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Emergency Plan of Action (EPoA) Cuba: Drought

 International Federation
of Red Cross and Red Crescent Societies

DREF Operation	MDRCU003
Date of issue: 2 June 2016	Date of disaster: May 2016
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Operation start date: 27 May 2016	Expected timeframe: 3 months
Overall operation budget: 194,508 Swiss francs (CHF)	
Number of people affected: 500,000 people	Number of people to be assisted: 10,000 people (2,000 Families)
Host National Society presence (n° of volunteers, staff and branches): 1 National Headquarters, approximately 1,000 staff members, 45,000 volunteers, and 15 province and 168 municipal branches.	
Red Cross Red Crescent Movement partners actively involved in the Operation: Norwegian Red Cross.	
Other partner organisations actively involved in the Operation: Cuban Government agencies: Ministry of Civil Defence, National Water Resource Institute, Ministry of Public Health, Ministry of Foreign Trade and Investment	

[<Click here for the DREF budget. Click here for the contact information>](#)

A. Situation Analysis

Description of the Disaster

A long uninterrupted drought combined with heavy unseasonable rains attributed to the El Niño phenomenon, climate change and the increase in earthquakes over the past two months augur difficult times for Cuba. In recent years, rainfall patterns during both the dry and rainy seasons have failed to reach normal historical values, which has caused diminished groundwater resources, and the drying up of the rivers and dams on which the population relies for its water supply.

Cuba is now under the effects of climate change, especially rising temperatures and the scourge of severe drought, considered the worst in the last 115 years. It is well known that a hydrological year with an annual rainfall average below 78 per cent will generate conditions that lead to this threat emerging and continuing the next year. The low levels of accumulated rainfall for more than 12 months in the country has caused country reservoirs to drop to 38% of their capacity, 98 are below 25 per cent and 26 are completely dry.

National Water Resource Institute (INRH) authorities reported that the situation is becoming more complex and critical due to the extended dry period, and dam levels continuing to drop. The drier groundwater basins are located in the eastern regions, especially in the province of Santiago de Cuba, which has a population of 1,057,404 inhabitants, 71 per cent of them in urban areas and 28.9 in rural areas. With less than 30 per cent of water capacity in reservoirs and rainfall dropping below historical averages, this region is currently facing one of the most severe droughts in the province's and the country's history.

The province of Santiago de Cuba has nine municipalities, four of which are the most affected: Santiago de Cuba, Palma Soriano, Ill Frente and Guamá, affecting approximately 520,560 people (94,000 families), mostly in urban areas, which are the ones most affected by the drought.

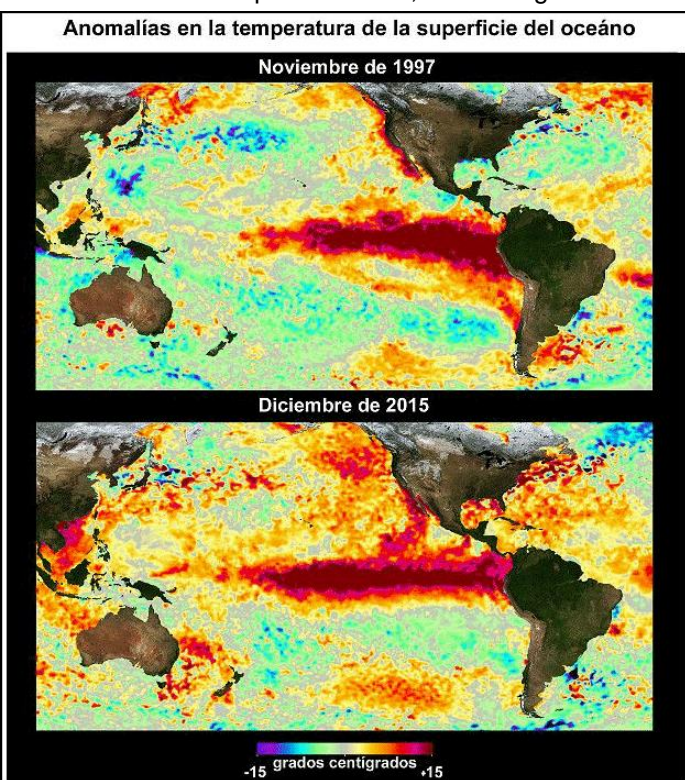
May is considered the rainiest month in Cuba (start of the rainy season), but the few rains that have fallen in the country have been reduced by climate variability, particularly in Santiago de Cuba. The beginning of the May-October rainy season is being affected by the El Niño-Southern Oscillation event that took place in the equatorial Pacific Ocean since early 2015, which reached the category of strong as of November of that same year. Currently most models predict a transition towards a neutral phase during the northern hemisphere's spring, with an increased chance of La Niña occurring during the second half of this year. Usually when a strong El Niño event declines in the equatorial

Pacific, rains in Cuban territory during the onset of the rainy season tend to be below average, primarily during the May-July quarter. However, it must be noted that not all El Niños behave in a similar manner, as these in turn are conditioned by other oceanic-atmospheric circulation patterns.

The government has been providing water through water trucking; however, the extended drought has stretched its capacity to the point that a relief intervention is needed. In this regard, the communities' greatest need, as identified by government authorities, is that the population lacks containers to store water and meet household needs. The provision of 1,500-litre tanks to increase water storage capacity has been identified as a priority, other actions include providing 200-litre tanks and 10-litre buckets to families to store drinking water.

El Niño forecasts for 2016

The current El Niño phenomenon, which began in late 2014, remains strong and very similar to the El Niño in 1997-1998 - the strongest in history. The following illustration provided by the National Aeronautics and Space Administration (NASA) offers a comparison between the warming in central equatorial Pacific Ocean in November of 2015 and that in November 1997 (Figure 4).



This El Niño should remain strong in the northern hemisphere during the winter of 2015-2016 (December to February), after which a transition toward neutral conditions will occur in late winter or early summer (May to July 2016). In Cuba, the consequences of El Niño are mainly manifested through drought during most of 2016.

May has demonstrated an exceptional rise in the air's average temperature across the country in comparison to that of the previous decade, while anomalies and deviations compared to that same period during the previous year were positive.

In general, maximum and minimum average air temperatures have risen in comparison to those in the previous decade, with values ranging between 32.5 and 32.8° C and 22.4 and 23.3° C, the nationwide average.

Illustration: Comparison of ocean temperatures for both events (El Niño 1997-1998 and El Niño 2015-2016)

Air temperatures by region

Regions	Avg. Temp. (°C)	Deviation with respect to:		
		Average	Prev. Dec.	Dec. of the prev. year
Western	27.6	+1.5	+2.2	+0.7
Central	27.6	+1.4	+2.0	+1.0
Eastern	28.0	+1.5	+1.4	+0.7
I. de la Juventud	28.0	+1.5	+2.8	+0.6

Note: + Values above – Values below

Western regions are from the province of Pinar del Río to Matanzas.

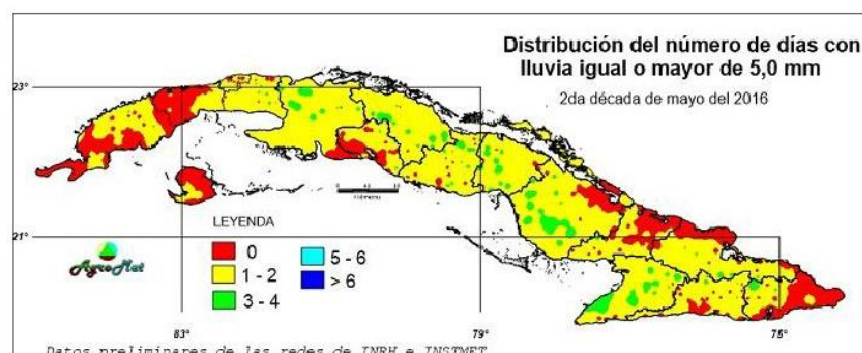
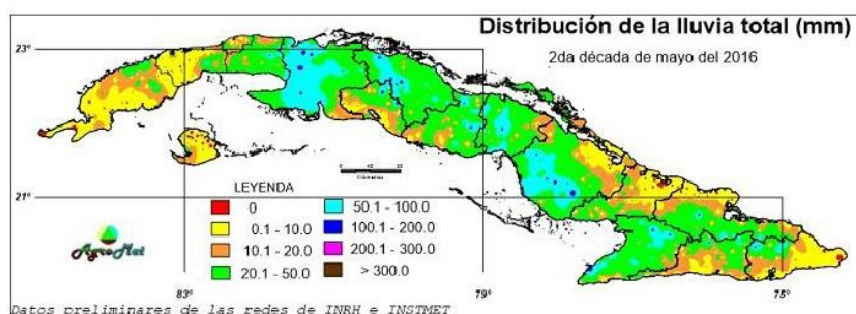
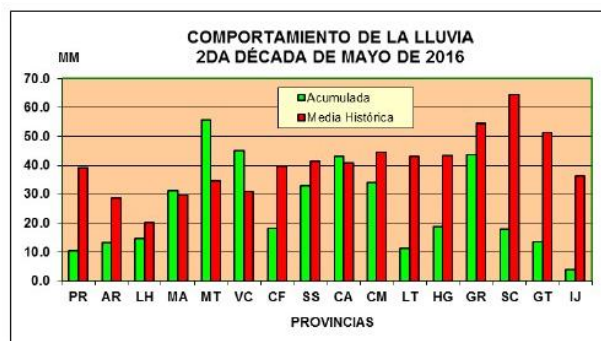
Central regions are from the province of Cienfuegos to Camagüey.

Eastern regions are from the province of Las Tunas to Guantánamo.

Over the past year, climate change has affected 75 per cent of the Cuban territory through a drought that is considered to be "severe to extreme", the worst in the past 115 years according to a study by the National Climate Centre (EFE). Water shortages have cost millions of dollars in lost crops, and families are forced to drink untreated or unfiltered water.

The second ten days in May have been drier than the first, with the greatest rain accumulation in the provinces of Matanzas, Villa Clara, Ciego de Avila and Granma and values ranging between 20 and 100 mm on average, while in the rest of the country these ranged between 0.1 and 50.0 mm.

Rains were associated with the warming of the day, to the influence of a low-pressure system in central and eastern regions, and to the presence of a *hollow* in the north-western coast.



SOURCE: AgroMet del Insmet, Cuba

Summary of current response

Overview of Host National Society

In the area of intervention (at the province level), the Cuban Red Cross (CRC) has one province headquarters (in the city of Santiago) and nine municipal branches with a staff of 32 people, as well as one 5-ton truck, two four-wheel drive vehicles and one motorcycle. In terms of storage, CRC has access to State warehouses, free of charge and with own security, in the province of Santiago that can be used in case of an emergency.

The province has 4,087 active volunteers (to December 2015) trained to conduct activities that include first aid, operations and relief, restoration of family links, youth section, psychological support, and water and sanitation.

CRC in Santiago has been actively participating in the planning and implementation of several community-level projects financed by the Norwegian Red Cross (called PRECOS, which stands for "Preparing Communities"). This province also was actively involved during hurricane Sandy response (in 2012 with funding from the Norwegian Red Cross, ECHO and the International Federation of Red Cross and Red Crescent) conducting humanitarian aid distribution and shelter activities, as well as conducting training in participatory methodologies such as safe roofs and water and sanitation.

CRC in Santiago is currently working and coordinating preparedness and response activities to drought and earthquakes with Civil Defence and the fire department.

Overview of Red Cross Red Crescent Movement in country

The International Federation of the Red Cross (IFRC) and the International Committee of the Red Cross (ICRC) conduct activities with the CRC on a regular basis, but without an actual physical presence in the country. This collaboration normally involves specific activities such as the development and financing of the HELP (health in emergencies in large populations) course by ICRC.

The Norwegian Red Cross has been present in Cuba since 2008, funding and technically supporting the Cuban Red Cross in a project called PRECO (**PRE**paring **CO**mmunities), which is currently in its fifth phase. During this time, there has been a permanent Norwegian Red Cross delegate in-country, making it the only National Society physically present in Cuba.

Overview of non-RCRC actors in country

Civil Defence in the province has a key role in the actions being conducted and has taken the drought threat very seriously.

The top government authorities is being conducted rigorously Coordination Meetings to make the review of activities in the Provinces, the meetings takes place every Saturday at 6 am to discuss unresolved problems and to make the appropriate decisions about how to better support the affected population for the drought. Additionally, the government has been providing water trucking to the affected communities.

At the population level, information flow with community representatives has been effective, most of the population is aware of both the problem and the mitigation actions being proposed. Despite the difficult situation, no widespread discontent has been detected during visits.

Needs analysis, beneficiary selection and risk assessment and scenario planning

1) National Water Resource Institute (INRH)

Description of drinking water supply to the city of Santiago

INRH is the regulatory and operating government agency in all matters concerning drinking water at the province level, with its office and delegation representation (Province) in the city of Santiago de Cuba. Its responsibilities include monitoring, operating and providing maintenance to drinking water networks in the province and in the city of Santiago, which is composed of 3 different systems:

Name of System	Hydrometric sectors	Population covered
Quintero System	26	404,788 inhabitants
Parada System	1	32,084 inhabitants and 26 industries
San Juan System	5	45,986 inhabitants

Table 1 Drinking water supply systems to the city of Santiago, INRH, 2016

It can be said that each of the systems listed in Table 1 consist of a number of rainwater and runoff collection sources (called reservoirs) that have been built for that purpose. Some of them are connected (through gravity) with each other, flowing over a system of pipes and channels (Sierra Maestra tunnel) to water purification plants (mainly flow measurement and addition of chlorine) and finally distributed from there to the population.

This distribution to the population is done by pumping water into large tanks, which in turn send the water to higher lying tanks, and from there water flows through gravity to the population.

The system of reservoirs in the province of Santiago (consisting of 11 reservoirs) was filled to its maximum capacity during hurricane Sandy in 2012, providing water for the next two to three years. Since 2013 rains in the area have been few, with a longer-than-normal drought period.

According to the INRH, the amount of rain that fell in 2015 was 76 per cent of the historic average throughout the province. In Santiago specifically, its reservoir system was filled to only 53 per cent of the historical average, having to almost immediately implement water rationing actions (called water cycles by the INRH) as of 2014.

Reservoirs	Total V (hm ³)	Vol. 31 Dec. 2015.(hm ³)		% Fill
		Forecasted	Actual	
C. M. de Céspedes	243.000	158.476	90.494	37.2
P. de Baraguá	250.000	129.986	73.660	29.5
Gilbert	59.670	8.346	11.400	19.1
Parada	34.200	2.200	2.196	6.4
Charco Mono	4.555	0.422	0.561	12.3
Chalons	0.950	0.580	0.380	40.0
Gota Blanca	83.600	21.951	18.211	21.8
Hatillo	5.840	3.300	0.822	14.1
Mícara	4.410	3.927	4.393	99.6
Joturo	2.381	1.998	1.898	79.7
La Majagua	1.702	1.702	0.621	36.5
Total	690.308	332.888	204.636	29.6

Table 2 Reservoirs in the province of Santiago, total capacity, actual and forecasted volumes to 31 December 2015 and percentage of filling. INRH, 2016

According to Table 2, at the end of 2015 the volume of water in all reservoirs in the province of Santiago was estimated to be at 29.6 per cent of their maximum capacity. Despite the reservoirs' limited capacity, INRH currently continues to provide drinking water to the more than 500,000 inhabitants of the city of Santiago.

As mentioned before a regime called "water cycle" has been implemented where different sections of the population currently receive drinking water for 24 hours (or less) and then have an interruption in the service from periods that can last from 1 to 20 days. The table below describes two examples of such delivery cycles:

Delivery cycles	Hydrometric sectors	Population
Between 9 and 10 days	Sector 1, José Martí	80,430 inhabitants
Between 12 and 14 days	Sector 1, Abel Santamaría	25,607 inhabitants

Table 3 Part of the delivery cycle table for the city of Santiago, INRH, 2016

According to Table 3, 80,430 inhabitants in José Martí receive water for 24 hours every eight or nine days. For the 25,607 inhabitants living in Abel Santamaría the situation is a little more severe, since they receive drinking water for 24 hours and will see their service interrupted for between 11 to 14 days.

This distribution system has led Santiago residents to seek solutions at the household level to increase their water storage capacity, since they know that in some cases they might not get water for approximately three weeks. During visits to residents of a sector called Micro III (area of José Martí in the city of Santiago), it was observed that five to six 200-litre plastic tanks were kept in the back of a second-floor apartment to supply water to a four-member household.

The need to have a constant supply of water, the fact that there are many multi-family buildings (five stories mostly), and the fact that there is one single 1000-litre tank for all five apartments, has forced the population to look for ways to increase water storage at the household level. This has led to families acquiring tanks of different sizes and materials and placing them "almost" everywhere in buildings, sometimes becoming a danger to the integrity and safety of the families living there and of the building itself.

According to INRH figures, the number of apartments in Santiago is 27,762 units within 1,264 buildings, all under the same delivery cycle. This creates the need for increased water storage capacity in each apartment.

INRH has its own water quality laboratory through which it monitors water quality on a monthly basis in the following points along the network:

- The first point that supplies the network before any treatment is performed
- Upon leaving the treatment plant
- Upon leaving to household-level networks

The physical, chemical and microbiological analyses conducted are according to national standards set by the government. The laboratory is accredited by the relevant authorities, so results obtained are reliable and traceable for subsequent verification.

2) Ministry of Education

The province has 1,171 schools at all levels serving a student body of 175,000, of which 492 are located in the areas most affected by drought (city of Palma Soriano, Santiago and Ill Frente). There are problems in schools related to the lack of water storage capacity that have seriously affected the learning process. School days have had to be shortened, asking students to attend either morning or afternoon sessions, and sending them home earlier than usual because toilets are not working to capacity.

The Ministry of Education in the province of Santiago has a tanker truck that transports and distributes water to schools, but given the large number of schools it is definitely not enough to fully meet the demand.

3) *Ministry of Public Health (MINSAP)*

There are 17 health institutions in the province, 16 of which are located in areas that have difficulty accessing drinking water, so they have had to adapt to its availability at any given time. However, INRH and Civil Defence have made an extra effort to prioritize water supply to institutions providing surgery, hospitalization and clinical services.

The province Ministry of Health has 350 technicians responsible for constantly monitoring the amount of chlorine (daily via a colorimetric method) in the drinking water network and to alert INRH if an absence of chlorine is detected in the network. This is done using a portable Chlorine Kit that determines, through colour, total chlorine and free residual chlorine presence. They are also responsible for monitoring water use at the household level and of disseminating information regarding water practices, care and use in the home.

In that regard, these MINSAP technicians also monitor the way the population installs and uses the 200-litre storage tanks, applying the "upside down tank" strategy that consists in turning the tank upside down once these are empty and to dispose of damaged containers in order to avoid creating sources of vector-borne infections.

MINSAP together with INRH have conducted an extensive and very intense information and vigilance campaign so that water storage in home and apartments is accomplished in the most appropriate way, always seeking to comply with the following standards:

- Containers are clean and in good condition for use
- Containers have secure lids to prevent the propagation of potential vectors
- Each family must have one container designated for drinking water only, which must not be mixed with water from other containers for other uses
- Increased use of chlorine in various forms as a method to disinfect water and avoid water-related diarrhoeal diseases
- Prevent unnecessary waste of water, such as washing cars.

Despite the lack of running water on a regular basis, spotty distribution and an increase in the number of storage tanks in practically every home and apartment in the province, **there has been no significant increase in water-borne diseases**, which is attributed to two factors:

- a) Constant vigilance by relevant authorities
- b) Awareness of the population regarding the event

4) *Coordination of drought response*

Province Civil Defence has established a working group for coordination, planning and implementation of drought preparedness and response activities with each of the institutions involved, which has been meeting every Tuesday and Thursday at 18:00 since 21 October 2014:

- Province Civil Defence
- Water Resource Institute
- Ministry of Public Health
- Ministry of Education
- Ministry of Agriculture

This platform, for example, has helped to design, plan, implement and monitor decisions regarding delivery cycles and the way information campaigns are conducted.

Needs analysis, beneficiary selection and risk assessment and scenario planning

Needs detected by the drought working group

In terms of the needs relayed by government institutions that are responsible for and which participated in this evaluation, a list of pressing needs to alleviate drought issues was provided that focuses on providing care to the population and to the institutions themselves.

Water and Sanitation

Consultations also revealed that families have very limited access to water through artisan wells and near rivers and springs, since these have very little water. This forces families to buy water, a practice that puts their financial security at risk. In fact, inspections of these wells have found that water levels are well below normal and do not meet the families' demand.

Distribution and storage at the household level

As we have explained above, the Cuban government is doing water distribution to the population; this water is intended for domestic use and for livestock. One of the activities proposed is establish a storage systems through the distribution of 1000-litre tanks located in strategically placed in neighbourhoods.

During assessments and interviews, families expressed that storing water could be a short term solution, but that the water collected would not be enough to meet their needs since the amount is limited; therefore, the feasibility of drilling wells must be explored further and prioritized

Distribution and storage in schools

Some 200 schools in the province have been identified to receive 1000-litre tanks to be provided by the Norwegian Red Cross, which will be done in coordination with the Ministry of Education, teachers and parents, as well as the water tanks for MINSAP.

Sanitation and Hygiene Promotion

Difficulty accessing drinking water is a factor that increases the risk of contracting water-borne diseases. These communities generally get their water from artisan wells and the water distribution network. Since dam and tributary levels have decreased, it is therefore recommended to continue with hygiene promotion training and lectures; lectures using the PHAST methodology for proper water management in coordination with MINSAP and CRC volunteers; as well as distribution of trash bags and cleaning campaigns.

Needs detected during the evaluation in the province of Santiago

Item	Description	Quantity	Recipient	Requested by
1	200-litre plastic tanks	34,260	Population in Santiago	Civil Defence/INRH
2	1,000-litre plastic tanks	150 to 200	Schools in province	Ministry of Education
3	1,000-litre plastic tanks	250	Hospitals in province	MINSAP
4	200-litre plastic tanks	50	To store hypochlorite	MINSAP
5	Chlorine detection kit	350	Health technicians	MINSAP
6	DPD1/DPD3 tablets	The largest amount possible	Population in Santiago	MINSAP
7	200-litre plastic tanks	250	Maternity wards and nursing homes	MINSAP
8	Chlorine tablets for 10 litres	The largest amount possible	Population in Santiago	MINSAP
9	10 to 20 tanks	34,260	Population in Santiago	MINSAP
10	Construction of wells with submersible pumps activated by solar power	10	Rural population	INRH
11	Water treatment plants	10	INRH installations	INRH
12	Garbage bags for domestic use	500,000	MINSAP installations and population in Santiago	MINSAP

It is worth mentioning that these needs are relayed directly by government institutions that are actively working on drought response. It was important to mention repeatedly that the IFRC would not be providing 100 per cent coverage, but would analyse the available resources and, together with CRC, prioritize needs, both in terms of quantity and final recipients.

Beneficiary Selection

Intervention actions implemented by DREF will take place in nine municipalities in the province of Santiago. Communities were selected in consultation with local authorities:

Municipality	Number of families
Santiago de Cuba	1,000
Guama	100
Songo La Maya	100
II Frente	100
III Frente	88
Palma Soriano	200
San Luis	156
Contramaestre	156
Julio Antonio Mella	100
Total	2,000

Risk assessment

One of the dangers associated with a non-constant water supply via the pipes of Santiago's drinking water system is that this might facilitate or contribute to the water's contamination, because the lack of pressure could allow any sort of liquids to enter pipes and even lead to more frequent interruptions.

Another situation that has already been mentioned among MINSAP findings is that, given that people do not have constant service and delivery cycles that last up to 20 days, many are forced to increase water storage capacity at the household level, "indirectly" causing an exponential increase in "nesting grounds" for mosquitoes, particularly *Aedes aegypti*, the main transmitter of diseases already present in the country such as dengue fever and Chikungunya, and the potential for Zika.

B. Operational strategy and plan

Overall objective

Provide humanitarian assistance through water and sanitation activities to 2,000 families (10,000 people) in the province of Santiago who have been affected by the prolonged thereby increasing the resilience of Santiago residents.

Proposed Strategy

Water and Sanitation

The areas of opportunity for Red Cross Red Crescent (RCRC) Movement actors are shown in the table below, which are according to information provided by Cuban authorities (province- and central-level), as well as by the communities themselves.

Specific activity in area of opportunity	Why intervention is required	How the action will be implemented	Implications and potential risks
Provision of 250-litre tanks to the general population	To increase water storage capacity at the household level, given the 10- to 20-day delivery cycles	Strict selection of potential beneficiaries according to vulnerability criteria and with active participation by local authorities.	These types of tanks are produced in Cuba, but limited quantities, access to raw materials, and prior industry commitments
Provision of 1000-litre tanks to MINSAP facilities	To increase water storage capacity in health institutions, prioritizing clinics and hospitals performing major surgeries	Strict selection of potential beneficiaries according to vulnerability criteria and with active participation by local authorities.	These types of tanks are produced in Cuba, but limited quantities, access to raw materials, and prior industry commitments
Provision of impregnated mosquito nets for the general population	To provide extra protection against mosquitoes at the household level	Strict selection of potential beneficiaries according to vulnerability criteria and with active participation by local authorities.	Mosquito nets must be imported from abroad, according to Cuban Customs procedures.
Provision of portable kits to detect total chlorine and free residual chlorine, and DPD1 and DPD3 tablets	To increase MINSAP technicians' capacity to sustain activities to monitor the quality of water provided by INRH.	Provide equipment and additional training to MINSAP technicians on their use	This equipment and tablets must be purchased and imported from abroad, according to Cuban Customs procedures
Provision of chlorine tablets (for 10 litres) to the population in general	To ensure water treatment at the household level in Santiago	Provide tablets to families receiving 200-litre tanks, using the same criteria indicated	This equipment and tablets must be purchased and imported from abroad, according to Cuban

Specific activity in area of opportunity	Why intervention is required	How the action will be implemented	Implications and potential risks
			Customs procedures
Provision of buckets (10- to 20-litre) to the general population	So that the population has a new storage with a lid exclusively for drinking water	Provide storage for safe water to families using the same criteria indicated	These buckets must be purchased and imported from abroad, according to Cuban Customs procedures
Trash bags for the population in general and health facilities	To enable the population to properly dispose of solid waste and prevent the spread of vector-borne diseases	Provide bags to families receiving 200-litre tanks, using the same criteria indicated	These bags must be purchased and imported from abroad, according to Cuban Customs procedures

The list submitted must be analysed taking into account:

- Availability of financial resources on the part of RCRC Movement actors.
- Availability in the country of products required, and their local purchase.
- Compliance with Cuban Government regulations regarding the purchase of products abroad and importing them into the country in times of "Non-emergency", and the implications for the authorities concerned.

Operational Support Services

Human Resources

Distribution of items to households will be done by CRC volunteers from the province of Santiago de Cuba, who already have experience in similar activities.

The monitoring role will be undertaken by CRC national headquarter staff with support from the Norwegian Red Cross Delegate. CRC will be responsible for project coordination through its technicians (People from their roster of employees). Norwegian Red Cross will support the implementation of community activities, as well as the CRC team.

Resources	Quantity
Water and sanitation technician	1
Volunteers	3 12-volunteer teams
Logistician	1

The IFRC will support the operation through the Country Cluster Support Team (Haiti, Dominican Republic, Cuba) based in Haiti. It also has the support of a disaster management coordinator from the Pan American Disaster Response Unit (PADRU), who is providing technical support and guidance to the operation.

Logistics and supply chain

The proposed humanitarian aid and supplies to be delivered during the Operation will be purchased in each of the cities to be assisted, following the standards reflected in the Sphere manual and current National Society administrative/financial procedures. Fuel and maintenance costs for National Society vehicles deployed for the response will be borne by the operation.

Items will enter the country in the following ways:

a) Via Havana, whether by sea or air:

- 4,000- impregnated mosquito nets
- 5,000,000- Aquatab tablets
- 350- Chlorine detection kits
- 70,000- DPD 3 and DPD 1 35 tablets
- 500,000- trash bags

b) Via the province of Santiago de Cuba, by sea:

- 2,000- 250-litre tanks with lids
- 6,000- plastic buckets with lids.

Import permits will be processed with the Cuban Government, with support from the Cuban Red Cross.

Rapid links

- 2009 Catalogue of Emergency Items
- Logistics Standards Online
- Procurement Portal

Information Technology (IT)

Mobile and fixed telephony will be used while these remain functional in order to maintain direct communications with provinces/branches, as well as the VHF radio system. Communications via this route will continue to support a large part of the activities in the field, as well as warnings and monitoring of the emergency. The National Society's Communications Department will contribute to the proper dissemination of humanitarian actions by various Movement components, keeping the public informed on the situation, as well as documenting beneficiary testimonials and disseminating prevention and information materials designed for the operation itself.

Materials will be distributed by CRC volunteers, which will require providing calling cards to authorized personnel.

Communications

As part of the operation, key awareness, advocacy and self-care messages will be prepared for the population. An accountability strategy will be designed and implemented that reaches partners, actors involved, beneficiary communities and society in general.

Security

Does not apply

Planning, monitoring, evaluation and reporting (PMER)

Monitoring mechanisms will be established for the entire implementation period based on monitoring of activities and proposed indicators. Defined and adapted instruments will be used for reporting, visits to the field and interviews, involving key actors.

The following tools and instruments will be part of the monitoring:

- Monthly review of implementation against action and work plans, based on monthly implementation reports
- Visits to neighbourhoods and cities by the national project coordinator together with each branch's technician. These visits include meetings and interviews with branch teams, key actors and beneficiaries in communities
- Reports on monitoring missions to the field.
- Narrative operation reports

Work and coordination within the community and with local authorities will take place from the branch, allowing for direct and efficient communication. Branches will establish liaisons with central headquarters for logistical, financial and administrative purposes.

A final evaluation will be conducted at the end of the project's implementation in order to analyse the extent of fulfilment of the objectives and outcomes proposed, gathering lessons learned and involving partner institution actors, CRC volunteers and staff, and beneficiary communities, among others.

Administration and Finance

IFRC, through its DM and Finance Department, will provide the necessary operational support for the review and validation of budgets, and technical assistance to National Societies on expense justification procedures, including the review and validation of invoices.

The proper use of financial resources will be in accordance with the conditions laid down in the memorandum of understanding between the National Society and the International Federation of the Red Cross. Financial resource management will be according to National Society regulations and DREF guidelines.

National Society own procedures will be applied to the expense justification process using IFRC formats. According to DREF procedures, the operation will not cover permanent structural costs, only costs incurred during the three-month operation.

C. DETAILED OPERATIONAL PLAN

Water, sanitation and hygiene promotion

Needs analysis: The main problem in the communities is the shortage of water in reservoirs, wells and rivers, leading to water rationing and high costs to buy and transport water to homes.

Population to be assisted: Reduce the drought's impact in 2000 families in nine municipalities in the province of Santiago, through the provision of water storage and quality control supplies and materials to selected households. Communities with the greatest water issues, but with the possibility of accessing water, will be prioritized.

OBJECTIVES	INDICATORS
Outcome 1: Contribute to improving access, storage and management of water for 2,000 families (10,000 people) in selected communities and schools in nine municipalities in the province of Santiago	2.000 families reached with water and hygiene promotion actions
Output 1.1 Distribution of 10-litre buckets for water storage to 2,000 families (3 buckets per family)	6,000 buckets delivered to residents of nine municipalities in the province Santiago
Output 1.2 Distribution of materials to treat and control the quality of water	5M Aquatab tablets distributed 350 chlorine and pH measuring kits distributed
Output 1.3 Establishment of nine community groups (one per municipality) to monitor water quality	Agreements established with nine community groups
Activities Week / Month	1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6
Purchase of 6,000 plastic 10-litre buckets	
Purchase of 5M aquatab tablets for 10 litres	
Purchase of 350 pool testers to measure chlorine	
Purchase of DPD3 (35,000) and DPD1 (35,000) tablets	
Distribution of buckets, aquatabs and pool testers	
Establishment of agreements with communities for community activities	
Distribution of 2000 250-litre tanks with lids	
Distribution of 1000-litre tanks for MINSAP facilities	
Output 1.4 Hygiene promotion activities are implemented in selected communities and schools	2000 families have protection measures against mosquitoes At least 50% of families have informational material At least 50% of families are involved in community monitoring committee activities
Planned activities Week / Month	1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6
Purchase of 4,000 long-lasting insecticide treated (LLIT) mosquito nets	
Printing of educational material	
Purchase of 500,000 plastic 10-litre trash bags	
Establishment of community monitoring committees	

Quality programming / Areas common to all sectors

OBJECTIVES	INDICATORS
Outcome 2: Continuous and detailed assessment and analysis is used to inform the design and implementation of the operation	At least 2 evaluations and control visits conducted At least 90% of activities are implemented on time
Output 2.1: The management of the operation is informed by a comprehensive monitoring and evaluation system	1 operation update published during the operation At the end of the project, an evaluation has been conducted in consultation with communities, CRC and national authorities At least one beneficiary and volunteer satisfaction

		survey at the end of the project																
Output 2.2: Operation activities are disseminated at the local, national and regional levels		2 press releases issued																
		2 beneficiary stories prepared																
Activities	Months	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Hiring of operational staff and staff to support the operation in the field		■	■															
Community assemblies to present the project		■	■	■	■													
Monitoring visits by CRC central headquarters		■	■						■	■							■	■
Progress reports on affected communities						■					■						■	■
Documentary on activities							■	■									■	■
Beneficiary satisfaction survey																	■	■
Evaluation of lessons learned																	■	■
Development of beneficiary stories																	■	■
Monitoring visits by IFRC						■						■						■

Contact Information

For further information specifically related to this operation please contact:

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Click [here](#) to return to the title page and [here](#) to view the DREF budget.

DREF OPERATION

02/06/2016

MDRCU003 Cuba Drought

Budget Group	DREF Grant Budget CHF
Shelter - Relief	0
Shelter - Transitional	0
Construction - Housing	0
Construction - Facilities	0
Construction - Materials	0
Clothing & Textiles	11,542
Food	0
Seeds & Plants	0
Water, Sanitation & Hygiene	79,151
Medical & First Aid	0
Teaching Materials	6,965
Utensils & Tools	18,507
Other Supplies & Services	0
Cash Disbursements	0
Total RELIEF ITEMS, CONSTRUCTION AND SUPPLIES	116,165
Land & Buildings	0
Vehicles	0
Computer & Telecom Equipment	0
Office/Household Furniture & Equipment	0
Medical Equipment	0
Other Machinery & Equipment	0
Total LAND, VEHICLES AND EQUIPMENT	0
Storage, Warehousing	0
Distribution & Monitoring	29,085
Transport & Vehicle Costs	4,179
Logistics Services	13,348
Total LOGISTICS, TRANSPORT AND STORAGE	46,612
International Staff	0
National Staff	0
National Society Staff	1,716
Volunteers	5,332
Other Staff Benefits	0
Total PERSONNEL	7,049
Consultants	0
Professional Fees	0
Total CONSULTANTS & PROFESSIONAL FEES	0
Workshops & Training	1,493
Total WORKSHOP & TRAINING	1,493
Travel	3,582
Information & Public Relations	3,383
Office Costs	2,512
Communications	1,045
Financial Charges	796
Other General Expenses	0
Shared Office and Services Costs	0
Total GENERAL EXPENDITURES	11,318
Partner National Societies	
Other Partners (NGOs, UN, other)	
Total TRANSFER TO PARTNERS	0
Programme and Services Support Recovery	11,871
Total INDIRECT COSTS	11,871
TOTAL BUDGET	194,508