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INTRODUCTION

Cyclone Nargis struck Myanmar on 2 and 3 May 2008, devastating the Ayeyarwady and Yangon divisions. Collective assessment data from the authorities and international communities indicates the 115 townships were significantly affected by the cyclone, wind speeds of up to 200 km/h accompanied by heavy rain, the damage was most severe in the Delta region, where the effects of the extreme winds were compounded by a 3.6 metre storm surge. The official figures on the 2nd July state that 84,500 people have been killed and 53,800 are missing. The UN estimates that 2.4 million people were affected by Cyclone Nargis which was the largest natural disaster in the history of Myanmar, and the most devastating cyclone to strike Asia since 1991.

AIMS OF THE VISIT
- To establish an overview of the operation and activities from a sector perspective

- To provide MRCS and IFRC operations management with an outsiders perspective of the aspects of the operation

- To enable the participating National Societies representatives to function as valuable sources of information to other PNS’s regarding the realities/problems/opportunities of the operation on the ground.

   Sectorial reports to be prepared covering the following:
   - General overview of experiences and observations in the field
   - Feedback on sectorial activities undertaken up to now.
   - Input to be considered for future programming in the sector
   - Possible PNS engagement in the operation/appeal

METHODOLOGY:
Information gathering was undertaken by:
- Reading existing sectorial reports and cyclone Nargis updates.
- Interviews with key personnel in both Yangon and in the field. Details of personnel interviewed in both the field and in Yangon are included as an attachment.
- A field trip to Bogale and Mawlamyinegyan to interview key response personnel in both the hubs and branches with RC volunteers RC employees and beneficiaries.
- A visit to the affected area to see at the first hand the current response
CONSTRAINTS AND RISKS

Both PNS representatives acknowledge that the response to cyclone Nargis is a complex response which has included large numbers of MRCS, IFRC, ICRC personnel. This review is very limited in terms of time, geographical areas visited and persons interviewed. The risk of such a review is to underestimate and/or nor completely understand the complexities of the response to cyclone Nargis and the reason behind some of the decisions made over the past four months.

FIELD TRIP 9-11 SEPTEMBER

The field trip was undertaken by:

Bob Handby Australian Red Cross, Wat San Engineer
Theresia Lyshoj-Landiech, Swedish Red Cross, Health Advisor
Cathy Martin, Movement coordinator, IFRC
Vinay Sadavarte, Wat San coordinator, IFRC
Chiyuki Yoshida health coordinator IFRC
Zay Nyi Han, Wat San engineer, MRCS

Major centers visited include towns of Bogale and Mawlamyinegyan and the village of Kyar Chaung

GENERAL OVERVIEW

The six members of the field trip team were flown by WFP helicopter to Bogale where they visited the local hospital, the MRCS warehouse and the part of the Austrian/German water treatment plant. The group then stayed overnight in Bogale.

On the second day the team went by RC boat from Bogale to Mawlamyingyan and then onto the village of Kyar Chaung where the Australian RC water treatment plant was operating and where the MRCS was carrying out hygiene promotion activities with school children.

The team continued by boat back to Mawlamyingyan for an overnight stop.

The three hour boat ride from Bogale – Mawlamyinegyan- Kyar Chaung provided an excellent overview of the cyclone affected area. The complete reliance on boats by the population and the remoteness of the areas highlighted the significant logistical challenges for the response.

An observation of the affected area was the vulnerability of the communities to such disasters as cyclones and storm surges due to the proximity of living to rivers, the height above sea level and the lack of shelter.
Definitions

**Hub** - Cyclone Nargis IFRC Operational Support Office [eight operational hubs in the response area]

**Second in Command** - Myanmar Red Cross Head of Volunteers, Senior person at Branch level

**T.M.O.** - Township Medical officer and Chairman of the local branch

**Townships** - Townships are divided into Village Tracts and in Urban areas - Wards.
- In this operation the MRCS and the International Federation are active in thirteen key townships in the Yangon and Ayeyarwady divisions.
- In the thirteen townships there are close to 1,000 village tracts.
- Each tract comprises several villages and has a population of approximately 2,000 to 5,000 families.
- The operation team and the MRCS have identified 138 village tracts as the operational area, covering 100,000 households.
  [the identification of these tracts has been discussed with other agencies to avoid overlap or duplication]

**Township hospital**: covers 100,000-200,000 people, primary responsibility to cover health services. Has 50, 25, 16 beds, one or two station hospitals and 2-7 rural health centres, (RHCs), serving 20,000 - 25,000 people.
A RHC would have, on average, about four sub-centres (sub-RHC) operated by a midwife and a community health worker.

**WAT SAN SECTOR REPORT**

At the start of this sector report I would like to acknowledge the support of Vinay Vilas Sadavarte, I.F.R.C. WatSan Delegate and Zay Nyi Han the Myanmar WatSan counterpart, both who shared considerable knowledge on all aspects of the WatSan response to Cyclone Nargis. The I.F.R.C. is fortunate to have Vinay as the Co-ordinator to this response and will also benefit greatly by the inclusion of Michael Wolff to the WatSan team.

**WATER SUPPLY**

Prior to Cyclone Nargis, water supply in the rural areas consisted primarily of household rainwater harvesting combined with access to water from community ponds, open wells, rivers and tube wells. During the dry seasons households become more dependants on communal ponds and rivers.
Some limited treatment of water is evident which includes some settling of water with the assistance of ALUM and in a small percentage of cases some boiling of water is undertaken.
It is very evident that prior to the cyclone a very large percentage of the population did not have access to water which would be consider safe to drink. The cyclone had an
adverse affect on water supplies in many areas, water which was already of questionable quality. Most of this water will return to its original condition, however due to salt inundation some traditional drinking water will never recover. The full extent of this long term damage to water supplies will not be known until the full impact of the dry season is experienced.

Provision of Emergency Water by the MRCS and International Federation.

One of the key objectives of the emergency response was to ensure that the immediate risks of waterborne and water related diseases have been reduced through the most essential provision of safe water, adequate sanitation and hygiene promotion to 100,000 households.

A major component of this activity was the provision of safe water to some of the most affected areas and to some of the most vulnerable and remote communities. This was achieved in the emergency stage of the response by the deployment of a number of water treatment plants, these plants have been operating with varying capacities and water distribution plans.

The following is an update on the operation of these plants and the proposed exit strategies being implemented.

Joint Austrian and German Red Cross ERU – M15

Unit divided into six smaller units
Three units were installed by FACT WatSan and ERU delegate in the township of Bogale. Two of these units have now been decommissioned as the demand decreased due to the availability of pond water. The third unit which was installed at U Hlathein ward is producing approx. 1,000 litres per day and has a decreasing demand. It should be able to be decommissioned by the end of September [three units are to be stored in the Bogale warehouse with the remaining three units to be stored in the Yangon warehouse].

A fourth unit was installed in the village of Set San. It is being operated by local engineers and is now producing approx. 2,000 litres per day. A program of pond cleaning has been undertaken in this area and it is anticipated that this unit will cease operation at the end of September.

A fifth unit is operating in the rural area of Kadonkani and is producing approx. 8-10,000 litres per day. Water from this unit is distributed via a tap stand and also some water is distributed to remote areas via boat. Before an exit strategy is finalised for this unit, some additional assessment is to be undertaken. The village has been identified for some pond cleaning and improved roof top rainwater harvesting.
The sixth unit is operating Byusakan village and is producing approx. 2,000 litres per day. Water is distributed by a tapstand and via boat to some remote areas. Some pond cleaning has been undertaken by INGO, and some additional assessment is required to ensure an appropriate water supply is available before an exit strategy in finalised for this plant.

French Red Cross ERU – M40

The French Red Cross ERU which has a capacity of 300,000 litres per day was installed in the township of Laputta. This plant provided essential water for a camp [football field camp] that contained about 4,000 displaced people.
Occupants at the camp started to leave at the beginning of August. This unit is scaling down its operation with some components already being stored in the Laputta warehouse, it is expected to be decommissioned by the end of September.

French Red Cross ERU operating at Laputta.

Some components of the French Red Cross unit are being used in the Bitut village tract, tanks are being used for sedimentation and chlorination only, the capacity has reduced from 12,000 to 5,000 litres per day. A total of ten ponds have been cleaned in this area which means that the operation could be closed down, however it is remaining operational for another couple of months as it is a simple operation being maintained by volunteers. The treatment process is remaining open as it may be deployed to problem areas that become evident during the coming dry season.
Part of the French Red Cross ERU being used for sedimentation and chlorination.

**Australian Red Cross Water Treatment Plant**

Operating in the village of Kyar Chaung producing approx. 7,000 litres per day. Distribution is via tapstand and boat distribution to 23 small remote villages with populations between 100-200 per village. The exit strategy includes an assessment of all villages receiving water and ensuring an appropriate alternative water source is available before the water treatment and distributed is stopped. Options for alternate water sources include community solutions like pond cleaning and household solutions like the improvement to rainwater harvesting and provision of alum and chlorine tablets.

This unit is also being kept on standby in the event of the need for an emergency water supply due to the impact of the dry season and changes to areas with salinity problems brought about by Cyclone Nargis.
Water pumped from the river into settling ponds made from tarpaulins, treated with alum and allowed to settle.

Water treated by filtration and ultra violet disinfection.

5,000 litre water storage bladder.

Tap stand water distribution.

Treated water distributed to remote villages via boats.
Comments from the field on the deployment of water treatment plants

- Communities were reluctant to use water that smelt of chlorine
- Some complaints were received of plastic smells from bladder tanks and collapsible jerry cans
- Some equipment was not always appropriate for use in areas with small, remote populations [small mobile units preferred].
- Experienced operators were needed for some units which was difficult with limited access for ERU delegates.
- Australian Red Cross unit was very effective once settling tanks combined with alum was used [reduced the demand on filters]
- Scan units were easy and quick to install but required some expertise to operate.
- Mass units required considerable logistics, experienced operators and takes time to install especially in a context like Myanmar.
- The provision of safe water is critical immediately after most disasters [units deployed took between 2-4 weeks to become operational]

Comments
Water treatment units provided essential water and although not always working to full capacity provided drinking water to some of the most difficult communities to access and to some of the most vulnerable members of the population. Treated water distribution to these remote villages was logistically challenging due to limited capacity of boats for carrying water as well as fewer boats available after the cyclone for transportation.

Exit strategies for the plants that are still operational are in place with some units being positioned to be able to respond in the event of emergency needs brought about by the dry season.
A plan to have all plants decommissioned by the end of September is being reviewed as it is acknowledged that it is essential to have an appropriate water source available for each location before plants are removed.

POND CLEANING PROGRAM

Along with rivers, community ponds are a major source of water, ponds service populations from hundreds to thousands, and are built by either the community or the Government. Ponds are usually cleaned annually. Cyclone Nargis not only contaminated ponds with debris and in some cases salt water, the annual program of pond cleaning was disrupted. The pond cleaning is timed to coincide with the wet season to ensure there is still adequate rain to fill the ponds after the cleaning as this process involves the emptying of ponds to facilitate cleaning.

Water from ponds is of questionable quality with often high turbidity and potential for high bacterial counts. Some communities undertake simple treatment of pond water including settling with the assistance of alum. A small number of tube wells and shallow open wells are used to compliment the use of pond water.
Rainwater harvesting is an important component of water used in many communities, however this is limited during the dry season.

In response to Cyclone Nargis a program of pond cleaning was undertaken by the MRCS supported by the International Federation WatSan delegate. Initially one pond was cleaned in each of 50 villages that were found to be dependant on pond water. The long term plan is to clean two ponds in each of 138 village tracts, each village tract has approximately 4-5 villages [approx. 1300 ponds to be cleaned over the next 15 months]

Priorities for the cleaning of ponds and other water related activities are being identified in the Village Tract assessments that are currently being undertaken in 138 Village tracts already identified.

As mentioned previously, the water from these ponds is subject to contamination from run off and access to animals and birds including domestic birds like ducks and chickens. A program to protect the source of the water is included in the cleaning program which may include such activities as fencing and developing easy access ramps for those collecting water.

Comments

The pond cleaning program is an important program in the provision of a traditional water source. An opportunity exists to improve access to reasonable quality of water to that used by the communities prior to Nargis by improving the protection of ponds, further developing rainwater catchment opportunities plus the development of shallow wells and tube wells. These initiatives along with some educational components on the protecting and treating water would significantly improve the quality of water in the long term. The existing programs will go part way to addressing some of these issues in the 138 village tracts identified, however this program could be extended throughout the disaster affected area and would need to be implemented far beyond the proposed three year Nargis response timetable.

As pond cleaning has traditionally been undertaken annually, the necessary resources should be provided for the pond cleaning program to have all of the ponds identified for cleaning to be completed as soon as possible rather than allow the program to take a prolonged period.
SANITATION

Latrine Construction
A major program to improve sanitation is the construction of latrines. The three year plan is to construct or assist in the construction of 50,000 latrines supported by MRCS: 10,000 demonstration & 40,000 pan and pipe distribution.

Pond cleaning is carried out annually

MRCS provided pumps and assistance for the pond cleaning program.

Existing ponds were contaminated by debris and in some cases salt inundation.
The plan involves the building of 2,000 latrines in the first phase and 8000 in the second phase of implementation. This process will be used to train a WatSan Engineer and build capacities of the communities in the village for construction of appropriate sanitation facilities including operation and maintenance of facilities developed. The cost of construction of each latrine will be approx. $20US which includes the purchase of pan, pipes and bamboo thatched rings to support the soakage pit. During this project other villages will be invited to learn construction techniques and then be supported to build their own latrines by having pans, pipes and bamboo mats provided.

The village tracts chosen for these projects will be determined by the village tract assessments that are being undertaken. The WatSan Co-Ordinator is working with the Health and Hygiene promotion teams to ensure an education program is being undertaken in conjunction with the latrine construction program.

Materials are available locally for latrine construction, including pans and pipes.

Woven cylinders are manufactured locally to support soakage pits which are important in the construction of latrines.
Comments
The WASH cluster initially proposed the construction of 1.4 million latrines. Many other INGOs are undertaking latrine building programs, the WatSan Co-Ordinator is of the opinion that 50,000 with the method proposed is an achievable number in the three year timetable however will undertake a review of this number once the program is underway. Prior to Cyclone Nargis a large portion of the rural population did not have access to properly constructed latrines resulting in many of these defecating in the bush. The cluster target of 1.4 million latrines suggests that considerable scope exist for long term latrine construction programs. The relatively low cost of purchasing the necessary materials in the field when combined with a free labour component provided by the communities would result in a program with considerable Public and Environmental Health benefits along with providing a dignified option for defecation.

VECTOR CONTROL

Although both Dengue Fever and Malaria are endemic in the affected area there does not appear to be evidence of any particular outbreaks. WatSan and MRCS volunteers are trained in mosquito control and identifying breeding sites, any particular problem areas identified, are referred to the Ministry of Health and W.H.O who have the responsibility for mosquito control. Initial distribution of mosquito nets was undertaken by relief, MRCS volunteers trained in Health and Hygiene include education on the use of mosquito nets as part of there Health promotion message and have some capacity to distribute nets if they are working in areas where nets are not provided. MRCS has an ongoing program with the International Federation on Malaria awareness.

Comments
Observations during the field trip revealed numerous locations where it would be expected that mosquitoes would breed, on close inspection of some of these potential breeding sites it was surprising that I could not see evidence of breeding. There was also little observation of adult mosquitoes in areas where normally I would expect them to be prolific. These observation were in very limited areas yet surprising, they may be due to the season however they support the advice received that there had not been outbreaks of Dengue or Malaria.

MYANMAR RED CROSS SOCIETY WAT SAN CAPACITY

MRCS have a wonderful opportunity to learn from the WatSan response to cyclone Nargis and develop its own capacity for the future. Local WatSan engineers that are being employed in the field are demonstrating a high level of expertise to both operate water treatment plants as well as undertaking assessments and report writing. They have shown great enthusiasm towards the work and for many this is their first experience of working with the Humanitarian sector and Red
Cross. A meeting with a private company in Yangon has shown that they import appropriate water treatment equipment and commodities including the filters necessary for the operation of the Australian Red Cross water treatment plant [AMD TRADING CO., LTD]

The eventual decommissioning of the ERUs and the ARC water treatment plant will result in a substantial amount of water treatment storage and distribution equipment being stored in MRCS warehouses.
It is critical that an inventory of this equipment be maintained and that it be used for training of local operators so that it can be quickly and easily installed in response to any future disasters.

My understanding is that MRCS have already indicated its desire to develop a WatSan capacity and are in the process of appointing a full time WatSan Co-Ordinator. Lessons learnt from the response to cyclone Nargis should form a good starting point for such a position to work with the Society to ensure the necessary capacity is developed to enable an appropriate response in the future.

**Comments**
The timing is perfect for the MRCS to develop a strong WatSan capacity. Not only is it timely due to the receipt of considerable water treatment equipment but to take advantage of the expertise and support that the MRCS can receive from the International federation over the next three years during the ongoing response to cyclone Nargis. MRCS is developing this capacity in the field during this current response and so it is important to put processes in place to ensure this expertise is not lost in the long term.

There may be an opportunity for a National Society with a strong WatSan emergency response capacity to develop some form of long term partnership to support the MRCS during the formation and development of this new initiative.

**Conclusions/Recommendations [WatSan]**
The initial WatSan response was appropriate given the constraints in place at the time however consideration must be given to the deployment of appropriate equipment taking into consideration the logistical difficulties and access by trained operators. In the early stages of the response some decision were made without comprehensive assessments however this is now being address by the substantial Village Tract assessments being undertaken which cover all sectors.

The provision of water and the construction of latrines are the two major projects now being undertaken by the WatSan teams, it is pleasing that these projects are being co-ordinated with the Health teams who are providing the essential health education/promotional training to complement the WatSan projects.

Considerable opportunities exist for WatSan projects in the disaster area, an opportunity to review the progress of the water improvement program [including pond cleaning] and
latrine construction, lessons learnt from these programs could be used to develop longer term programs to improve the overall access to clean water and latrines.

The pond cleaning program proposed is quite ambitious [1300 ponds] it is important that the necessary resources be provided to this program to ensure that it is completed as soon as possible. Communities access to a reasonable quality of water should be given a high priority.

MRCS has good capacity with ERU water treatment equipment after cyclone Nargis. These water treatment units can be useful for providing safe drinking water in case of future emergency within country. The joint training organized by ERUs & IFRC has developed a national team for operation & installation of units. The MRCS should be supported to help develop this and the societies capacity to enable a local response in the event of future disasters.

In the WatSan sector, opportunities exist for future activities with the potential for PNS engagement. The quality of the water available to the communities in the disaster affected area was very poor prior to Nargis and in some cases has deteriorated as a result of the cyclone. The response to Nargis will bring some water supplies back to pre Nargis conditions however long term programs to improve water above pre Nargis should be considered. The response to Nargis will result in considerable capacity building with local communities to improve water supply and to construct latrines. Materials are available locally for these projects so there is unlimited opportunity exists to continue the work in the two important public health areas beyond the response to the cyclone.

HEALTH SECTOR REPORT

INTRODUCTION

Following findings in the report will be limited due to different factors such as:
- MRCs health coordinator unavailable (MRCS Nargis operation team is still on processing for recruitments of health/CBFA coordinator while review mission conducted.)
- Without sufficient translator, it was difficult to receive proper answer from the hub officers.
- Field trip schedule was quiet short, so that there no time to visit the rural health center.
- Key informants were not present due to other responsibilities, (hub managers, head of health MRCS, PSP delegate).

OVERALL HEALTH SITUATION

Despite recent improvements in some indicators, the health status of the people of Myanmar remains a concern with considerable disparities in health and nutrition outcomes across geographic areas. Government expenditure on health is low, 0.2 % of
GDP in 2005. UN agencies and bilateral agencies as well as international Non Government organizations (INGOs) continue to provide multi and bilateral assistance. 70% of the total population lives in endemic malaria areas and Myanmar is one of the 23 countries globally designated as a “high tuberculosis burden country”. HIV/Aids prevalence rate is at least 0.67% among the group of 15-49 years. Data on causes of child mortality are limited, but acute respiratory infections, diarrhea, meningitis and malaria are believed to be the main causes with high rates of malnutrition being both a cause and a consequence of this morbidity profile. (post Nargis joint assessment, July 2008)

Health care is provided through both the public and private sectors. The public sector is centralized with most basic services provided at the township and below. Rural health centers RHCs and sub-centers (sub-RHCs) are operated by a midwife and a community health worker. The most common services available at the nearest facility before the cyclone were immunizations, treatment of prevalent diseases, delivery and antenatal care.

Most of the cyclone affected facilities serve remote areas and rural populations. In the Nargis cyclone 17 Rural health centers in Ayawaddy division were destroyed and 186 partially destroyed. Most of the cyclone affected facilities serve more remote and rural populations, namely stations hospitals, RHC or sub RHCs. Damage to health facilities was also accompanied by losses of equipment, supplies, vehicles and ambulances. The damage resulted in a disruption of health services to the majority of the rural population and the poor who rely on these facilities. Almost 70 % of rural health center started reconstruction and rehabilitation supported by UNICEF, Save the Children, World vision and other NGOs.

Since the cyclone the Early Warning Alert and Response System, (EWARS) has not reported any major change in status of measles, meningitis and dengue hemorrhagic fever. However with the monsoon season a risk remains for increased cases of dengue with vector breeding places in the delta. Malaria is a threat if prevention and protection measures are not followed. Disease surveillance is difficult and MoH has emphasized the importance of improving reporting on onset and confirmation of cases. An interagency food nutrition survey covering townships is ongoing. Sectoral cluster meetings are held both in Yangon and at township level were MRCS is participating.

**COMMUNITY-BASED HEALTH AND FIRST AID**

In the acute and short term phase, (0-6 months), the objective for the MRCS is to reduce the number of deaths, illnesses and impact from disease and public health emergencies, providing immediate basic health care, first aid and psychosocial support, health and hygiene promotion, to the cyclone affected populations through the MRCS volunteers, in collaboration with the ministry of health.

MRCS and IFRC are still concentrating on meeting the basic survival needs of the affected population. Focus is on safe water, distribution of relief, shelter material, hygiene kits, and basic health care including psychosocial support/first aid. Initially the MRCs distributed relief items with volunteers from other divisions who were sent to the
delta for the operation. 102 interagency emergency health kits have been distributed to township hospitals, rural and sub-rural health centres.

600 volunteers from different states and townships received one day training in mainly hygiene promotion, water treatment, mosquito bed net distribution and body disposal. 600 volunteers focused also on prevention and response to public health in emergencies.

In August, further technical training for health officers based in the townships branches was undertaken in Yangon. Participants were 35 hub health officers with seven branch managers and volunteer leaders from 11 townships. The training included understanding of how to develop a six month plan of action for health program, including budget, developing monitoring and evaluations system and how to integrate activities within all community based MRCS program. (Each township now has one MRCS health team each consisting of five members in total, comprising of doctors, nurses and health staff who work together with volunteers in 13 townships based in the hub offices).

COMMUNITY BASED MOBILE HEALTH TEAMS

The aim of the MRCS Community Based Mobile Health Teams is to respond to the needs of the Health Services, in rural and sub-rural villages affected by cyclone Nargis in the 10 most affected Townships in Ayerwaddy Division, particularly the most vulnerable people, including under five year old children, pregnant and lactating mothers, elderly people and people suffering of psychosocial problems. The team will work in close cooperation with the Township Medical Officers.

The health team is focusing on the prevention of communicable diseases, village health/nutrition assessments, participate in vaccination campaigns, health data collection and health education activities. The activities consists mainly of minor treatment mainly first aid, PSP, health education including dengue haemorrhagic fever prevention, methods of using mosquito net, personal hygiene, safe drinking water with water purification tablets, and sanitary latrine. MRCS volunteer base will be strengthened and volunteer capacity built to identify and respond to health problems in their villages. The work will be done in close collaboration with village leaders/village committees and community members to orientate the community leaders and community members of the importance of health prevention activities in order to have better life for community members.

Comments
In interviews with the health teams/officers in two townships it was mentioned that both teams had difficulties to manage RC volunteers work in the field, as they are new to the movement, have limited knowledge of Red Cross movement and health education skills. The health officers are young non experienced medical personnel coming from Yangon which can create a problem with sustainability. (Three months contract, maybe extension one year). A stronger integration, collaboration between the Health officers and MRCS volunteers at township level seems to be needed…The role of the hub coordinator is
crucial in order to further strengthen and create a team and coordinate between the different activities.

The health care activities started mid July 2008 but have been very slow due to lack of transportation and funds for fuel. The hub office has limited access to boats; but the health team did not receive enough means to cover both transport and fuel. The hub office did not receive sufficient funds in August. Thus the health mobile team could only deploy maximum 3 times in a month instead of three times a week as planned. However finance guidelines have just been finalized at HQ level and increased activities should be able to take place in the future.

Observing a health promotion activity in a school showed that the health officers need more training in health education techniques. Lack of sufficient IEC material was also noted.

Reporting formats are developed for health officers and in the future volunteers will also have simple reporting formats.

Conclusions/Recommendations (Health Sector)

There is a need to further closely follow up and build capacities among the newly trained health officers, volunteers. Three MRCS positions will be recruited for the Nargis operation (CBFA, PSP and a health coordinator). The incoming IFRC health delegate together with the IFRC coordinator and MRCS health team need to ensure very close planning, coordination/ collaboration between the health related projects as they inter relate to avoid vertical activities ahead. The coordinators should preferably be based in the field in order to closely support the teams with the support of the IFRC health delegates/coordinator. Coordination, integration of activities seems to be further enhanced with water and sanitation and other sectors. Improved coordination, collaboration between health officer volunteers, hub manager as well as with UNICEF, MoH is crucial for an efficient response.

The plan of action that is prepared for the health activities seem to be very ambitious targeting many different topics. Given the situation of newly recruited health officers and volunteers it would be advisable to limit the number of topics and start with hygiene promotion and selected health topics identified as the major problems in the community. (e.g. Diarrhea, malaria, dengue fever) and then have ongoing trainings covering topics along the needs expressed by the community. A review of the activities will be done later this year.

Recruitment and training of volunteers from their communities in CBFA will give sustainability and a continuation of activities once the emergency phase is over.

Ensure applicable IEC materials are in place and used by health officers. Medical care of health officers from MRCS should only be limited to health related disease and illnesses associated with the cyclone Nargus. A clear exit strategy from the
The provision of medical care should be implemented as the operation moves into a medium term phase and the gaps of the in health services will be filled. The health officers should limit treatment of patients and not include those who should be referred to health centers and hospitals. Existing emergency supply can still be delivered to health centers/hospitals but then the budget for medical supply could be reduced.

Health infra structure rehabilitation could be considered as part of the exit strategy for the overall medical care provided by MRCS which may identify rehabilitation of medical infra structure which could be considered with PNS support.

The ongoing development of volunteer management system, Salary, policies with the MRCS and the OD delegate should also include the delta region.

**TRAINING IN CBFA**

The first Training of trainee’s (ToT) for CBFA just started during our mission. It is 12 days of training and the participants were selected by MRCS. Township health officers and volunteers will be trained. Volunteers already active in hygiene promotion will also attend the CBFA training. As well as volunteers form ongoing programmes in other states as well (Malaria, TB, HIV AIDS).

Altogether 210 ToT will be trained based in 5 townships. Two trainings per month are planned and are performed jointly with UNICEF.

The training will consist of first Aid, hygiene promotion and community health (malaria, TB, AIDS etc). The newly developed CBFA in action guidelines methodology is proposed to be used. Multiplier/coaches will then be trained from village level, around 15 RC volunteers from the each township by the ToT. A monitoring system will be put in place.

Further, the health officers will train volunteers on the ground in health and hygiene promotion. In the future one volunteer will cover 15-20 households teaching different health messages.

**Comments**

The twelve days of training of ToT for CBFA and the programme to use this training to subsequently train additional volunteers in the field with the detail and topics according to the IFRC CBFA guideline. The intention of this training is to educate the communities in the disaster affected areas. As this is considered to be a very ambitious program, the IFRC health team is planning to carry out an assessment of the activities after three months of implementation to ensure that the basic health and hygiene messages are being received by the communities and resulting in behaviour change.

During the recovery phase, the IFRC health team will concentrate on three major topics for example personal hygiene, malaria/dengue prevention and protection of water supply. These topics should be decided in consultations with the community or lessons learned after the implementation of the programme.
In interviews with the IFRC training delegate and MRCS health officer it was pointed out that it was difficult to find volunteers that meet criteria, lack of skill and knowledge. They also pointed out the lack of capacities at HQ MRCS including human resources there is a need for three more core trainers who are doing ToT training in CBFA. There is a need for training additional core trainers at HQ level. Additionally Reproduce training at the township level with one training team based in the delta region to circulate and perform training from there would reinforce and make training more efficient and Yangon HQ would not be over loaded. The need for MRCS and IFRC to develop a simple monitoring system for coaches and volunteers would be crucial in order to follow up the activities and measure result/impact.

MRCS is presently undergoing discussions on dividing roles and responsibilities for the health and training divisions which will harmonize and lead into a program approach which will strengthen MRCS health department.

**Conclusions (Health Sector)**

The MRCS health response to cyclone Nargis is on a basic level including primary health education. Health officers should continue to monitor accessibility and availability of medical supply in the community. The health budget may need to be reviewed, medical supply should not be continued beyond what is considered as treating victims of cyclone Nargis. The primary health response in the long term is basic health hygiene promotion activities which could be supported by PNS for MRCS to have sufficient trained staff and volunteers to continue this program.

The lessons learned from the Nargis operation could be shared to benefit the rest of the states and divisions in their ongoing health programs. Further program and strategic planning process funding is necessary for future strengthening of MRCS capacities and sustainable program approach.

Some evidence exists that there has been damage to village health centers. A proper assessment by the MoH of this damage may result in an opportunity for PNS to undertake a program for rehabilitation if gaps are identified not covered by other partners. Decentralised training from Yangon to the delta would seem appropriate.

**OVERALL CONCLUSIONS/RECOMMENDATIONS [GENERAL]**
The overall context of this disaster is most complex and will require considerable flexibility in the next stage of the response to ensure the response is able to target the communities with the highest need. This is being achieved by the substantial multi sectorial village tract assessments which are being undertaken which in the short term may slow the operation but in the longer term will ensure that the response is directed to the families with the highest needs.

The Multi Sectorial Village Tract Assessments have already commenced, they will provide detailed information on all sectors which will be an invaluable source of information which can be used to identify possible PNS programs in the future.

These assessments are an ambitious project detailed enough to allow for a household as well as a community response. [An assessment form is included as an attachment to this report]

Although timelines will be set for the various stages of the future response there will need to be flexibility and understanding that these timelines will need to be reviewed periodically as there are many influences that will impact on the various programs eg. weather conditions, when it is windy it is not always safe to travel along the rivers.

The initial response was difficult due to a number of factors two of these being difficulties in obtaining reliable transport in the field [boats] and the difficulties in transferring money. Both of these have now been addressed, firstly by the receipt of 40 boats donated by the Singapore Red Cross and secondly by the introduction of a system whereby the Hubs submit budgets for approval every two months with input from each of the sectors. Once approved in Yangon the funds are able to be transferred to banks for the Hubs to access with sector managers responsible for their own budget. It is imperative that for the success of the operation that any problems that impact on the activities are quickly recognized and resolved.

Subsequent National Society visits should be restricted to two persons at a time due to the logistics of moving in large groups when travelling with I.F.R.C. and Myanmar Red Cross Society counterparts.

Acknowledgements:

We would both like to acknowledge the support and cooperation we received from the MRCs, the IFRC, the volunteers and employees in the field. We would particularly like to acknowledge the contribution of the MRCS and the work they are doing in response to this major disaster and our appreciation for the opportunity to be able to meet with the president of the MRCS Prof. Dr. Tha Hla Shwe.

Attachment [1]

Briefings were received from:
Bridget Gardner, HoD (including security briefing)
Elizabeth Hughes, Operations manager
Catherine Martin, Movement coordinator,
Steve Barton, Shelter delegate
Nasir Khan Abdul Rahman, Musa, Second RDRT team members
Vinay Vilas Sadavarte, IFRC Wat San coordinator
Chiyuki Yoshida IFRC Health coordinator
Salome Zan training health delegate

Meetings where held with:
Prof.Dr.Tha Hla Shwe , President MRC
Dr Aung San, Township medical officer, Mawlamyinegun hospital
Volunteers MRC

Persons interviewed:
U Myint Aye second in command in Mawlamyinegun branch
Dr Aung San, chief Medical officer/ RC branch chairman
Dr. Soni Tow
Salome CBFA delegate
Dr. Khin Myo Myint
WatSan field workers
Health officers in the field
Medical Officer Bogale hospital
Christopher OD delegate
Zay Nyi Han MRCS WatSan officer
Beneficiaries

Attachment 2

The following is the Multi Sectorial Village Tract Assessment Form.