics cluster's main objective was to strengthen logistics management system at DMO with technical expertise provided by WFP logistics coordinator, and at the end of his mission, the strengthened logistics management system, based on the existing system, will be handed over to DMO.

In addition to the established clusters, Non Food Items (NFI) and Emergency Shelter are covered in this document because these are important operational humanitarian response sectors, although there is no specific clusters established for these sectors in Samoa.

No significant humanitarian gaps have been identified for emergency shelter. The need for transitional/semi-permanent housing will be covered in the early recovery framework. WASH has identified a numbers of gaps, especially lack of water supply, lack of sanitation facilities and the essential hygiene supplies. It is expected that the cluster will identify resources to address the needs. The Education cluster clearly articulated the humanitarian needs and the related costs regarding schooling, however the Education cluster has already addressed how to meet the needs by cluster members. The Health

sector also provided areas of needs and cost implications. Regarding NFI, DMO/EOC is expected to provide clearer pictures on what items in what amount are still in gaps. They are currently following up all the relief items already in pipeline. The Protection cluster has highlighted the need for periodic monitoring of the displacement situation throughout the early recovery phase and beyond.

Cluster/ Sector	Humanitarian Needs	Short term Needs	Cost implication (USD)
a) WASH	1. Continuous supply of water by tankers/truck to meet the minimum demand @30 lit/capita per person per day for Tsunami affected families who have moved to inland and constructing temporary shelter. **(US$ 30,000)** 2. In order to meet immediate water demand, possible alternative options which include promotion of rain water harvesting at household level **(US $ 40,000**) 3. Installation of temporary pit latrines and promotion of safe hygiene. This include deployment of additional environmental health engineers and health promoters for hyg/sanitation campaign **(US$ 40,000)** 4. Procurement and distribution of life saving essential hygiene supplies for affected families for additional two months. **(US $ 80,000)**	1. Deployment of design engineers for conducting feasibility and detailed study for permanent water supply systems in new settlements. **(US $ 30,000)** 2. Installation of WASH facilities in 9 early childhood care centres affected by Tsunami **(US $ 10,000)** 3. Emptying and cleaning of damaged septic tanks **(US $10,000)** 4. Disposal of toxic fluid- need to be consulted with environmental working group **(US$ 20,000)**	**a.** Humanitarian needs: **US$190,000** b. Short term needs: **US $ 70,000** **Total: US$ 260,000**
b) Health	- Transportation: 2 vehicles for Public Health Surveillance & Primary Health Care mobile / outreach teams - Support Personnel - *Infectious disease specialist* - *Mircrobiologist* - *Nurse specialist in wound management/care*	- Data Management (hardware and software)	60,000 15,000 8,000 **<u>83,000</u>**

c) Education	- Year 1-3 student furniture - Year 4+ student furniture - Teacher furniture - Classroom tent - Water tank - Latrines - First aid kits *Resources to address these needs have been committed by the Education Cluster partners (UNICEF, Save the Children, Tear Fund and either ADB or ADB/NZAID/AusAID joint cooperation to be determined by MESC)*		3,060 27,420 1,430 30,000 28,000 24,000 560 **114.470**
d) Protection		*No humanitarian gaps but as a medium-long term intervention, monitoring of displacement and durable solutions during early recovery phase and beyond.*	--
e) NFI		*Basic NFI needs are met except numbers of items specified on page 17*	*Needs and the cost to be quantified by NEOC by next week*
f) Emergency Shelter		*No significant needs in emergency shelter, but need for transitional/ semi-permanent/permanent housing as the rainy seasons would start soon*	*To be reflected in Early Recovery Framework as "Housing"*

a) WASH (Water, Sanitation and Hygiene)

1. Needs identified

Access to water for drinking, cooking and hygiene has been a priority need from day 1 since the water supply system was damaged and most of the directly affected population has been displaced. A continuous supply of minimum amounts of water to the affected families, most of whom have now moved to inland, is foremost important to maintain good hygiene among the affected population, particularly children. Additional pumps and tankers (2) are required to fulfill the need.

In addition to the provision of water and repairing of the water supply systems, installation of sanitary facilities is a priority need. MoH is working very hard and encouraging each household to construct pit latrines. WASH needs at schools and early childhood learning centers also need to be immediately addressed in order to resume this public service. In addition, the issue of solid waste and hygiene promotion needs to be considered and addressed well to protect the local environment and ground water.
Meanwhile, SWA also should seek to identify alternate water sources in order to provide safe water to the families who have moved inland and constructing temporary shelters. This certainly will take some time and therefore addition tankers/pumps would be required to accommodate and fulfill immediate needs of drinking water.

The maps in annexes 5 and 6 provide more detailed in formation on water sources and sanitation facilities in the affected areas.

2. Activities conducted up to today

UNICEF and OXFAM became the lead agency for WASH cluster, closely working with the government. The WASH cluster lead role has been handed over to the government and renamed as the "Samoa Water Sector-Post tsunami support" although the support of UNICEF, OXFAM and other international agencies continues. Detailed assessment was carried out by the Public Health Department and the government quickly took actions to restore the water supply system. It is reported by Samoa Water Authority (SWA) that the system has been restored in the affected areas. Bottled water was distributed by various agencies.

However, it still requires alternative water supply operation especially for those displaced. SWA, with the support of New Zealand, IFRC, OXFAM and UNICEF, distributes trucked water with 7 trucks operational (one requires maintenance and 4 are for short term rent). Commitment of Oxfam and UNICEF support is expiring soon. Sector is seeking support from EU for procurement of new truck. It might take more time and existing SWA and SRC trucks don't meet minimum water demand and therefore need to hire additional trucks to meet daily demand.

Various organizations provided WASH relief items such as water tanks, water purifiers, water containers and jerry cans including UNDP, UNICEF, Australia, New Zealand, Samoa Red Cross, EU, JICA, World Vision, ADRA, Caritas, Bluebard Lumber and others.

Temporary toilets were constructed by the Public health department with assistance of the New Zealand health department, IFRC and UNICEF. Hygiene education with distribution of soap is also being provided by the PH department with assistance of NZ, IFRC and UNICEF.

UNFPA and IFRC also provided female hygiene products/dignity kits to improve the hygiene and protect the dignity of women. Other hygiene items such as soap, tooth paste, toilet paper, baby hygiene kits, etc. have been also distributed by various organizations. It is also important to follow up whether provided relief materials have been already distributed or kept at the warehouse. Please refer to annex 1 for more detailed information.

Currently SWA, with the possible support from UNICEF and ADRA, is working on to provide access to safe water at schools and ECD centers especially before the schooling start for all grade children next week.

3. Needs identified

Lacks of sanitary facilities are still considered to be a serious need, and it will be addressed by two activities mentioned under (1) and (3).

(1) Installation of household pit latrines and promotion of safe hygiene, reaching over 200-250 households
(2) Procurement and distribution of life saving essential hygiene supplies for two months
(3) Installation of WASH facilities in 9 early child care centers;
(4) Installation of household water tank fitted with rainwater harvesting option.
(5) Continuous supply of water by tankers/truck to meet the minimum demand@30 lit/capita per person per day for Tsunami affected families who have moved to inland and constructing temporary shelter
(6) Regular septic tank cleaning
(7) Solid waste/toxic fluid clean up
(8) Technical support for designing of water systems for renovation/new construction

Item (1) *pit latrines and promotion of safe hygiene* activities will cover the following villages (Satitoa-63 h/h, 2. Lalomanu-36 h/h, 3. Latopue-32 h/h, 4. Vailoa-29 h/h, 5. Ulutogia-27 h/h, 6. Lutiatele-26, 7. Vavau, 8. Lotofaga) reaching over 200- 250 households.

Regarding item (4), other options to meet immediate water demand include i Extension of water supply line from existing bore holes to the affected families by pumping and ii. Installation of temporary pipeline from Lake Lanoto. Depending on quality of lake water, provision of mobile water treatment plant has been foreseen.

In addition, although water system has been re-established and truck water distribution is on-going, it is important to keep monitoring the quality and quantity of water available to the affected communities, and if water quality or quantity problem is identified, it needs to be immediately addressed by SWA and WASH partners.

4. Cost implication

(1) Installation of household pit latrines in displaced areas	US$ 40,000
(2) Procurement and distribution of life saving essential hygiene supplies	US$ 80,000
(3) Installation of WASH facilities in 9 early childhood care centres;	US $ 10,000
(4) Installation of household water tank fitted with rainwater harvesting option.	US$ 40,000
(5) Continuous supply of water by tankers/trucks	US$ 30,000
(6) Regular septic tank cleaning	US$10,000
(7) Solid waste/toxic fluid clean up	US$ 20,000
(8) Technical support for designing of new /renovation/of water systems	US $ 30,000
Total WASH gap	**US $ 260,000**

b) HEALTH
The Health cluster was initiated by WHO, and had to merge into the Ministry of Health coordination of health response, chaired and coordinated by MOH.

1. Needs identified
At the early phase of disasters, emergency medical support was required. As of 15 October, it is reported that 310 were injured due to the disaster. Public health and nutritional status of the affected population needs to be monitored, and campaigns of health promotion and public information to support recovery programmes have started.

Electricity, water and sanitation services to infrastructure need to be fully restored. General waste management including medical waste is another important issue. It is also crucial to map the accessibility to health care facilities against current and projected future population distributions.

The health sector received health professionals personnel support from the Australian and New Zealand Governments, plus a range of overseas based volunteers, health professionals and others like OXFAM, etc. However, when these assistance left, the Samoan NZ & Australian based nurse mission are still continuing their support in collaboration with the Samoa based nursing teams. Furthermore, the medical & nursing teams from USA are also on board to assist the local teams with continuous responses to the affected population. On the other hand, the supplementation of human resource capacity in the following key areas also need to be immediately addressed; e.g. medical & nursing mobile/outreach teams, laboratory capacity (microbiology, haematology, biochemistry and blood banking), infectious disease specialist in the surgical/medical area, nurse specialist in wound management/care.

A combined team of local and volunteer health professionals have completed an assessment of the environmental health issues to attempt to quantify the needs of the affected population. The following are key results from this assessment:

Shelter:
Of the 444 identified family clusters directly affected, all have various shelter issues. The priority for obvious health and social reasons are those who were identified as living under tarpaulins or tents.

- 181 or 41% of the 444 affected family clusters are living under tarpaulins or tents and urgently need more suitable shelter
- 21 family clusters have moved into a school (supplemented by tents)
- The rest of the families are either living in damaged houses or have moved in with relatives, exacerbating health conditions and health risks due to overcrowding and the sanitation risks involved.

Water:

- 140 or 32% of the family clusters are totally reliant on bottled water and/or water trucks
- Many of the families relying on water trucks, as well as those relying on piped/springs/rain tank sources still needed containers as at assessment times.

Sanitation:

- 196 or 44% of the family clusters urgently need basic pit latrines to be dug for excreta waste disposal at a minimum (see also recommendation above under a)).

- 70 family clusters urgently need work on proper waste disposal for other wastes (see also recommendation above under a)).

In addition, psycho social support is another important element which requires further attention.

For medium to long term phase, complete assessment of structural integrity of health infrastructure is required as well as reconstruction of damaged and destroyed health infrastructure. It will also suggest infrastructure in hazard prone areas and infrastructure with poor access needs to be relocated. This will need to be addressed in the early recovery action plans.

2. Activities conducted up to today by the Health Sector

2.1 Clinical (Treatment & Curative)

Primary Health Care Service
Daily medical and nursing primary health care services have been provided to District Hospitals. NHS has planned and supplied the capacity and flexibility to mobilise medical personnel in support of nursing teams as needs have been identified in displaced populations currently living in tent settlements in the hills. Other services have been delivered to people with unmet health needs who are living in coastal areas and do not have transport.

10 teams – 3 teams located at district hospitals and 7 mobile teams made up of medical, nursing and allied health personnel have been able to provide comprehensive primary health care to the majority of those needing immediate assistance in the disaster area.

The mobile teams have been deployed on a daily basis to areas of most need, for example 3 teams were sent to Manono Island over 2 days and were able to see over 100 affected people. This information was shared with public health and other disaster response services so that appropriate help could be mobilised.

Clinical leaders of all teams are Samoan medical staff. Other volunteer health personnel have been formed in to teams led by Samoan clinical team leaders. Leadership by Samoan clinicians is important as it has provided a working knowledge of local environment, local health systems, local resource support, and has met the cultural, protocol and language competencies needed for teams to work effectively at the district hospitals and in mobile teams working in villages and temporary settlements. It has further had the advantage of placing lower demand on the NHS for orientation and ongoing support of medical volunteers. It has meant that care has been more effective and has meant primary medical services have had the flexibility to respond promptly to new areas of need as they have been identified.

The team structure and processes have meant that the largely volunteer workforce that has been arriving and leaving episodically has been able to be oriented and replaced as required with minimum extra demands on NHS.

Mental health issues
The Mental Health Unit of the National Health Services plays the coordination role and it operates a 24/7 telephone support service in addition to deploying psycho social support

team to the fields. Samoan NGOs are also sending counseling teams to the affected areas, while church groups are also providing counseling. The Samoa Red Cross has mobilized 30 volunteers who are consistently providing psychosocial support in parallel to relief distribution. UNICEF and Save the Children coordinated by the MOH and the Ministry of Women, Community and Social Development conducted a psychosocial training for community volunteers and trained volunteers are now outreaching to the affected communities. UNICEF and Save the Children also provide psychosocial support through distribution of recreational kits and early learning kits, along with briefing to promote the use of structured play and child friendly activities to promote the recovery of children. These kits are provided to the schools and community groups to organize child friendly activities in the existing buildings such as churches and schools

Psychosocial and mental health issues are also being monitored by the medical & nursing primary health care mobile/outreach teams and there is close liaison with the mental health team. Mental health issues of post traumatic stress type symptoms – hyper vigilance, insomnia and anxiety have been identified.

Emerging health issues

New problems are emerging in displaced populations, related to the unsafe living environments in camp settlements. There are new injuries due to children standing on nails or rusty corrugated iron and injuries related to rebuilding homes. Infected scabies and skin rashes are a major problem in children. There have been a few cases of gastroenteritis.

There is also a burden of unmet need for chronic diseases like diabetes, hypertension and cardiovascular disease. Patients require follow up who have lost their medication in the Tsunami. Our teams have also reported high numbers of chronic, infected skin ulcers which need good wound care management.

Ongoing access to enhanced primary health care

Continuing high quality comprehensive primary care made available through the District Hospitals and some mobile medical team capacity will be required in the disaster areas to meet these identified needs and support the process of recovery.

An estimated 150 patients were seen daily by the PHC team by the end of week 2 and week 3 post-Tsunami. An additional 100 patients per day were treated by mobile primary nursing teams working in the disaster area (sometimes with the support of our medical teams where people needing more medical treatment were identified).

It is likely that without the enhanced primary medical care model, that many of these people would not have been able to access effective early primary health care, which may have led to further morbidity and complications and increased demand for secondary care services.

These findings have further strengthened the concept of strengthening health systems through revitalization of primary health care.

Secondary & Tertiary Health Care Service

The health sector secondary and tertiary level care response to the Tsunami was mainly on resuscitating, retrieving and triaging. This was initially carried out by the Samoa Medical Disaster Organization and the clinical and health allied staff of NHS. This was

followed by the Australian Rapid Response team, primarily trauma and surgical. The New Zealand Disaster and Emergency Response team took over from the Australian team on day six.

Samoan volunteer Doctors (Specialists and GPs) and Nurses from New Zealand began arriving on the second day after the Tsunami and were part of the TTM Hospital's acute phase response. There were also Samoan volunteer Doctors from America and Canada.

The third day after the Tsunami saw continuing admissions of a large number of survivors with multiple fractures, soft tissues injuries and aspiration pneumonia from near drowning.

2.2 Public Health

Public Health work carried out since the Tsunami is as follows:

Surveillance
To minimise the opportunity of any infectious disease outbreak through the analysis of clinical data presented to health care service providers and medical teams in the field.

- Clinical data from Fusi, Poutasi and Lalomanu Health Centres
- Clinical data from TTM
- Clinical data from MedCen and GPs
- Clinical data from Medical Teams

Clinical data will continue to be collected on a daily basis and reviewed continually as the need requires.

Environmental Health Assessments
To minimise the opportunity of any infectious disease outbreak by working with populations on basic hygiene practices and waste control.

- Environmental Health Assessment for the East Coast and reporting back urgent issues
- Face to Face Behavioral adaptation and change of displaced populations to follow assessments.
- Mapping of displaced (GIS) mainly concerning population concentration, and immediate shelter, food, water and sanitation needs.

The Environmental Health Assessment of the affected areas has been completed with data collected as per population and immediate needs per location. This information has provided a general outline of the area using GIS coordinates.

The Face to Face behavioural adaptation and change work which requires Public Health workers to work with families on a daily basis to ensure safe occupational health safety, hygiene and sanitation practices, will continue until displaced families have secured permanent living conditions.

Health Promotion
To minimise the opportunity of any infectious disease outbreak by providing awareness via mass media and targeted IEC materials.

- Weekly Radio Programmes
- Television spots
- Radio spots
- IEC Materials to be distributed to displaced families

General Health Promotion via the general for the affected areas will continue until the sanitation, hygiene and environmental health issues have subsided. Health Promotion materials distributed during face to fact interventions will continue as the need requires.

Nutrition

To ensure that food provided to affected communities are compatible nutritionally and as much as possible cater for special needs such a pregnant women, babies and infants. Collaborative work with the Health Promotion Team and the Environmental Health Team ensures that nutrition focused IEC materials are being produced and that damaged or expired foods are not distributed to affected communities.

A joint UN-Government-NGO Food Security Survey confirmed that the livelihood for the majority of affected households included subsistence agriculture, backyard pig and poultry production for self consumption, and artisanal/subsistence fisheries. In addition, tourism was the main source of cash income. Damage to the plantation was in general limited, but most of the farming tools and equipment have been lost. Farmers affected may not be able to carry out essential farming works in the coming weeks. Home gardens have been totally destroyed. These home gardens are important for a balanced family diet as most of the nutritious foods come from the garden. MOH under its Nutrition Program and the MWCSD under its Aiga ma Nuu Manuia Program will continue to work together in addressing these issues.

A number of pigs and poultry along with fishing gear and canoes were lost. As a result, the affected families lost most of the protein sources for their diets. Due to the loss, family food security is extremely fragile. Most victims are at the moment relying on external food assistance or moved to live with relatives and/or friends, putting additional pressure on the limited food availability. Providing key lost assets that are essential for food security is an urgent priority, which will enable rural households to resume food production. The current fish supply for the local market in Samoa is reduced by approximately 50 percent, due to damage to vessels. The repair/replacement of lost vessels is an immediate priority for the restoration income generating activities and food availability in Samoa.

Plan for Actions

The government currently focuses on restoration of priority public health services as well as priority treatment / curative care services.

In order to assure the access to treatment/curative services, outreach/mobile teams need to continue for the next 1-2 months. The health sector through NHS plans to activate Village Based Centres (Clinics) that were already identified during the Pandemic H1N1 crisis. These centres will be manned by the trained village health volunteers and will be supervised by the NHS Nursing & ICHS Teams based at District Hospitals through daily visits. It is proposed that these VBCs will run for 8 weeks. MOH also

needs to supplement human resource capacity in laboratory, and medical specialised areas.

The health sector through MOH also plans to strengthen prevention and control of any disease outbreaks, and it requires immediate construction of at least temporary homes for affected / displaced families. Continuation of environmental / public health assessments & surveillance for affected areas and new settlements – assisting displaced families with hygiene behavioural adaptation and change is also crucial. MOH plans to continue general health promotion via mass media and targeted IEC materials especially for affected areas until the sanitation, hygiene and environmental health issues have subsided. MOH also plans to inspect food relief supplies (quality & safety for consumption).

Medium and Long term
In the medium to long term, the health sector plans to reconstruct damaged and destroyed health infrastructure and restore health services with basic facilities including electricity, water and sanitation in the affected districts, ensuring accessibility of these areas to health services as it was before. Health facilities and infrastructure in hazard prone areas and infrastructure with poor access will need to be relocated. Emergency response capacity of the main laboratory will be also strengthened. MOH also requires to strengthen emergency surveillance systems in place e.g. EWARS and conducts surveys to document nutritional status and disability

3. Needs identified

-General support

- Transportation – 2 vehicles (2 for Public Health Team and outreach)
- Support Personnel; 3 x 2 months x (est.) USD 50/day
- Data management equipment (hardware and software); 2 laptops (Windows Office) and mapping software

4. Cost implication

- Transportation USD 60,000
- Support Personnel USD 15,000
- Data management equipment (hardware and software); USD 8,000

TOTAL USD 83,000

c) EDUCATION

1. Needs identified

It is confirmed by the Ministry of Education, Sports and Culture (MESC) that there are five (5) schools, four (4) primary and one (1) secondary school, damaged by the tsunami. The assessment shows that over 1,000 children are affected by the damage/destruction to these schools. The resumption of schooling for children is the immediate need of the Education Cluster. This requires the immediate supplying of basic classroom furniture for students and teachers, access to sufficient safe water for drinking and washing and sanitary facilities for the host schools where displaced children will join, transportation of students from the community to the nearby host schools, first aid kits, classroom tents for additional space, textbooks, stationeries and recreational play supplies.

2. Activities conducted up to today

The Education Cluster is lead by the joint cooperation of UNICEF and Save the Children which is closely working with the Ministry of Education, Sports and Culture (MESC).

Secondary students and higher Grade 8 students resumed schooling in the neighboring host schools on 14 October. It is expected that all lower grade primary students will resume schooling the following Monday, 19 October. MESC and the Ministry of Health conducted health, water and sanitation assessments of the schools in the affect areas to ensure the environment is safe for children to return to the schools. Through the Child-Protection working group of the Protection Cluster, recreational kits have been distributed as well training conducted for teachers on the utilization of these in order to lead structural recreational play for school children. The government of Samoa has committed education support including tents, water tanks, transportation and school supplies such as text book and stationeries to the affected and host schools while Education Cluster members are committed to filling all the remaining needs gap such teacher and student classroom furniture, first aid kits, latrines, water tanks and tents.

3. Needs identified

School furniture, first aid kits, additional latrines, water tanks and tents are identified as current needs. The Education Cluster have coordinated to have these fully covered by Education cluster partners: UNICEF, Save the Children, Tear Fund and either ADB or a joint cooperation of ADB/NZAid/AusAid to be determined by MESC.

4. Cost implication

(1) Year 1-3 student furniture:	US$3,060
(2) Year 4+ student furniture:	US$27,420
(3) Teacher furniture:	US$1,430
(4) ClassroomTent:	US$30,000 (in total, 20 tents are needed and the government has provided 5 thus 15 tents remain as an additional requirement)
(5) Water tank:	US$28,000 (13 water tanks)
(6) Latrines:	US$24,000
(7) First aid kits:	US$560
	Total: US$114,470

d) PROTECTION

1. Needs identified

The UN Office of the High Commissioner for Human Rights (OHCHR) became the lead agency for the Protection Cluster and two staff were deployed from Suva to Apia to coordinate the protection cluster and to promote protection as a cross-cutting issue to be mainstreamed into other clusters' planning and implementation. The protection Cluster identified four key areas of focus: 1) displacement and durable solutions, 2) access to services and to ensure equal distribution of relief items according to the identified needs, 3) child protection and 4) psycho-social support in close collaboration with the Health Cluster.

2. Activities conducted up to today

The Protection cluster lead agency (OHCHR) has participated in the early recovery assessment and highlighted protection concerns, including those of displaced populations to ensure that durable solutions are in line with the IASC Guiding Principles

on Internal Displacement, and concerns around gender and groups with special needs, for inclusion into the design and implementation of the assessment.

The cluster also distributed protection checklists for other clusters as well as other IASC protection tools and guidance, including the IASC Code of conduct to humanitarian actors. The protection cluster reminded all clusters to adhere to the Code of Conduct as well as other IASC guiding principles.

Psycho Social Support

MOH plays the coordination role and it operates a 24/7 telephone support service in addition to deploying psycho-social support team to the fields. Samoan NGOs are also sending counseling teams to the affected areas, while church groups are also providing counseling. UNICEF and Save the Children coordinated by the MoH and the Ministry of Women, Community and Social Development conducted a psychosocial training for community volunteers and trained volunteers are now outreaching to the affected communities. UNICEF and Save the Children also provides psychosocial support through distribution of recreational kits and early learning kits, along with briefing to promote the use of structured play and child friendly activities to promote the recovery of children. These kits are provided to the schools and community groups to organize child friendly activities in the existing buildings such as churches and schools

3. Needs identified

The Protection cluster held its last official meeting on 8 October, and the regional protection cluster with the support of country based protection members will follow up on protection concerns during the early recovery phase. Registration of families and children at the shelters needs to be followed up and it is proposed to try to track the more vulnerable families that may not have extended family support and see how they can be supported during the early recovery phase. The Protection cluster will try to find out whether there are other shelters in Apia and other locations accommodating the displaced population.

Due to the displacement of most of the affected population, there will be a need to develop a project to monitor over time the disaster displacement in Samoa and the success of durable solutions. Experience from 'natural' disaster situations in Asia and the Pacific suggest that assumptions cannot be made on preferred options for internally displaced persons (return, settlement elsewhere, or local integration) and that much more information on the motivations and decisions making factors by those displaced is needed to be able to offer affected populations strategies that will eventually lead to durable solutions. Return/settlement elsewhere/local integration options in Samoa are likely to be sustainable when IDPs feel safe and secure, with no further risks posed by the effects of a natural disaster; they have been able to establish residence in their preferred place, repossess their properties or homes, and these have been adequately reconstructed or rehabilitated, or they have received compensation for property lost/damaged; and they are able to return to their lives as normally as possible, with access to services, schools, livelihoods, employment, markets, etc. without discrimination.

The OHCHR team is planning to return to Samoa during the early recovery phase in order to monitor whether the protection concerns raised by the cluster are mainstreamed into early recovery activities.

4. Cost implication
None for humanitarian phase.

e) NON FOOD ITEMS (NFI)
1. Needs identified
Since the majority of the directly affected populations were displaced, they require basic items including beddings, clothing, WASH items, water, food, cooking utensils and others from day 1 after the disaster.

Annex 7 provides information on families' need for food.

2. Activities conducted up to today
Relief items were provided by various organizations and groups including the government, Red Cross, NGOs, UN agencies, civil and religious organizations as well as private donors.

As of 11 October, Red Cross, as a major distributor of NFIs, distributed relief materials to 40 locations including support for the families relocated in Apia, Manono island and families in damaged villages or supported in neighboring villages in the affected areas. The items include beddings, clothing, WASH items, water, food, cooking utensils and others.

The summary of relief item donations and distribution as of 8 October registered at NEOC is attached as annex 1 and Red Cross distribution as of 10 October is attached as annex 2.

Red Cross is also procuring additional relief items including 54 water tanks, 1000 female hygiene kits, 1,500 mosquito nets in addition to 3 types of kits (1)500 sets of "getting started household kits which includes 45 items such as wire cutters, trowel, string etc (2) 20 sets of Community Tools comprising a cement mixer, ladder wheelbarrow, chain saw, rivet machine and fuel cans (3) 500 sets of Demolition and Rebuild Kit items such as hammers, bush knife, spade, axe, shovel, saw etc. World Vision has been also working with DMO to distribute NFIs for 2,500 beneficiaries, which includes 10L collapsible jerry cans, 32,000 water purification tablets, 497 family hygiene kits, 99 baby hygiene kits, 998 tropical blankets, 998 mosquito nets, 497 tarps and equipment for sanitary facilities, most of which have been already distributed to the affected communities. They are providing another consignment of non food items (400 Solar Powered Lamps and 120 Solar Powered Radios) on 17 October.

3. Needs identified
Although the most urgent and basic NFIs needs are considered to have been met, the latest National Emergency Operation Centre (NEOC) situational report as of 14 October refers to relief items, which are currently needed, which includes

- Building and gardening tools
- Food and water storage containers/water containers
- Hurricane lamps
- Mosquito nets
- Building materials
- Cooking utensils (pots and teapots)

- Cooking stoves (kerosene)
- Transistor radios and batteries
- Dining room tables and chairs
- Bedding

The Government, NGOs and other agencies are currently mobilizing resources to procure extra NFIs. Therefore, at this stage it is not yet confirmed exactly what items in what amount are still in gap. NEOC is gathering information on what relief items are already in the pipeline, and what remains as a gap at this stage.
NEOC will be able to report it back by next week.

4. Cost implication
The amount of the items in needs is not yet quantified at this moment, so that the costing is not available at this moment.

f) EMERGENCY SHELTER
1. Needs identified
Since the most of the directly affected population, which is estimated to be around 4,500, are displaced, emergency shelter was a priority need in order to physically protect the displaced populations.

Annex 8 provides information on the location of families in emergency shelter.

2. Activities conducted up to today
Samoa Red Cross Society took the lead in providing emergency shelter in the form of tarpaulins and tents. They also registered those displaced and have distributed 1,147 tarpaulins and 46 tents as of 10 October, which is complemented by distribution of building tools for housing reconstruction.

3. Needs identified
Regarding the provision of emergency shelter in the form of tarpaulins and tents, it is considered that there is no significant gap at this stage. However, this regards the temporary emergency shelter and considering the fact that the rainy season begins in late October in Samoa, transitional shelters will be urgently needed until semi-permanent/permanent housing is constructed.

A Shelter Sub-Committee meeting was held on 20 October and addressed the urgent needs to build shelters. The government aims to start the building of shelters by the end of this week. It was clarified that average unit cost of SAT 18,000 only includes the building materials but not labour and other related costs.

Cabinet decided that the official number of shelters to be built in the first round of construction will be 425. This number is based on the list of affected families as compiled by the Ministry of Women, Community and Social Development (MWCSD), DMO, Red Cross and Electricity Power Corporation (EPC). One family constitutes an extended family that may consist of many nuclear families. Regardless of the number of nuclear families, the extended family will be provided with one shelter in the first round of building. The design of the shelter has been agreed upon among all related agencies and endorsed by the government.

Habitat for Humanity (HFH) will support the building of 325 shelters, while Caritas (50 shelters), LDS (40 shelters), SUNGO (7 shelters) and Tear Fund/ILEM Church (5 shelters) also already committed to support building shelters. HFH will also provide human resources to build the shelters.

The Ministry of Finance has prepared a special form for signature of the village authorities to verify that people are resettling on to their own properties.

4. Cost implication

No additional emergency shelter is required at this moment. However, transitional shelter/semi-permanent shelters are urgently needed, and this should be well reflected in the early recovery planning.

Annex 1
TSUNAMI SAMOA
NEOC SUMMARY-AS OF 8 0CT 2009

	ITEM	ITEMS	DONATIONS	DISTRIBUTIONS	BALANCE
WATER	WATER	BOX - Different size bottles	2198	2190	8
	Water Containers	Individuals	1913	751	1162
	Water Purifiers	Strips	12500	326	12174
	Water Tanks	UNDP 10 (1000 L)	10	0	10
			0	0	0
	Generator Set		9	5	4
			0	0	0
SHELTER	Family Tents		229	182	47
	Tarpaulin	Bundles	1118	704	414
			0	0	0
	Stretches		33	0	33
			0	0	0
FOOD	BANANAS	AUFAI	99	98	1
	BREAD	1 BOX - 10 LOAVES OF BEAD	139	31	108
	BUTTER	1 BOX	28	27	1
	CUCUMBERS	1 BAG	1	1	0
	CABBAGE	12 X 1 BAG	4	0	4
	COFFEE	INDIVIDUAL	120	11	109
	CORNED BEEF	BOXES	59	9	50
	FLOUR	SACK	163	40	123
	MARLIN	BOX	237	174	63
	MASI/KEKESAIGA/COOKIES	1 BOX	574	235	339
	MILK	12 PACKS X 1 BOX	2360	176	2184
	NOODLES	24 PACKS X 1 BOX	2612	2596	16
	PUMPKIN		62	35	27
	PUSA PISUPO / CORNED BEEF	BOX	23	21	2
	PUSA APA	BOXES	782	584	198
	RICE	SACK	3882	2828	1054
	ROLLED OATS	BOXES	390	49	341
	SALT	SACK	30	28	2
	SPAGHETTI	12 CANS X 1 BOX	388	163	225
	SUGAR	SACK	528	178	350
	TARO	SACK	98	31	67
	TEA BAGS	1 BOX	226	117	109
	VIENNA SAUSAGES	1 BOX	1006	110	896
	LARGE TARO		260	26	234
	SNACKS	BOX	1	1	0
	RATION PACKS		42	30	12
	OTHER CANS		2	0	2
	POPO	1 BAG	30	2	28
	COOKING OIL		308	0	308
	MASIMASI (I'A) -		80	0	80
	SOY BASED	Box	8	0	8
CLOTHES &LINEN			0	0	0
	CLOTHES	Adult & Kids Clothes in 1 bag	1318	1065	253
	MOSQUITOE NET	INDIVIDUAL	1026	485	541

	BLANKETS	INDIVIDUAL - (8 Per Bundle)	557	549	8
	BED SHEETS		302	69	233
	SHOES	pairs	33	29	4
	SOLO AFU		81	0	81
	TOWELS	BAG	190	69	121
	BABY CLOTHES	BOX	65	1	64
	PILLOW	BOX	95	31	64
	MATS	BUNDLES	429	46	383
	MATERIALS	1 ROLLS	1	1	0
			0	0	0
	BED	KING SIZE	1	0	1
	FURNITURE	INDIVIDUAL	6	0	6
			0	0	0
	BATH TUBS	1	1	1	0
	RAZOR BLADES	PACKET (24 PER PACKET)	6	5	1
	SOAP	BOX	294	181	113
	TOILET PAPER	24 x 1 box	419	62	357
	TOOTH BRUSH	24 - 1 packet	72	59	13
	WIPES	Disinfected Wipes in packets	71	60	11
	TOOTH PASTE	PCS	377	363	14
	WASHING POWDER	PCS	3	3	0
	SPECIAL WALKING CHAIRS & TOILET CHAIRS		2	0	2
	NAPPIES	PACKET (24 PER PACKET)	78	75	3
	TOILETRIES	MIX BAG - SOAP TOOTH PASTE TOOTH BRUSH	301	64	237
	PLASTIC TOILETS	SQUAT COVERS	19	18	1
	LIBRA PADS		0	0	0
TOILETRIES	DISINFECTIVE CHEMICAL		0	0	0
			0	0	0
	KNIVES & FORK	12 KINVES - 1 BOX	48	37	11
	CONTAINERS	BIG CONTAINER (Individuals)	150	147	3
	CUPS/GLASSES	100 CUPS - 1 CUP	230	172	58
	LARGE BOWELS	DINNER BOWLS	17	17	0
	LARGE WOK		20	1	19
	MATCHES	INDIVIDUAL (100/box)	100	75	25
	KEROSENE OVEN	1 ITEM - SINGLE	20	13	7
	BOWLS		100	45	55
	PLATES	100 plates - 1 box	194	192	2
	POTS	BOX	206	108	98
	FRYING PAN		2	2	0
	SMALL WOK		18	16	2
	SPOONS	12 SPOONS - 1 BOX	227	15	212
	TEA POTS	1 Medium size Teapot	23	19	4
KITCHEN UTENSILS	TOYS		9	1	8
	TEA TOWELS		15	12	3
	GARBAGE BAGS		3	2	1
	ASSORTED UTENSILS	BOX	130	112	18
			0	0	0
	ROTARY CONTAINERS	1 BOX CONTAINER	4	3	1
	FAMILY KIT	1 KIT	497	488	9

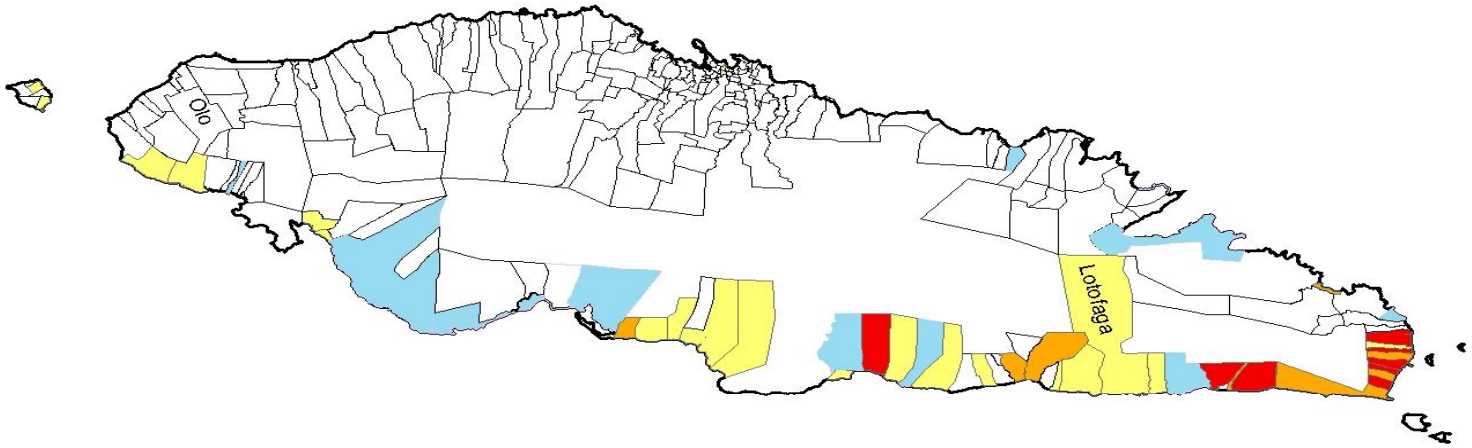
	BABY KIT	1KIT	147	145	2
	MEDICAL KIT	1 KIT	2	1	1
	EMERGENCY BOX	BOX	100	0	100
	HOUSEWEAR	1 BOX - (CONTENT: Medium size Billy, can opener,safety pins,string, clothesline rope, clothes pegs, insulation tape, plastic sheets, blankets	17	10	7
LIGHTS			0	0	0
	BATTERIES	BOX	392	116	276
	MOLI MATAGI		120	42	78
	TORCHES	10 PER BOX	245	241	4
	ELECTRIC IRON		1	0	1
UTENSILS			0	0	0
	PANADOL	1 BOX	1	1	0
	GLOVES	PRS	322	287	35
	WHEEL BARROWS	INDIVIDUAL	42	28	14
	TOOL KITS	BAG/BOX	80	39	41
	SPADES	INDIVIDUAL	14	2	12
	SHOVELS	INDIVIDUAL	63	13	50
	RAKES	INDIVIDUAL	3	0	3
	MUDPICK	INDIVIDUAL	6	5	1
	AXE	INDIVIDUAL	28	8	20
	JERRY CANS	30 X 1 CART	41	41	0
	PORTABLE TOILET	INDIVIDUAL	0	0	0
	KNIVES	INDIVIDUAL	100	5	95
	NAILS	BOX	28	7	21
	HANDSAW	INDIVIDUAL	35	0	35
	SHELTER BOX (tarpauline, nuts, nets, tools)		53	23	30
	HAMMER	BOX	17	0	17
	PIN SPA	INDIVIDUAL	10	0	10
	MEASURING TAPE	INDIVIDUAL	101	0	101
			0	0	0
	SOCCER BALLS	INDIVIDUAL	50	0	50

Annex 2

Red Cross Relief Distribution				Go back
Total Distribution 30/9/09-8/10/2009				
Shelter & Bedding			**Food / Cooking**	
Tarpaulins	1147		Noodles (box)	167
Tent	45		Sack of food	5
Umbrella Tents (ANZ)	1		Tinned Fish (Box)	132
Blankets	1232		Rice	233
Sheets (boxes)	2		Flour	9
Sheets (set)	65		Biscuits (Box)	136
Mosquito Nets	167		Cooking Fat	4
Lanterns	98		Cooking Oil (bottle)	24
Candles (bundle)	4		Bowls	88
Torch	29		Cups (doz)	28
Mats	44		Plates (doz)	29
Matresses	6		Plates (box)	13
Pillows	145		Utensil/sets	90
			Cooking sets	398
Clothing			Kerosene Stove	1
Clothes (Sack/Box)	1892		Milk (ltr)	47
Shirts/Blouses	265		Butter	12
Childrens Clothes	9		Sugar (box)	8
Baby clothes (box)	8		Coffee/Tea	79
T-Shirts (box)	3		Bananas (box)	4
Towels (box)	4		Snacks (box)	10
Towles (indiv)	90		Tinned Spaghetti/baked beans (box)	68
Sandals (box)	64		Mixed tins (box)	14
Sandals (pairs)	69		Matches (box)	42
Shoes (pair)	124			
			Other	
Hygiene & Personal Care			Toys (box)	1
Hygene Kits	235		Toys (individ)	28
Collapsable Water Containers	35		School Kit	4
Shower to Shower Powders (box)	8		Body Bags (box)	2
Mouthwash (box) Toothpaste (tube)	14		Heavy Duty Gloves (pr)	12
Feminine Hygene Products (box)	9		Examination Gloves (pair)	91
Body Wash (bottles)	33		Mosquito Coils (pack)	75
Soap/Handwash (box)	4		Panadol (pkt)	27
Soap (pc)	164		Air NZ Gift Bag	76
Toothbrushes (each)	29		Masks	10
Daipers (box)	7		Umbrella (BOC)	9
Disinfectant (box)	13		Rope	38
Newborn Kits	110		Tool Kits	4
			Buckets	2
Water			Rain Coats	10
Boxes H20	721		ANZ Bags	70
Containers H20	1394		Bush Knives	1

Water Bottles	53		Jerry Cans	75
Water Tank (1000 ltr)	28		Hammer	2
Water Tank (3000 ltr)	0		Shovel	5
Water Tank (5000 ltr)	0		Nails (bag)	1

Annex 3



Impacted Population per Village
Total
4462

All data included
October 7 2010
Ministry of Health data with other sources
including Red Cross

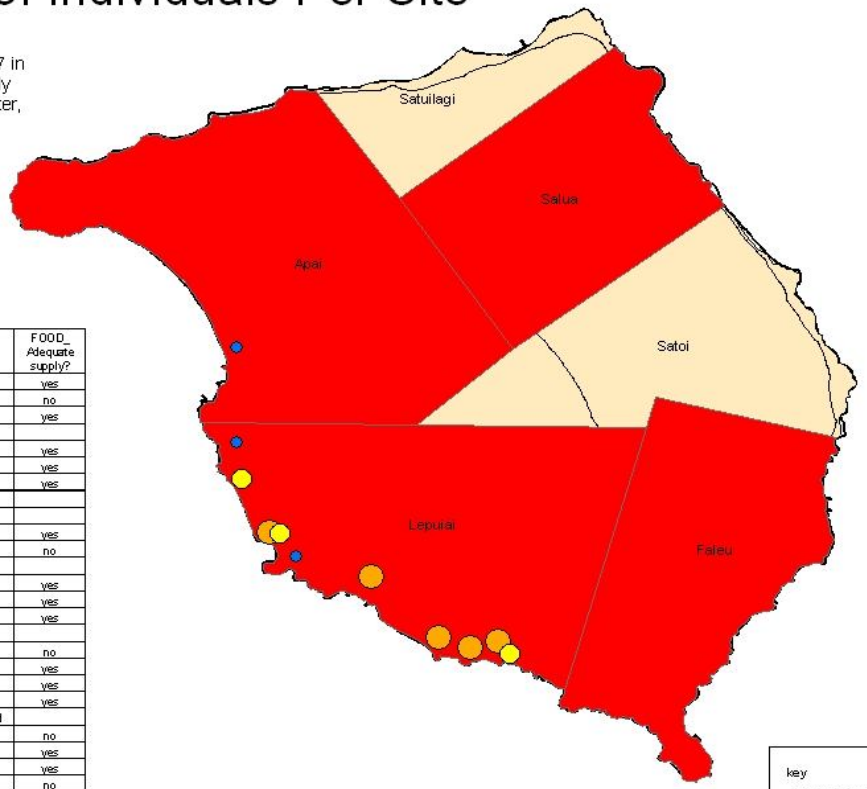
key
Affected Villages
Populaition affected
Unaffected
no data
1 - 100
101 - 200
201 - 486

0 3.5 7 14 Kilometers

Annex 4

Number of Individuals Per Site

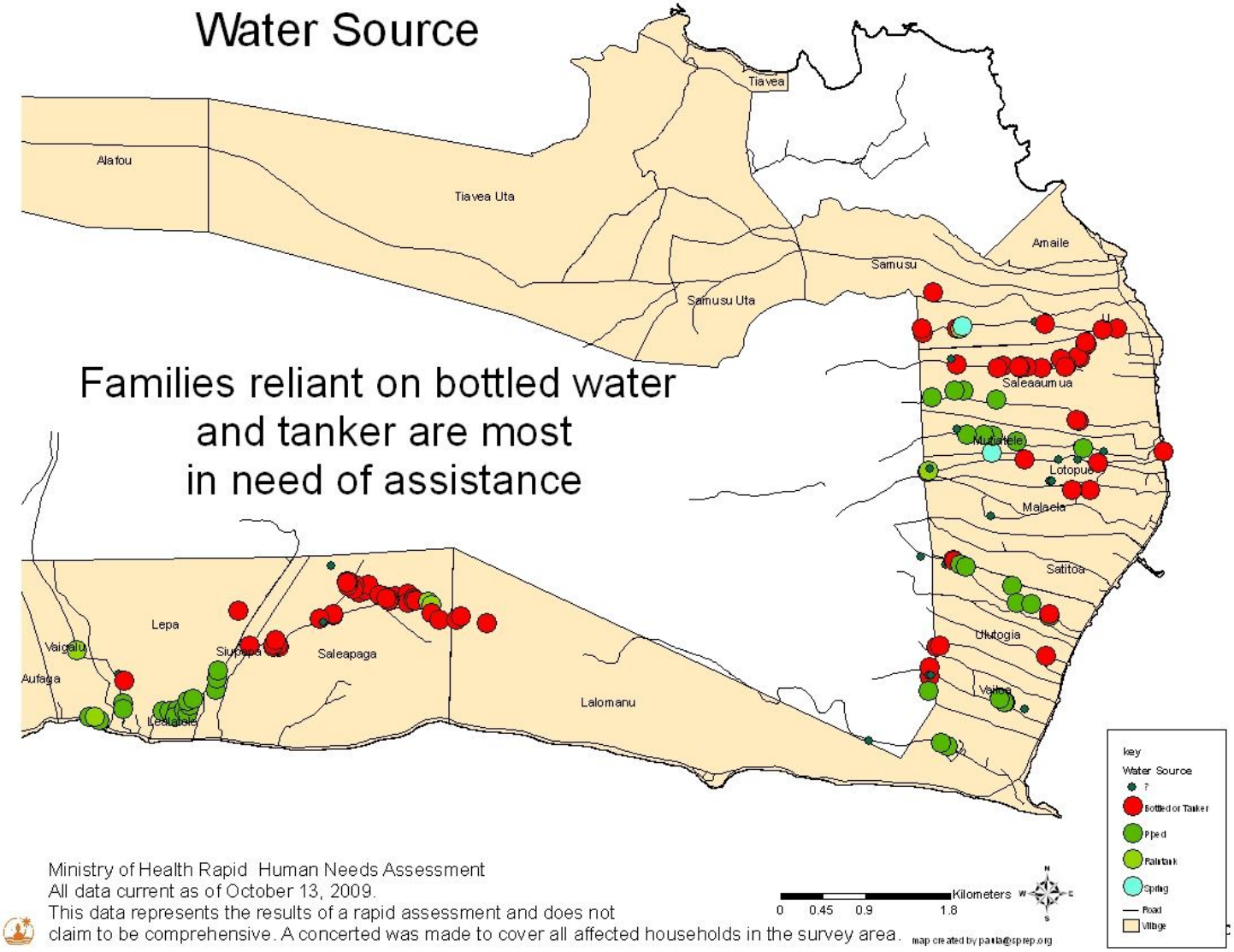
On the island of Manono there are 364 affected individuals. 147 in Faleu, 139 in Lepuiai, 71 in Salua, and 7 in Apai. There are only household coordinates for the village of Lepuiai. There are water, food and sanitation needs in the other villages, the ministry of health manages this data.



Village	individuals	Pit latrine	Recommendation	Water source	FOOD_ Adequate supply?
Apai - Manono-tai	7			Piped	yes
Faleu - Manono-tai	2		Pit latrines	Piped	no
Faleu - Manono-tai	12			Piped	yes
Faleu - Manono-tai	9	1		Piped	
Faleu - Manono-tai	9		Pit latrines	Piped	yes
Faleu - Manono-tai	6		Pit latrines	Piped	yes
Faleu - Manono-tai	12		Pit latrines	Piped	yes
Faleu - Manono-tai	17			Piped	
Lepuiai - Manono-tai	0		Pit latrines		
Lepuiai - Manono-tai	11			Piped	yes
Faleu - Manono-tai	80	0	Pit latrines	Reservoir	no
Lepuiai - Manono-tai	5		VIPs	Raintank	
Lepuiai - Manono-tai	2	1		Bottled	yes
Lepuiai - Manono-tai	9			Bottled	yes
Lepuiai - Manono-tai	16		Pit latrines	Bottled	yes
Lepuiai - Manono-tai	9	1	Pit latrines	Bottled	
Lepuiai - Manono-tai	4			Bottled	no
Lepuiai - Manono-tai	14		VIPs	Raintank and Bottled	yes
Lepuiai - Manono-tai	13	1	VIPs	Raintank and Bottled	yes
Lepuiai - Manono-tai	14			Raintank and Bottled	yes
Lepuiai - Manono-tai	17			Piped, Raintank and Bottled	
Lepuiai - Manono-tai	8			Bottled	no
Lepuiai - Manono-tai	8		Pit latrines	Piped and Bottled	yes
Lepuiai - Manono-tai	9			Piped and Bottled	yes
Salua	20		Repair	Reservoir	no
Salua	7		Repair	Reservoir	no
Salua	10		Repair	Reservoir	no
Salua	15		Repair	Reservoir	no
Salua	13			Reservoir	no
Salua	6			Reservoir	no
Salua	0			Reservoir	

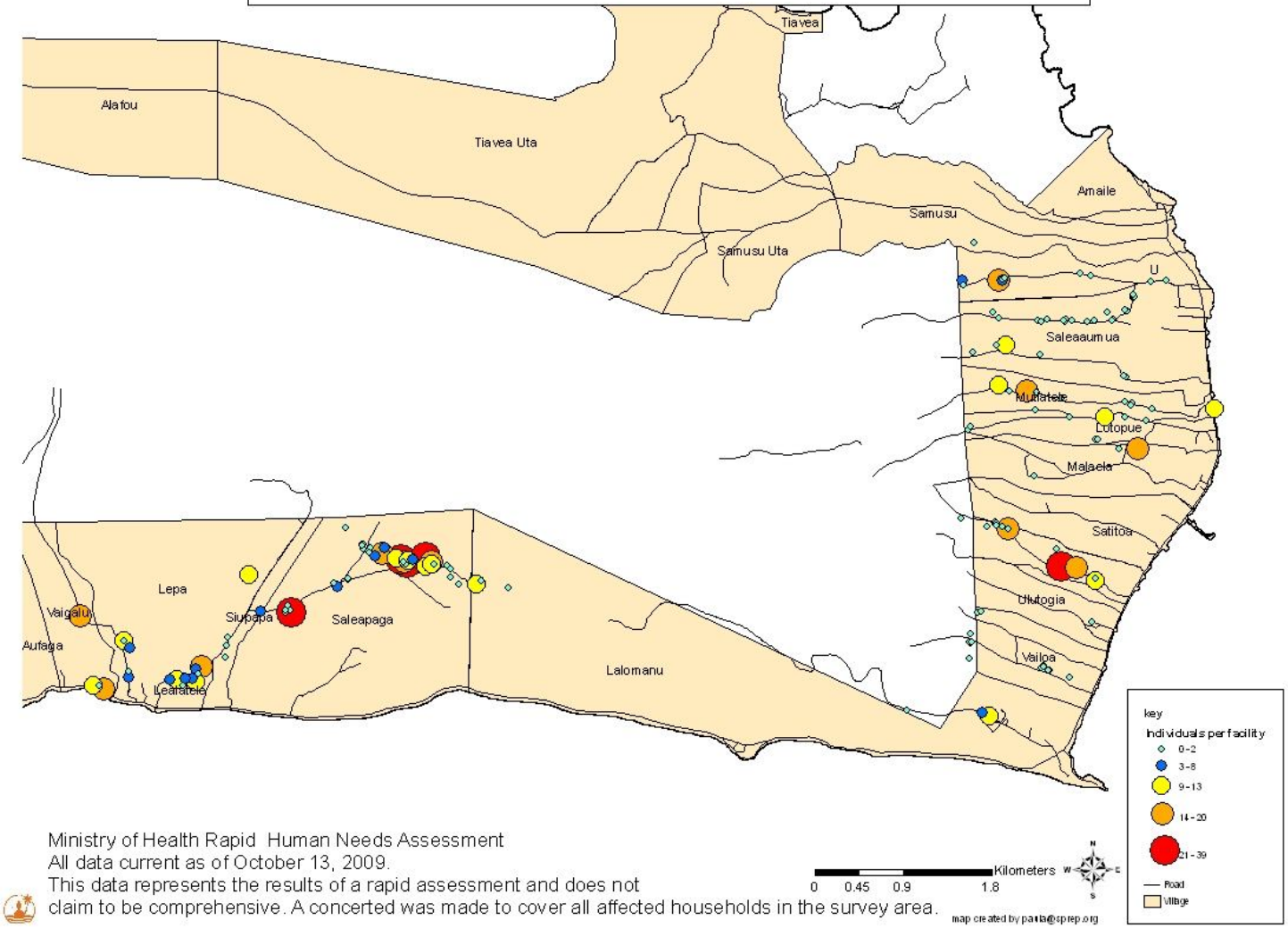
Ministry of Health Rapid Human Needs Assessment
All data current as of October 13, 2009.
This data represents the results of a rapid assessment and does not claim to be comprehensive. A concerted was made to cover all affected households in the survey area.

Annex 5


Water Source
Families reliant on bottled water and tanker are most in need of assistance
Tiavea
Alafou
Tiavea Uta
Amaile
Samusu
Samusu Uta
Saleaaumua
Mutiatele
Lotopue
Malaela
Satitoa
Ululoa
Vaitoa
Lalomanu
Lepa
Vaigalu
Aufaga
Saleapaga
Ma'ia'ia
key
Water Source
?
Bottled or Tanker
Piped
Raintank
Spring
Road
Village
Ministry of Health Rapid Human Needs Assessment
All data current as of October 13, 2009.
This data represents the results of a rapid assessment and does not claim to be comprehensive. A concerted was made to cover all affected households in the survey area.
0 0.45 0.9 1.8
Kilometers
map created by paula@sprep.org

Individuals per Sanitation Facility

Annex 6



Ministry of Health Rapid Human Needs Assessment
All data current as of October 13, 2009.
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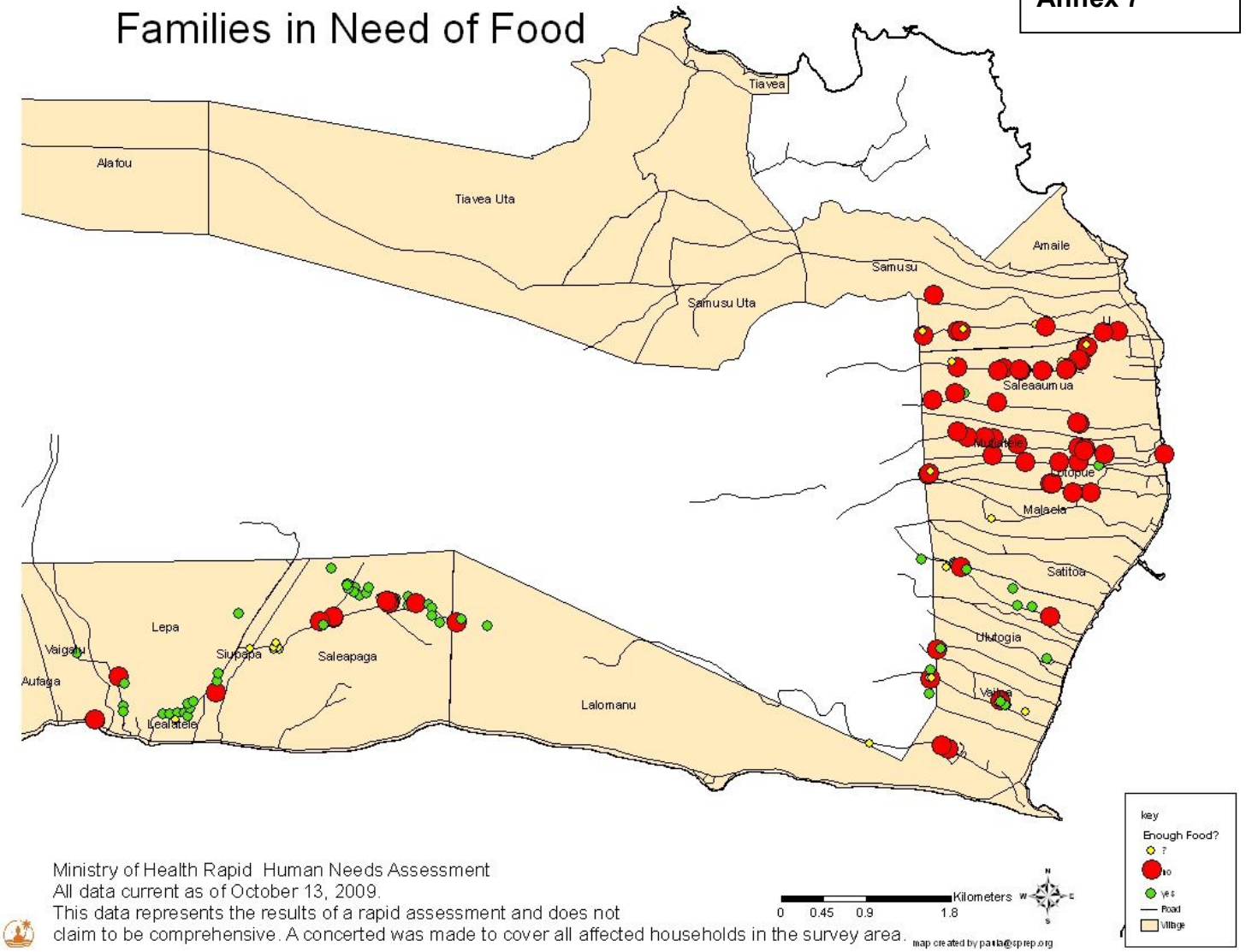
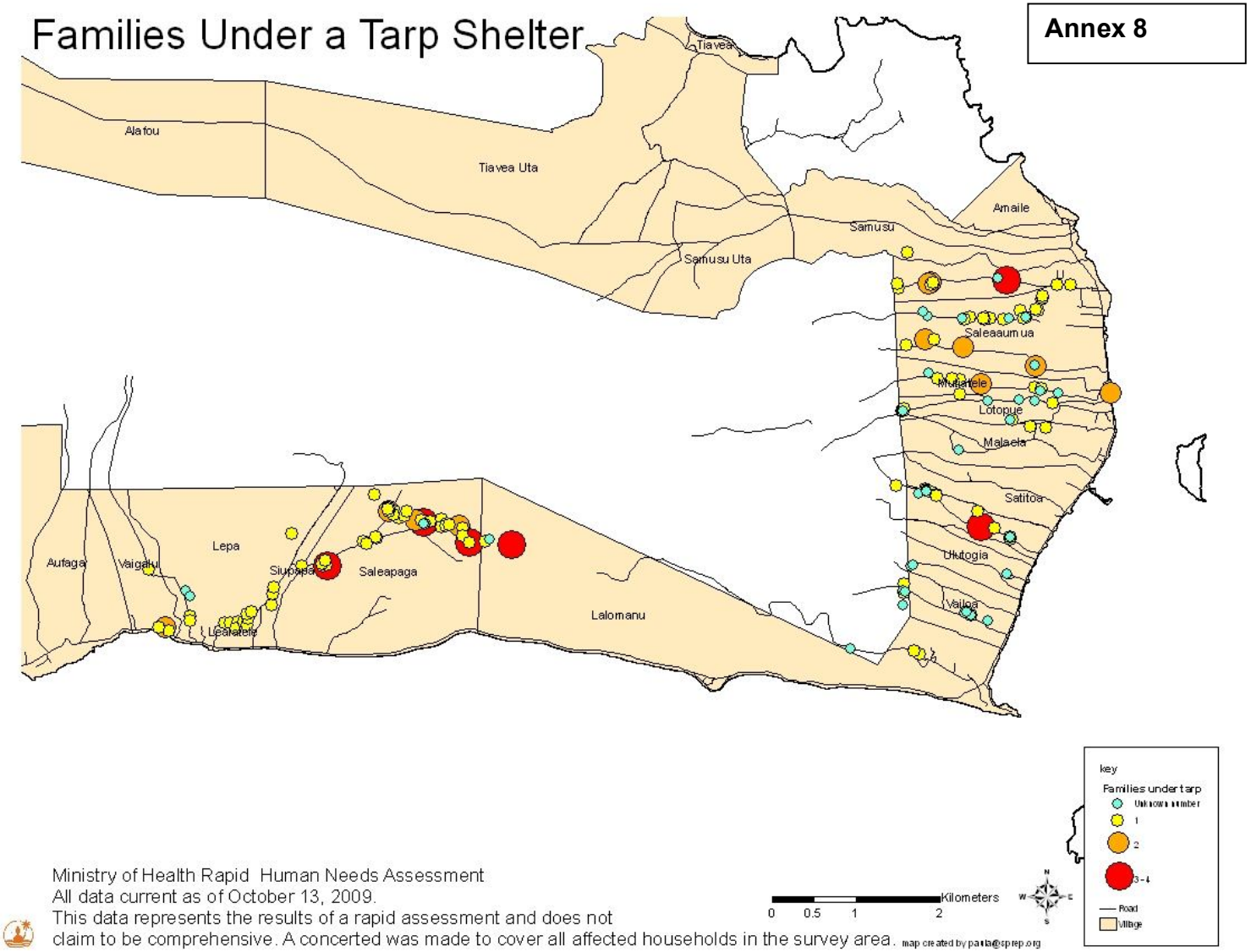
Annex 7


Families in Need of Food
Tiavea
Alafou
Tiavea Uta
Amaile
Samusu
Samusu Uta
Saleaaumua
Malaela
Satitoa
Ukutogia
Lalomanu
Lepa
Vaigalu
Aufaga
Siumapa
Saleapaga
Lealatele
Ministry of Health Rapid Human Needs Assessment
All data current as of October 13, 2009.
This data represents the results of a rapid assessment and does not claim to be comprehensive. A concerted was made to cover all affected households in the survey area.
Kilometers
0 0.45 0.9 1.8
map created by paula@sprep.org
key
Enough Food?
?
no
yes
Road
Village

Annex 8


Families Under a Tarp Shelter
Tiavea
Alafou
Tiavea Uta
Amaile
Samusu
Samusu Uta
Saleaaumua
Mulifanua
Lotopue
Malaela
Satitoa
Utulogia
Vaiusu
Aufaga
Vaigalu
Lepa
Siupapa'u
Saleapaga
Lealatele
Lalomanu
key
Families under tarp
Unknown number
1
2
3-4
Road
Village
0 0.5 1 2
Kilometers
Ministry of Health Rapid Human Needs Assessment
All data current as of October 13, 2009.
This data represents the results of a rapid assessment and does not
claim to be comprehensive. A concerted was made to cover all affected households in the survey area.
map created by paula@sprep.org