

Review of the Japanese Red Cross Society support in emergency water, sanitation and hygiene promotion



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Photographs on the cover page:

(L) Examples of contextualised IEC materials by VNRC; (middle) Some of the squatting plates of CVTL (part of Kit 2) and (R) Chlorine dosing (part of Kit 5) carried out by participants from NRCS during NDRT training.

Abbreviations

AMCDRR	Asian Ministerial Conference on Disaster Risk Reduction
APRO	Asia Pacific Regional Office
BDRCS	Bangladesh Red Crescent Society
BDRT	Branch disaster response team
CBT	Compartment bag test
CVTL	Cruz Vermelha de Timor-Leste
CCST	Country cluster support team
CO	Country office
DM	Disaster management
DP	Disaster preparedness
FMR	First medical responder
GRN	Goods received note
GWSI	Global Water and Sanitation Initiative
HHWT	Household water treatment
HP	Hygiene promotion
HR	Human resources
HQ	Headquarters
ICBRR	Integrated community based risk reduction
IEC	Information, education and communication
IFRC	International Federation of Red Cross and Red Crescent Societies
JRCS	Japanese Red Cross Society
KAP	Knowledge, attitudes and practices
MSM	Mass sanitation module
NDRT	National disaster response team
NDWRT	National Disaster WatSan Response Team
NHQ	National headquarters
NRCS	Nepal Red Cross Society
NS(s)	National Society(ies)
PMI	Palang Merah Indonesia (Indonesian Red Cross)
PuR	Purifier of Water
RCY	Red Cross Youth
RDRT	Regional disaster response team
O&M	Operation and maintenance
OU	Operations update
PHAST	Participatory hygiene and sanitation transformation
PNG	Papua New Guinea
SARD	South Asia Regional Delegation
SDRT	State disaster response team
SG	Secretary General
Simex	Simulation exercise
SoP	Standard operating procedure
ToR	Terms of Reference
ToT	Training-of-trainers
VDC	Village development committee
VNRC	Viet Nam Red Cross Society
WASH	Water, sanitation and hygiene promotion
WatSan	Water and sanitation
WRT	WASH response team

Introduction

In the period covered by this report, the water, sanitation and hygiene promotion (WASH) component of the health programme in the Asia Pacific region was based on the strategic directions set by the IFRC as follows:

- i) Global Agenda Goal 2 (reduce the number of deaths, illnesses and impact from diseases and public health emergencies)
- ii) Global health and care policies
- iii) Global Water and Sanitation Initiative (GWSI)
- iv) Global Health Strategic Operating Framework (2011-2015). The programme aimed to support Asia Pacific National Societies (NSs) to maintain, improve and scale-up water and sanitation capacities to meet acute and chronic needs. Support activities to NSs included: knowledge sharing, networking and coordination events, capacity building activities, monitoring and evaluation as well as WASH country level technical support. The outcomes of the programme are as follows:
 - a. The Asia Pacific NSs maintain, improve and scale-up capacities for ensuring sustainable impact in WASH in development to increase resilience (meeting chronic needs);
 - b. The Asia Pacific NSs maintain, improve and scale-up WASH capacities in disaster management (meeting acute needs);
 - c. Increased impact of NSs to meet WASH needs, through improved coordination, networking and knowledge management in Asia Pacific among internal and external partners.

The target beneficiaries of the programme component are principally WASH-related staff, members and volunteers of the concerned country offices (COs), country cluster support teams (CCSTs) and/or NSs across the Asia Pacific region.

1. Rationale, purpose and scope of the review

This section describes the rationale, purpose and scope of the evaluation, based on the Terms of Reference (ToR) which can be found in [Annex 1](#).

The purpose of the review is to analyse the implemented water, sanitation and hygiene promotion (WASH) activities supported by the Japanese Red Cross Society (JRCS), particularly emergency WASH equipment and related trainings, and how those activities have facilitated or contributed towards the WASH capacities of the concerned NSs in meeting acute and chronic needs of the affected populations.

This summary report captures key findings of the review undertaken in six countries and the Pacific region where the review analysed the JRCS support provided from 2012 to 2015 to the respective NSs, pledged through IFRC. Bangladesh, India, Nepal, Papua New Guinea (PNG), Timor-Leste, Viet Nam and the Pacific were focused upon in the review as there were more extensive implementation of JRCS-supported WASH activities. Other activities included (but were not limited to) support visits towards the development of WASH emergency response capacity, Regional Disaster Response Team (RDRT) training in Bandung, Urban Sanitation workshop in Mongolia, seed funding for the procurement of key components of bio-digester technology from the UK and India, and essential office support to the costs of WASH staff based at the Asia Pacific Regional Office (APRO).

The report aims to highlight key outcomes and best practices, and to suggest recommendations that inform IFRC APRO, NSs in the Asia Pacific region and other Movement partners to continue to provide support in establishing aligned priorities and plans, in implementing ongoing or future emergency operations that would improve WASH service delivery and accountability to the affected communities, donors and other stakeholders.

The review was undertaken by IFRC APRO Emergency WASH Officer for the following countries – Bangladesh, India, Nepal, Timor-Leste and Viet Nam. The review of JRCS support to PNG and the Pacific was carried out by Sarah Davies, Regional WASH Coordinator at the IFRC APRO. Country visits were carried out since November 2016 and concluded in March 2017.

2. Overview of JRCS support

Tables 1 and 2 below outline the WASH activities supported by JRCS within the scope of the review i.e. pledges between 2012 to 2015 to seven NSs (via IFRC) in the Asia Pacific region. A general trend observed was the combined ‘software’ and ‘hardware’ approach in the support of emergency WASH activities across these NSs. ‘Hardware’ components include (but not limited to) WatSan disaster response kits that may consist of water purification units, rapid latrine materials, water quality testing kits and hygiene promotion items. ‘Software’ activities, such as emergency WASH training, simulation exercise, and translation of WASH-related documents, accompanied some of these hardware components.

Table 1: List of JRCS pledges in support of WASH activities within the scope of the review

Pledge number	Pledge timeframe	Pledge amount
M1204111	1 Apr 2012 – 31 May 2013	JPY 5.5 million; equivalent to CHF 62,000
M1111105	1 Nov 2011 – 31 Dec 2013	CHF 238,975
M1503123	1 Jan 2015 – 29 Feb 2016	CHF 159,963
M1401008	1 Dec 2013 – 31 Mar 2015	CHF 183,075
M1403079	31 Mar 2014 - 28 Feb 2015	JPY 5.5 million; equivalent to CHF 47,280
Total		CHF 691,293

Table 2: Outline of JRCS support to seven NSs in the Asia Pacific region within the review period

Country	Supported WASH activities	
	Hardware	Software
Bangladesh	<ul style="list-style-type: none"> • Procurement of 8 Man-packs, 50 squatting slabs, 50 rapid latrine superstructures and 1,050 jerry cans • Procurement of 2 units of WatSan Kit 5 	<ul style="list-style-type: none"> • Trainings on Aquasure water treatment kit • NDWRT training
India	<ul style="list-style-type: none"> • 214 sets of sanitation equipment • Procurement and adaptation of the HP box (incomplete), which then led to the translation of HHWT and storage manual 	<ul style="list-style-type: none"> • NDWRT training
Nepal	<ul style="list-style-type: none"> • Procurement of 2 units of WatSan Kit 5 • Procurement of 3 HP boxes • Procurement of 4 VHF radio hand sets and 2 potable water testing kits i.e. Wagtech Potakits • Construction of a warehouse to store WASH items • Translation of PHAST manual and Sphere handbook • Development of an emergency WASH fund guideline <p><i>(only the first 2 points will be elaborated in Section 5)</i></p>	<ul style="list-style-type: none"> • Emergency WASH simulation exercise • 2 NDRT trainings • Participation in emergency WASH specialised training in Bandung • Participation in an exposure visit on Kit 5 O&M in Pune <p><i>(only the first 2 points will be elaborated in Section 5)</i></p>
Pacific	<ul style="list-style-type: none"> • Fiji: Procurement of 3 units of Man-pack • Samoa: Procurement of 2 units of Man-pack 	<ul style="list-style-type: none"> • Emergency WASH training and conducted the first Pacific emergency WASH webinar series (NSs of Pacific Island, Australia RC and New Zealand RC)
PNG	<ul style="list-style-type: none"> • Dispatch of WatSan Kit 2 to assist with drought/frost response 	-
Timor-Leste	<ul style="list-style-type: none"> • Procurement of a unit of WatSan Kit 2 (incomplete) 	<ul style="list-style-type: none"> • NDRT training
Viet Nam	<ul style="list-style-type: none"> • Procurement of 25 HP boxes and 30 mobile latrines 	<ul style="list-style-type: none"> • Supporting 3 IFRC facilitators (from Pakistan, Bangladesh and Indonesia COs) to plan and facilitate the WatSan in emergency ToT funded by Spanish RC • HP training in emergencies

3. Methodology of the review

The main methods used for this review were key informant interviews and desktop review of relevant documentations.

3.1. Key informant interviews

When selecting interviewees, a conscious decision was made to obtain a diverse set of information to gain a comprehensive understanding of the impact of the WASH activities. For this review, diversity came from interviewees in the form of i) where they are based, either at the headquarters or at district/provincial level, ii) whether they are staff or volunteers and if staff iii) whether they are from the NS or IFRC CO/CCST. The interviews were semi-structured, based on review questions linking to the selected criteria. Based on the pledge-based reports submitted to JRCS, a mapping of support for each of the country was carried out and sent to WASH focal persons at the respective IFRC COs/CCSTs before each review visit. The mapping of the support included details of i) the pledge i.e. objective, timeframe and amount of the pledge ii) supported WASH activities with a list of potential questions, supporting documents required and recommendations on who might be suitable to be interviewed. For more details on those interviewed and resource persons, please refer to [Annex 4](#).

It proved difficult to have sufficient time with some of the interviewees due to their schedules and as such, that had somewhat affected the quality of data collection. Time limitations had also necessitated several group interviews, limited to two persons at a time. At times, interviews were carried out through telephone calls or Skype calls in cases where the interviewees were located elsewhere. At times, interviews done through Skype or the phone were interrupted due to poor internet/phone connectivity.

Translations were also required in some of the interviews. All the interviews were recorded with permission of the interviewees to enable documentation and transcribing of information mentioned during the interviews. This is critical as there was only one reviewer tasked with carrying out these interviews. A brief introduction mainly covering the review objectives and an outline of the WASH activities supported by JRCS (for their country) was given at the start of each interview.

3.2. Review of relevant documentation

As preparation for the review, pledge-based reports for the JRCS were reviewed resulting in a mapping of support. During the review process, relevant documents were obtained from the NSs and IFRC COs/CCSTs. Some of the key documentations that have helped inform the impact of the WASH activities include documents related to emergency operations, trainings and logistics. [Annex 3](#) provides further details on the documents reviewed and/or referred to during the review process.

4. Key review questions

Below are some of the key review questions under each criterion which the review aimed to answer. For the full list of review questions, please refer to the ToR in Annex 1.

a. Relevance and appropriateness

- Was the assistance provided appropriate and sufficient to meet intended needs of the NSs in delivering emergency WASH interventions?

b. Efficiency/effectiveness/accountability

- Were there adequate resources, particularly human resources available to run and maintain the WASH equipment within the NSs, and were they utilized effectively and efficiently?
- How were the knowledge and experiences gained from the WASH trainings shared/disseminated to other relevant staff and/or volunteers?
- What was seen/felt as evident learning points by the participants from the trainings organised?

c. Impact

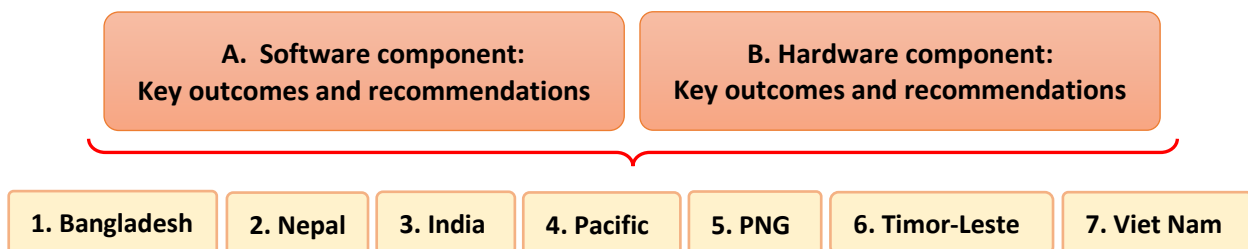
- What impact did the emergency WASH equipment have on how the NSs respond to WASH needs in (subsequent) disasters?
- What impact did the trainings have on how the NSs respond to the identified WASH needs?
- Have any of the trained participants been involved in/deployed for emergency operations after having received trainings and if yes, in what way has it enhanced the quality of their work?

d. Connectedness and sustainability

- What steps have been taken to manage the emergency WASH equipment and to continue to engage with staff and/or volunteers who have received trainings?

5. Discussion and findings

The below section summarises key information about the different activities supported by JRCS, grouped as ‘software’ and ‘hardware’. In these tables, key outcomes and recommendations, and best practices (where relevant) are presented. Additional information for both components is included as [Annex 2](#). The below tables are arranged in the following order:

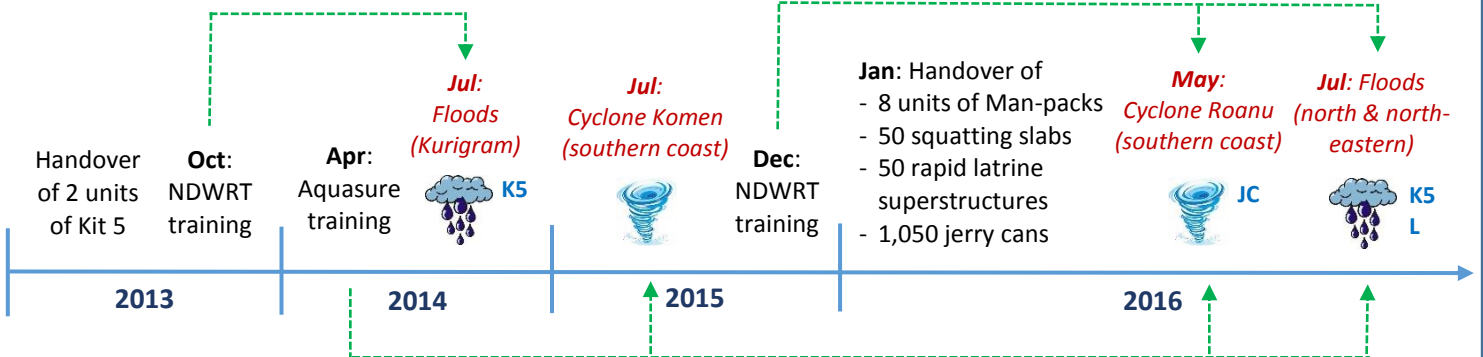


Before we go into the country-specific tables, below are the timelines of JRCS-supported activities of the reviewed countries, including key disaster events mentioned by the respondents. These timelines give an indication of how the activities may have assisted the relevant NSs in delivering their emergency WASH interventions during these disasters. Accompanying these timelines are some of the key outcomes and recommendations.

5.1. Timelines and summary of key outcomes

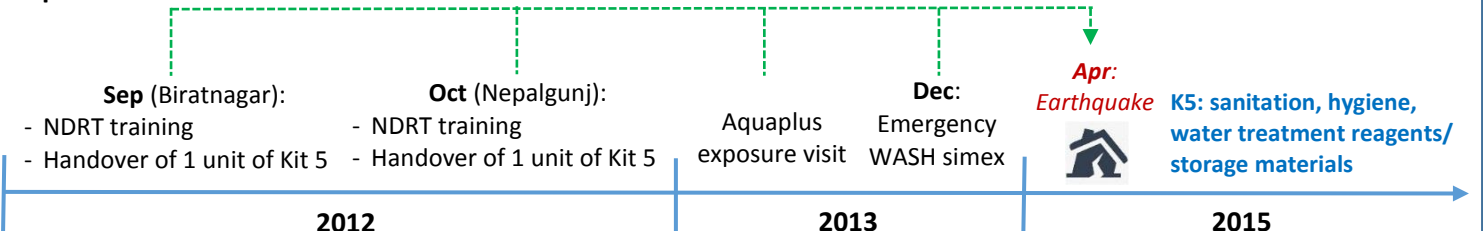
--- Deployment of those trained **K5** Kit 5 **L** Latrine items i.e. squatting slabs and rapid latrine superstructures **JC** Jerry can

Bangladesh



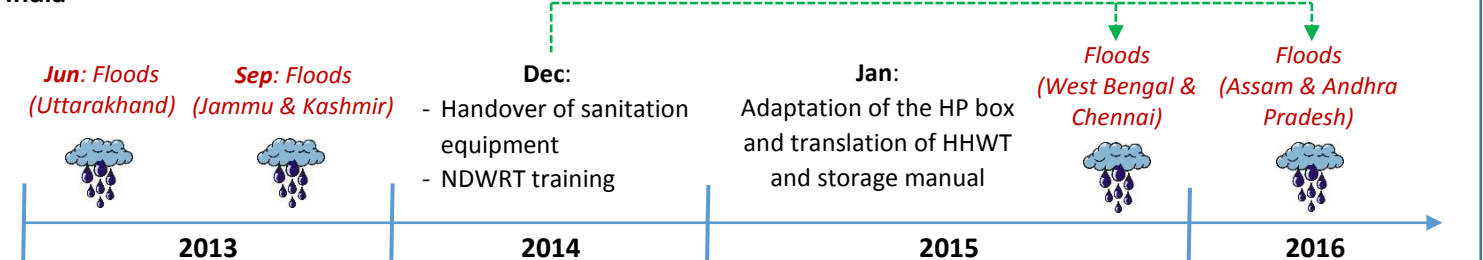
- **175 BDRCS staff (from HQ and district chapters) and RCY volunteers** were trained as a result of 3 trainings funded by JRCs, resulting in the development of the capacity in operating various water treatment kits such as Kit 5, Aquasure and Man-pack, also introduction to sanitation and HP-related items, as well essential knowledge on WASH approaches/guidelines such as Sphere and PHAST
- Some of those who have received trainings were deployed to assist in emergency WASH interventions in numerous disasters
- **Presence of trained HR** where there are prepositioned water treatment kits
- **1 of the 2 units of Kit 5 was utilized** in emergency operations – Kurigram floods in 2014 and floods in 2016
- **All latrine items** (squatting slabs and rapid latrine superstructures) have been distributed during the 2016 floods
- **1,050 jerry cans** were distributed during Cyclone Roanu operations

Nepal



- From the 4 training-based events organised, **96 NRCS staff (HQ and district chapters) and volunteers** were trained, some of whom were deployed during the 2015 earthquake
- Due to the nature of these trainings (mostly involving some form of a practical exercise), it had somehow **indirectly shared/informed the capacity of the NS** in terms of its human resources capacity and WASH materials, particularly among government officials and international humanitarian actors within the country
- **Components of Kit 5 was utilized during the 2015 earthquake** while the kit in general has been found to be useful for WASH trainings for its NDRT/WRT members

India



- The NDWRT training was considered a **significant capacity building activity** for the NS (none organised since then), some of whom were deployed to **respond to emergency WASH needs** and some applied what they have learned into other trainings
- Although the sanitation equipment has remained unutilised, these items are seen as **replenishment stock** to the rapid latrines that were deployed during floods in Uttarakhand and Jammu and Kashmir

--- Deployment of those trained **K2** Kit 2 **MP** Man-pack **HP box** Hygiene promotion box



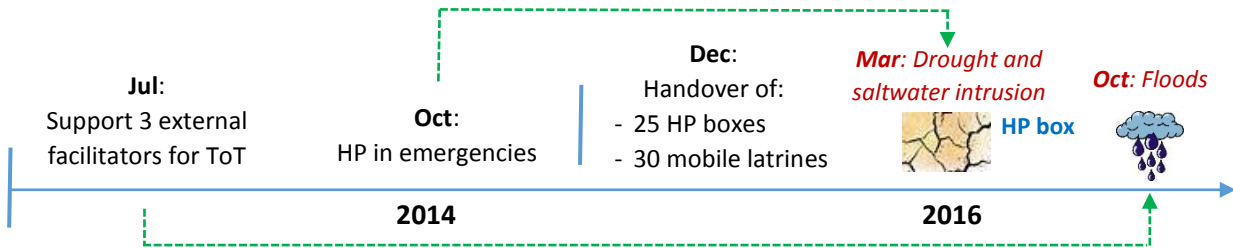
- **Emergency WASH training** benefitted participants (particularly those with no/minimal WASH background), resulting in **several deployments, both nationally and internationally**
- **Man-pack units** were utilised during the **2015 drought operations in Samoa**, further expanding the role of Samoa RC as a WASH actor in addition to its role in developmental WASH projects

Timor-Leste



- **One third of those trained** were deployed during the drought operations
- **Parts of Kit 2** were utilised for the same operation, and the kit was also found to be useful for demonstrations during trainings

Viet Nam



- VNRC has expanded to **more comprehensive emergency WASH services** such as provision of drinking water using water purification units and distribution of Aquatabs, jerry cans and water tanks (traditionally distributed household kits)
- A total of 50 participants were trained in the 2 trainings, some of whom reported **application of information gained** not only in emergencies but also in developmental programmes/activities
- **HP boxes** were utilised during **HP sessions** under the drought and saltwater intrusion operations

5.2. Summary of key recommendations

Organisational/cross-cutting

- Commit to a mechanism from which the NS can draw funding from to cover expenses related to immediate deployment of the required human resources (HR) and equipment (including costs of replacement and repair)
- Ensure update and upkeep of database which contains information of WASH personnel and volunteers so that they right individuals are deployed for the right response activities. This includes results of evaluations, recommendations of facilitators/trainers and specialisation of choice.

Software component

- As it may not be feasible to carry out consistent trainings due to funding constraints, consider carrying out (simplified) refresher sessions at HQ level; this can be alternated with the usual, more comprehensive training programmes – these simplified sessions can be made to be more targeted and hands-on (which possibly could be carried out with less planning, time and cost) – similarly this can be replicated at the branch level, focusing on training of staff and selected number of active volunteers at the district/state/province level
- In terms of elevating the quality of trainings:
 - i) Re-think training objectives – keep it simpler, realistic and more focused, driven by what the participants would find most useful
 - ii) If internet connectivity permits, carry out the theoretical portion of the training via an online platform such as Skype for Business so that the face-to-face trainings can focus on the practical aspect of the training agenda - this is in response to a common feedback that the training duration was insufficient for optimum learning, reflection and sharing
 - iii) As Asia Pacific region contains rich and varied experiences in emergency WASH, if funding permits, consider inviting external trainers/facilitators from (neighbouring) NSs to work closely with local facilitators
 - iv) For technical subjects such as operation and maintenance (O&M) of water equipment/purification unit, if funding permits, to invite specialist/technician of the equipment manufacturer to ensure delivery of appropriate technical information and know-how
 - v) Revisit selection criteria of training participants to ensure presence of basic knowledge/understanding/experience on the topics – pre-reading materials can be circulated beforehand for those needing background information before participating in a training
 - vi) As a prerequisite to participate in a training, consider requesting potential participants how they could, in their capacity and available resources, nominate aspects from the training they can incorporate in their respective National Societies (including how training materials can be shared/disseminated to others)
 - vii) Tailor trainings to suit diverse contexts in the region, particularly the distinction between Pacific Island and densely populated Asian countries which will require differing approaches

Hardware component

- A feasibility study/mapping exercise (and subsequently relevant standard operating procedures - SoPs) needed to guide deployment of emergency WASH equipment (and other relevant resources) to fully utilize available resources upon confirmation that all pre-conditions have been fulfilled. Assessment templates/forms should also be able to give indication of the type of water purification kit to be deployed.
- Standardise and adapt, and preposition hygiene promotion (HP) boxes at the country level (at a minimum), and where relevant and possible, at the district/state/province level; this includes any translation works of key WASH documents, which can be included as part of the HP box; for wider dissemination and use, consider making the translated documents accessible online such as uploading onto official websites of the NSs.
- The pre-positioning of equipment/materials with NSs should be contingent on having adequate systems in place for storage and maintenance, for effective utilisation/deployment during emergencies.

Software component (training delivery): Key outcomes and recommendations for Bangladesh

	What: NDWRT training When: 2-7 Oct 2013 Where: Dhaka	What: Aquasure water treatment kit training ¹ When: 9 training sessions between 16 Apr-16 Jun 2015 Where: RC units at 9 districts	What: NDWRT training When: 9-13 Dec 2015 Where: Dhaka
Key outcomes	<ul style="list-style-type: none"> • 46% of trainees trained recommended for NDRT leadership and RDRT induction • The remaining 54% recommended for national deployment • 5 out of 8 NDWRT members deployed to respond to a flood in Kurigram district (Sep 2014) were participants in this NDWRT training. They were deployed specifically to operate Kit 5 and/or Aquasure 	<ul style="list-style-type: none"> • 3 out of 6 NDWRT members deployed to respond to the 2016 flood² were participants in this training • Some were deployed to respond to Cyclone Komen³ (Jul 2015) and Cyclone Roanu⁴ (May 2016) 	<ul style="list-style-type: none"> • 2 out of 6 members deployed to respond to the 2016 flood were participants in this training (1 of them was also a participant of the 2013 NDWRT training) • 3 NDWRT members, who had received this training, were deployed to respond to Cyclone Roanu (1 of them also received the Jun 2015 Aquasure training)
General outcomes	<ul style="list-style-type: none"> • A general sense of increased confidence amongst those interviewed in carrying out WASH interventions in emergencies; there is also a sense of progression of those trained, i.e. a stepwise approach of developing emergency WASH skills and knowledge of its NDWRT members and Red Cross Youth (RCY) volunteers • Development of the capacity of its NDWRT members and RCY volunteers to operate various water treatment kits such as Kit 5, Aquasure and Man-pack, also introduction to sanitation and HP-related items, as well essential knowledge on WASH approaches/guidelines such as Sphere and PHAST • Ensured presence of trained HR where there are prepositioned water treatment kits • Elevation of the image of BDRCS over the years to other stakeholders and the public, as a key service provider in WASH during emergencies 		
Possible improvements/ Specific recommendations	-	As the idea of this training was to utilize those trained as master trainers to train remaining staff at the branch level and/or volunteers, further trainings should be in-place to ensure wider dissemination of technical know-how of running Aquasure to expand the existing pool of those trained. Furthermore, replication is possible as relevant training materials and modules are readily available.	<ul style="list-style-type: none"> • BDRCS sees the value of having trainer/specialist from the manufacturer of the water treatment kits to ensure effective delivery of the required technical information. • An additional day needed for the simulation i.e. more time for practical session/hands-on time.
General recommendations	<ul style="list-style-type: none"> • As it may not be feasible to organise NDWRT trainings on a yearly basis, consider having (simplified) refresher sessions at BDRCS HQ focusing on operating the different water treatment kits. Similarly, the same can be done with volunteers and Unit officials at the branch level, where it is important to have consistent refresher training sessions, considering the role these RCY volunteers play in disasters. • Need a mechanism from which BDRCS can draw funding from to cover expenses related to immediate deployment of the needed HR and various water treatment kits to the identified disaster areas (including costs related to repairs, replacement of parts and O&M); this is to ensure quick response of NDWRT members and maximum utilization of the kits and its different components (where deemed relevant upon assessment). 		
Best practice	Development of emergency WASH skills and knowledge of its NDWRT members and particularly of its RCY volunteers through consistent and progressive emergency WASH trainings. The trained volunteers have been deployed on numerous occasions to provide emergency WASH services particularly to operate water purification units, at the same time also training other volunteers through learning-by-doing during their deployments.		

¹ Note that JRCS funded the training, while the Aquasure mobile water treatment plants were funded by Nestle Bangladesh

² Heavy rains between 19-23 Jul 2016 caused severe flooding affecting 19 districts in north and north-eastern parts of Bangladesh, resulting in an EA (MDRBD017), reportedly reaching thus far 7,400 families with dry food, 6,000 families with cash grants, 3,300 families with safe drinking water and 4,436 patients treated by 5 medical teams.

³ The cyclone made landfall on 30 Jul 2015, affecting the southern coastal region, resulting in an EA (MDRBD015), and reportedly reaching 4,000 families with food, WASH, livelihood and emergency shelter needs.

Software component (training delivery): Key outcomes and recommendations for Nepal

	<i>What:</i> NDRT training <i>When:</i> 22-26 Sep 2012 <i>Where:</i> Biratnagar district	<i>What:</i> NDRT training <i>When:</i> 8-12 Oct 2012 <i>Where:</i> Nepalgunj district	<i>What:</i> Exposure visit <i>When:</i> Sep 2013 <i>Where:</i> Pune, India	<i>What:</i> Emergency WASH simex <i>When:</i> 18-19 Dec 2013 <i>Where:</i> Bhaktapur district
Key outcomes	<ul style="list-style-type: none"> • 20 out of 23 respondents to the evaluation rated that the training has met their expectations • 13 out of 23 participants recommended for in-country deployments • This trained pool of NDRTs provided support to teams deployed under global response tools during the EQ response (e.g. Spanish MSM in Rasuwa and British RC in Sindupalchowk), also contributing towards WASH early recovery activities 	Refer to general outcomes below	<ul style="list-style-type: none"> • Information gained during the exposure visit was applied during the 2015 EQ. • Although Kit 5 was not deployed in its entirety during the EQ ops, principles and concepts of hygiene promotion, sanitation, water treatment (chlorination) and water testing (pH, chlorine, turbidity) gained from the exposure visit were applied. • A general sense of confidence in operating Kit 5 during emergencies but need to keep in mind all the pre-conditions required before deploying Kit 5 (i.e. assessing feasibility). 	As the simex involved district government agencies, it showcases the HR (i.e. NDRT and WRT members), emergency WASH equipment and materials available within NRCS, as well as prepositioned items available at the district level (there is a warehouse specifically to store WASH-related items in Bhaktapur)
General outcomes	<ul style="list-style-type: none"> • Development of capacities of selected volunteers and NDRT members to provide emergency WASH services thus creating a larger pool of people trained in a progressive manner (ready to be deployed nationally and beyond) • Indirectly shared/informed the capacity of NRCS in emergency WASH materials and HR to regional and international humanitarian actors • NRCS traditionally used to provide limited WASH responses such as household water treatment system and HP activities but has now has developed its capacity in delivering a more comprehensive WASH response, for e.g., the EQ response and recovery plan that spans 142 VDCs/municipalities across 17 most-affected districts. 			
Possible improvements/ Specific recommendations	Need more time for simulation/practical session: 6 or 7 days of training (instead of 5), to give more opportunities for discussion and reflection, as some topics were new to the participants.	Refer general recommendations below	Similar visits would be beneficial for NRCS to expand the existing pool of those trained in O&M of Kit 5. This is so that NRCS can be better prepared in an event of future mega disasters.	<ul style="list-style-type: none"> • Regular O&M of emergency WASH equipment to ensure continued working condition, also see the importance of having consistent refresher trainings (such type of simex is carried out every 2 years). • 2 days allocated was insufficient, resulting in incomplete implementation of planned activities – recommend 1 more day to encourage further learning from one another.
General recommendations	<ul style="list-style-type: none"> • Identify areas of interest and expertise of those trained, and to document and update that in the NS roster (to ensure right person for the right ops) • More active engagement with relevant government officials during peace time to ensure integration of NRCS response plan with the government’s overall plan 			
Best practices	<ul style="list-style-type: none"> • NRCS has established an emergency WASH fund that the NS can draw from for timely emergency response, based on an agreed guideline. The fund can be mobilised to cover the cost of initial deployments for emergency WASH response, repair and maintenance of WASH equipment, coaching of volunteers in using WASH equipment and monitoring of WASH interventions. • In addition, NRCS lobbies with partners to include a budget line in their developmental programme proposals – the logic being that in an event of a disaster, this allocation can be used to roll out emergency WASH interventions, hence reducing the detrimental impact of the disaster on the progress of the activities under those programmes. 			

⁴ The cyclone made landfall in the southern coastal region, resulting in an EA (MDRBD016), reportedly reaching 24,000 people with emergency shelter items and cash grants, and a further 3,000 people with drinking water.

Software component (training delivery): Key outcomes and recommendations for India

	What: NDWRT training When: 8-12 Dec 2014 Where: Training centre in Bahadurgarh, New Delhi
Key outcomes	<ul style="list-style-type: none"> • 15 out of 27 recommended for WASH deployment, with another 5 recommended to receive further training • Some of those trained were deployed afterwards to provide emergency WASH services (such as 2015 floods in Chennai and West Bengal, and 2016 floods in Assam and Andhra Pradesh) • Some of those trained applied what they have learned during the training into their developmental WASH programmes such as handwashing activities at schools and HHWT at the community level; this is in line with the agenda of the Indian government • This NDWRT training was a significant capacity building initiative for IRCs; the trained NDWRT members are valuable WASH HR during emergencies • By prioritising disaster-prone states for this training, this goes towards ensuring presence of trained staff and/or volunteers at the state level in providing emergency WASH services
Possible improvements/ Specific recommendations	<ul style="list-style-type: none"> • Need more time for simulation/practical session: 6 or 7 days of training (instead of 5), to give more opportunities for more elaborate discussion and reflection • Need consistent refresher trainings (there has been no NDWRT trainings since then) - this is to ensure sufficient HR who can be deployed for emergency WASH

Software component (training delivery): Key outcomes and recommendations for Pacific

	What: Pacific Emergency WASH training When: 27-30 Jul 2015 Where: Apia, Samoa
Key outcomes	<ul style="list-style-type: none"> • Training tailored to Pacific cultural and geographical context with high practical component • 6 out of 21 participants from Pacific NSs recommended for peer-to-peer deployment • Remaining participants who do not come from a WASH background (DM, health, communications) have greatly increased their WASH awareness and its cross-sectoral links • 1 participant deployed as RDRT in Asia, 2 deployed within Pacific on response and recovery operations (for Tropical Cyclone Pam in 2015 and Tropical Cyclone Winston in 2016) and 2 others have become trainers in the subsequent regional training • Introduction of Man-pack units to Pacific
Possible improvements/ Specific recommendations	<ul style="list-style-type: none"> • Webinar delivery in the Pacific was problematic due to internet connections; pre-work prior to face-to-face training adds value but arrangements should be made to complete off-line if needed (e.g. sending of USB) • Pacific trainings should continue to have a strong practical component and be open to participants from a range of backgrounds, acknowledging that the context has few WASH specialists but improvements in WASH knowledge and skills will enhance disaster response in general • Participants should be asked to nominate aspects from training they can incorporate in their respective NSs and there should be a follow-up from IFRC to support • Peer exchange opportunities within the Pacific should be offered to further develop participants who demonstrate the capacity to become WASH delegates
Best practice	Efforts to localise the training by inclusion of Pacific Islanders as part of the facilitation team and adaptation of training materials to suit learning styles in the Pacific has resulted in improved learning outcomes for participants

Software component (training delivery): Key outcomes and recommendations for Timor-Leste and Viet Nam

	Timor-Leste	Viet Nam	
	<p>What: NDRT training When: 7-12 Dec 2014 Where: Oralan, Baucau district</p>	<p>What: Support 3 external facilitators for ToT⁵ When: 14-18 Jul 2014 Where: Da Nang city</p>	<p>What: HP training in emergencies When: 21-23 Oct 2014 Where: An Giang province</p>
Key outcomes	<ul style="list-style-type: none"> • 14 out of 30 identified as potential NDRT team members and a further 10/14 singled out as potential team leaders • 10 out of 30 of those trained were deployed in the drought ops (MDRTP004⁶) 	<ul style="list-style-type: none"> • 12 out of 22 identified as deployable • 3 out of 22 singled out as potential team leaders • 3 out of 22 singled out as potential facilitators for future trainings • Some of those trained were deployed to support the floods ops (MDRVN014⁷) 	<ul style="list-style-type: none"> • 20 out of 28 of those trained were deployed to support the drought and saltwater intrusion ops (MDRVN013⁸) • Lessons learned from this training have helped VNRC in their planning of a subsequent training for RC staff in the central provinces of Viet Nam. Changes made due to the lessons learned include extending to 4 days with increased focus on application of tools in the HP box.
General outcomes	<p>CVTL traditionally carried out water trucking in their ops, therefore water treatment is relatively new to CVTL staff – worth noting that no water treatment was carried out in the drought ops but information gained in water treatment would be handy in future ops</p>	<ul style="list-style-type: none"> • VNRC that had traditionally distributed household kits has now expanded to more comprehensive emergency WASH services such as provision of drinking water using water purification units and distribution of Aquatabs, jerry cans and water tanks • Participants, upon completion of the above trainings, expressed confidence in implementing emergency WASH interventions in both emergency and developmental context (some reported application of information gained into their developmental programmes/activities) 	
Possible improvements/ Specific recommendations	<ul style="list-style-type: none"> • Invite/involve relevant government officials/CVTL partners from WASH cluster to facilitate/participate in future trainings • Schedule periodic use and maintenance of Kit 2 (e.g. on quarterly basis) to strengthen link between “training” and deployment • CVTL see the value of inviting facilitators from other NSs or experienced RDRT members with similar context and background to support future trainings • More stringent participant selection criteria for national-level trainings: <ul style="list-style-type: none"> - prioritise WASH-related experience/ knowledge 	<ul style="list-style-type: none"> • More stringent participant selection criteria - ensure selected participants have basic knowledge/ understanding on the topics; if new, ensure they are given some pre-reading materials • Since external facilitators were engaged in this training, local facilitators were present to translate and co-facilitate; future improvement could be to utilise qualified and knowledgeable local facilitators to take the lead in similar future trainings • Improvement in communication between the training organisers within VNRC with the external facilitators, particularly during preparation for the training, to ensure all needed items/materials are prepared beforehand 	<ul style="list-style-type: none"> • More time allocated to get acquainted with the materials of the HP box, and to practice HP tools. • More time to exchange/share experiences, particularly when the context from where they come from differs (such as geographical locations and raw water sources that will then influence the water treatment methods applied). • More training to develop behaviour change communication skills in relation to WASH in emergencies.

⁵ The ToT WatSan emergency response training was funded by Spanish Red Cross. JRCS support was specifically for the 3 facilitators from the 3 delegations to plan and facilitate the training.

⁶ Launch of an EA in Apr 2016, severely affected 120,000 people in 5 districts. CVTL response included distribution of drinking water via tankering, HP sessions with hygiene kits and installation of rain water capture systems.

⁷ Cold weather and torrential rainfall following Tropical Depression Aere caused heavy flooding in central provinces of Viet Nam in mid-Oct 2016. The EA ops provided water purification tablets (3,450 families), ceramic filters (200 families), household kits (2,100 families) and reconstruction of houses.

⁸ Unusual dry conditions and shortage of rainfall affected 39 out of 63 provinces with drought and saltwater intrusion, mostly located at the central and southern parts of Viet Nam. The DREF ops provided food to 3,146 HHs, safe water to 6,872 HHs and health knowledge to 10,018 HHs. Some of the WASH-related activities carried out include water trucking and HP sessions.

	<ul style="list-style-type: none"> - have closer consultation with branch coordinators when selecting participants, making clear of the commitments after receiving the training i.e. willingness to be deployed for emergencies • There was an initial plan to adapt the HP box to the local context, rather than procuring it as part of the Kit 2: this activity has not been completed, therefore recommend to proceed with the process of adapting the HP box: <ul style="list-style-type: none"> - Value seen in having an adapted HP box as it was reported that no other agencies in the country have done this; best if each branch has a HP box - This can be a step-up as historically CVTL has done HP activities without HP box 	<ul style="list-style-type: none"> • More interaction with actual communities during the simulation to gain a better sense of the situation/ issues; if this is not possible, best to engage with local volunteers who understand the local context to play the role of communities. • Importance of consistent trainings to serve as a refresher and to expand the existing pool of trained staff (particularly of staff since VNRC has no well-established volunteer management). 	
General recommendations	In-country WASH delegate to support CVTL in periodic use and maintenance of Kit 2	Future trainings to consider preparedness of VNRC to other emerging disasters such as droughts, in addition to commonly experienced disasters such as floods and storms.	

Hardware component: Key outcomes and recommendations for Nepal and Bangladesh

	Nepal	Bangladesh	
	<p>What: 2 units of WatSan disaster response Kit 5</p> <p>When and where:</p> <ul style="list-style-type: none"> • Sep 2012 to Biratnagar • Oct 2012 to Nepalgunj 	<p>What: 2 units of WatSan disaster response Kit 5</p> <p>When and where: Units received in 2013: a unit each prepositioned in BDRCS NHQ and Chittagong RC unit</p>	<p>What:</p> <ul style="list-style-type: none"> • 8 units of Man-packs • 50 squatting slabs • 50 rapid latrine superstructures • 1,050 jerry cans (pre-positioned as DP stock) <p>When:</p> <ul style="list-style-type: none"> • Jan 2016
Key outcomes/ Utilisation	<ul style="list-style-type: none"> • Total 2 units procured: 1 prepositioned in Biratnagar and 1 in Nepalgunj – both locations are prone to floods and are plain areas with higher chances of utilization during disasters. • Water purification units of the kit has not been utilized in any emergencies but parts of the kit have been used in the 2015 EQ such as the following items: <ul style="list-style-type: none"> - 40 squatting plates - 2 SanPlat moulds - 4 emergency latrines • The kits have been found to be useful for WASH trainings such as NDRT/WRT trainings. • Water purification units of the kit have not been used due to the following reasons: <ul style="list-style-type: none"> - Not suitable to be used during 2015 EQ as NRCS felt it was more appropriate to be used for plain areas rather than 	<ul style="list-style-type: none"> • The kit prepositioned at the HQ has been used in emergency ops (also in previous NDWRT trainings), while the kit in Chittagong remains unused as there were no massive disasters necessitating its use. • The kit at the HQ has been used during: <ul style="list-style-type: none"> - Kurigram flood in Sep 2014, where 2,000 families were reached with more than 13,000L of water and 918 buckets distributed - 2016 flood where 1,200 families were reached with 12,500L of water and 800 buckets distributed. 2 units of rapid latrines were also installed (part of Kit 5) 	<ul style="list-style-type: none"> • Man-packs <ul style="list-style-type: none"> - Units have not been used in emergency ops, but have been introduced in a recent NDWRT refresher training and Man-pack induction in Nov 2016. - It was used in the 2016 flood (in Jamalpur) but water produced was not distributed (deployed to check quality of water produced). - These 8 units have been prepositioned at flood-prone districts. • 50 squatting slabs and 50 rapid latrine superstructures <ul style="list-style-type: none"> - These items have been distributed under the 2016 flood ops: Kurigram – 15 units; Gaibandha – 10 units; Bogra – 10 units; Jamalpur – 15 units - Volunteers were only able to install 8 latrine units – 6 in Bogra and 2 in Jamalpur, where the rest are stored in the

	<p>mountainous region (however smaller units such as Man-packs were reported to have been deployed)</p> <ul style="list-style-type: none"> - In past ops (at hilly areas), water supply needs have been fulfilled by on-site bulk water treatment and distribution, household water treatment system or distribution of bottled water. This is also the reason why NRCS has placed emphasis on training their staff and volunteers on bulk water treatment methods and household water treatment systems. - It was reported that Kit 5 units were deployed to EQ-affected Gorkha (funded by USAID) and Sindupalchowk (sent by Qatar RC); although the kits were not used, the water treatment reagents (part of the kit) were utilised for bulk chlorination of water - Faced logistical challenges such as: <ul style="list-style-type: none"> i) Weight: require significant man-power and suitable vehicles to transport kit to disaster areas ii) Access: road access limits usage of such a kit 		<p>respective units – these were installed at public areas such as at the embankments, evacuation centres such as schools, etc.</p> <ul style="list-style-type: none"> • 1,050 jerry cans - All jerry cans were distributed during Cyclone Roanu ops
General outcome	-	It was reported in operations update (OU) 1 of the flood ops that there were no diarrheal diseases in places where safe drinking water and sanitation facilities were provided to	
Possible improvements/ Specific recommendations	As bulk water treatment is often carried out in emergency ops, there is value in procuring and prepositioning smaller capacity kits, and items relevant for on-site bulk water treatment such as storage tanks (such as T11 tanks, onion tanks, bladders, etc.)	To ensure timely response to disasters in terms of emergency WASH services, consider establishing an emergency WASH contingency fund that can be used to cover initial costs of deploying resources to the affected areas (e.g. deployment of NDWRT members/volunteers, logistics costs, etc.). In that case, water supply can be rendered concurrently with other non-food items, cash, food, etc. to ensure a more comprehensive response.	
General recommendation	A feasibility study/mapping exercise (and subsequently relevant SoPs) is needed to guide deployment of emergency WASH equipment (and other relevant resources), to ensure maximum utilization of the equipment upon confirmation that all pre-conditions have been fulfilled. Assessment templates/forms should also be able to give indication of the type of water purification kit to be deployed.		
Best practices	<ul style="list-style-type: none"> • NRCS has translated the PHAST manual and Sphere handbook into Nepali, and have so far been used in both emergencies and in developmental programmes, as well as in trainings. In addition to being translated, the PHAST manual was summarised to make it more portable and easier to understand. • The presence and use of these translated documents may have also facilitated better communication between the NS team members with international delegates and volunteers during emergencies. 	-	

Hardware component: Key outcomes and recommendations for India

	What: 214 sets of sanitation equipment When and where: Dec 2014, Bahardurgarh warehouse	What: Adaptation of the HP box and translation of HHWT and storage manual When and where: Jan 2015, distributed to all states
Outcomes: Utilization	<ul style="list-style-type: none"> • 214 sets of sanitation equipment prepositioned in Bahardurgarh warehouse, New Delhi. The set include: <ul style="list-style-type: none"> - 214 collapsible latrine superstructures - 214 squatting plates with cover - 107 plastic toilet pans with P trap - 107 plastic toilet pans with goose neck • Due to its strategic location in central India and its accessibility to reach other states, it is the most active regional warehouse out of 4 that stores WASH-related items (total 6 warehouses) • The items have not been utilised in emergencies but used to replenish rapid latrines deployed during operations in Uttarakhand (Jun 2013) and Jammu and Kashmir (Sep 2014) 	<ul style="list-style-type: none"> • Adaptation of the HP box was not completed due to time taken to obtain consensus of its content and several disasters occurring at that time, including 2015 Nepal EQ. • Initial plan to contextualise include revising the IEC materials to be more suited to the Indian context. • IRCS then proceeded to translate and print the HHWT and storage manual to Hindi, where it was so far been used/disseminated in: <ul style="list-style-type: none"> - Trainings such as ToT FMR, NDRT and NDWRT - Branch-level trainings - International events such as the AMCDRR 2016 • A total of 500 of the translated manuals was printed, where these have been distributed to all states while remaining copies are stored at IRCS HQ
Possible improvements/ Specific recommendations	-	<ul style="list-style-type: none"> • IRCS sees value in having HP boxes prepositioned but the content should be revised to make the box more compact • To circulate the translated HHWT and storage manual to a wider audience by uploading the manual on the IRCS official website; by having this available online, this could possibly encourage translation of the manual to other languages
Best practice	The strategically-located Bahardurgarh warehouse is organised and well-maintained. This will ease the process of deploying the necessary items out of the warehouse to the affected areas. In addition to its role as a warehouse, there is also a training centre within its compound.	

Hardware component: Key outcomes and recommendations for Pacific - Fiji, Samoa and PNG

	Fiji	Samoa	PNG
	What: 3 units of Man-packs When and where: 2015, Suva	What: 2 units of Man-packs When and where: 2015, Apia, Samoa RC HQ	What: Mobilisation of Kit 2 When and where: Sep 2015, Mt Hagen, PNG
Key outcomes/ Utilisation	Units are in good working order and have been used for several trainings, however have not yet been deployed in a response	<ul style="list-style-type: none"> • Equipment and training provided utilised almost immediately in drought ops at the end of 2015 • Man-packs allowed timely response and are well suited to small community size in Samoa • Samoa RC was already seen as a leader in long-term rainwater harvesting projects and new equipment has led to recognition of an expanded role in emergency response • New volunteers are oriented every 2 to 3 months on the equipment as part of induction into DM programme 	<ul style="list-style-type: none"> • Kit 2 was mobilised to PNG to respond to drought ops⁹ (MDRPG005) • HP box as part of kit used to kick-start activities as part of the response

⁹ PNG experienced prolonged dry spell and frost as a consequence of changing climatic conditions caused by El Nino. Some of those affected were reached with safe drinking water, HP sessions and distribution of jerry cans and hygiene kits.

		<ul style="list-style-type: none"> Equipment incorporated into logistics system for regular stocktake and maintenance 	
Possible improvements/ Specific recommendations	Any future equipment to be stored in humid environments should have stainless steel rather than galvanised bolts	<ul style="list-style-type: none"> Continued refresher trainings required as Man-packs perceived as complicated to connect correctly A gap to be addressed is the provision of funds for maintenance and spares 	NS ability to manage equipment and response needs to be strengthened before any further equipment is pre-positioned.
General recommendations	<ul style="list-style-type: none"> WASH capacity building should be linked with efforts to strengthen NS logistics capacity as regular maintenance, testing and replacement of spare parts for equipment is an on-going issue IFRC should assist NS in planning for costs related to maintenance and spare parts 		

Hardware component: Key outcomes and recommendations for Timor-Leste and Viet Nam

	Timor-Leste	Viet Nam
	<p>What: WatSan disaster response Kit 2 When and where: May 2014, Dili</p>	<p>What: Procurement and prepositioning of 25 HP boxes and 30 mobile latrines When and where: Dec 2014, prepositioned in disaster-prone district</p>
Key outcomes/ Utilisation	<ul style="list-style-type: none"> Parts of the Kit 2 have been utilised in the 2016 drought ops, specifically in Baucau district, such as: <ul style="list-style-type: none"> 5,000L transport bladder 2,100L plastic tanks (2 locations) Kit 2 was also used in CVTL trainings: <ul style="list-style-type: none"> NDRT training in Dec 2014 (the one supported by JRCS) Emergency WASH workshop in Feb 2017 (under the drought ops) Found the kit to be more useful for trainings rather than for emergencies where only bladders and plastic tanks have been utilised – other items such as the rapid latrines have not been utilised due to the following reasons: <ul style="list-style-type: none"> sanitation needs were fulfilled by other humanitarian agencies CVTL has limited stock of rapid latrine items (only those under Kit 2) i.e. 20 squatting plates with pan and pipe, and 1 unit of rapid latrine infrastructure 	<ul style="list-style-type: none"> HP boxes and latrines prepositioned 18 and 7 districts respectively, covering north, central and south regions of the country. Factors considered when prepositioning at the different VNRC chapters: <ul style="list-style-type: none"> Disaster-prone districts Capacity of the chapter to properly utilise the prepositioned items Availability of funding to make use of the prepositioned items HP boxes were utilized during HP sessions in the 2016 drought and saltwater intrusion ops None of latrines have been used in emergencies (but some have been utilized in a training). Latrines have not been utilised as there has been no need to do so in view of the nature and severity of the disasters so far.
Possible improvements/ Specific recommendations	<ul style="list-style-type: none"> Appointment of a WASH focal point within CVTL, to: <ul style="list-style-type: none"> Be responsible for maintenance of WASH-related items, including keeping stock and ensuring the items are ready to be deployed when the need arises (working closely with logistics staff). This could lead to better utilisation of available resources. Source for chemicals (within and out of the country) to ensure effective and timely water treatment and distribution during emergencies Continue the effort of adapting the HP box, also consider translating other WASH-related materials to be included into the adapted HP box; translation of relevant materials from English to local languages would assist in the understanding of WASH concepts/information among volunteers and staff. 	<p>VNRC sees the value of prepositioning other WASH-related items such as (but not limited to) water filters, water containers and water purification tablets. This is to enhance the level of preparedness in an event of a disaster.</p>

6. Annexes

Annex 1: Terms of Reference



TERMS OF REFERENCE (TOR) FOR IMPACT REVIEW OF THE JAPANESE RED CROSS SOCIETY SUPPORT

1. SUMMARY

1.1. Purpose:

To review the impact of emergency water, sanitation and hygiene promotion (eWASH) support funded by the Japanese Red Cross Society (JRCS) from 2012/2013 to 2015. The review should result in identification of key lessons and recommendations to improve current and future support in eWASH in the Asia Pacific region.

1.2. Audience:

The Asia Pacific Regional Office (APRO) of the International Federation of Red Cross and Red Crescent Societies (IFRC), JRCS and the concerned National Societies.

1.3. Commissioner:

IFRC APRO

1.4. Reports to:

IFRC APRO Regional WASH Coordinator

1.5. Duration

Duration of each visit will be decided upon consultation with the relevant IFRC country offices (COs)/country cluster support teams (CCSTs), and the concerned National Societies (communications where possible will be through the COs/CCSTs). Prior to each visit, initial communication will be made for the preparation of the review where the needed documents and an outline of review questions will be given. The review will involve discussions at the national headquarters of the concerned National Societies and field visits where the eWASH equipment are located. Where applicable, the relevant COs/CCSTs may also be visited and appropriate staff, interviewed.

1.6. Timeframe

Review period will be decided upon consultation with the concerned stakeholders.

1.7. Location

Bangladesh, India, Nepal, Viet Nam, Timor-Leste, Papua New Guinea and the Pacific. For the latter three locations, the review will be carried out remotely from the APRO.

2. BACKGROUND

The WASH component of the health programme in the Asia Pacific region is based on the strategic directions set by the IFRC: (i) Global Agenda Goal 2 (reduce the number of deaths, illnesses and impact from diseases and public health emergencies), (ii) global health and care policies, (iii) Global Water and Sanitation Initiative (GWSI), and (iv) the Global Health Strategic Operating Framework (2011-2015). The programme aims to support Asia Pacific National Societies to maintain, improve and scale-up water and sanitation capacities to meet acute and chronic needs. Support activities to National Societies include: knowledge sharing, networking and coordination events, capacity building activities, monitoring and evaluation as well as WASH country level technical support. The outcomes of the programme are as follows:

- i) The Asia Pacific National Societies maintain, improve and scale-up capacities for ensuring sustainable impact in WASH in development to increase resilience (meeting chronic needs);
- ii) The Asia Pacific National Societies maintain, improve and scale-up WASH capacities in disaster management (meeting acute needs);
- iii) Increased impact of National Societies to meet WASH needs, through improved coordination, networking and knowledge management in Asia Pacific among internal and external partners.

The target beneficiaries of the programme component are principally WASH-related staff, members and volunteers of the concerned COs, CCSTs and/or National Societies across the Asia Pacific region. The timeframe for the programme examined is from 2012/2013 to 2015.

3. REVIEW PURPOSE AND SCOPE

3.1 Purpose

This review will determine to what degree the implemented WASH activities supported by JRCS, particularly eWASH equipment and related trainings have facilitated and contributed towards the WASH capacities of the concerned National Societies in meeting acute and chronic needs of the affected populations.

The desired result of the review is to provide best practices, lessons learned, and recommendations that may inform IFRC APRO, National Societies in the Asia Pacific region and other Movement partners in establishing better priorities and plans, in implementing ongoing or future emergency operations that would improve WASH service delivery and accountability to the affected communities, donors and other stakeholders.

3.2 Scope

The focus is on the interventions in the above-mentioned countries and the time period of the programme to be reviewed is from 2012/2013 to 2015. Visits will be made to Bangladesh, India, Nepal and Viet Nam, while for Timor-Leste, Papua New Guinea and the Pacific, the review will be carried out remotely. The target groups to be included in the review would mainly consist of WASH-related staff, members and volunteers of the concerned National Societies which had received support from the JRCS. If need be, interviews may take place with staff at the relevant COs/CCSTs.

4. REVIEW OBJECTIVES AND CRITERIA

4.1 Objectives

The review aims to:

- i) Determine the impact of the JRCS support in the implemented WASH activities, particularly the purchased/prepositioned WASH equipment and trainings carried out.
- ii) Assess the capacity of the concerned National Societies in delivering emergency WASH interventions effectively and make recommendations on how this capacity can be further strengthened.

The review should highlight good practices, lessons learnt and areas of improvement to inform future disaster response preparations with regards to pre-positioning of eWASH equipment and trainings, together with recommendations on how to proceed.

4.2 Criteria

The following criteria will be used to guide the review recommendations:

a. Relevance and appropriateness

1. Was the assistance provided appropriate and sufficient to meet intended needs of the National Societies in delivering emergency WASH interventions?
2. To what extent were the National Societies involved in the assessment, planning, design, implementation, and monitoring of the interventions?
3. Were the interventions in line with the strategies, standard operating procedures and guidelines of the National Societies, Government authorities and other key humanitarian actors?

4. What important lessons have been identified that can improve future interventions in the respective countries and be shared more widely?

b. Coverage

5. Did the interventions reach all population groups in need?
6. Were there exclusions or differential impact between groups based on their location?
7. How could the coverage and distribution methods be improved?
8. Did the interventions consider and address the protection, gender and inclusion concerns; the needs and capacities of the vulnerable groups and in particular women, girls and boys and people living with a disability?

c. Efficiency/effectiveness/accountability

9. Were there adequate resources, particularly human resources available to run and maintain the WASH equipment within the National Societies, and were they utilized effectively and efficiently?
10. Were systems, procedures and control mechanisms adequate to ensure smooth delivery of assistance and minimize potential losses/risks faced by the National Societies and IFRC?
11. Was there adequate tracking system for delivery of goods and services in place to ensure transparency and accountability?
12. Was information on eWASH equipment received and staff/volunteers trained entered into the resource management system (RMS)? Is the RMS updated consistently and which unit is tasked to do so?
13. Were complaints/feedback mechanisms put in place for community questions and concerns to be answered? What were the concerns raised by communities during the intervention?
14. What was the selection criteria in sending staff or volunteers to WASH trainings organised with the funding support of the JRCS?
15. How did the knowledge and experiences gained from the WASH trainings shared/disseminated to other relevant staff and/or volunteers?

d. Impact

16. What evidence (both direct and indirect) is available that the interventions contributed to the reduction of suffering and that the affected populations were assisted in maintaining or resuming basic dignity and enhancing disaster preparedness?
17. What impact did the eWASH equipment have on how the National Societies respond to WASH needs in subsequent disasters?
18. What impact did the trainings have on how the National Societies respond to the identified WASH needs?

e. Connectedness and Sustainability

19. Did the interventions result in enhanced institutional capacity of the National Societies in terms of: a) ability to implement recovery programmes, and b) ability to prepare for and respond to disasters in a timely and efficient manner?
20. Did the support provided to affected communities enable them to enhance their resilience to withstand possible future disasters and other hazards?

5. METHODOLOGY

The methodology will adhere to the [IFRC Framework for Evaluations](#), with particular attention to the processes upholding the standards of how evaluations should be planned, managed, conducted and utilized.

Interviewees will mainly consist of National Societies staff and volunteers, and beneficiaries/recipients of the services. This may include staff of COs/CCSTs if found to be relevant. These may be in the form of one-to-one interviews (using a semi-structured list of questions), focus group discussions (FGDs) or other methods.

The design of the review should take the following into account:

- List of interviewees will be jointly discussed and agreed by the reviewer and the concerned National Societies, and COs/CCSTs (if relevant). The final list should be as representative of the impact of the support given by the JRCS as possible.

- Data collection methods and pace are to be decided by the reviewer, in consultation with the National Societies and focal persons at the COs/CCSTs (if relevant).

The reviewer will be responsible to clearly outline the support needs in-country through communication with the National Societies and the IFRC CO/CCST focal persons (if relevant) prior to the actual visit. This will be agreed with the concerned parties based on resources available.

6. OUTPUTS/DELIVERABLES

- Draft review report to be submitted two weeks after the conclusion of the entire review period
- Final review report (which highlights key conclusions and recommendations) to be submitted two weeks after the receipt of feedback from those concerned (based on the draft version).

7. SCHEDULE

The schedule will be discussed in consultation with the concerned COs/CCSTs and National Societies. The methodology adopted for this review will at times necessitate travelling to warehouses and interviews with key individuals or those whom have utilized the eWASH equipment, received eWASH training and/or received eWASH services from the respective National Societies.

8. EVALUATION QUALITY and ETHICAL STANDARDS

The reviewer should take all reasonable steps to ensure that the review is designed and conducted to respect and protect the rights and welfare of people and the communities of which they are members, and to ensure that the evaluation is technically accurate, reliable, and legitimate, conducted in a transparent and impartial manner, and contributes to organizational learning and accountability. Therefore, the reviewer should adhere to the evaluation standards and specific, applicable practices outlined in the [IFRC Framework for Evaluation](#).

The IFRC Evaluation Standards are:

- Utility:** Evaluations must be useful and used.
- Feasibility:** Evaluations must be realistic, diplomatic, and managed in a sensible, cost-effective manner.
- Ethics and Legality:** Evaluations must be conducted in an ethical and legal manner, with particular regard for the welfare of those involved in and affected by the evaluation.
- Impartiality and Independence:** Evaluations should be impartial, providing a comprehensive and unbiased assessment that takes into account the views of all stakeholders.
- Transparency:** Evaluation activities should reflect an attitude of openness and transparency.
- Accuracy:** Evaluations should be technically accurate, providing sufficient information about the data collection, analysis, and interpretation methods so that its worth or merit can be determined.
- Participation:** Stakeholders should be consulted and meaningfully involved in the evaluation process when feasible and appropriate.
- Collaboration:** Collaboration between key operating partners in the evaluation process improves the legitimacy and utility of the evaluation.

It is also expected that the evaluation will respect the [seven Fundamental Principles of the Red Cross Red Crescent](#): Humanity, Impartiality, Neutrality, Independence, Voluntary Service, Unity and Universality.

Annex 2: Additional information on software and hardware components

Software component: Additional information for Bangladesh

	NDWRT training (2013)	Aquasure water treatment kit training	NDWRT training (2015)
Selection criteria	<ul style="list-style-type: none"> • Education qualification • Involved in WASH activities in their respective positions • Demonstrate interest in emergency WASH • Having past disaster response experiences • Have been trained in basic NDRT training (there are cases where one may participate in NDWRT training without prior basic NDRT training – some overlap between NDRT and NDWRT modules) • Participants chosen also based on where they are from, where priority is given to those from more disaster-prone areas • Generally, selection process includes expression of interest to participate, coupled with submission of resume and at times, interviewing those interested through a viva process 	<p>In addition to the criteria stated in the column to the left:</p> <ul style="list-style-type: none"> - Performance of work where they are based at 	<p>In addition to the criteria stated in the columns to the left:</p> <ul style="list-style-type: none"> - Physically and mentally able to actively participate in the training - Performance observed in previous trainings i.e. capability, attitude, level of participation, etc.
Breakdown of participants	<ul style="list-style-type: none"> • 27 participants: combination of RCY volunteers and staff from both HQ and disaster-prone districts; also some from IFRC BD CO, Swedish RC and British RC • Based on participant list, there were 2 female participants out of 27 • 4 groups were formed as per the training report 	<ul style="list-style-type: none"> • 116 participants: mainly RCY volunteers and RC Unit officials i.e. BDRCS staff at the branch level • Participants from 9 disaster-prone districts were selected for this training 	<ul style="list-style-type: none"> • 32 participants: combination of RCY volunteers and staff from both HQ and various disaster-prone districts; also some from IFRC BD CO • Based on participant list, there were 4 female participants out of 32
Facilitators	11 facilitators from BDRCS, IFRC BD CO, IFRC APRO and JRCS	A trainer from Aquasure Bangladesh Limited	7 facilitators from BDRCS, IFRC BD CO and IFRC APRO
Main training objectives	<ul style="list-style-type: none"> • To be aware of components of WASH intervention in an emergency and how to respond using tools and equipment in Kit 5 • To understand the basics of supplying water and maintaining water quality • To have practical skills in bulk and household water treatment • To be able to install and operate water treatment plant • To have knowledge to effectively address sanitation issues following a disaster • To be familiar with correct messages and able to promote hygiene with locally adapted materials • To develop skills in conducting assessment specific to WASH • To understand the deployment process of NDWRT and how to maintain and store equipment post-deployment 	To build capacity of RCY volunteers and Unit officials in operating Aquasure mobile water treatment plant during emergencies	<ul style="list-style-type: none"> • To build capacity of BDRCS in terms of emergency WASH • To deliver some technical knowledge on water equipment such as Kit 5 and Aquasure, and how to maintain and operate it • To be familiar with topics on safe water and sanitation, and HP

Equipment/ items used	Components under Kit 5, also Aquasure mobile water treatment unit	Aquasure mobile water treatment plant	Components under Kit 5, also Aquasure mobile water treatment unit, and water quality test kits (CBT) and chemicals (PuR)
Methodology	6-day training: classroom + practical exercises + simulation with cyclone as the scenario	2-day training: classroom + practical via field visit	5-day training: classroom + practical exercises + simulation with flood as the scenario
Most evident learning points	<ul style="list-style-type: none"> • Understand how to: <ul style="list-style-type: none"> - To carry out WASH interventions in an integrated and holistic manner - Purify water i.e. checking parameters such as turbidity, chlorine, etc. - How to set up and run Kit 5 - Carry out HP and sanitation activities so that communities are aware of good hygiene behaviour 	<ul style="list-style-type: none"> • Understand how to purify water using Aquasure, including setting up and its maintenance • Knowledgeable of the different parts/components of Aquasure, where every participant had opportunity to involve directly in operating the equipment 	<ul style="list-style-type: none"> • Understand how to operate different water treatment systems and its components • How to carry out HP and its key messages, and how it can be disseminated through different methods (games, flash cards, message poster and demonstration of handwashing process) • (Further) understanding on Sphere standards • Simulation appeared to be the preferred method of learning particularly to understand technical aspects
Dissemination of information gained	<p>No formal mechanism within NS for sharing but possible trickle down of information gained to others via:</p> <ul style="list-style-type: none"> - Informal sharing in their daily work or during emergency ops to other volunteers/branch staff; it has been reported that many of those trained shared what they have learnt with other volunteers when they were deployed i.e. through learning-by-doing - Application/dissemination of information in other trainings the participants may be involved in 		
Database of people trained	BDRCS has their own database, where details are also updated on RMS, both of which are maintained by the disaster response department		
Pre- & post-tests; evaluations	Pre- and post-tests, and evaluations were carried out at the end of the training	Based on interviews carried out, no pre- and post-tests, and evaluations were carried out upon completion of the training	Pre- and post-tests were carried out at the end of the training

Software component: Additional information for Nepal

	Emergency WASH simulation exercise	NDRT training, Biratnagar	NDWT training, Nepalgunj	Exposure visit, Pune, India
Selection criteria	<ul style="list-style-type: none"> • Priority to NRCS staff/volunteers from Bhaktapur • Having participated in previous emergency WASH trainings such as the WRT training at district level – or advanced disaster response training • Having past disaster response experiences • Demonstrate commitment to be deployed under the district chapter during emergencies • Show commitment to work under difficult situations 	<ul style="list-style-type: none"> • Having participated in previous trainings at the district level i.e. WRT • Performance during past trainings i.e. capability, attitude, level of participation, etc. • Demonstrate interest in emergency WASH • Having past disaster response experiences 	Similar to selection criteria for NDRT training	<ul style="list-style-type: none"> • Involved in WASH activities in their respective positions • Having some prior understanding of Kit 5 operation

	<ul style="list-style-type: none"> • Command of English – at least sufficient to understand terms commonly used in disaster context 			
Breakdown of participants	<ul style="list-style-type: none"> • 42 participants: combination of staff from HQ and EQ-prone districts of KTM valley (mainly from Bhaktapur and surrounding districts) • Different teams were formed: water treatment, sanitation, HP, logistics, and communication and media relation. 	<ul style="list-style-type: none"> • 23 participants: combination of staff and volunteers (including 1 from Sri Lanka RC); participants came from 20 selected district chapters and HQ (focusing on people from the eastern region) • Different teams were formed for field exercises and simulation (with opportunities given for rotations): 3 stations for field exercise (bulk water treatment, sanitation and T11 installation) 	<ul style="list-style-type: none"> • 23 participants, consisting of NRCS staff from various district chapters (focusing on people from the regions of mid-west and far-west) • Different teams were formed: water treatment, sanitation and HP 	<ul style="list-style-type: none"> • 8 staff and volunteers including central community development committee President, central executive committee members, warehouse in charge of Nepalgunj and Biratnagar, and programme officers from HQ • Combination of participants from different regions of Nepal
Facilitators	<ul style="list-style-type: none"> • Presence of observers from local authorities, Oxfam and other NGOs • Presence of senior management such as the chairman and SG reflects commitment of the organization for the further development in emergency WASH of NRCS. 	Presence of facilitators from Aqua Plus (water treatment equipment company), IFRC APRO, NRCS and JRCS	Coordinated by NRCS WASH division	Trainers from Aqua Plus, Pune
Main training objectives	<ul style="list-style-type: none"> • Due to increased need for emergency WASH response in disasters, this WASH-centric simex was organised by NRCS. • Objectives were: <ul style="list-style-type: none"> - Increase knowledge and skill of NDRT and DDRT members regarding Kit 5 deployment and operations - Readiness of Kit 5 deployment for future disasters - Understanding of the district chapters and other stakeholders about NRCS emergency WASH tools - Integration of emergency WASH tool in overall NRCS response mechanism 	<ul style="list-style-type: none"> • To be familiar with assessment, planning and activity cycle in relation to a WASH response • To understand emergency WASH response tools and knowledge to respond with appropriate interventions • To gain sound understanding and skill on water treatment and quality, sanitation, HP and vector control in emergencies 	<ul style="list-style-type: none"> • To learn about the function and application of Kit 5 • To understand reasons for equipment breakdowns • To learn about maintenance/storage requirements of different components of the kit <p>(topics covered similar to ones under NDWRT, with main difference in scenario of simulation)</p>	To learn about O&M procedures of Kit 5 (including safe handling and transportation)
Dissemination of information gained	No formal mechanism within NS for sharing but possible trickle down of information gained to others via: <ul style="list-style-type: none"> - Informal sharing in their daily work or during emergency ops to other volunteers/district chapter staff - Application/dissemination of information in other trainings the participants may be involved in 			
Equipment used/exposed to	Components under Kit 5	Components under Kit 5 and T11 tanks	Components under Kit 5 and T11 tanks	Components under Kit 5

Methodology	2 days of full simulation exercise	5-day training: classroom + field exercises + simulation with EQ as the scenario	5-day training: classroom + field exercises + simulation with flood and fire as the scenario	As no training report received as part of document review, below points were extracted from an interviewee: <ul style="list-style-type: none"> - Actual training mentioned to be between 2-3 days, around Sep 2013 - Based on photographs, the method appeared to be combination of classroom sessions followed by practical session
Most evident learning points	<p>Understand how to:</p> <ul style="list-style-type: none"> - Use bulk water treatment unit i.e. Kit 5, also importance of having checklist to ensure necessary relief items are ready for response - Internalise some of the factors and pre-conditions needed for water treatment and deployment of water purification equipment based on the water source selection assessment such as quality of raw water, and issues related to security, access and logistics, etc. - Opportunity to engage and interact with relevant government officials and community members during the simex - Establish communication line between teams on the field with HQ, where the simex also tested out some of NCRS SOPs - Pull each other's strength, skills and capacities and coming together in planning and implementing an appropriate response plan 	<p>Understand how to:</p> <ul style="list-style-type: none"> - Operate and maintain Kit 5, and setting up T11 tanks - Apply Sphere minimum standards – although this is not new information to the participants, the training gave them an opportunity to practice and apply the standards during the field exercises/ simulation 	<p>Similar to the learning points gained from the NDWRT in Biratnagar, particularly on operating and maintaining Kit 5, as well as installing T11 tanks</p>	<ul style="list-style-type: none"> • How to operate Kit 5 in emergencies through practical session during the training • How to maintain, safely handle and transport Kit 5
Database of people trained	Upon completion of each training, details provided to DM department, where the roster will get updated based on inputs from the WASH division.			
Pre- & post-tests; evaluations	Training report could not be located as per informed by NRCS but reported that an evaluation was done	Pre- and post-tests, and evaluations were carried out at the end of the training	Pre- and post-tests were carried out at the end of the training but no record obtained from NRCS	No record of pre- and post-tests, and evaluation provided by NRCS

Software component: Additional information for India

NDWRT training, Bahadurgarh training centre, New Delhi	
Selection criteria	<ul style="list-style-type: none"> • Some examples of participant selection criteria: <ul style="list-style-type: none"> - Priority given to disaster-prone branches – for this training, 2 nominations per state branch were accepted - Age - Command of English - Education qualification - Member of NDWRT/NDRT/SDRT/FMR trainer - Possess basic understanding of WASH - Quality of work within the NS and number of years of service - Having past disaster response experiences - Conversant in computer skills - Female participants were encouraged to participate • A scoring/weightage system is practiced, where these criteria are scored and added up, then proceed with selection • DM department of IRCS HQ circulates information about up-coming trainings via emails and post, where the state branches will then send their nominations; information shared with the state branches include training agenda and structure, and some of the prerequisites to participate
Breakdown of participants	<ul style="list-style-type: none"> • 27 participants: staff from 13 disaster-prone districts and from Afghanistan Red Crescent Society • Formed 6 groups for field exercises (4-6 participants/group) and 2 groups for the simulation exercise
Facilitators	6 facilitators in total: 1 from IFRC CCST Delhi (at that time known as IFRC SARD), 1 from IRCS HQ, 2 NDWRT members and 2 production engineers from Aquaplus Ltd.
Main training objectives	<ul style="list-style-type: none"> • To strengthen emergency WASH capacity, particularly volunteers and state branch staff on newly acquired water purification units (Man-pack and AP 3000 CL were new to the participants) • To be able to carry out water and sanitation response using a variety of WASH tools, in both emergency situations and in normal (developmental) WASH programmes
Equipment used/exposed to	Water purification units – NOMAD, NORIT, AP 700 CL (also known as Man-pack) and AP 3000 CL, HP box and rapid latrines
Methodology	<ul style="list-style-type: none"> • 5-day training: classroom + field exercises + simulation - flood was given as the scenario for the simulation • Simulation was the best method for the participants to understand WASH concepts and tools earlier presented in the classroom; it was also useful for the facilitators to observe common mistakes made by the participants
Most evident learning point	Understand how to carry out water quality testing (which was relatively new to the participants at that time) and how to treat/purify water
Dissemination of information gained	<p>No formal mechanism within NS for sharing but possible trickle down of information gained to others, via:</p> <ul style="list-style-type: none"> - Informal sharing in their daily work (i.e. existing WASH programmes) or during emergency ops to other volunteers/state branch staff - Application of gained knowledge in other trainings the participants may be involved in
Database of people trained	DM department maintains this database, which includes details such as their state of activeness, deployments and expertise/specialisation
Pre- & post-tests; evaluations	Pre- and post-tests, and evaluations were carried out at the end of the training

Software component: Additional information for Pacific

Pacific Emergency WASH training, Samoa	
Selection criteria	<ul style="list-style-type: none"> • Fluent in both written and spoken English, as well as presentation skills • A minimum of 3 years field experience with a background in disaster response/emergency management, with at least 1 emergency response experience • Able to work in a multi-disciplinary and international team, be flexible and adaptable, comfortable with ambiguity, sensitive to cultural difference, and willing to undertake leadership roles as well as take directions from others • Able to function effectively under high stress levels • Have proven team-working skills, as well as problem solving ability and willingness to make decisions • Willing and available to facilitate related response trainings, participate in refresher courses and communities of practice • Ability to work practically on manual tasks in a field environment • Available for deployment within 24 hours, for missions of up to 4 weeks • Have completed and passed all Pacific emergency WASH webinars presented between Feb and Mar 2015, and available to all NSs
Breakdown of participants	<p>26 participants: combination of staff from HQ and branches, and volunteers</p> <ul style="list-style-type: none"> - 21 from Pacific Island NSs: PNG, Solomon Islands, Vanuatu, New Caledonia, Fiji, Tonga, Cook Islands, Samoa, Tuvalu, Kiribati, Marshall Islands; 5 from Australia and New Zealand - 3 F + 23 M - 10 WASH, 5 DM, 2 Health, 1 Log, 1 branch manager, 1 comms, 6 branch volunteers
Facilitators	5 facilitators from IFRC, Samoa RC, Fiji RC, Australian RC and New Zealand RC
Training objectives	<p>Develop and strengthen IFRC emergency WASH response capacity in the Pacific region as well as to enhance technical knowledge and skills of NS staff and volunteers, with the aim to:</p> <ul style="list-style-type: none"> - Increase participants' technical skills and knowledge to deploy and operate existing WASH disaster response tools, aligned with regional and global WASH disaster response systems - Train participants from Pacific NSs in a common methodology, in order to build a platform for future collaborative response mechanisms between Pacific Island NSs, strengthening the network of WASH response staff and volunteers within the region - Ensure all participants are familiar with the available coordination mechanisms and assessment tools for emergency response
Equipment used/exposed to	NOMAD, Man-pack, desalination unit, HP box, pre-fabricated emergency latrines
Methodology	4-day training: classroom, practical and simulation
Most evident learning points	<ul style="list-style-type: none"> • Water treatment, not only with package treatment units but bulk chlorination • HP and the importance of balancing hardware and software interventions • Sharing of ideas and experiences between Pacific NSs • WASH knowledge and skills spread more widely through DM and Health staff/volunteers (as many Pacific NS people play different roles)
Database of people trained	IFRC CCST has a record, while some NSs have records of those trained (dependent on the particular NS)
Pre- & post-tests; evaluations	Pre- and post-tests, and evaluation were carried out at the end of the training
Dissemination of information	No formal mechanism within most NSs for sharing but informal passing on of knowledge is reported by participants

Software component: Additional information for Timor-Leste and Viet Nam

	Timor-Leste	Viet Nam	
	NDRT training	Support for 3 external facilitators for ToT	HP training in emergencies
Selection criteria	<ul style="list-style-type: none"> • Having WASH portfolio within the NS • Having past disaster response experiences • Having participated in previous emergency WASH trainings • Coming from disaster-prone districts • Demonstrate capacity and interest in emergency WASH • Able-bodied • Command of English – at least sufficient to understand training materials and speakers 	<ul style="list-style-type: none"> • Age: <50 y/o for male; <45 y/o for female • Possess health and/or WASH background • Having past disaster response experiences • Having experience in carrying out WASH activities in developmental context • Demonstrate commitment to be deployed in emergencies • Respected personnel at their respective chapters 	<ul style="list-style-type: none"> • Being a RC staff at the branch/provincial level • Having past disaster response experiences • Having knowledge in health and care • Having participated in previous WASH trainings
Breakdown of participants	30 participants: combination of staff from HQ and disaster-prone branches - 13 HQ + 17 Branches - 5 F + 25 M	22 participants: combination of staff from HQ and chapters, of diverse backgrounds: - 1 HQ + 21 Chapters - 7 F + 15 M	28 participants: combination of staff from various chapters with high risk of waterborne diseases (11 F + 17 M)
Facilitators	<ul style="list-style-type: none"> • Both external (Australian RC) and internal (CVTL) • 2 observers from JRCS 	<ul style="list-style-type: none"> • 3 external facilitators supported by JRCS – one each from IFRC COs of Bangladesh, Indonesia and Pakistan • 4 facilitators from VNRC: 1 HQ + 3 from different chapters 	<ul style="list-style-type: none"> • 1 IFRC facilitator • 3 VNRC facilitators: 1 HQ + 2 from different chapters
Training objectives	To familiarise key CVTL staff with the content and use of WatSan Kit 2, main topics being: - Water supply in emergencies - Sanitation in emergencies - HP in emergencies - HHWT methods - Sphere standards	<ul style="list-style-type: none"> • To strengthen VNRC preparedness and response capacity for WatSan • To develop VNRC trainers and capacity in HP • To enhance technical knowledge and skills of VNRC response team for deployment and operation of WASH equipment 	<ul style="list-style-type: none"> • To enhance knowledge and communication skills of provincial and branch staff on WASH • To equip participants with knowledge and skills to prepare for and respond to emergency WASH interventions
Equipment used/exposed to	Mainly items under Kit 2 - rapid latrines, water testing kits, onion tanks, HP box	Rapid latrines, water purification units (Aquaplus & Scan), water testing kits, making tippy tap and concrete slab, and use of adapted HP box	Materials in the HP box, making tippy tap and using Aquatabs, materials of HHWT, and reference materials relating to PHAST and CHAST
Methodology	6-day training: classroom, followed by simulation	5-day training: classroom (with practical exercises), followed by simulation	3-day training: classroom (with practical exercises), followed by simulation

Most evident learning points	<ul style="list-style-type: none"> • Understand how to: <ul style="list-style-type: none"> - Respond to an emergency (guided by Sphere standards) - Use items under Kit 2 - Treat contaminated water - Make trench latrines (with features friendly to people with disabilities) - Allocation of tasks among different teams formed during the simulation • Teams formed for the simulation had opportunity to rotate – therefore presence of opportunity to learn and apply different WASH components 	<ul style="list-style-type: none"> • Appreciated sharing of perspective, knowledge and experiences of the external facilitators • Main learning point on HP: how to carry out HP activities at during emergencies, how to advocate good health/hygiene behaviour to community members • Teams formed for the simulation had opportunity to rotate – therefore presence of opportunity to learn and apply different WASH components. • Interactive manner of training methodology, which was a new approach i.e. more hands-on and focused on practical session. 	<ul style="list-style-type: none"> • Understand how to: <ul style="list-style-type: none"> - Collection of secondary data, design of activities within a timeframe and review of activities to gauge whether it has fulfilled needs of those affected - HHWT methods - Carry out HP activities and helping communities to understand risk of diseases and its prevention - Selection of HHs using KAP survey - Potential issues relating to safety and security when collecting water (between water point and dwelling) • Appreciated sharing of experiences by participants from different chapters, as each chapter face/has different set of WASH challenges
Database of people trained	No database of keeping record of people trained	<ul style="list-style-type: none"> • Some form of a database is maintained by DM department, with the following details: name, sex, date of birth, position title, organisation and whether suitable to be deployed or otherwise • Though, no record of trainings attended/ participated in this database – for this, purely rely on institutional memory within VNRC 	
Pre- & post-tests; evaluations	Pre- and post-tests, and evaluation were carried out at the end of the training	Pre- and post-tests were carried out at the end of the training	Pre- and post-tests were carried out at the end of the training, also reflection to identify gaps of the training
Dissemination of information gained	No formal mechanism within NS for sharing but possible trickle down of information gained during the training via BDRT trainings (trainers from HQ carry out these BDRT trainings)	No formal mechanism within NS but informal sharing carried out by some of the trained participants who are active at the chapter level: <ul style="list-style-type: none"> - Applied information gained in chapter-level trainings for volunteers and staff, and provincial people’s committees - Reach of information could be significant as there are various trainings scheduled at the chapter level 	No formal mechanism within NS but informal sharing carried out by some of the trained participants who are active at the chapter level: <ul style="list-style-type: none"> - Training materials and experiences are shared during chapter-level trainings. - Information gained particularly water treatment and prevention of waterborne diseases also applied in emergencies such as during drought and saltwater intrusion ops, also incorporated into volunteer training curriculum at the chapter level.

Hardware component: Additional information for Nepal and Bangladesh

	Nepal	Bangladesh	
	Kit 5	Kit 5	Man-packs, squatting slabs, rapid latrine superstructures and jerry cans
Advantages and limitations	<p>Advantages:</p> <ul style="list-style-type: none"> - Large capacity therefore suited to cater to the needs of large population (4,000L/hour) - If the kit can be successfully deployed, it could further elevate role of the NS as a key player in WASH sector <p>Limitation:</p> <ul style="list-style-type: none"> - Logistical challenge to transport to disaster areas; pre-deployment actions would need to assess feasibility e.g. security, availability of suitable transportation, access, presence of trained HR, etc. 	<p>Advantages:</p> <ul style="list-style-type: none"> - Large capacity therefore suited to cater to the needs of large population (4,000L/hour) - If the kit can be successfully deployed, it could further elevate role of the NS as a key player in WASH sector <p>Limitations:</p> <ul style="list-style-type: none"> - Logistical challenge to transport to disaster areas; pre-deployment actions would need to assess feasibility e.g. security, availability of suitable transportation, access, presence of trained HR, etc. - Kit 5 not suited to process saline water, rendering it unsuitable to be used in areas affected by tidal surges along the coastal belt 	<p>Advantages of Man-packs:</p> <ul style="list-style-type: none"> - Easier to be transported as the unit is smaller in size - Easier to operate <p>Limitations of Man-packs:</p> <ul style="list-style-type: none"> - Relatively small capacity, therefore more suited to cater to lower number of population (700L/hour)
Maintenance and storage	<ul style="list-style-type: none"> • No O&M schedule in-place; any maintenance done would be in preparation for up-coming trainings, therefore at times related costs would also come under trainings • There were some repairs/replacement done – replacement of a broken plastic cap and repair of the Honda pump generator but costs so far manageable • There is no specific warehouse to store WASH items at NRCS NHQ but there is a warehouse in Biratnagar constructed with support of JRCS, built to store WASH items 	<ul style="list-style-type: none"> • No O&M schedule in-place; maintenance usually done in preparation for up-coming trainings • Costs related to repair/replacement/ replenishment at times charged under on-going emergency ops/trainings • There is no warehouse specific to store WASH items at BDRCS NHQ 	
Rationale	<ul style="list-style-type: none"> • Intention of NRCS in adopting Kit 5 was to upscale its emergency WASH capacity, particularly in preparation for mega disasters (progression from having Kit 2) • Although there has been some apprehension in deploying Kit 5 during disasters, NRCS sees its value in terms of training their NDRT/WRT members and volunteers to operate such a kit, which would be useful in international deployments (such as during RDRT deployments) • Kit 5 is an asset only when it fulfils a certain set of pre-conditions for it to be successfully deployed and utilised in emergency ops 	<ul style="list-style-type: none"> • Traditionally there was only one mechanism of provision of water supply during emergencies i.e. water trucking but with the presence of these mobile treatment plants such as Man-packs and Kits 5 (also Aquasure funded by Nestle Bangladesh), BDRCS has been increasingly recognised as a key WASH service provider • The sanitation component under Kit 5 such as the rapid latrines was found to be useful during the 2016 floods 	

Hardware component: Additional information for India

	Sanitation equipment	Adaptation of the HP box and translation of HHWT and storage manual
Advantages and limitations	By having these items prepositioned, IRCS is ready to deploy whenever the need arises.	The size and weight of a standard HP box may be too cumbersome to be used in emergencies, particularly considering the terrain of the country and access during disasters, therefore smaller-sized HP boxes may be considered.
Maintenance and storage	In terms of storage, these items are stored at Bahadurgarh warehouse which is well-maintained and strategically located	-

Hardware component: Additional information for India for Fiji and Samoa

	Fiji	Samoa
	Procurement and prepositioning 3 Man-pack units	Procurement and prepositioning 2 Man-pack units
Advantages and limitations	<ul style="list-style-type: none"> Adds to other equipment in Fiji RC stock by giving an option for smaller-sized communities No provision of funds for maintenance and spare parts 	<ul style="list-style-type: none"> Perceived as fairly complicated to install but easy to transport and no generator required No provision of funds for spare parts
Adaptation of content	Galvanized bolts on valves have been replaced by stainless steel due to rust under humid conditions	-
Maintenance and storage	<ul style="list-style-type: none"> Since Tropical Cyclone Winston in 2016 and the increased IFRC support since then, improvements have been made with storage and regular testing/use of equipment To be seen whether Fiji RC will maintain independently once IFRC support related to the ongoing operation reduces/ends 	Systems in place for regular maintenance and testing at minimum prior to cyclone season

Hardware component: Additional information for India for Timor-Leste and Viet Nam

	Timor-Leste	Viet Nam
	Kit 2	Procurement and prepositioning of 25 HP boxes and 30 mobile latrines
Advantages and limitations	Easy to use but must be given sufficient time and opportunity to practice	<ul style="list-style-type: none"> By having these items prepositioned at VNRC chapters of disaster-prone districts, this will enable timely and quality response (coupled with information gained from the 3 facilitators during the HP in emergencies training) Prepositioned items can be mobilized to neighbouring affected chapters e.g. deployed 2 HP boxes from warehouse in Ho Chi Minh city to central highland areas where there were no HP boxes present during the drought and saltwater intrusion ops.
Adaptation of content	<ul style="list-style-type: none"> Adapted as some items under the kit were locally procured (some from Indonesia) Note that the HP box which was initially planned to be procured locally (HP box is part of Kit 2), with adaptation to the context of the country, was not completed. 	<ul style="list-style-type: none"> HP box has been adapted. Some changes include (but not limited to): <ul style="list-style-type: none"> Aluminium container, instead of plastic – more durable over time Photographs of the IEC materials changed to Vietnamese context Design and technical specifications of latrines consulted with IFRC Viet Nam CO and APRO WASH Coordinator before procurement

<p>Maintenance and storage</p>	<ul style="list-style-type: none"> • No mechanism to upkeep emergency WASH equipment – CVTL still could manage small amounts needed for maintenance but find it a challenge if sum is significant – 2 options of charging maintenance costs currently: <ul style="list-style-type: none"> i) Under on-going ops (such as the drought DREF) ii) ICBRR programme as there is a WASH component • No specific storage space for WASH-related items – these items are currently stored in 2 locations i.e. storage space within the CVTL HQ compound and at a warehouse in CVTL Dili branch • Loss of items (smaller items such as turbidity tube and scale), indicating need to improve inventory management • Challenge in sourcing certain chemicals such as alum and lime locally – alum available in-country is of lower concentration (17%) while lime was reported to be unavailable and therefore needs to be externally sourced 	<p>Cross-checking the list of participants of HP in emergencies training in Jul 2014 (which was funded by Spanish RC), 6 out of 18 chapters where there are prepositioned HP boxes have at least a staff who have undergone the said training.</p>
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Annex 3: List of documents reviewed and/or referred to

An array of relevant documents was reviewed (either in hard or soft copies, or pictures taken of them). Most of these documents were obtained during the process of in-country interviews, while some were obtained before the actual visit and in some cases, additional information was requested and sent to the reviewer afterwards. In general, these were some of the types of documents reviewed across these countries:

Component	Relevant documents
Software	<ul style="list-style-type: none"> • Training reports • Pre- and post-test results • Any form of evaluations done after completion of the training • Photographs and videos of the trainings
Hardware	<p>Logistics-related</p> <ul style="list-style-type: none"> • Records of movement of items such as GRNs or stock list • Content list (of the different WatSan disaster response kits) • Outputs as a result of the activities carried out such as IEC materials, translated documents and guidelines <p>Documents to check/verify utilisation</p> <ul style="list-style-type: none"> • Pledge-based reports (refer Table 1 for the list of pledges) • Emergency-related documents such as operation updates and final reports: <ul style="list-style-type: none"> i) Bangladesh: Cyclone Komen (MDRBD015); Cyclone Roanu (MDRBD016); Floods (MDRBD017) ii) Papua New Guinea: Drought (MDRPG005) iii) Timor-Leste: Drought (MDRTP004) iv) Viet Nam: Drought and saltwater intrusion (MDRVN013), and floods (MDRVN014) • Reports or powerpoint slides produced by the NSs detailing activities which were carried out during emergencies and deployments of their NDWRT/NDRT members

Annex 4: List of interviewees/resource persons

	Name	Designation	Organisation
	Bangladesh (8)		
1	Md. Zahidul Islam Bepul	RCY volunteer, Pabna RC unit	BDRCS unit office
2	Muhammad Arafat Hossain	RCY volunteer, Chittagong RC unit	BDRCS unit office
3	Sk Alamgir	WASH Engineer	BDRCS NHQ
4	Saiful Islam	Field Officer, Fundraising Department	BDRCS NHQ
5	Mehedi Hasan	Junior Assistant Director, Logistics Department	BDRCS NHQ
6	Mijanur Rahaman	Junior Assistant Director, Youth and Volunteer Department	BDRCS NHQ
7	Tanoy Dewan	Senior Officer, WatSan and Shelter	IFRC Bangladesh CO
8	Md. Adith Shah Durjoy	Acting disaster operations coordinator	IFRC Bangladesh CO
	Nepal (8)		
9	Ganga Bahadur Shreesh	Project Officer, based at Bhajhang district chapter	NRCS district chapter
10	Raj Kumar Kshetri	Deputy Programme Director, Nepalgunj district chapter	NRCS district chapter
11	Amar Mani Poudel	Head of WASH Division; also the Deputy Director, Community Development Department	NRCS HQ
12	Dambar Bahadur Bista	Senior Officer, WASH Division	NRCS HQ
13	Deepak Ghimire	Procurement Officer	NRCS HQ
14	Ishwor Maharjan	Logistics Officer, WASH Division	NRCS HQ
15	Krishna Prasad Subedi	Programme Officer, WASH Division	NRCS HQ
16	Kaustubh Kukde	Water and Sanitation Delegate	IFRC Nepal CO
	India (4)		
17	Arvind Kumar Chauhan	DM Coordinator, Himachal Pradesh state branch	IRCS state branch
18	Harish Chandra	DM Coordinator, Uttarakhand state branch	IRCS state branch
19	Rina Tripathi	DM Advisor, DM Department	IRCS HQ
20	Ajit Singh Rawat	DM Department	IRCS HQ
	Pacific (5)		
21	Eseroma Ledua	Operations Manager	Fiji RC HQ
22	Sagaitu Jieni Josaia	Disaster Officer	Fiji RC HQ
23	Isara Iose	WASH Delegate, Tropical Cyclone Winston response	IFRC CCST Pacific
24	Stephanie Zoll	Disaster Risk Management Coordinator	IFRC CCST Pacific
25	Ana Zarkovic	WASH Delegate	Formerly IFRC CCST Pacific
	Timor-Leste (7)		
26	Cipriano Freitas	Branch Coordinator, Baucau branch	CVTL branch
27	Edi Freitas Guterres	Disaster Response Manager, DM Department	CVTL HQ
28	Joao Pinto	Head of Health Department	CVTL HQ
29	Juvenal Barreto	Nutrition Manager, Health Department	CVTL HQ
30	Marcelino Albuquerque	Community Health Manager, Health Department	CVTL HQ
31	Mariano Belo	Water and Sanitation Technician, Health Department	CVTL HQ
32	Stuart Bryan	WASH Delegate	Australian RC
	Viet Nam (5)		
33	Tran Sy Pha	Deputy Director for DM Department	VNRC HQ
34	Nguyen Van Sang	Deputy Chairman, An Giang provincial RC chapter	VNRC provincial chapter
35	Huynh Van Khanh	Deputy Director of Health and Care Department, Long An provincial RC chapter	VNRC provincial chapter
36	Nguyen Thi Thu Ha	Deputy Director of Social Work and Disaster Management Department, Thanh Hoa provincial RC chapter	VNRC provincial chapter
37	Le Trong Ngan	Deputy Chairman, Dong Thap provincial RC chapter	VNRC provincial chapter