
Appendix 1:

Maps, Figures and Tables

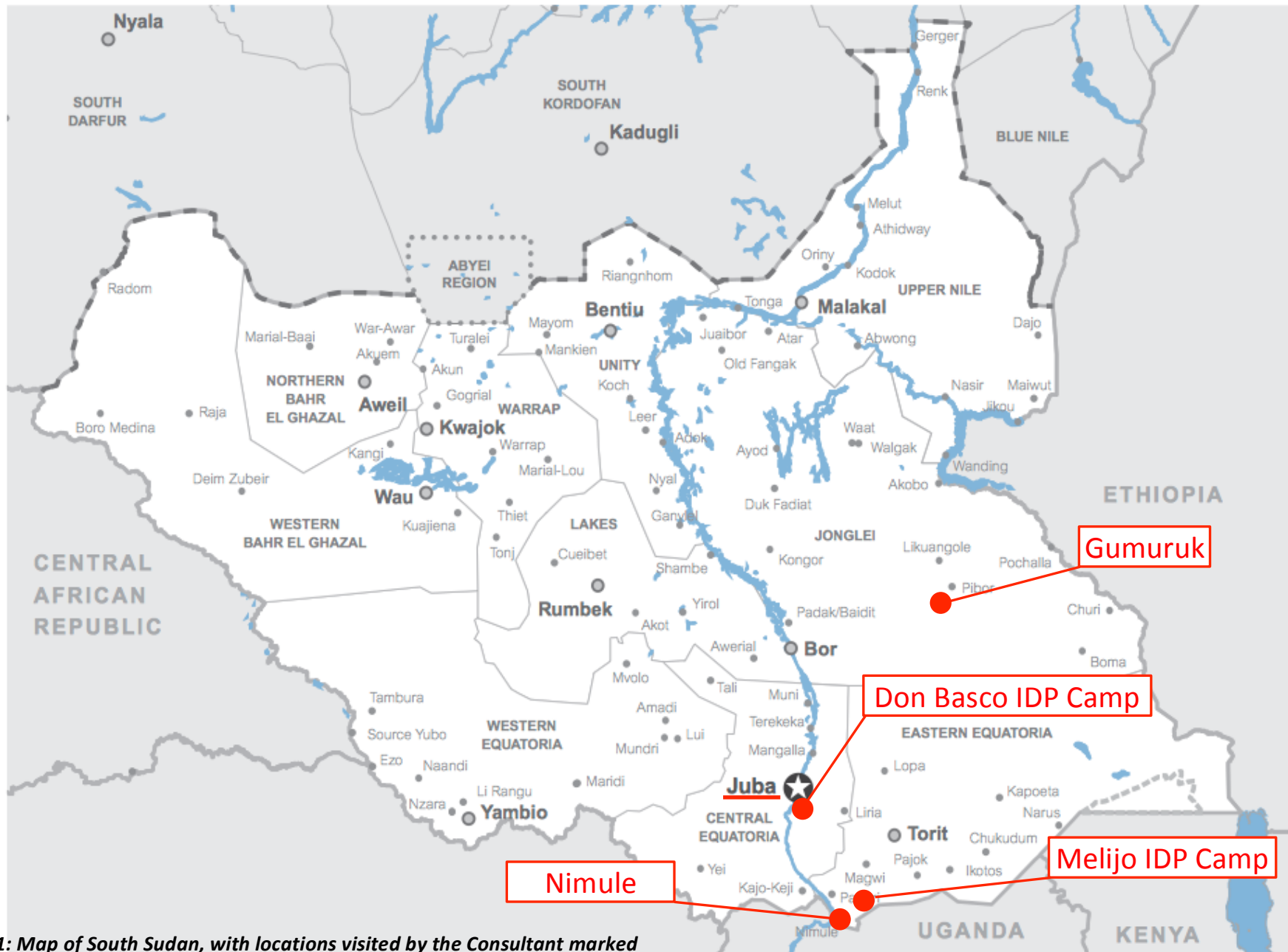


Figure 1.1: Map of South Sudan, with locations visited by the Consultant marked



Figure 1.2: Map of Pakistan, with area in Sindh State visited by the Consultant marked

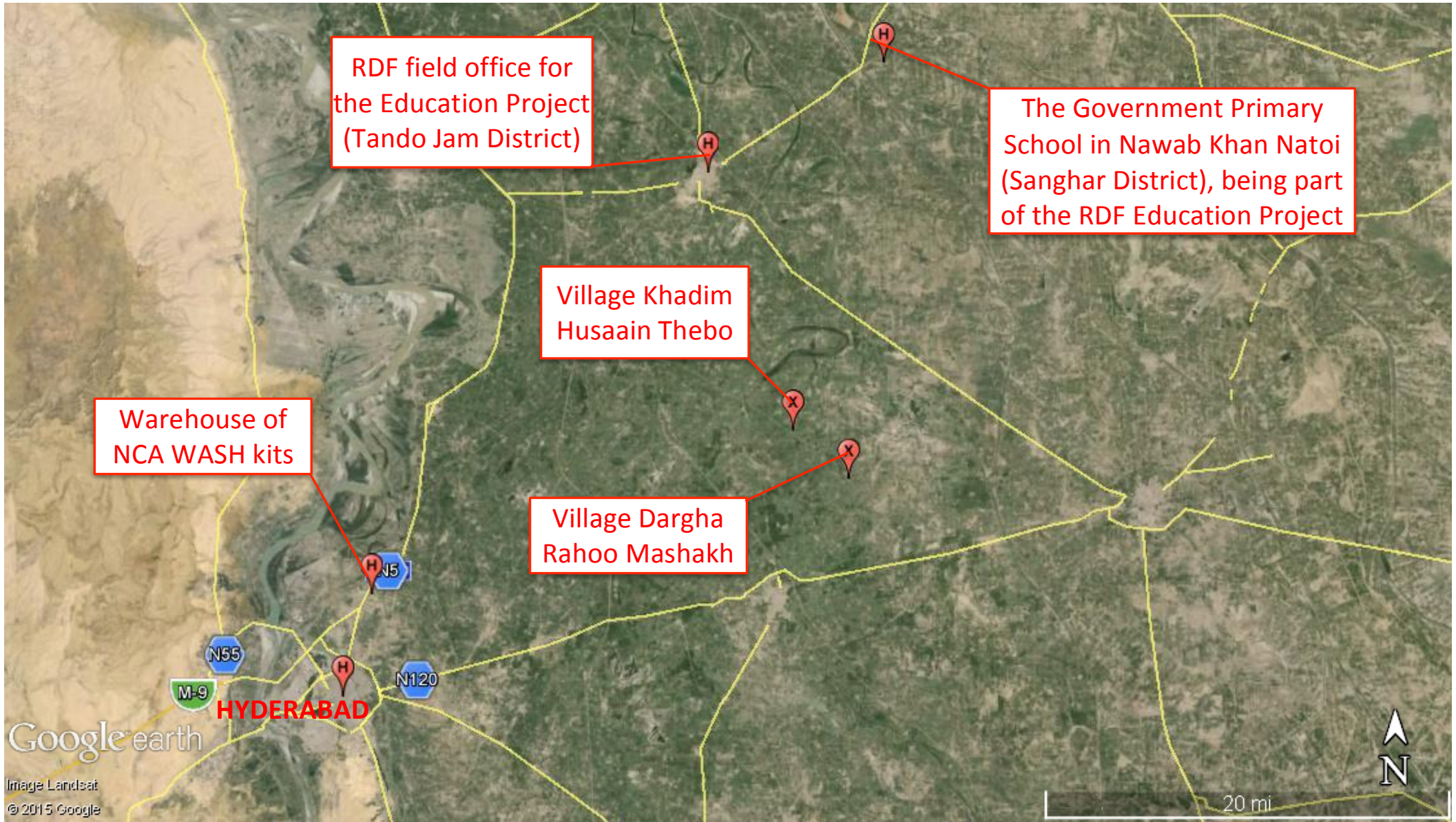


Figure 1.3: Detailed map of areas around Hyderabad visited by the Consultant

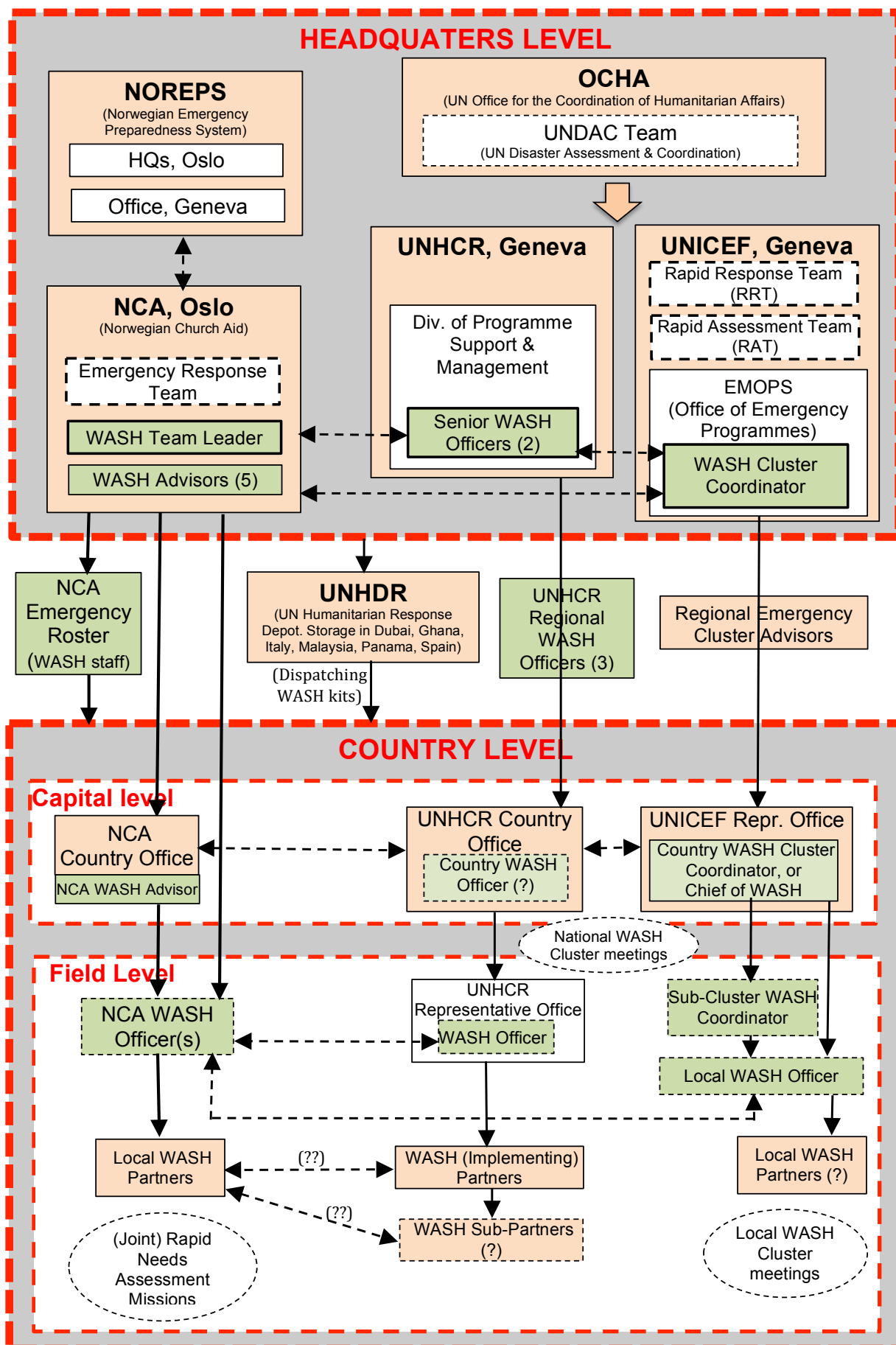


Figure 1.4: Simplified illustration showing the main interactions between NCA, UNHCR and UNICEF at HQs', country and field levels, as understood by the Consultant.

South Sudan: WASH Cluster 4W - WASH Partners Responded in 2014



46 Total Number of Partners

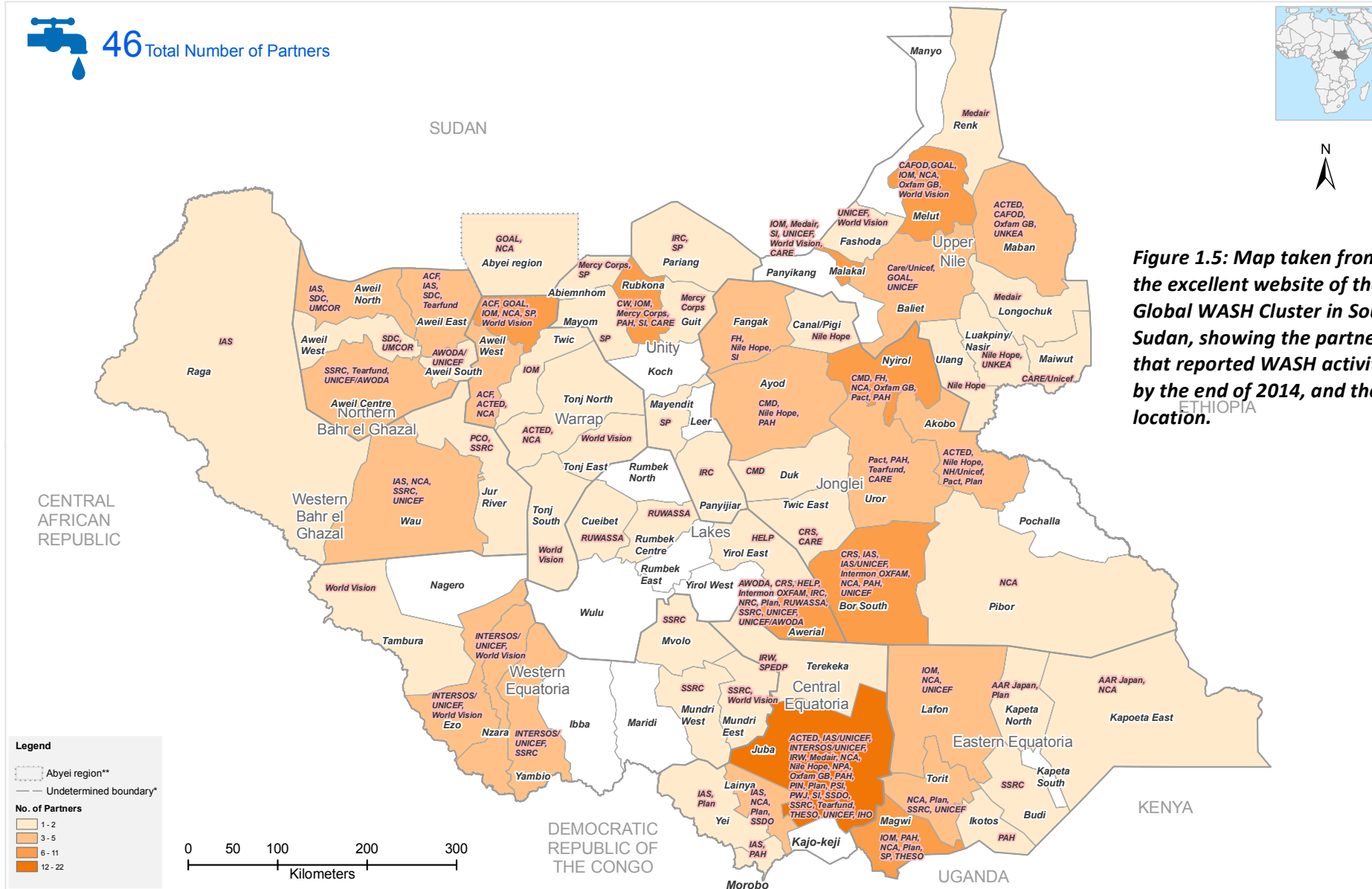


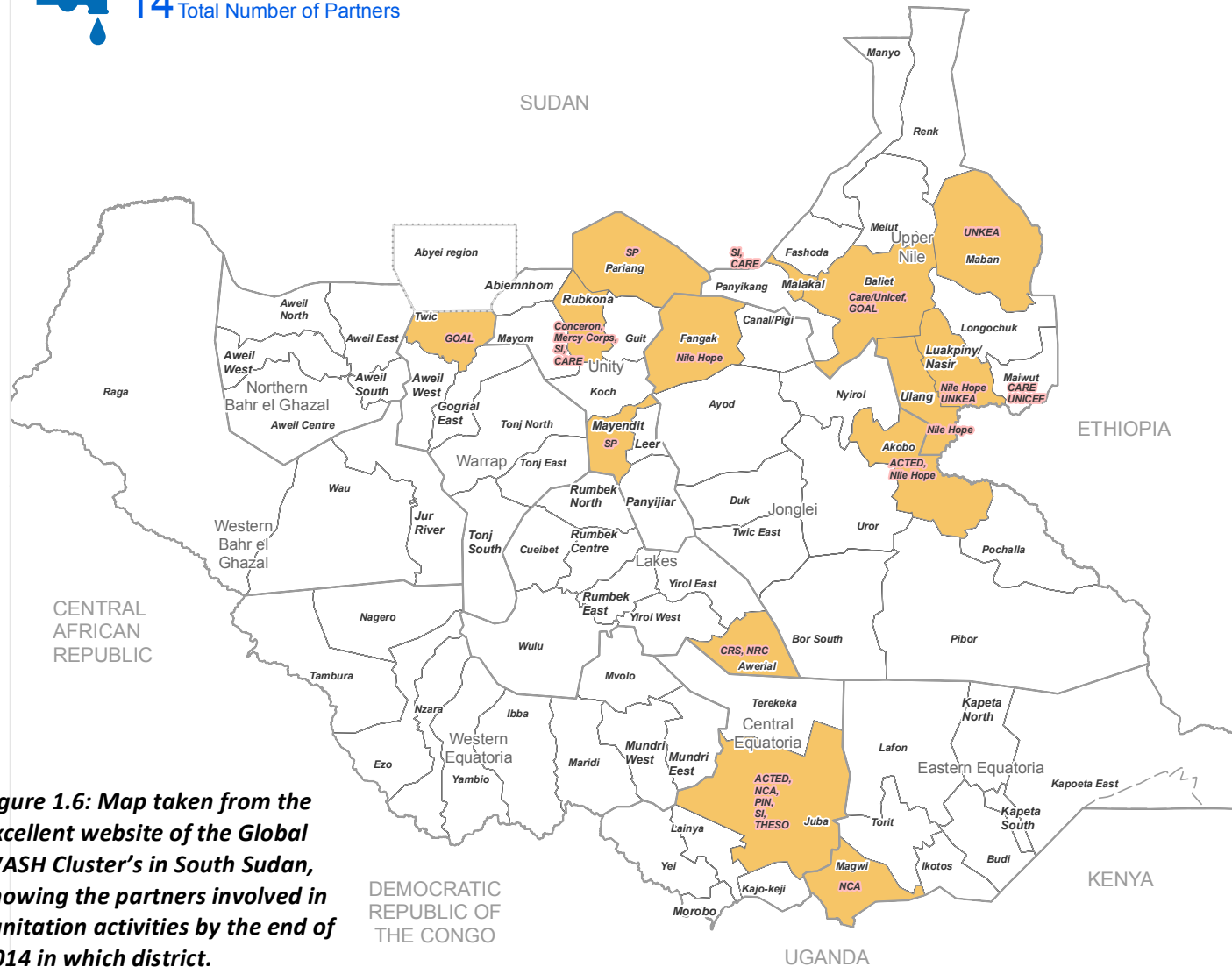
Figure 1.5: Map taken from the excellent website of the Global WASH Cluster in South Sudan, showing the partners that reported WASH activities by the end of 2014, and the location.

Creation Date: 21 January 2015. For feedback/updates/corrections, please contact the cluster coordinator at washinformation@gmail.com or <https://sites.google.com/site/washclustersouthsudan>. The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. * Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined. ** Final status of Abyei region is not yet determined.

South Sudan: WASH CLUSTER 4W (December 2014)



14 Total Number of Partners

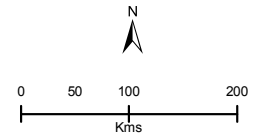


Legend

- Abyei region**
- Undetermined boundary*

WASH Intervention

- Sanitation



Creation Date: 21 January 2015

Created By: WASH Cluster

For feedback/updates/corrections, please contact the WASH Cluster at:

wash.information@gmail.com

<https://sites.google.com/site/washclustersouthsudan>

The boundaries and names shown on this map do not imply official endorsement or acceptance by the United Nations.
 * Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.

** Final status of Abyei region is not yet determined.



Figure 1.6: Map taken from the excellent website of the Global WASH Cluster's in South Sudan, showing the partners involved in sanitation activities by the end of 2014 in which district.

*UNICEF provides support to direct implementation through the following partners: CARE, Concern Worldwide, CRS, GOAL, Mercy Corps, NCA, Nile Hope, Samaritan's Purse, Solidarites International, SSRC, UNKEA, THESO, ACTED



Standard tap in NCA kit

Figure 2.1: Showing the black & white standard tap being standard on the water supply distribution tap stand in the NCA kit. This easily breaks, and the module should be mounted with more sturdy metal taps, e.g. from Even Products in UK (photo from Gumuruk, South Sudan).

Water Supply Unit				Sanitation Unit				Hygiene Unit				Water Treatment Unit	
Start-up	Qty	Operation	Qty	Start-up	Qty	Operation	Qty	Start-up	Qty	Operation	Qty	Start-up	Qty
10101-1/1 Water Pump - Diesel	4	10305-1/1 Treatment, PUR sachets	1	10501-1/1 Toolkit, engineers	1	20806-1/1 Potties for excrete disposal (500pcs)	1	30701-1/1 Hygiene Promotion Kit	1	30901-1/1 Oral Rehydration Salts (5000pcs)	1	40303-1/2 Water Treatment Unit, 4m3/h	1
10401-1/1 Tank, storage, bladder, 10m3	4	10304-1/1 Treatment, NaDcc Tablets	1	20803-1/1 Rapid latrine superstructure	100	20807-1/1 Bed pans for excrete disposal (10 pcs)	1	31001-1/1 Books, reference, Sphere	4	30902-1/1 Soap Multipurpose 125 gram (2500pcs)	1	40303- 2/2 Water Treatment Unit, 4m3/h	1
10204-1/1 Fittings - Adaption Kit	1	11702-1/1 Testing, pool tester chlorine/PH	1	20804-1/1 Plastic Sheeting, rolls	5	20808-1/1 Backpack Sprayers for disinfection	4			30903-1/1 Cloth Multipurpose (500pcs)	1		
10501-1/1 Toolkit, engineers	2	10901-1/1 Container, bucket, w lid & tap (1000 pcs)	1	20805-1/1 Latrine Digging Tools	1	20401-1/1 Hand washing containers (500pcs)	1						
10203-1/1 Distribution, tapstands	8	10902-1/1 Container, bucket, w lid (1000 pcs)	1	20801-1/1 Squatting slabs, dry pit	100								
10201-1/1 Suction hose 2" w/ fittings	5	10402-1/1 Transport Bladder 5000L	2	31001-1/1 Books, reference Sphere	3								
10202-1/1 Layflat hose 2" w/fittings	3	11701-1/1 Testing, detailed water quality	1										
31001-1/1 Books, reference Sphere	3	11703-1/1 Chemical Measuring Kit	1										
10302-1/1 Dosing kit Alum - Suction side	1	10307-1/1 Treatment, aquatab granules	1										
10403-1/1 Tank, storage, onion, 30m3	2												
10301-1/1 Aluminium Sulph. Granuals	1												

Figure 3.1: Contents of the WASH-kit and the four modules as per March 2015 (in different colors), with unique reference number and the quality of each listed

NORWEGIAN CHURCH AID'S ORGANISATION CHART AS OF 10.09.2014

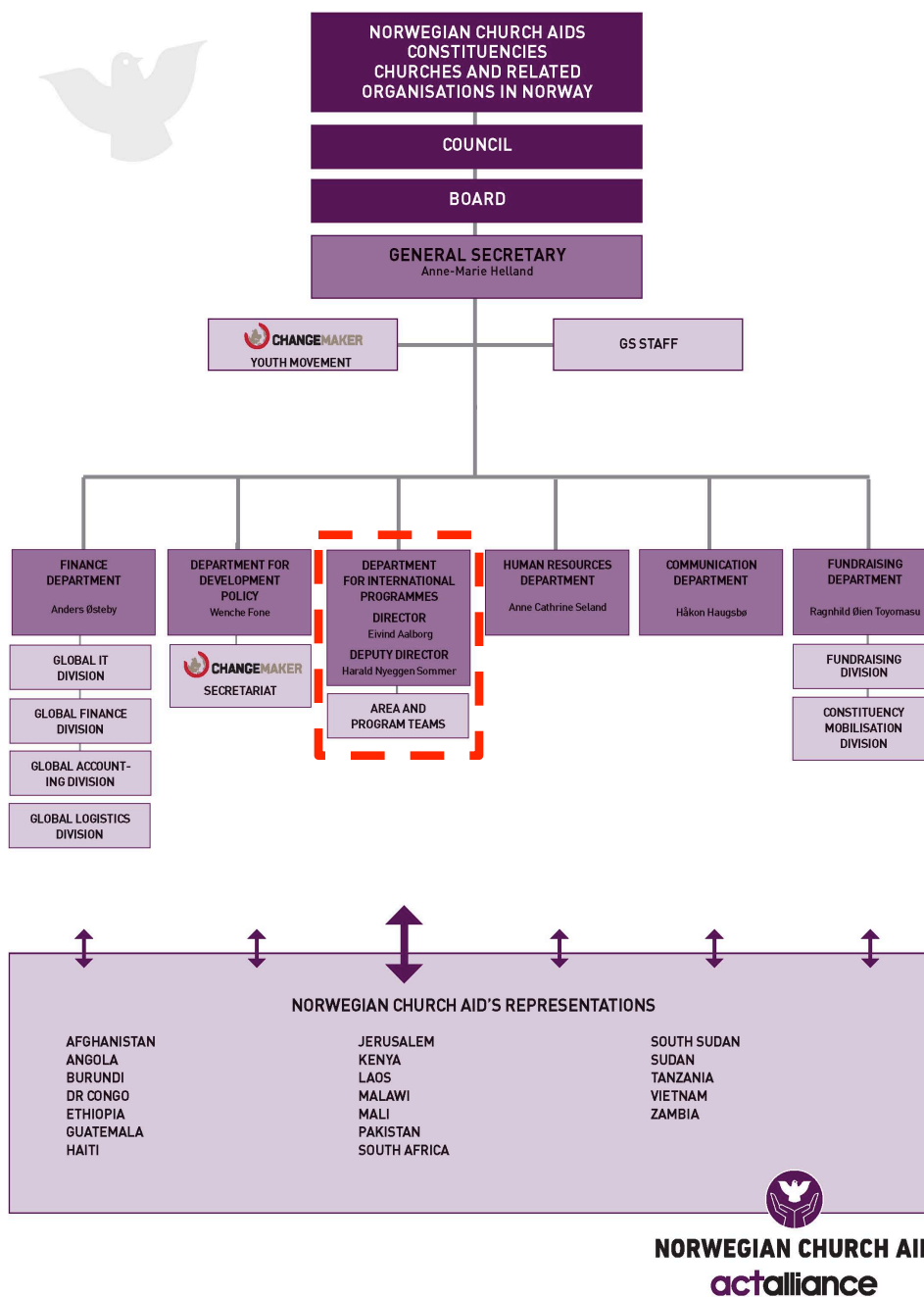


Figure 3.2: The organisation of Norwegian Church Aid. (Source: the NCA website, slightly modified)
Red marking: Department for International Programmes.

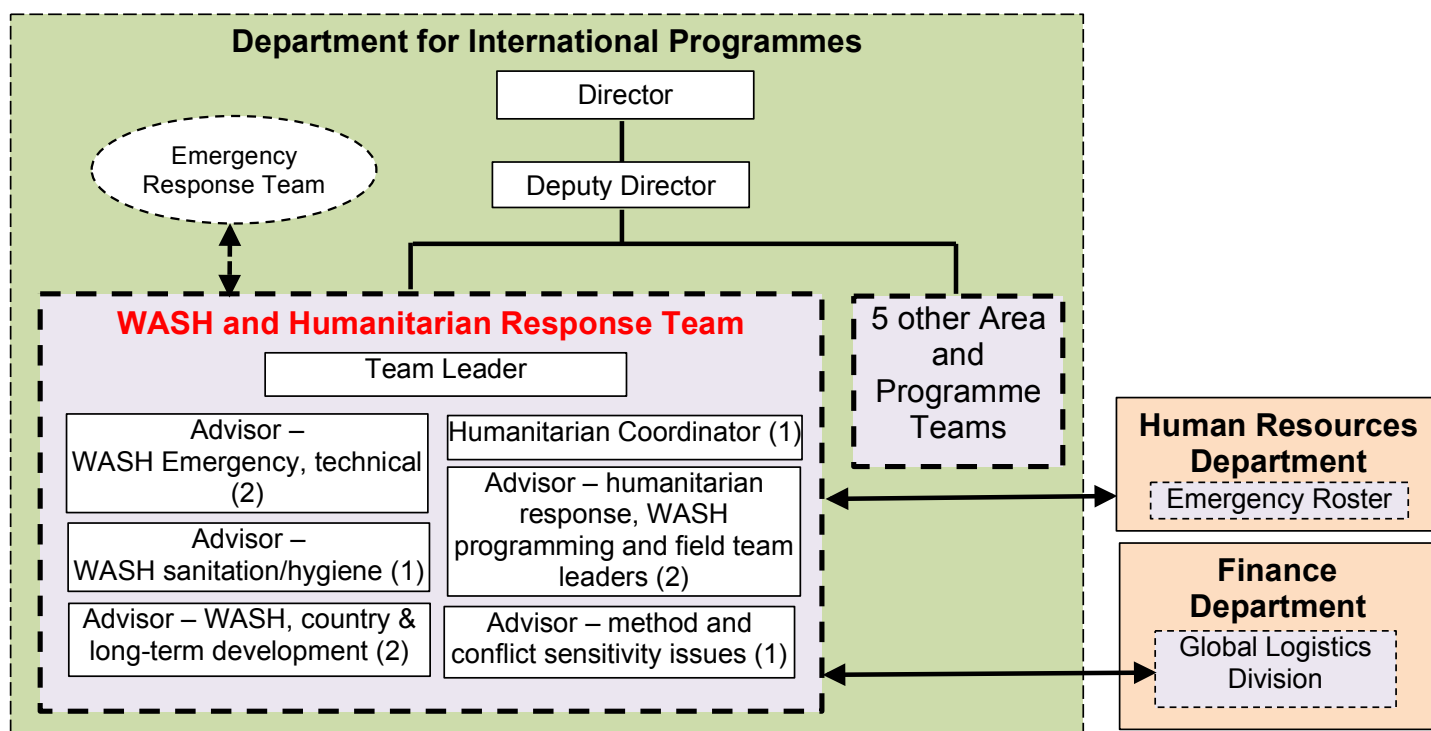


Figure 3.3: The Dept. for International Programmes and the WASH Team in NCA. (Source: Interview with NCA staff)

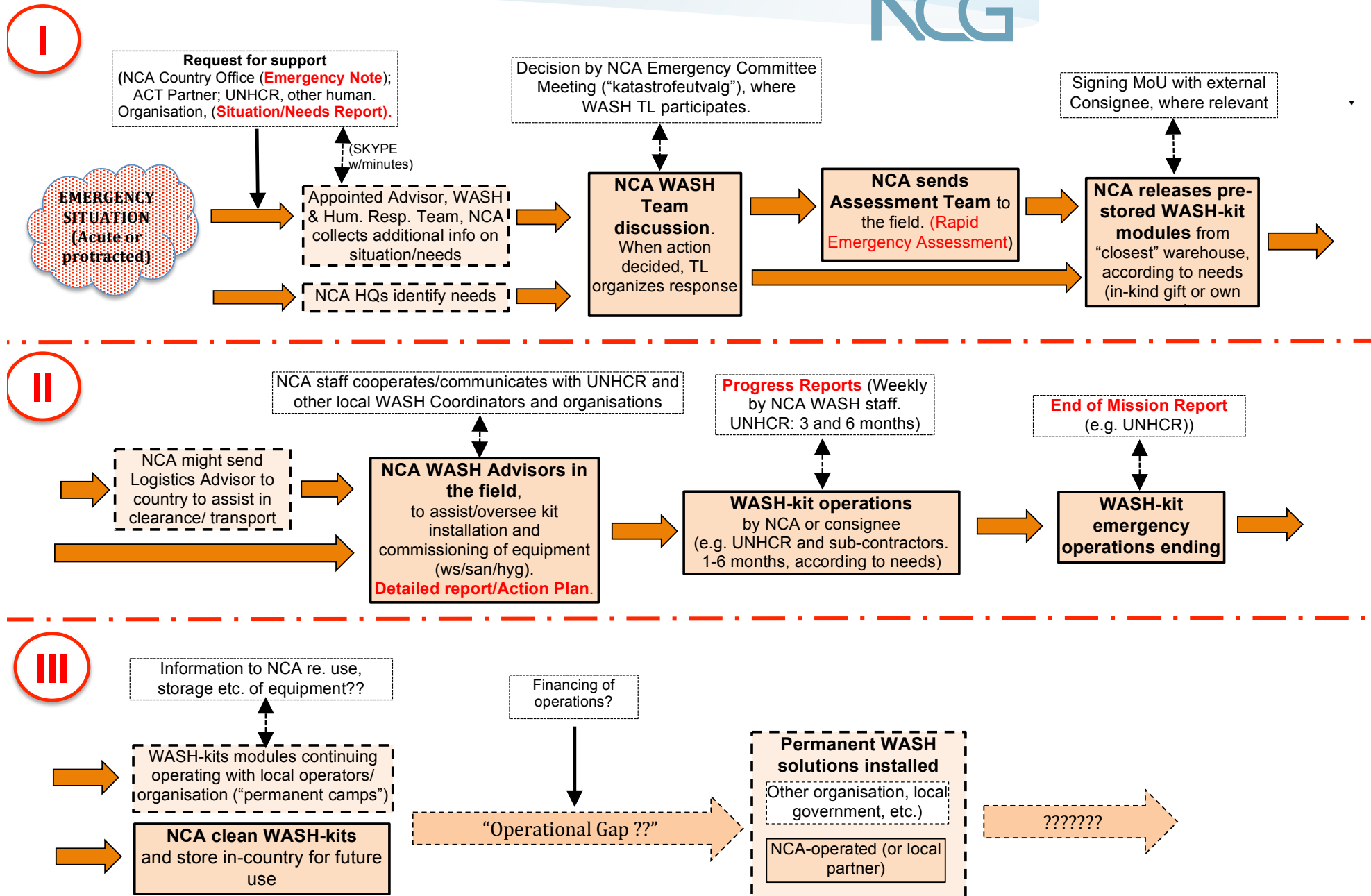


Figure 3.4: Principle illustration showing the main steps in the NCA decision-making process on release of the WASH kits, as understood by the Consultant after consulting with key NCA staff at HQs.

Table 2.1: WASH kit overview (Info from NCA March/April 2015, taken from the EXCEL sheet record kept by the Logistics Department in NCA)

Qty	From	Shipment date (ref. no) DAP/DAT date	Type of emergency	Consignee	Freight mode	Freight costs, NOK	Value, NOK	Information/Comments
2	Oslo	22/07/2011 (2011-081) ???	South Sudanese refugees	LWF Ethiopia	Air	329,810	997,000	"Pre" WASH kit (early version of kit still in stock). Kept in customs Addis for two months. Damaged due to rain. Delivered to LWF Dolo Ado.
2	Oslo	29/09/2011 (2011-101) 07/10/2011	Flood	NCA Pakistan	Air	385,914	1,320,000	Delivered to partner "Research and Development foundation"
2	Oslo	19/12/2011 (2011-134) 26/12/2011	South Sudanese refugees	UNHCR Ethiopia	Air	Freight costs by UNHCR	1,320,000	Delivered to NCA Assosa (not NCA) on 26/03/2012. Freight costs by UNHCR
2	Dubai	July/Aug 2012 (2012-057) ???	Flood	NCA Pakistan	Sea	30,000	1,320,000	Only transport docs available.
0.5	Oslo	31/10/2012 (2012-069) ???	South Sudanese refugees	NCA Ethiopia	Air	?? (no date - system error)	285,000	Equipment for training, only water nodule (water treatment and tanks). (What happened to it after used for training?)
2	Subang, Malaysia	08/12/2012 (2012-076) May 2013??	Internal refugees	UNHCR South Sudan	Sea + truck	136,066	1,385,000	Via port in Mombasa. Warehouse in South Sudan. Partly used?
2	Oslo	29/12/2012 (2012-089) 3/01/2013	Syrian refugees	NCA Tyrkia/Syria	Truck	105,979	1,250,000	Partly used by NCA. Remaining equip. donated to International Medical Corps (IMC, 2 treatment units, chemicals, tap stands, bladder- and onion-tanks. Contact person with IMC: Julie Bara). NCA Logistics person receiving/clearing goods.
2	Oslo	21/01/2013 (2013-003) 28/01/2013 ??	Internal refugees	UNHCR South Sudan	Air	385,914	1,385,000	Only transport docs available (Airway bill). Warehouse in South Sudan. Partly used?
2	Oslo	16/05/2013 (2013-019) ???	Darfur refugees	UNHCR Chad	Air	657,012	1,260,000	No docs available. Approx. 2 weeks waiting/transport by UNHCR in Chad. Report received from UNHCR in French!!
1	Oslo	13/11/2013 (2013-073) 25.11.2013	Typhoon	NCA Filippinene	Air	295,444	645,000	Approx. 2 weeks delays at arrival, due to congestion in Cebu. Diverted via Manila, boat to Cebu. NCA Logistics person receiving/clearing goods
2	Dubai	18/11/2013 (2013-075) 22/11/2014	Typhoon	NCA Filippinene	Air	309,845	1,290,000	Initially chaotic at Cebu airport. Goods placed on the tarmac. Quick customs clearance, but 3 cases disappeared at airport. NCA Logistics person receiving/clearing goods.
2	Oslo	27/02/2014 (2014-017) 10/3/14	South Sudanese refugees	UNHCR Ethiopia	Air	410,942	1,290,000	Delays in Addis. Lacking documents of chemicals. Arrived Gambella primo June 2014.
1	Dubai	16/04/2014 (2014-022) 25/04/2014	Internal refugees	NCA South Sudan	Air	586,881	1,290,000	1 complete WASH-kit plus additional 2 sanitation + 1 Hygiene modules. Freight delayed 2-3 weeks from Dubai, due to engine failure
Part kits	Oslo	05/09/2014 (2014-084) 09/09/2014	Internal Yezidi refugees	UNHCR Iraq	Air		730,976	Iraq defining items to be shipped. Transported in Hercules to Erbil, Iraq, depending on vacant space in plane.
0.25	Dubai	Sep. 2014 08/09/2014	Internal refugees	NCA South Sudan	Air	Included above	Included above	1 water treatment unit only sand and carbon filters) to supplement equipment received earlier in 2014
24,5+						3,633,807	15,767,976	

Table 3.1: The Packing list of the NCA WASH-kit

	L	B	H	m ³	Kg	Contents	Modul
Case 1, 190 x 80 x 55 cm	1.90	0.80	0.55	0.84	183	Latrine Digging Tools - Code 20805-1/1	Sanitation
Case 2, 120 x 80 x 74cm	1.20	0.80	0.74	0.71	442	Soap Multipurpose - Code 30902-3/4	Hygiene
Case 3, 120 x 80 x 56 cm	1.20	0.80	0.56	0.54	190	2 x Tank kit, transport bladder, 5m ³ - Code 10402-1/1	Water Supply
Case 4, 120 x 80 x 74 cm	1.20	0.80	0.74	0.71	311	Treatment, Aquatab granules - Code 10307-1/1	Water Supply
						Aluminium sulphate granules - Code 10301-1/1	Water Supply
						Chemical measuring kit - Code 11701-2/2	Water Supply
						Testing, detailed water quality - Code 11701-1/2	Water Supply
						10 X Testing, pool tester chlorine/PH - Code 11702-1/1	Water Supply
Case 5, 80 x 60 x 50 cm	0.80	0.60	0.50	0.24	16	Dosing kit, aluminium, suction side - Code 10302-1/1	Water Supply
Case 6, 120 x 80 x 72 cm	1.20	0.80	0.54	0.52	68	Treatment, NaDCC tablets - Code 1 0304-1/1	Water Supply
Case 6B, 120 x 80 x 54 cm	1.20	0.80	0.54	0.52	160	Oral rehydration salts - Code 30901-1/1	Sanitation
Case 7, 120 x 80 x 112 cm	1.30	0.83	1.02	1.10	145	Potties for excreta disposal - Code 20806-1/1	Sanitation
						Bedpans for excreta disposal - Code 20807-1/1	Sanitation
Case 8, 190 x 80 x 112 cm	1.90	0.80	1.12	1.70	474	4 x Tank storage, bladder, 10m ³ - Code 10401 - 1/1	Water Supply
Case 9A, 120 x 80 x 54 cm	1.20	0.80	0.54	0.52	71	Backpack sprayers for disinfection - Code 20808-1/2	Sanitation
						Spraying, safety equipment - Code 20808-2/2	Sanitation
						3 X Sphere Handbook in English - Code 31001-1/1	Sanitation
Case 9B, Zarges 120 x 80 x 66 cm	1.20	0.89	0.65	0.69	115	Hygiene Promotion Kit - Code 30701-1/1	Hygiene
						4 X Sphere Handbook in English - Code 31001-1/1	Hygiene
Case 10A, 120 x 80 x 52 cm	1.20	0.80	0.54	0.52	110	Fittings - Adaption Kit	Water Supply
						2 X Tool kit, engineers - Code 10501-1/1	Water Supply
						3 X Sphere Handbook in English - Code 31001-1/1	Water Supply
Case 10B, 120 x 80 x 52 cm	1.20	0.80	0.52	0.50	53	Hand-washing containers - Code 30401-1/1	Sanitation
Case 11, 120 x 80 x 88 cm	1.20	0.80	0.88	0.84	190	Treatment, PUR sachets - Code 10305-1/1	Water Supply
Case 12, 120 x 80 x 135 cm	1.20	0.80	1.35	1.30	325	Water treatment unit, 4m ³ /h, box 1 - Code 10303-1/2	Water Treatment
Case 13, 120 x 80 x 135 cm	1.20	0.80	1.35	1.30	215	Water treatment unit, 4m ³ /h, box 2 - Code 10303-2/2	Water Treatment
Case 14A, 120 x 80 x 74 cm	1.20	0.80	0.74	0.71	120	Tank, storage, onion 30m ³ - Code 10403-1/1	Water Supply
Case 14B, 120 x 80 x 74 cm	1.20	0.80	0.74	0.71	120	Tank, storage, onion 30m ³ - Code 10403-1/1	Water Supply
Case 15, rolls 210 x 85 x 55 cm	2.10	0.85	0.55	0.98	288	Plastic sheeting, rolls - Code 20804-1/1	Sanitation

Case 16, 120 x 80 x 38 cm	1.20	0.80	0.38	0.36	113	3 x Layflat hose 2" w/fittings - Code 10202-1/1	Water Supply
Case 17, 120 x 80 x 94 cm	1.20	0.80	0.94	0.90	180	Cloth, multipurpose - Code 30904-4/4	Hygiene

PALLETS	L	B	H	m ³	Kg	Contents	Modul
Pallet 1, 120 X 100 X 115 cm	1.20	1.10	1.15	1.52	270	5 x Suction hose 2" w/fittings Code 10201-1/1	Water Supply
Pallet 2A, 120 X 80 X 95 cm	1.20	0.80	0.95	0.91	244	Distribution, tapstands Code 10203-1/1	Water Supply
Pallet 2B, 120 X 80 X 74 cm	1.20	0.80	0.74	0.71	107	Distribution, tapstands Code 10203-1/1 - Suction Hose	Water Supply
Pallet 3A, 120 X 80 X 92 cm	1.20	0.80	0.92	0.88	190	2 x Water pump, diesel, Code 10101-1/1	Water Supply
Pallet 3B, 120 X 80 X 92 cm	1.20	0.80	0.92	0.88	190	2 x Water pump, diesel, Code 10101-1/1	Water Supply
Pallet 4A, 120 X 120 X 174 cm	1.20	1.20	1.74	2.51	342	Container, bucket with lid and tap Code 30902-1/4	Water Supply
Pallet 5A, 120 X 120 X 175 cm	1.20	1.20	1.75	2.52	342	Container, bucket with lid Code 30902-2/4	Water Supply
Pallet 6A, 185 X 126 X 218 cm	1.85	1.26	2.18	5.08	1033	Rapid latrine superstructure, Code 20803-1/1	Sanitation
Pallet 6B, 185 X 126 X 218 cm	1.85	1.26	2.18	5.08	1033	Rapid latrine superstructure, Code 20803-1/1	Sanitation
Pallet 7, 185 X 126 X 210 cm	1.85	1.26	2.10	4.90	965	Rapid latrine superstructure, Code 20803-1/1	Sanitation
Pallet 8A, 120 X 80 X 187 cm	1.20	0.80	1.95	1.87	300	Squatting slabs, dry pit Code 20801-1/1	Sanitation
Pallet 8B, 120 X 80 X 187 cm	1.20	0.80	1.95	1.87	300	Squatting slabs, dry pit Code 20801-1/1	Sanitation
Pallet 8C, 120 X 80 X 187 cm	1.20	0.80	1.95	1.87	300	Squatting slabs, dry pit Code 20801-1/1	Sanitation
Cases and pallets, volume and weight				46.82	9505		

Table 3.4: Overview of the equipment stored in warehouse in Hyderabad (Source: RDF)

S.No	Item Name	Quant	Remarks
1	4m 3 Mobile Water Treatment Unit	07	6WTU used & 1 New
2	Sand Filter	07	WTU 2 filter 1 is Sand filter &
3	Corbin Filter	07	2 is Carbon filter
4	Static Mixer	14	WTU parts
5	Coagulation	07	WTU Parts
6	Flocculation	07	WTU Parts
7	Tank onion 30m3	02	
8	Onion Tank 15000L	02	1used & 1New
9	Onion Tank 10000L	01	
10	Pillow Tank 20000 L	04	3 New & 1Used
11	Pillow Tank 10000L	08	With 2''Lay flat hose pipe, ground Sheets
12	Pillow Tank 5000L	01	Used
13	Water Tanks 500 Gallon Super Tuff	03	Used
14	Transport Bladder Tank 3500L	02	
15	Transport Bladder Tank 5000L	02	
16	Diesel water pump Engine	05	3Used 2 New
17	Petrol water pump engine Honda	21	12 New & 9 Used
18	Springhouse Pipe 2'' inch pieces with fitting	120 Pieces	42 New 78 Used different size
19	Lay flat hose 2''Blue with fitting 50meter roll	09	WTU Pipes for installation
20	Springhouse Pipe 2'' inch pieces 30meter Roll without fitting	09	WTU Pipes for installation
21	Lay flat hose 2''Black without fitting 100meter roll	06	WTU Pipes for installation
22	Lay flat hose 2''yellow without fitting 50meter roll	03	WTU Pipes for installation
23	Box/coupling 3 valves & other fitting	01	
24	Tool box with tools	12	06Used 6New
25	Aluminum Sylph Granaries	10	For WTU
26	Tap stands with all fitting	38	For Emergency Common Taps
27	Treatment Aqua tab granules	04	For WTU

28	Backpack sprayers for disinfection	08	Emergency Latrine Washing
29	Spraying safety equipment	08	''
30	Chemical measuring kit	01	For WTU
31	Dosing Alumium Suction side	02	For WTU
32	Lay flat hose 2'' with fitting	02	Box
33	Latrine Digging Tools	02	Box
34	Tank Storage 45m Liner	02	45000L Storage Tank Emergency
35	Tank Storage 45 m Roof	01	''
36	Tank storage 45m Steel Sides	00	
37	Potties for excreta disposal	1000	
38	Bed pans for excreta disposal	20	
39	Treatment NaDce Tablets	15	For WTU
40	Aqua tab Granules	04	For WTU
41	Oral rehydration Salt	50	
42	Plastic collapsible water container for Hand Washing	1000	
43	Fitting Adaption kit	02	Box
44	Toolkit Engineers	06	For WTU Installation
45	Water Quality Testing		
46	Chemical Measuring kit	01	For Water Testing
47	Testing Pool tester Chlorine/PH	02	Water testing
48	Squatting Slab Pour flush adaptor	210	
49	Plastic Sheeting rolls	23	Tarpaulin sheet for emergency Latrine
50	Continued	2Box	
51	Reference Books	06	Sphere, Phast, Facts for life act
52	Power Megaphone & one liter jar	07	
53	Fellower Match	01	

Appendix 2:

List of persons met and contacted.

List of persons met with and contacted by the Evaluation Consultant:

(All are listed with family names last, largely in sequence of appearance)

Name	Position	Institution
Oslo and Geneva		
Ms. Therese Vangstad	Programme Officer	Department for Development Policy, Norwegian Church Aid (NCA), Oslo
Mr. Kristofer Stålhammar	WASH Advisor	International Department. NCA, Oslo
Mr. Michele Vecchi	WASH Advisor	---“---
Mr. Manfred Artl	WASH Advisor	---“---
Ms. Gudrun Bertinussen	Former Team Leader	---“---
Ms. Åshild Skare	WASH Advisor	---“---
Ms. Benedicte N. Hafskjold	WASH Advisor	---“---
Mr. Arild Isaksen	Emergency Coordinator	---“---
Ms. Renata Marie Ellingsen	WASH Team Leader	
Mr. Trond Sigurd Briseid	Procurement and Logistics Advisor	Logistics Department, NCA Oslo
Ms. Corinna Schüttler-Kvarme	Sr. Procurement and Logistics Advisor	---“---
Mr. Tor Valla	WASH Roster Advisor	Oslo Water and Sewerage Works
Mr. Alexander Szabo	---“---	Freelance consultant; Malmö, Sweden (Skype)
Ms. Bente Havik	---“---	Norwegian Geotechnical Institute (NGI)
Mr. Vidal Ellingsen	Special Advisor/Director	Norwegian Emergency Preparedness System (NOREPS), Innovation Norway, Oslo
Ms. Claudia Perlongo	WASH Officer	UNHCR, Geneva
Mr. Dominique Porteaud	Global WASH Cluster Coordinator	UNICEF, Geneva
Ms. Astri Endresen	Representative	Norwegian Embassy, NOREPS, Geneva (telephone)
Mr. Steinar Langedahl	Chief Operating Officer	Lunner Producter AS (Lupro) (telephone)
South Sudan		
Mr. Dave McEntee	Head of Operations	NCA, Juba, South Sudan
Mr. Paulos Yoseph	WASH Emergency Coordinator	---“---
Mr. Bent Simonsen	Emergency Coordinator	---“---
Mr. Taban Charles Ladu	Logistics Coordinator	---”---
Mr. Paco del Pozo	WASH Advisor	OXFAM, Juba
Mr. Absalon Augustin Tombe	WASH Programme Manager	CARD (Community Agency for Research and Development), Nimule Town
Ms. Acia Christine Jackson	Finance/Admin. Officer	---“---
Mr. Abraham Thon	Chief, Camp Spokesman	Melijo Camp (outside Nimule)
Ms. Amen Rabecca Deng Ajith	Hygiene Advisor	---“---
Various	Camp residents	---“---
Ms. Julia ??	Hygiene Advisor	Don Bosco Camp, Juba
Mr. Joseph Avelino Otto	Project Coordinator	SUFEM (Sudanese Fellowship Mission)
Ms. Rejoice Lula Winston	Hygiene Promoter	---“---
Mr. Marco Allan	WASH kit Operator	Gumuruk Town
Various women fetching water	Town residents	---“---
Mr. John	County Clerk (translator)	---“---
Mr. Majdi Abdurahaman Kalo	Emergency Officer (translator in Gumuruk)	NCA, Juba
Mr. Vikas Goyal	WASH Cluster Coordinator	UNICEF, Juba
Ms. Autumn Petersen	WASH Cluster Co-	Medair, seconded to UNICEF, Juba

	Coordinator	
Mr. Mathias Ntawiha	WASH Officer	UNHCR, Maban County, Upper Nile State (Skype)
Mr. Gasper Bunj	Supply Officer	UNHCR Representation in South Sudan, Juba (info relayed by email through Mr. Gebrewold Petros Yohannes, Public Health Officer)
Pakistan		
Ms. Tamseela Amin	Security Officer	NCA, Islamabad (Skype)
Mr. Ihsan Ullah Khan	WASH Advisor	---“---
Mr. Masood Ahmed Maheser	Executive Directive	Research and Development Foundation (RDF), Hyderabad
Mr. Asif Jatoi	M&E Coordinator	---“---
Mr. Arshad Ali Danwar	Head of Finance & Admin	---“---
Mr. Abdul Sadiq	(Ex) WASH Engineer	---“---
Mr. Ali Dino	Project Assistant	---“---
Mr. Abdul Rehman Memon	WASH Engineer	---“---
Mr. Khawand Siyal	M&E Associate	---“---
Mr. Tarique Ahmed	Project Manager	DRF Project Office, Tando Allah Yar Khan Town
Ms. Rukhsane Jarovar	Community Mobiliser	---“---
Ms. Momal	Villager	Dargah Rahu Village, Tando Allah Yar District
Various	Villagers	---“---
Various	Villagers	Khadim Hussain Thebo Village, Tando Allah Yar District
Mr. Deedar Mangrio	Project Manager	RDF, “ <i>Inclusive and child friendly education</i> ” project, Tando Jam District
Ms. Shabnam Baloch	Project Officer/School Advisor	---“---
Mr. Noor Hasan	School Head Teacher	Government Primary School, Nawab Khan Jatoi
Ms. Jameela	Grade 3 pupil	---“---
Mr. Satram	Grade 5 pupil	---“---

Appendix 3: The Consultant's Terms of Reference and Itinerary

Term of Reference for the Evaluation of the NCA emergency WASH-kit

About Norwegian Church Aid

Norwegian Church Aid (NCA) works with people and organisations around the world in their struggle to eradicate poverty and injustice.

We provide **emergency assistance** in disasters and work for **long-term development** in local communities. In order to address the root causes of poverty, we **advocate for just decisions**.

Background

NCA has a long history as WASH actor in emergencies and development context. Since 2011, NCA has been using a specific WASH-kit for emergency situations composed of 4 modules (water purification, water storage and distribution, sanitation, hygiene promotion) The WASH-kit is in accordance to specifications outlined by the Global WASH Cluster.

NCA is a partner with the Norwegian Emergency Preparedness System (NOREPS), supported by the Norwegian Ministry of Foreign Affairs. In an agreement between NOREPS, UNHCR and NCA, NCA is also prepositioning WASH kits for UNHCR.

The WASH-kits are pre-stocked in Oslo, Dubai and Malaysia warehouses and shipped where needed.

NCA is now looking forward to an external evaluation with special focus on the effectiveness of the use of the kit in emergency operations.

Objective of the evaluation

1. History, use and effectiveness of the WASH-kit
 - 1.1. Establish an overview over the WASH-kits that have been shipped to this date (year, place of use, kind of use, timeliness, cost, logistic challenges, relevance, results achieved, cost-effectiveness, actual status of the single kit).
 - 1.2. Overall cost-effectiveness of the WASH-kit, e.g. is there a recurrent situation we encounter in the shipment/utilisation of the WASH-kit; total cost purchase-shipment-handling vs beneficiaries reached?
 - 1.3. Evaluate the technical performance of the kit in the field (perception of the users/operators: quality of the components, quality of the outputs, quantity of the outputs, suitability of the kit in the different cultural contexts). Is it reasonable to expect that a single kit can serve 5,000 beneficiaries as designed?
 - 1.4. Recommendation for most appropriate future use of the WASH-kit (example: pre-stocking, local procurement, ahead of time custom clearance); comparison with similar kits from others agencies (OGB, IFRC, ACF etc.), if possible within the time frame of the assignment.
2. Technical components and practicalities of the field use of WASH-kits
 - 2.1. Review the appropriateness of the components of the kit (based on point 1. findings).
 - 2.2. To evaluate the NCA internal process/chain leading to the decision to ship a WASH-kit into a disaster area.
 - 2.3. To develop a proposal for internal procedures to guide the release and dispatch of the WASH-kit (and/or its modules) – linked to previous point.
 - 2.4. To evaluate the 'contract/MoU' between NCA and the recipient body (verify if all aspects of provision, transport, installation, monitoring, reporting and decommissioning of the installation are covered and properly illustrated).
 - 2.5. To provide comments on the NCA – UNHCR 'contract/MoU' with regards to the provision of WASH-kits to UNHCR in relation to the findings on the points above.

Methodology of the evaluation

- Definition of indicators for the 'objective of the evaluation'
- Desk study in Oslo – analysis of NCA documents, interviews with people involved in the WASH-kit process (in Oslo and in the field including NCA roster members and users/operators); introduction to external stakeholders.

- Field visit
- Skype conference with UNHCR (Genève) and/or other NGOs with similar kits

Expected outputs

Written report, in English, following the points under “objective of the evaluation” with use of visual tools for illustrating the findings/analysis/solutions to the assignment.

Target audience

The report of the assignment is intended primarily for NCA International Department in Oslo. The report will be shared with donors funding the WASH-kit and other relevant stakeholders

Timeframe

Up to 25 days in total, to be completed by the end of February 2015

Resources available

Office space in Oslo and in field office
NCA documentation

Recruitment process

The selection of the candidate will follow the steps below:

1. Reception of the candidatures. Short list according the following documents:
 - CV
 - Motivation letter
 - Draft of Work plan
 - Detailed compensation expected (amount per day and any other fee)
2. Evaluation of detailed work plan (based on additional information - shortlisted people only)
3. Selection of the candidate

Initial Itinerary for the Consultant in South Sudan.

(Some changes were made on the way)

No	Activity	Date	Time	Remark
1	Meeting with OXFAM Office	Mon, 23/02/2015		
2	Traveling to Nimule	Tue, 24/02/15	09:00AM-11:30Am	
3	Visiting Melijo IDP camp and meeting with WASH implementing partner called CARD	Tue, 24/02/15	12:30AM-02:30PM	The meeting will be done after the visit
	Traviling back to Juba	Wed, 25/02/15	08:00 AM-11:00Am	
4	Visiting Don Bosco IDP camp	Wed, 25/02/15	02:00PM-03:00PM	
5	Traveling to Gumuruk to visit the Water purification unit	Tue, 26/02/15	08:00AM-03:00PM	The ground time in Gumuruk will depend on the agreement made with the flight chartering company
6	Meeting with UNHCR	Fri, 27/02/15	09:00AM-10:00AM	Yet to be confirmed
7	Observer in the WASH Cluster meeting	Fri, 27/02/15	11:00 am	
8	Meeting with the WASH cluster coordinator	Fri, 27/02/15	11:00AM-12AM	Yet to be confirmed
9	Meeting with NCA logistics staff Inspecting the NCA WASH store	Fri, 27/02/15	Afternoon	

Initial Itinerary for the Consultant in Pakistan

TENTATIVE SCHEDULE FOR WASH Consultant, Tore	Focal for the trip	Ihsan Ullah	0092-345-8551203
	Security Focal	Tamseela Amin	0092-345-8551293

Date	Day	Time	Engagement	Location	Concern Persons	Accommodation
02-Mar-15	MON	7:30 A.M To 11.00 A.M	Travel to RDF Office at Hyderabad	Karachi To Hyderabad	Ihsan Ullah	Indus Hotel Hyderabad
02-Mar-15	MON	12.00 P.M To 04.00 P.M	Travel to Tando Allah Yar Khan for field visit of WASH projects (two villages rural development)	Hyderabad	Ihsan Ullah	
02-Mar-15	MON	04.00 P.M To 5.00 P.M	Travel to Hyderabad	Hyderabad	Ihsan Ullah	
03-Mar-15	TUE	9.00 A.M To 5.00 P.M	Meeting at Office and Visit to WASH kit warehouse	Hyderabad	Ihsan Ullah	Indus Hotel Hyderabad
04-Mar-15	WED	9.00 A.M To 01.00 P.M	Visit to government primary school project	Hyderabad	Ihsan Ullah	Indus Hotel Hyderabad
04-Mar-15	WED	01:00 – 16:00 AM	Travel back to Karachi	Hyderabad to Karachi	Ihsan Ullah	Ramadah Hotel
05-Mar-15	THU	9.00 A.M To 5.00 P.M	Compiling of info, report writing.	Karachi	Ihsan Ullah	Ramadah
06-Mar-15	FRI	6:25 am	Departure from karachi	Karachi	Ihsan Ullah	Check out Ramadah

Appendix 6:

Comments to the Draft Report

COMMENTS FROM NORWEGIAN CHURCH AID

Memo

To:
Tore Laugerud

Prepared by:
Therese Vangstad /Department Staff Development Policy

Copy:
Renata Ellingsen



NORWEGIAN CHURCH AID
actalliance

Norwegian Church Aid
Aide de l'Eglise Norvégienne
Ayuda de la Iglesia Noruega
www.nca.no

Subject 2015 Feedback on draft report WASH-kits

Thanks for a very good draft report. This report provides us with the opportunity to make even better use of the WASH-kits so that our service can benefit even more people in a dignified way. We would also like to thank you for the flexibility you have shown during the process.

We have structured our comments according to your request. A majority of the team members have been involved in providing feedback. If there is still something that is unclear regarding our comments/corrections, please contact Kristofer and/or Åshild for issues concerning technical aspects and Renata and Arild for general issues regarding internal decision making and the relationship with UNHCR and so on. Corinna is available for questions regarding logistics.

Some "bigger" questions:

- Please use the right name of the team: WASH and humanitarian response team.
- Your statement" appendix 1 table 2.1 shows how many of the WASH kits that were delivered, from where, to whom (consignee), reasons for shipment, mode of shipment, freight cost and value of shipment. The table also shows the date of shipment, but does not list the dates of arrival at destination (meaning the location to which NCA retain the responsibility of the kits - DAP (Delivered At Place), or DAT (Delivered At Terminal)). However, this date is not very important as shipping by air normally takes 2-4 days."
- > We believe it would be important to include information on DAP/DAT since this will give us the full picture of how short/long the kit takes to be operational. Is it possible to add 1 column to the table?
- Further; is it possible to know how many kits have been used according the original plan (the one that originated the shipment) and how many have been "redirected"?
- Would it be possible to provide/include an overview of which items have been used and which have not for the different areas where the WASH kits/modules have been shipped?

"Smaller" issues:

- Throughout the report and appendices, one need to clear out the terminology between GWC, WASH clusters at national/regional/local level as well as coordination.
- "Katastrofeutvalget" =NCA Emergency committee meeting.
- In general, and as you will see bellow, we miss some belegg/documentation of some of the observations and associated recommendations, like i.e. the PVC taps and also an overview of the overall use of the equipment in the field – maybe you can elaborate a bit on those.

Page	Paragraph	Comments
2		Unclear sentence; "..., but will be the donor funding the WASH kit and other relevant stakeholders"
4	1.1	NCA started to work on water in South Sudan in the 1970's.
4	1.5	GWC is active in countries of emergency, and on the global arena
4	1.8	NCA does not have 10-12 kits ready for shipment at any time. It would be more correct to say that "NCA has 10-12 WASH kits ready for shipment on an annual basis"
4	1.10	Leading/coordinating a (regional) WASH Cluster in Eastern Equatorial
4	Points 6 and 8	<p>Point 6: "All partners obviously pursued their own organization's interest and promoted own country's equipment."</p> <p>If we are going to use this report for discussions with the WASH Cluster I think this formulation should be changed. There were several reasons for the halt in the project, as mentioned later in the report.</p> <p>Point 8: Should be corrected to "Originally it has been NCA's objective to have at any time 10-12 WASH-kits ready for shipment from warehouses in Norway, Dubai and Malaysia (the two latter operated by UN Humanitarian Response Depot (UNHRD). Due to the yearly funding mechanism and long delivery times from LuPro the number of kits in the warehouse has varied. 3 kits per year are earmarked UNHCR. The kits are pre-paid by the Ministry of Foreign Affairs (MFA) through NOREPS and are (normally) given away as in-kind contribution in emergencies."</p> <p>Same should be repeated on page 9.</p>
5	2.10	It is mentioned that it is impossible to ship equipment from one country that has received from previously emergencies to another. However, this just happened with the case of Zambian equipment being sent to Malawi. Should be changed or mentioned.
5	2.16	<p>Remember that a combination of technologies must be used. E.g. in case of high turbidity (NTU >100, for ex 1000), then must do pre-treatment to reduce NTU to below 100, or as far as to <20. In the latter case of <20 NTU, it would be possible to do chlorination and supply water directly - surpassing the water treatment units.</p> <p>Can you elaborate more on this point? It's very important to understand if the WPU was not properly installed or if the sedimentation process was not well designed or if the WPU has a lower capacity than the one declared by supplier. See comment below regarding 2.3.3</p>
5	3.8B	<p>Which kind of hh/school/HC water treatment do you consider appropriate?</p> <p>Can you elaborate more on the issue of automatic chlorination? Some data to have a better view and take decision?</p>
6	13	At the HO we have 9 team members plus team leader. We have more staff outside of

		Oslo as well as in the field offices.
6	14	"There should always be a secondment assessment.." UNHCR challenged NCA in a meeting in Oslo some years ago to always include personal with WASH kits
6	3.9A	<p>PVC taps: This statement should be based on provided data/statistics of how many taps are of poorer quality... experience shows that all types of taps available could be leaking water. As an anecdote, also MSF metal taps are also leaking from times to times.</p> <p>What observations or collected data supports this: how many taps (out of how many) are broken? How long in operation before broken? Do you have corresponding data for the metal taps to make this conclusion? I have also seen both types leaking.</p>
6	3.9B	Arsenic testing kit: This is very context based. Should only be made available for where relevant – for example, Bangladesh, Bolivia, Argentina.
6	3.9B	<p>Salinity testing kit: This is very context based. The WASH kits comes with an electrical Conductivity measurement tool which can be used for this: http://www.fivecreeks.org/monitor/sal.shtml http://www.appslabs.com.au/salinity.htm</p> <p>However in areas where there is obvious risks of saline groundwater (Bangladesh coastal areas), yes it could be supplied.</p> <p>Is saline a synonym of brackish? If so, it's common also in South Sudan, Somalia, Uganda East Africa in general I'd say</p>
6	3.9B	<p>Not clear which type of the bladder tanks being discussed... 5m3 or 10m3?</p> <p>The idea was to use bladders fitted on lorries for water trucking?</p>
6	3.10B	Good point about showers – for team discussion
6	2.13	The point is: We are understaffed at country office / regional level, not in necessary in Oslo.
9	1.1.2	Comments on 10-12 complete WASH kits available. Perhaps use wording “aiming”
11	1.3.1	Last para UNHDR should be UNHRD
11	1.3.2	Instead of " UNICEF has 20-30 clusters " it should be" UNICEF, as GWC lead agency, has initiated 20-30 clusters...."
12	1.3.2 side 12, 2. Para	"the WASH Cluster is dormant", and replaced by a working group.
13	2.1 (table)	<p>Column for Syrian Refugees: Two water purification units, chemicals, tapstands, bladder- and onion tanks donated to IMC (International Medical Corps).</p> <p>Philippines: Three cases stolen” should be “three cases disappeared”</p>
14	2.1.1	Ref to table 2.1 in appendix 1. I think that DAP/DAT is an important info to have, correlated to custom clearance time; this will give us the full picture of how short/long the kit takes to be operational. Is it possible to add 1 column to the table?

		Is it possible to know how many kits have been used according the original plan (the one that originated the shipment) and how many have been “redirected” (for which the wash team has found an use not foreseen at time of shipment)?
15	2.1.2	4 para: "training in the use of WASH kits " is part of the NCA support to UNHCR
16	2.1.2	Last para "WASG" should be replaced with WASH
16	2.2	Last para: "meansshipping" should be "means shipping " 3 rd line " are of the opinion that this is (not?) a viable option"
17	2.2	3 rd para; cost of air transport an important factor as well
17	2.3.1	2 nd para; The intention is that the WASH kits are meant for the initial Phase of an emergency operations as a complete package in order not to use time and efforts to purchase local material. When the response has started, local procurement should soonest possible replace importation of relief artices, if possible
18	2.3.1	Not correct that these latrines are not suitable in Asia with regards to squatting practices.
18	2.3.2	It is not mentioned at what level of turbidity the water is at, only “too turbid”. It is not indicating NTU <5, NTU 5-20, NTU 20-100, NTU >100. Also referring to floods in 2011/12 when the partners (operators) clearly not remembering the situation. These two background data sources are not precise enough to make good conclusions. Hence, for example the conclusions to include extra bag of sand might not be relevant.. This is a matter of how you operate the system. In Chad the turbidity of the raw water was >>1500 NTU. We pre-treated the raw water in the onion tanks by coagulation using the alum-sulphate from the WASH kit. The turbidity of the water entering the WTU was <50 NTU. The system was operated at a capacity of around 3,5 m3/h. The maximum capacity (4 m3/h) is a theoretical value which is difficult to obtain regardless of the turbidity. In general, the capacity over time will depend on the backwashing of the WTU.
19	2.3	Last para ; " UNICEF WASH Coordinator" = Global WASH Cluster Coordinator?
22	3.2A	Use the terminology Hygiene promoters/mobilizers WASH promoters instead.
22	3.2.1	Para 3 " However, the numbering of the pallets and so on.. The pallets and numbering should absolutely be more logical. However, the reason behind the irregular numbering, was to lower the number of cases and reduce the volume. Accordingly, some items were packed inside other cases.
23	3.2.1	The division of the two modules of water is thought thoroughly. It is a possible scenario to deploy only water supply module without water treatment module. They are not dependent of each other. The rational of division is simply that in the process of <i>de-modeling</i> it is natural to look at what type of raw water sources we have got, simplified; 1. Any water - turbidity <20 or <5 NTU; Only Chlorination

		<p>2. Surface water - low turbidity <100 but >20 NTU; Possibly WTUs + Chlorination</p> <p>3. Surface water - high turbidity, >100 NTU; Pre-treatment+(WTUs)+Chlorination</p> <p>4. Ground water - low turbidity, <20 or <5 NTU; Chlorination</p> <p>5. Any existing network >> (Pre-treatment) + Possibly Chlorination</p> <p>Note this is simplified and there might be many other options depending on the water source and results from a water resources assessment.</p> <p>Remember, NCA is in the process of acquiring a groundwater module to be stored in Oslo.</p>
25	3.2.3	<p>Regarding taps leaking in turbid waters: The turbid waters should not have been sent to taps and been distributed for consumption. Hence this is a mistake from the operator's side. The problem with leakages in turbid waters is not relevant. I agree with Kristofer. I don't see why this is relevant as the water distributed to the taps should have low turbidity.</p> <p>Regarding the buckets: What's the magnitude of broken lids and taps?</p> <p>Regarding the transportation bladder: The transportation bladder fitted on a "normal" truck in Chad. How was it in South Sudan?</p>
27	3.2.4	<p><i>"It however seems that the best solution is to mix detergent/disinfectants with the water in the hand-washing container, and have a lockable lid on such containers (see the solution in Don Basco Camp, South Sudan)"</i></p> <p>Comment: Is the fact you need/should rinse the water from the fatty acids of the soap and lipids taken into account? E.g. How do you rinse the soap from the hands? Need clean water to do this afterwards.</p>
29	3.2.6	<p>Locally Procurement of items to the Hygiene module, is highlighted. However, on a large scale emergency – like in the Philippines, the market was "vacuum-cleaned" for such items by the local population. Even UNICEF had to procure such items from Thailand. An assessment - when access to the disaster area is highly limited is rather theoretical and would hamper the immediate distribution of relief. In a recovery phase, this would be more relevant.</p>
30	3.3.1	<p>Regarding under-staffing: Please use the word "expressed" instead of "complained".</p>
30	3.3.1	<p>1st paragraph "...before this time, the WASH ADVISOR. Next sentence Humanitarian Response TEAM (vs unit). Last sentence same paragraph: "The first TL had the position up to August 2013 (not 2014), when a new TL took....up to October (not August).</p> <p>2nd paragraph: the WASH and humanitarian team comprises 9 persons plus TL (vs 5).</p>
	3.3.2	<p>2nd paragraph, 4th line....the TL will through a variety of communications means (vs phone and Skype).</p>