



Ayuda Humanitaria
y Protección Civil

Drought Preparedness projects in Cuba

Organization ►	WFP	Movement for Peace – MPDL
Title of Project	Strengthen national and local capacities for comprehensive management of drought in order to reduce its impacts on water supply and food and nutrition security in Cuba	Strengthening early warning, adaptation, preparedness and response actions to increase drought resilience and reduce its impact on food and nutrition security, and water supply in Cuba's eastern provinces.
Area of influence	Eastern provinces (Las Tunas, Holguín, Granma, Guantánamo and Santiago de Cuba) including city of Santiago de Cuba	Santiago de Cuba
Start / end of the project	01/05/2016-01/11/2017	01/05/2016- 01/11/2017
Project amount	513,494.54 Euros	294,117.60 Euros
ECHO contribution	350,000Euros	250,000 Euros
Direct Beneficiaries	Individuals: 90,760 Organizations: 83	Individuals: 55,674 Organizations: 13
Risk scenarios covered	Project is related to the risk associated with drought events, mainly related to the effects on food security and nutrition in the 20 most exposed municipalities to drought in the eastern provinces of Cuba (Las Tunas, Granma, Holguin, Santiago de Cuba and Guantanamo) and on public water supply of the city of Santiago de Cuba.	Risk of severe drought with high incidence in the Oriental region of the country and specifically in the main city of Santiago where the water supply frequency has been alarmingly reduced
Local Implementation Partners	National: United Nations Development Programme (UNDP), Institute of Meteorology (INSMET), National Institute of Hydraulic Resources (INRH) and the Group of disaster risk assessment of the Environment Agency. Local: provincial and municipal governments, provincial meteorological centers, provincial delegations of INRH, provincial and municipal groups of hazard, vulnerability and risk assessments, entities of agricultural production and technical entities linked to the public water supply management of the city of Santiago de Cuba.	National: National Institute of Hydraulic Resources (INRH) Local: National Institute of Hydraulic Resources (INRH)
Other institutions and stakeholders	MPDL and NGOs consortium	Implementing partner: OIKOS Associated partners: CARE, OXFAM, CISP, GVC, MUNDUBAT
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Contributions from the project to the following	The project will strengthen national and local capacities to monitor and forecast drought events in the 20 municipalities most at risk of drought in	Given the limited effectiveness of the existing awareness-raising tools (weak/outdated communication techniques), the risk and hazard



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<p>points:</p> <p>1. Improve the knowledge about drought (example. Information management, impact evaluation, monitoring, sensitization, etc.)</p>	<p>Cuba's eastern provinces. The technical capacity of meteorological and hydrological networks will be reinforced to improve their ability to monitor drought. Thresholds for drought indicators will be defined as triggers for drought response by different stockholders. These improvements in monitoring will lead to better quality information about how a drought spell is evolving, available to all stakeholders (national and local authorities, farmers and technicians working in the water distribution system.)</p>	<p>perception related to drought is generally low amongst the population and decision makers. At the same time, good practices on adaptation to/management of drought – based on the experiences of Cuba or other countries – are not being systematized or disseminated to urban or rural areas. The population and the authorities in the municipalities at risk do not regard drought as a threat. Moreover, they presume that drought is over as soon as it starts to rain. There is the need of increasing the effectiveness of messages aimed at raising awareness and understanding of the drought risks. These messages, including information about successful experiences in Cuba and other countries regarding drought adaptation, comprehensive drought management, should be targeting Cuban authorities, farmers, and the population in general.</p> <p>So in order to updated and high quality information about resilience to drought the projects will:</p> <ul style="list-style-type: none"> - Design and implement a communication campaign on resilience to drought. - Identify and publish systematic summaries and audiovisual materials of successful drought adaptation good practices in Cuba and in the Central America and Caribbean region that are applicable to urban contexts and to other Cuban provinces. - Prepare and disseminate nationwide printed materials and broadcast spots with key messages on drought adaptation and response, including specific printed and audiovisual communication materials to support the community awareness campaign in the city of Santiago de Cuba. - Exchange on Cuban good practices and lessons learnt to enhance drought resilience in Central America and the Caribbean.
<p>2. Implementation of good practices at community level (at alert</p>	<p>Through the project key stakeholders at community level involved in food security and nutrition in the 20 municipalities most exposed to drought Cuba's eastern provinces and in the management of public water supply</p>	<p>Large cities are not sufficiently resilient to drought. This is due to a lack of solutions to cope with a reduction in water supply. Gaps identified in Santiago de Cuba – the country's second largest city in terms of</p>



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<p><i>systems level, compilation of good practices, effective dissemination and application, etc.)</i></p>	<p>in Santiago de Cuba city, will be able to turn early warning information into early response and drought adaptation actions adjusted to the magnitude and severity of the situation. It also includes best practices and lessons learned from the response to extreme droughts over the past 10 years. Mechanisms and communication tools will be improved to ensure more effective and timely dissemination to key stakeholders of critical information related to drought.</p>	<p>population amongst other factors – are related to the community and family adaptation strategies to cope with the consequences of drought (first of all the reduction of water supply to the population). There is the need to implement pilot activities on community and family adaptation to the growing impact of drought – mainly in the urban surroundings of the city of Santiago de Cuba – which can be replicable to other big Cuban cities.</p> <p>In order to Improved sustainable community access to water in the most vulnerable urban centers in the city of Santiago de Cuba, the project will:</p> <ul style="list-style-type: none"> - Identify and implement local solutions for water harvesting in Abel Santamaria urban center (homes, service centers and nearby agricultural production systems); - Establish alternative water pumping to supply homes and community service centers; - Create a community workshop to repair water pumping equipment; - Implement other measures on drought adaptation in peri-urban areas, identified with the community and supported by the Community Water Management Committees.
<p>3. Institutionalization of good practices (adoption of protocols for replication of best practices, interagency working around drought, etc.)</p>	<p>The project foresees the development of a Standardized Operational Procedure (SOP) that define the role of the institutions involved in all components of early warning system for drought. Drought early response will be facilitated through a more efficient dissemination of the Information generated through the monitoring and forecasting system. Moreover, the project will strengthen the coordination between meteorological and hydrological services at all levels and the use of information generated by risk assessments, which also incorporate food and nutrition security as a dimension of vulnerability. At the local level it will also use other services such as phytosanitary and veterinary, which make drought management more comprehensive and integrated.</p> <p>The project contributes to institutionalize best practices in public water supply management in drought conditions by strengthening local capacity for monitoring underground basins and quality control in the city of</p>	<p>Cuban institutions – especially at the local level – are not preparing their disaster reduction plans according to the results of risk assessments. Moreover, preparedness and response actions are not linked to drought forecasts that can trigger their implementation automatically. Finally, communities are not sufficiently resilient to drought and are not endowed with enough resources to manage water supply properly. These gaps in drought preparedness and response pose a serious threat to food security and nutrition, as well as to the water supply to the population. There is the need to develop capacities of local authorities, institutions and the community to cope with the impacts of drought. These capacities should reflect preparedness and response actions designed from risk knowledge and potential drought scenarios. To address this issue the project will:</p>



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	Santiago de Cuba.	<ul style="list-style-type: none"> - Promote a participatory design and implementation of an inclusive community strategy for awareness raising and dissemination; - Design and implement training for promoters grouped into Community Water Management Committees, composed of community grassroots organizations, schools, associations of persons with disability and Cuban Red Cross volunteers; - Implement training for local communities through Community Water Management Committees.
Main project results Brief summary	<ol style="list-style-type: none"> 1. Capacities for drought monitoring and forecasting are strengthened in the eastern provinces. This result includes an improvement of the technical capabilities of the meteorological and hydrological networks for drought monitoring. In addition it is expected to improve the quality and frequency of the information on the progress of a drought situation, and to enhance the effectiveness of the process to disseminate it to all stakeholders. It also aims to improve the design of response action plans by key stakeholders, based on information generated by early warning monitoring institutions. 2. Capacities to monitoring groundwater basins and controlling public water supply in the city of Santiago de Cuba are strengthened. It will address the whole chain of public water supply management in the second largest city of Cuba, capitalizing on lessons learned for replication in other large cities. They will be further analyzed, transferred and validated appropriate technologies and trained local operators and technicians. 	<ol style="list-style-type: none"> 1. Updated and high quality information about resilience to drought for communities and institutions generated using an inclusive approach. 2. Capacities of government, authorities, institutions and the community on adaptation, preparedness and response to drought are increased. 3. Improved sustainable community access to water in the most vulnerable urban center in the city of Santiago de Cuba
Main products of the project	<ol style="list-style-type: none"> 1. Meteorological and hydrological indicator system to estimate the magnitude of drought events defining thresholds to trigger specific actions according to the severity of the event. 2. Drought Risk assessment with Food Security and Nutrition indicators included and its application in the early warning system. 3. Standard Operation Procedures for the early warning and early actions system for drought. 4. Design of response actions of key stakeholders to drought based on 	<ol style="list-style-type: none"> 1. Communication campaign on resilience to drought; 2. Systematic summaries and audiovisual materials of successful drought adaptation good practices in Cuba and in the Central America and Caribbean region; 3. Nationwide printed materials and broadcast spots with key messages on drought adaptation and response; 4. Inclusive community strategy for awareness raising and dissemination;



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	<p>specific forecast.</p> <p>5. Using hydraulic and hydrometric parameters on drought management in an urban environment.</p>	<p>5. Training for promoters grouped into Community Water Management Committees;</p> <p>6. Training for local communities through Community Water Management Committees;</p> <p>7. Training for government authorities and institutions through the Provincial Water Resources Directorate;</p> <p>8. Design Households and Institutional Drought Preparedness Plans;</p> <p>9. Local solutions for water harvesting in Abel Santamaria urban center;</p> <p>10. Alternative water pumping to supply homes and community service centers;</p> <p>11. Community workshop to repair water pumping equipment</p>
<p>Elements of sustainability</p>	<p>The sustainability of this intervention is guaranteed by the direct involvement of government institutions that oversee the areas of expertise that have been strengthened. The project strengthens the capacities of the personnel working for those institutions that will benefit from equipment donated. Moreover the project targets both the national as well as local institutions, which means that it will benefit the entire system related to drought early warning. All activities will be included in a guide on operational procedure that will enable its future replication.</p>	<p>The proposal will increase the perception of risks among authorities, population and institutions of the targeted area. It also sets up new local adaptation and response capacities; it puts forward the implementation of best practices to adapt and respond based on evidence. It also contributes to strengthen the procedures and tools of the local partner, the National Institute of Hydraulic Resources / the Cuban Civil Defense Department (DC), so that DRR Plans are conceived taking into account the necessities of women, handicapped people and different age groups. Based on the existing social and governmental social structures, the proposal promotes the city involvement and participation while looking for durable solutions, making decisions and implementing best practices. Therefore, the development and strengthening of capacities and building resilience against drought, both at institutional level, as at individuals and organizations level (mainstreaming age, gender and diversity), promotes appropriation and continuity of the project after the end of intervention of the consortium. In this sense, the proposal gets involved relevant Cuban institutions, as Cuban Women Federation (FMC), ANCI, ACLIFIM, ANSOC (Associations that gather Cuban handicapped people), in order to make sure all activities and tasks are suitable to the groups and Cuban culture.</p>