



United Nations  
Office for South-South Cooperation



Naciones Unidas  
en Cuba

South-South in Action  
From Cuba to the World

Cuba

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# South-South in Action

From Cuba to the World

# Cuba





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# Foreword

In the current international context, the growing role South-South cooperation (SSC) has played in development processes, and the potential for consolidating and strengthening its results, are widely recognised.

SSC actions have had an incredibly positive effect, since they allow the exchange of best practices to help solve shared problems using common approaches, and also contribute to the strengthening of economic, social and cultural ties between the countries of the South. Additionally, since this non-profit organisation is sustained by the potential of the countries involved, it creates an effective channel for fostering integration.

Cuba has repeatedly affirmed its commitment to SSC during multiple international forums, and recognises that its reach goes far beyond simply complementing North-South Cooperation, due to the historical gap between developed and developing countries.

For Cuba, cooperation with other countries has been an essential component of its foreign policy for more than five decades, sustained by the values of solidarity and humanism which characterise our social project, and based on mutual respect, non-conditional assistance and complementarity. Cuban government leaders have reaffirmed their willingness to cooperate, despite the shortfalls and difficulties, in line with the principle of sharing what we have, and not what is left over.

Over the years, Cuba has placed people at the centre of their help to other nations, and has provided cooperation, abroad and from home, to Latin American, African and Asian countries, regardless of their socio-political systems and ideological precepts. From a thematic point of view, social interventions – health and education – are the focus of more than two thirds of its South-South cooperation actions, with the remaining third corresponding to areas such as risk management and disaster prevention, agriculture and sports.

This has been possible thanks to the country's active social policy, which has progressed in ways comparable to the developed world, and which allows it to share best practices with the other developing countries. At the same time, the altruistic, humanitarian and generous spirit of the Cuban people has been the other cornerstone that has made it possible to reach such levels of cooperation.

As a result of its continuous activism, Cuba has been recognised by both national and international institutions, which identify it as one of the regional benchmarks for collaboration.

The following chapters reflect Cuba's experiences and highlight some of the most successful cases in the areas of health, education, risk management and agriculture.



A handwritten signature in black ink, consisting of a stylized 'R' and 'M' followed by a vertical line.

**Rodrigo Malmierca Díaz**

Cuba's Minister of Foreign Trade and Investment





# Foreword

South-South in Action is one of UNOSSC's series of reports. The series was launched to provide a space for our partners (Member States, intergovernmental organisations and other United Nations entities) to present and share their South-South and triangular cooperation best practices. Sharing these successful experiences promotes their adoption and adaptation in other countries and contexts, in line with their national and regional priorities.

I am very proud to present this edition, the first from Latin America and the Caribbean (LAC), together with the Cuban government and local development partners which promote the country's development.

The LAC region is very important in the history of South-South cooperation. The United Nations Conference on Technical Cooperation between Developing Countries was held in Buenos Aires, Argentina, in 1978. The result of this conference, the Buenos Aires Plan of Action (BAPA), has guided South-South and triangular cooperation for the last forty years. In 2000, Cuba hosted the first South Summit of the Group of 77 and China, resulting in the Havana Programme of Action. In 2019, the world community will meet again in Argentina to commemorate the anniversary of the adoption of BAPA, and to debate the future role of South-South and triangular cooperation in the context of the 2030 Agenda.

The LAC region is also very close to my heart. I was born in Argentina and have spent many years of my professional life in the region, including as UNDP Deputy Resident Coordinator in Cuba between 1999 and 2001. I feel great affection for the country, and I know from experience the many different ways in which Cuba has made great contributions to a better world through South-South cooperation.

The examples provided in this edition cover a wide range of Cuba's development cooperation, from health

to education, climate change and agriculture. I am pleased that the report explicitly acknowledges that these examples have been designed and carried out through the collaboration of local partners who promote development, often Ministries that work with United Nations entities. They all truly embody the South-South and triangular spirit of cooperation, and show that we are far more successful when we work together.



A stylized, handwritten signature in black ink, consisting of several loops and a vertical line.

**Jorge Chediek**

Envoy of the Secretary-General on South-South cooperation

Director, United Nations Office for South-South cooperation





# CHAPTER I

## INTERNATIONAL COOPERATION IN CUBA

When all States work together, this international cooperation can contribute towards addressing the growing disparity between North and South countries, and to combatting hunger, poverty, illness and other problems that affect humanity. With enough political will, the present and future will be better for everybody.

For Cuba, international cooperation is an act of solidarity inherent in the principles laid out in the country's constitution, and is an essential component of its foreign policy.

Cuba offers other countries the talent, generosity, audacity, modesty, sacrifice, solidarity and humanitarian values of the Cuban people, despite the material limitations they face due to the economic, commercial and financial embargo imposed by the United States of America.

The words of the Cuban national hero, José Martí, —“Homeland is humanity”— gives solidarity an additional dimension for Cuba: internationalism. Cuban cooperation prioritises the interests of peoples in need, and is offered unconditionally, based on absolute respect for the sovereignty, laws, culture and religion of the recipient country, and the self-determination of nations.

## **CUBA AND SOUTH-SOUTH COOPERATION**

The founding principles of South-South cooperation (SSC) can be traced to the decolonisation process that started at the end of the Second World War, and to the proposals for a new international economic order made by the Non-Aligned Movement during the 1970s. During this time, the first allusions to SSC were made, as a separate concept from the traditional pattern of North-South relations.

SSC was strategically addressed for the first time during the United Nations Conference on Technical Cooperation among Developing Countries held in Argentina in 1978. During the conference, the Buenos Aires Plan of Action

(BAPA) was approved, thereby establishing the principles and objectives for technical cooperation between developing countries.

However, in Cuba, the first horizontal cooperation actions date back to 1963, when the first medical brigade was sent to Algeria; although in 1960 a small team of doctors had provided aid to Chile after an earthquake.

There are many examples of South-South cooperation activities by Cuba, even with countries with which it does not, or did not at the time, maintain diplomatic relations. Although it is an underdeveloped country that has limited natural resources, Cuba has cooperated with 186 countries, including the training of students in the country. More than one million Cuban people have provided assistance to other countries, and over 50 per cent of there were women.

## **CUBA'S MAIN AREAS OF COLLABORATION**

The cooperation provided to the health, education and sports sectors have had important results, including the actions developed together with the Bolivarian Republic of Venezuela, and those which took place in the context of the integration mechanism of the Bolivarian Alliance for the Peoples of Our America-Peoples Trade Agreement (ALBA-TCP).

A prominent position is occupied by Cuba's Henry Reeve Medical Brigade, which has provided medical assistance to more than 3.5 million people in 21 countries. In recognition of the Brigade's international solidarity during natural disasters and serious epidemics, the Executive Board of the World Health Organization (WHO) decided to award it the Dr Lee Jong-wook Memorial Prize for Public Health.

Cuban professionals formed part of WHO and other international organisations' work groups during the earthquakes in Armenia (1988) and Pakistan (2003), the tsunami in Indonesia (2005), the earthquake and subsequent cholera

pandemics in Haiti (2010), and the Ebola virus outbreak in West Africa (Guinea, Liberia and Sierra Leone, 2014).

For 27 years, free assistance was given to more than 20,000 Russian, Ukrainian, and Belarusian children exposed to radiation and nuclear contamination caused by the accident of the Chernobyl plant.

Another highly sensitive humanitarian initiative was the psychopedagogical, social and clinical-genetic study of people with disabilities in the Bolivarian Republic of Venezuela, Ecuador, Nicaragua, Saint Vincent and the Grenadines, and Bolivia, where more than 1,200,000 cases were analysed.

The extensive presence of health specialists in the Bolivarian Republic of Venezuela and Brazil has contributed towards improving sanitary conditions in these countries. In the Bolivarian Republic of Venezuela, thousands of Cuban aid workers have been working for the last 14 years in the primary health care system and in the provision of other vital health services, as well as in the training of thousands of Venezuelan professionals. In Brazil, through the Pan American Health Organization (PAHO), more than 11,000 Cuban doctors work in 3,125 municipalities as part of the *Mais Medicos* (More Doctors) Programme.

In total, Cuban medical brigades have attended more than 1,500 million patients, applied 13.6 million vaccines, carried out more than 14.6 million operations, and assisted in more than three million births. The intervention of these health professionals has saved the lives of more than six million people.

An example of this is *Operación Milagro* (Operation Miracle), which was launched to fight blindness and other ophthalmological disorders. As part of this initiative, Cuban professionals have carried out almost three million operations to patients from 34 countries in Latin America, the Caribbean and Africa.

In the field of **education**, and specifically in the fight to eradicate illiteracy, Cuba has cooperated with 30 countries using the Cuban audio-visual method “Yes, I can”, which has educated almost 10 million people. Cuban collaboration has enabled the Bolivarian Republic of Venezuela, Bolivia and Nicaragua to declare themselves free of illiteracy, according to UNESCO requirements.

In terms of **sport**, Cuban specialists have helped to improve both the results and the competitive level of more than 100 countries. In the 2003 Pan American Games, 71 Cuban coaches trained athletes from more than 17 Latin American and Caribbean countries, and more than half of these won at least a gold medal. An example of this are the Dominican Republic and Colombia, countries that won their first gold medals in the history of this event. In the Beijing 2008 Olympic Games, 18 Cuban workers formed part of the sports delegations from 14 nations.

**Food and nutritional security** deserve a special mention. FAO's Special Programme for Food Security has enabled Cuban specialists and technicians to offer countries of the South their knowledge and skills in this area.

The Caribbean region is highly sensitive to global climate change and the threat of tropical cyclones, floods, volcanic and seismic activity, droughts, forest fires, technological accidents and epidemiological threats. Natural disasters cannot be avoided, which is why **risk management** should be included in developmental practices and planning, in order to reduce damage and avoid losses. Cuba has vast, proven experience in this field. In particular, with the support of organisations like the WFP and UNDP, the country has put the response mechanisms developed in its civil defence system at the disposal of different Caribbean countries such as Haiti and the Dominican Republic. Moreover, the Caribbean Risk Management Initiative, created in 2004 by UNDP's Bureau for Crisis Prevention and

Recovery, has facilitated cooperation and knowledge transfer to five other Caribbean countries (Jamaica, Trinidad and Tobago, the Dominican Republic, British Virgin Islands and Guyana) in order to adapt and apply the Cuban model of Risk Reduction Management Centres.

Another dimension of Cuba's international cooperation has been the development of an extensive programme of student scholarships which has led to the graduation of more than 72,000 young people from other nations in different university specialties. Even in moments of severe economic difficulties, Cuba kept its commitments to those young people and their governments. Currently, more than 33,000 students from 154 countries study in Cuba, and 91.2 per cent of all the scholarships granted are for degrees related to Medical Sciences.

## **INSTITUTIONAL FRAMEWORK OF CUBAN COOPERATION**

The Ministry of Foreign Trade and Investment (MINCEX, pertaining to the State's Central Administration) is responsible for proposing, directing and controlling the application of State and Government policies on economic collaboration in order to contribute to the economic and social progress of the country, and according to established development strategies (Decree Law 321, June, 2014).

During the revision process of the Cuban economic and social model, the Guidelines on the Economic and Social Policy of the Party and the Revolution were approved, including aspects that are specific to the activities carried out by MINCEX. In particular, Guideline 84 expresses the decision to continue developing South-South cooperation and to adapt it to the country's current conditions.

In coordination with the different national actors of cooperation, MINCEX is responsible for guaranteeing a legal and regulatory framework for the economic and scientific-technical aid offered by Cuba.

The approval of the 2030 Agenda for Sustainable Development offers an important framework for encouraging the development of the countries of the South. However, both its implementation, and the fulfilment of its ambitious objectives, cannot be achieved without the transfer of financial, predictable and additional resources to developing countries, under favourable conditions; the contribution of technology and the development of new capabilities are also important.

Cuba is committed to working non-stop in order to meet the challenges posed by the Sustainable Development Goals, and it reasserts its commitment to supporting the countries that need assistance.





## CHAPTER II

CUBA'S SUCCESSFUL EXPERIENCES  
IN SOUTH-SOUTH AND TRIANGULAR  
COOPERATION

# PART I. HEALTH

## "MAIS MEDICOS" PROGRAMME

<i>SDG to which it relates</i>	SDG 3 Good Health and Well-Being
<i>Participating countries</i>	Brazil, Cuba
<i>Summary</i>	<p>The PMM has ensured coverage and access to health services for more than 60 million people, of which 45 million were covered by 11,500 Cuban collaborators from the "Mais Medicos" programme, particularly in socio-economically vulnerable municipalities. Many of these municipalities, as well as the 34 indigenous districts of the Amazon, are covered 100 per cent by Cuban PMM collaborators and had never before received a visit from a doctor. This South-South initiative, which is in line with the Pan American Health Organization's Universal Health Strategy, has generated widespread user satisfaction with the quality of care offered, and has enabled Brazil's universal health care system (SUS) to extend its primary health services. The number of municipalities with one doctor or more per thousand inhabitants increased by 113 per cent, and those with no doctors at all decreased from 1200 in 2013 to 777 in 2015. There was also an increase in coverage for children from 1 to 5 years old, and the number of consultations for high blood pressure rose to 30 million people, thus improving the monitoring of one of the main risk factors for cardiovascular diseases. Through the PMM, 23 thousand hospitalisations were prevented, generating savings of over US \$6 million, and over US \$2 billion were spent. At the same time, the project has contributed to the financing of universal access and coverage for the Cuban population.</p>
<i>Lessons learned</i>	<p>The innovative experience of the PMM in such a vast, complex and unequal country as Brazil could be shared with other countries facing similar health care system challenges, in the same way that this project facilitated the implementation of strategies to address the scarcity of professionals in the sector and provided health care services focused on the people, the family and on communities through a primary health care approach. Through solid technical collaboration, Cuba and Brazil are working towards compliance with international commitments, particularly in the area of Universal Health.</p>





The “Mais Medicos” project (PMM) represents a milestone in the cooperation partnerships between countries set forth by the Pan American Health Organization (PAHO), not only because of its direct contribution to reducing health inequalities among Brazilians, but also because it is an unprecedented experience of South-South cooperation between Cuba and Brazil, triangulated through PAHO.

In the 1988 Constitution, Brazil established a unified health care system based on the principles of universal access, equity, integrity and democracy, in order to guarantee universal coverage and access to the entire population. In 2012, there was only limited fulfilment of these principles, and one of the causes identified was the lack of medical personnel.

In the light of this situation, Law No. 12,871, 2013 established the “Mais Medicos” programme, of which the PMM is part, with the main objective of improving the quality and access to basic health care services, particularly for the more unprotected segments of the population in socio-economically vulnerable municipalities.

The “Mais Medicos” Programme is based on 3 pillars: 1) immediate attention to underserved populations; 2) an increase in the number of health institutions for primary health care; 3) training of human resources in the health field in order to meet the international standards of doctors per inhabitant. The “Mais Medicos” project involving PAHO and Cuba, falls under pillar (1) of immediate attention to underserved populations.

Its main objective is to reduce the ceiling of approximately 18,000 medical vacancies that cannot be filled by Brazilian doctors. During the first stage of the programme, around two thirds of this total were covered by Cuban doctors. The Pan American Health Organization coordinates the “Mais Medicos” cooperation programme with the Brazilian and Cuban Ministries of Health, contributing to the criteria of inclusion by providing training for collaborators and planning and management of the PMM. During its two stages (2013-16 and

2016-19), the PMM has mobilised more than 19,000 Cuban doctors for inclusion into the SUS (Sistema Único de Saúde, universal health care system). The PMM is managed through two “mirror” agreements, one between the PAHO/Cuba office and the Cuban Ministry of Public Health, and the other between PAHO/Brazil and the Brazilian Ministry of Health.

The objectives and results of the PMM are mainly related to Sustainable Development Goal 3: Health and Well-being. The “Mais Medicos” project (PMM) has ensured coverage and access to health services for more than 60 million people in 3,819 municipalities, of which 45 million, in 2,851 municipalities, were attended directly by Cuban collaborators. All (100 per cent) of the 34 indigenous districts are also covered by the PMM's Cuban doctors. Levels of satisfaction with the service quality provided by the Cuban workers are 90 per cent or above. The PMM has made it possible to increase the number of municipalities with one doctor or more by 113 per cent, and family medical programme coverage has increased from 59 per cent to 69 per cent of the Brazilian population. In 2013 there were 1,200 municipalities with a shortage of doctors, while in 2015 this number had reduced to 777. There was an increase in coverage for children under 5, and the number of consultations for high blood pressure by the general population rose to 30 million people. High blood pressure is one of the main risk factors for cardiovascular diseases. It is estimated that the PMM has prevented 23 thousand hospitalisations, with savings of over US \$6 million. Finally, it is important to mention that the PMM has managed more than US \$2 billion, which has made it the expression of a health policy that today is a public asset for the entire population and for the Brazilian health care system.

This South-South initiative is within the framework of the strategy of Universal Health promoted by PAHO Member States. Although there is a history of cooperation projects between countries, such as the mobilisation

of Cuban health workers in triangulation with PAHO/WHO, the collaboration with Angola to eradicate poliomyelitis, or the support provided to Haiti after the 2010 earthquake and subsequent cholera epidemic, the PMM is a unique experience. PAHO/WHO manage the financial resources of a member State, in this case Brazil, in order to mobilise and fully insert Cuban health professionals into the SUS. At the same time, the project provides Cuba part of the financing necessary to guarantee the universal access and coverage it offers to its own population.

The innovative experience of the PMM in such a vast, complex and unequal country as Brazil could be replicated in countries that face similar health-related challenges in the areas of human resources and training, in order to respond to the needs of both the health system and the general population. The PMM has allowed the implementation of strategies to solve the problems caused by the lack of doctors with a suitable profile in health services, and has focused on the people, the family and on communities through a

primary health care approach. This allows the country to progress towards the fulfilment of international commitments, especially in universal coverage and access to health.

The complexities of the hiring process, the preparation involved, and the operational coordination between countries are experiences that could be replicated in similar South-South cooperation projects in the future. An assessment of the programme results provides valuable knowledge and information on the innovative issue of the international recruitment of health professionals. It also offers an insight into the possibility of developing temporary migration initiatives (for 3 years) for professionals from countries where the doctor-patient ratio is more favourable than in the recipient country, while local training processes are developed in order to support this type of initiative in the medium term.



## CUBAN COLLABORATION IN THE FIGHT AGAINST EBOLA EPIDEMICS

<i>SDG to which it relates</i>	SDG 3 Good Health and Well-Being.
<i>Participating countries</i>	Sierra Leone, Liberia, Guinea and Cuba
<i>Summary</i>	In the face of the Ebola virus epidemic (EVE) which affected several countries in Western Africa during 2014, the WHO issued a call to the international community to deploy a global response to assist the populations of the three countries affected by the epidemic: Sierra Leone, Liberia and Guinea. Two hundred and sixty-eight Cuban health care workers responded to the WHO call and provided support to the direct medical care of Ebola cases.
<i>Lessons learned</i>	The collaborative efforts by the WHO and Cuba were made possible by the flexible, innovative and agile design of South-South cooperation, which had a direct impact on saving lives; for example, in Liberia, 80 per cent of the patients attended survived. Crucial to fighting the disease in the region were the governmental support and commitment, and unification between the governments of the different American countries. The presence of Cuba in the direct response to the epidemic, together with its coordination with the WHO, led to a technical meeting and an international training course on the prevention and management of the Ebola virus (covering aspects such as epidemiology, clinical practicalities, infection control and personal protection), which was attended by over 80 specialists from 18 Latin American countries and the Caribbean, plus Mozambique. Cuban experts carried out several support missions to orientate and assess response capacities in the event of the possible introduction of EVE in Central American countries (Nicaragua, El Salvador, the Bolivarian Republic of Venezuela, Saint Lucia, and Jamaica) and in high-risk African countries (Burkina Faso, the Congo, Gabon and Guinea-Bissau).

In the face of the Ebola virus disease epidemic (EVE) which affected several countries in Western Africa in 2014, Ban Ki-moon, the United Nations Secretary-General, and Margaret Chan, the Director General of the World Health Organization (WHO), issued a call to deploy a global response to assist the populations of the three countries affected by the epidemic: Sierra Leone, Liberia and Guinea. The Cuban government decided to take part in this global effort, under the coordination of WHO, and called for governments and health ministries around the world to participate in the fight against this scourge. The objectives and results of this South-South cooperation initiative are linked to Sustainable Development Goal 3, Good Health and Well-Being.

The Cuban medical brigades sent to Africa to fight Ebola are part of the "Henry Reeve International Contingent" created in 2005 and made up of health care professionals specialised in addressing disaster situations and serious epidemics. A selection process was carried out with the volunteers who had offered to join the teams that would confront the dramatic situation in Western Africa. The workers chosen had over 15 years' experience and had worked in other countries affected by natural disasters and epidemic outbreaks. Some of them had already worked in Sierra Leone and Guinea for several years.

The 268 Cuban health care workers selected, mainly doctors and nurses, received standard WHO training on the control of infectious diseases in Cuba before leaving for the affected countries for direct care of patients. They stayed there for 6 months, working at facilities designed for the treatment of patients with Ebola, and at community clinics.

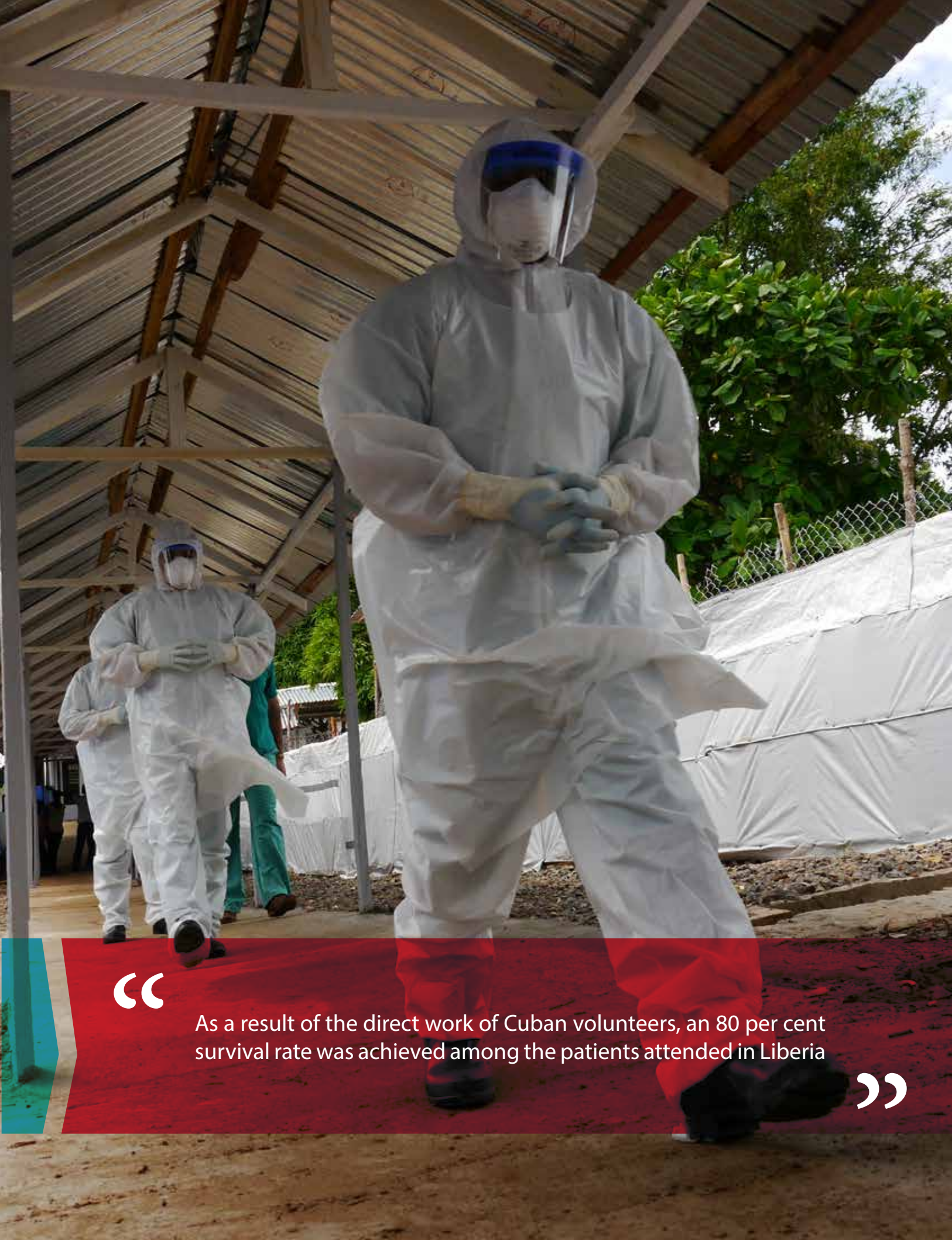
The result of the direct work of these Cuban volunteers contributed to containing the epidemic, saving hundreds of lives in the three affected countries, both in terms of infected people and individuals potentially threatened by the disease. The actions of Cuban volunteers

also helped to improve the quality of the care received by those who unfortunately died. In this way, an 80 per cent survival rate was achieved among the patients attended in Liberia, while in Sierra Leone three lives were saved on average per Cuban volunteer. One Cuban volunteer doctor became infected, but was saved thanks to the care provided in Switzerland after he was evacuated.

The main challenges faced during this initiative were the need for fast and timely action; the complexity of the epidemic of a disease which was largely unknown, highly contagious, fast-spreading and highly lethal, occurring in countries with fragile health care systems; the need for the strict use of personal protection equipment in high-temperature areas; and other difficult environmental, social, cultural and working conditions. The effectiveness of the training offered by WHO was evident, since it managed to guarantee medical care to infected individuals with a minimum impact to the Cuban volunteers.

The way Cuba organises its response to emergency situations and epidemic outbreaks could be repeated in other countries. In these situations, the prior selection of professionals who are then organised into brigades and given specialised training in direct medical care is critical for an immediate response. Coordination with the WHO is a best practice which ensures the complete integration of Cuban volunteers into health care services in recipient countries, as well as the coordination of the response at a global level and between the different response teams from other countries.

At the Summit of the Bolivarian Alliance for the Peoples of Our America-People's Trade Agreement (ALBA TCP) in Havana, attended by several Heads of State from the Americas, the presence of Cuba in the direct response to epidemics, and its connection with WHO, led to the inclusion of a call to governments from all countries for their commitment and



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As a result of the direct work of Cuban volunteers, an 80 per cent survival rate was achieved among the patients attended in Liberia

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joint support in the fight against this disease in the region. As a result of the summit, the Technical Meeting of Specialists and Managers for Preventing and Managing the Ebola Virus was held, attended by 278 specialists and managers from 34 American countries.

Subsequently, at the Pedro Kouri Institute of Tropical Medicine in Havana, the International Course for Preventing and Managing the Ebola Virus was held in order to train participants in epidemiology, clinical practicalities, infection control and personal protection. It was attended by over 80 specialists from 18 Latin American countries and the Caribbean, plus Mozambique.

Cuban experts also carried out several support missions to orientate and assess response capacities in the event of the possible introduction of EVE in Central American countries (Nicaragua, El Salvador, the Bolivarian Republic of Venezuela, Saint Lucia, and Jamaica) and in high-risk African countries (Burkina Faso, the Congo, Gabon and Guinea-Bissau).

The collaborative efforts by the WHO and Cuba were made possible by the flexible, innovative and agile design of South-South cooperation. Although financial and resource contributions were received from other countries, none of these offered anywhere near the number of volunteers to work directly in patient care during the crisis. Cuba's work with Ebola sent a clear message of solidarity with Africa to the rest of the world. In recognition of this initiative, at the last World Health Assembly, held in 2017, WHO awarded the Henry Reeve Brigade the Dr Lee Jong-wook Memorial Prize for Public Health, the most important award given by this organisation.



## TECHNOLOGY TRANSFER PROJECT BETWEEN THE RUSSIAN FEDERATION AND NICARAGUA FOR THE PRODUCTION OF INFLUENZA VACCINES

<i>SDG to which it relates</i>	SDG 3 Good Health and Well-Being. SDG 8 Decent Work and Economic Growth.
<i>Participating countries</i>	The Russian Federation, Nicaragua and Cuba
<i>Summary</i>	The governments of Nicaragua and the Russian Federation signed a general cooperation agreement which included the establishment of an influenza vaccine production plant in Nicaragua. PAHO supported the technology transfer project between the Russian Federation and Nicaragua, and Cuba participated through the Center for State Control of Drug Products, Equipment and Medical Devices (CECMED), in its role as Regional Reference National Regulatory Authority (NRA) for PAHO.
<i>Lessons learned</i>	The project will allow better access to flu vaccines for Central America and the Caribbean, as well as greater autonomy in local production capacities. This initiative has huge potential, since it is the only one of its kind which considers public-public technology transfer between two countries in different regions with support from PAHO and the CECMED in Cuba. The project highlights the role which can be played by PAHO in facilitating innovative development strategies between countries with different development levels. In health care, these strategies are far-reaching, and also have an impact on decent employment and economic growth, as well as on sustainable development.



Organización  
Panamericana  
de la Salud



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Mundial de la Salud  
OFICINA REGIONAL PARA LAS Américas

The governments of Nicaragua and the Russian Federation signed a general cooperation agreement which included the establishment of a production plant for influenza vaccines, the Mechnikov Institute, through a technology transfer project between Saint Petersburg Vaccine Institute in Russia, and Nicaragua. This was supported by PAHO and Cuba through the Center for State Control of Drug Products, Equipment and Medical Devices (CECMED) in its role as Regional Reference National Regulatory Authority (NRA) for PAHO, and collaborating centre for the regulation of health technologies.

The project is designed to improve access to flu vaccines in Central America and the Caribbean, and provide greater autonomy in local production. The specific objectives are focused on three main axes: 1) technology transfer for the production of the inactivated dissociated influenza vaccine; 2) human resource capacity building in Nicaragua; and 3) the strengthening of the national regulatory authority in Nicaragua (NRA).

CECMED's vast experience, together with its recognition as a regional reference NRA, have allowed it to intervene in all three cooperation axes. With respect to the first axis, the Cuban regulatory authority supported the construction process of the plant in Nicaragua from the beginning, right up until its certification for compliance with good pharmaceutical practices (certification expected in 2018). The participation of Cuba's CECMED has been crucial to this process, and PAHO has played a strategic facilitation role. The batch release processes, quality control tests, registration of the vaccine and its inclusion into immunisation programmes in Nicaragua and Cuba, as well as the design of an active surveillance system to allow monitoring of events of adverse reactions after administration, are only some of the activities in which CECMED was involved.

With respect to the axis concerning human resource capacity building in Nicaragua, short- and medium-term progress has been made through training in Good Pharmaceutical Practices. In this context, Cuban experts, in coordination with Nicaraguan universities and with PAHO support, have given courses, provided advice, and trained over 50 specialists from the health care sector, the NRA, the Managua and León campuses of the National Autonomous University of Nicaragua, and the new vaccine production plants. Likewise, steps have been taken to create the Nicaraguan Authority for Drug and Biological Product Regulation, based on PAHO/WHO recommendations. In 2017, a dozen professionals from the NRA in Nicaragua took part in a training course at the CECMED facilities, which focused on the core functions of the regulatory system in accordance with PAHO/WHO recommendations: Good Regulatory Practices, Records, Inspections of Good Practices, Quality Control Laboratory, Batch Release, Clinical Trials and Post-Marketing Surveillance.

The Russian Federation has benefited from this project, particularly by obtaining the Good Practices certification granted by the CECMED to its vaccine production plant in Saint Petersburg. Likewise, the initiative fostered the WHO certification process of the regulatory authority of the Russian Federation. At the same time, registration of the inactivated dissociated influenza vaccine produced by the Saint Petersburg laboratory was granted in Cuba, which allowed its use in immunisation programmes in Cuba and Nicaragua. In 2016 and 2017, 632,173 and 553,483 vaccine doses were administered in Cuba, respectively. In Nicaragua, 257,000 and 297,000 were administered during the same years.

This technology transfer project has given the Central American region more autonomy to produce vaccines which meet WHO's quality



and safety standards, thus leading to lower prices and increased access for the populations needing the flu vaccine. This contributes to the achievement of SDG 3: Good Health and Well-Being.

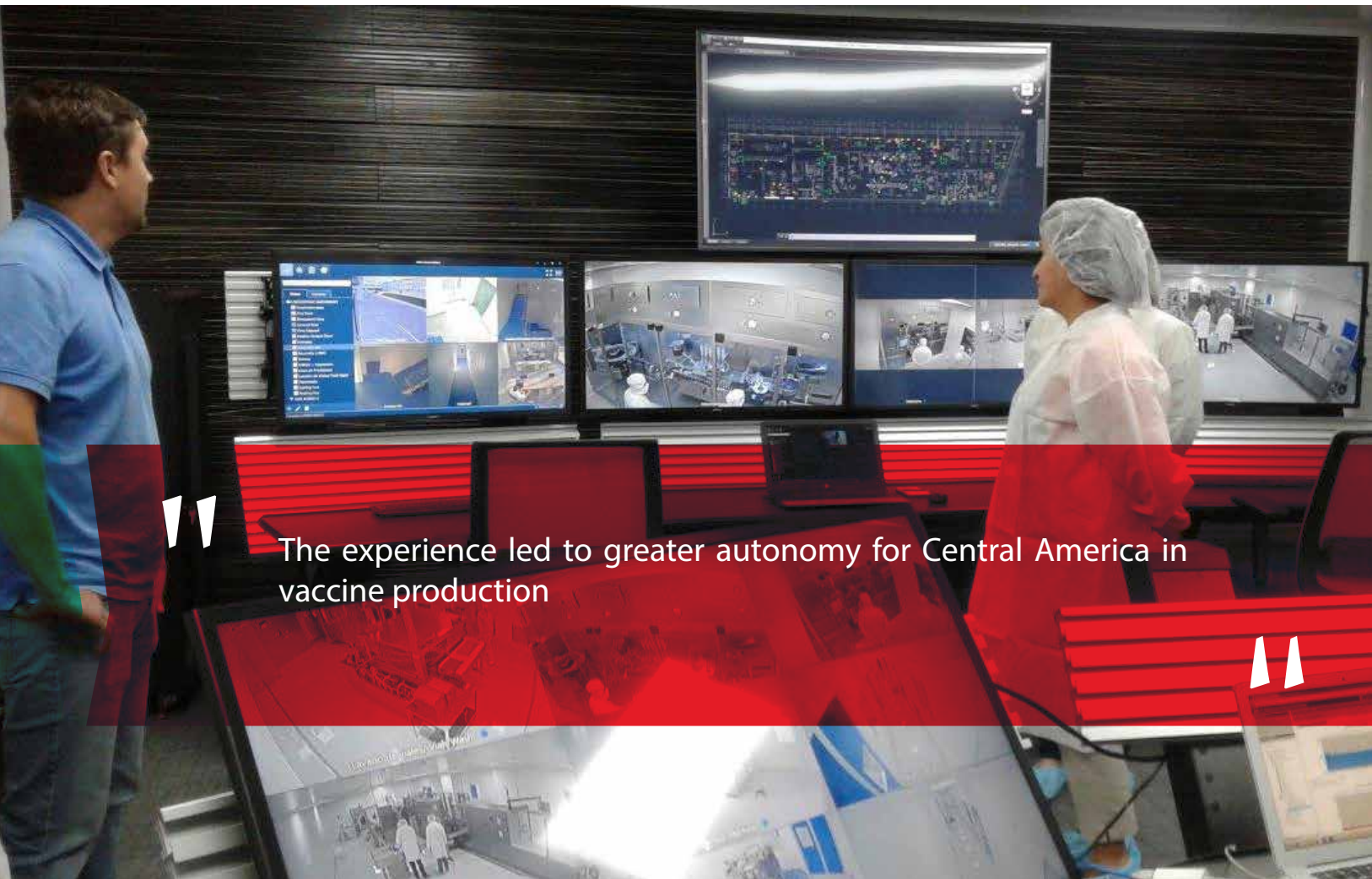
The construction work for the new vaccine production plant, and its commissioning in the first half of 2018, have created highly-qualified employment opportunities, thus progressing towards the achievement of SDG 8, Decent Work and Economic Growth.

This initiative has huge potential, since it is the only one of its kind which considers public-public technology transfer between two countries in different geographic regions and at different stages of development, with support from PAHO and the CECMED in Cuba.

The experience transmitted in terms of good practices in regulations, inspection and transparency has been appreciated by health authorities and PAHO in Nicaragua, since it

has contributed to training human resources and the transfer of theoretical and practical knowledge. All this has led to the integration of actions between the regulatory authority, national manufacturers and universities, and has created a favourable atmosphere of openness and collaboration which is crucial to the success of the project.

The project highlights the role which can be played by PAHO in facilitating innovative development strategies between countries with different development levels. By cooperating through health care, these strategies also have a significant impact on other sectors which are vital for development, by creating decent employment and providing a substantial contribution to economic growth.



The experience led to greater autonomy for Central America in vaccine production

# PART II. EDUCATION

## CONTEXTUALIZATION OF CUBA'S NON-INSTITUTIONAL "EDUCATE YOUR CHILD" EDUCATIONAL SERVICES MODEL

<i>SDG to which it relates</i>	SDG 4. Quality Education.
<i>Participating countries</i>	Ecuador, Brazil, Colombia, Mexico and Guatemala
<i>Summary</i>	Contextualisation of Cuba's non-institutional "Educate your Child" Educational Services Model, related to access to educational and comprehensive early childhood care services, in different Latin American countries.
<i>Lessons learned</i>	The model promotes social mobilisation, participation and joint responsibility, and has a multi-disciplinary, cross-sectorial and inter-agency approach. It also includes the essential participation of the health and education sectors, together with areas such as justice, culture, social welfare and sports, thereby guaranteeing the fulfilment of the rights of girls and boys from before they are born through early childhood.





“ This method has facilitated the enactment and implementation of comprehensive early childhood care policies ”

The early childhood period (from 0 to 6 years of age) is of the utmost importance to a human being's development and formation process. Comprehensive care and education during this life stage involves pedagogical processes of a social, economic and political nature, since development milestones at these ages show that the period from conception to the start of school-based education provides a pivotal and unique opportunity to make an impact on the development of children's brains. This also has an impact on their adult lives, since it affects their ability to earn a living and contribute to their community. This principle is included in SDG 4, which guarantees equitable and inclusive education, specifically through target No. 2, which states that countries must ensure that all girls and boys have access to early childhood development and care by 2030.

With this in mind, Cuba has been implementing the "Educate your Child" programme for over 20 years, with an inter-sectoral approach and community participation. This has been effective in ensuring that children aged 0 to 6 reached the different developmental milestones, evaluated through four evaluations carried out as part of the programme. The theoretical proposals of this pedagogical model stem from the idea that the first six years of life are a pivotal stage of human development, and that living conditions and education during this period are of vital importance. On a pedagogical level, this resulted in the creation of a well-organised system of educational influences, aimed at achieving certain objectives, and structured into an educational programme.

The three essential elements that underpin the programme are the family; the community, as the ideal environment for implementation; and the inter-sectoral approach. This approach is made visible and tangible in communities when the representatives from different sectors (health, education, culture, sports, protection, and others), together with organisations, institutions and associations, assume the responsibility of working towards

the common goal of ensuring the wellbeing and development of the youngest members of the community.

In order to focus on achieving the Educational Goals for 2021, and SDG 4, the Regional UNICEF Office, through its office in Cuba, advocates the contextualisation of this non-institutional care model in Ecuador, Brazil, Colombia, Mexico and Guatemala. Despite their geographic, economic and social diversity, these countries are similar in terms of inequality, poverty and the exclusion of the most vulnerable segment of the population: those in early infancy.

In order to apply the experience acquired, the study aimed at examining the elements that were indispensable, flexible and most effective for contextualising the model in different ways in each country. It also looked at the main common and individual challenges experienced during implementation, and identified the steps that needed to be taken to overcome each of them.

Due to the flexibility that characterises the Cuban experience, it has been possible to adapt it to the specific conditions of each country in the study, where there were already programmes in place associated with early childhood care:

- Brazil (State of Rio Grande do Sul) – Primeira Infância Melhor (PIM) (Better Early Childhood)
- Colombia – Pilot Experiences in "Family Life" (Departments of Antioquia, Guajira and Boyacá)
- Ecuador – Creciendo Con Nuestros Hijos (CNH) (Growing with our Children)
- Guatemala – De la Mano, Aprendo (Hand in hand, I learn)
- Mexico (State of Oaxaca) – Niños y Niñas Educándose en Comunidad (NYNEC) (Boys and Girls Learning in the Community)

At the same time, the study looks at developments in the enactment of public

policies related to early childhood, which are directly linked to social mobilisation processes, and were created in order to give new importance to education and development. These are based on the idea of the joint responsibility and commitment of different state sectors and entities, and civic duty, understood as civil and public society, in general, and the family, in particular.

Thus, in order to ensure the stability of attention to individuals and groups, and of family visits, the flexible nature of the attention modalities is reflected in: the names of the types of assistance; the various ways of interacting with families and expectant mothers; the ages of the children attended individually or in groups; and the duration of the family sessions.

Accordingly, the implementation structure for Cuba's non-institutional educational services model is present in these programmes, in one way or another; through awareness processes, the organisation of different educational modalities, education and training, social dissemination and recognition, and follow-up and evaluation. Regardless of the extent and scope of application, all of this can be applied to the entire country, to one state, province or department, or to municipalities and communities.

The methodology used for the study made it possible to visit every country in order to carry out the following activities: review of documents (laws, policies, national strategies, etc.) and national experiences; field visits, where the everyday application of the programmes in areas or regions was observed; collection and analysis of information and interviews with sponsors, implementers, families, government representatives and, where pertinent and relevant, professionals from UNICEF and UNESCO.

There were also a few obstacles when examining trends in the different countries studied. Essentially, these obstacles were related to: the lack of political commitment in supporting early childhood care; the lack

of a coherent theoretical and methodological platform to facilitate the implementation of the programmes and evaluate their effectiveness; the failure to reach the pertinent decision-makers in order to develop a coordination strategy; the lack of key tools, such as a population census for the ages 0 to 6 and for expectant mothers, a diagnosis of the initial level of development of the infant population, or the characterisation of the family and community; the absence of reasonable policies for selecting and/or hiring human resources; the lack of systematic monitoring and supervision processes; and constant changes of government representatives and institution administrators, which hinders the continuity and sustainability of the programmes.

At the end of the process, the main achievements observed in these countries were: the trend towards formulating policies on comprehensive early childhood care and their effective implementation, with the mobilisation and participation of sectors, state entities and civil society; increasing receptivity among administrators at different structural levels, among members of managing groups, and among people working directly with families; the implementation of coordinated actions between different sectors, institutions and organisations associated with early childhood care; and the high degree of sensitivity among parents, grandparents and other family members, as well as other members of the different communities.

At the same time, the experience acquired during over 10 years of cooperation to contextualise the non-institutional educational services model in different countries, has helped create a culture of collaboration; more cooperation agreements have been signed between governments or by directly requesting authorisation from Cuba's Ministry of Education or the Latin American Reference Center for Preschool Education (CELEP), which works with the ministry. In addition to the support of various international organisations, particularly UNICEF and UNESCO, it is important

to mention the cooperation relationships that have been established between CELEP and the countries advised, as well as the valuable communication and exchange that occurs between the countries that receive technical assistance.

With the support of the Regional UNICEF Office (LACRO), a publication was issued on the systematisation of the study conducted in these five countries, the structure of which allowed for each case study to be analysed, including the basic methodology that could be adapted.

UNICEF Cuba supported the programme during its implementation stages, just as it facilitated its documentation and systematisation through publications that improve understanding of the model and its possible contextualisation in other contexts, always maintaining the community focus that sets it apart. Within the framework of UNICEF's South-South cooperation initiative, the office in Cuba has supported educational exchanges between entities with similar mandates in countries throughout the region.

These exchanges are primarily aimed at promoting wellbeing during early childhood through technical assistance between countries, with the "Educate your Child" programme being recognised as a promising experience with proven and concrete results in Cuba, thus evidencing the know-how of the country's local institutions.

UNICEF Cuba, like UNICEF LACRO, actively identifies countries with best practices and experiences like these, and other countries which would benefit from their expertise in programmes that could be replicated in other contexts. As part of UNICEF's global strategy, the offices provide support for documenting best practices, technical assistance, logistical/ financial assistance and for establishing strategic partnerships between countries for South-South cooperation, as much for those that provide assistance as for those that receive it.



## MOST COMMITTEE / CUBA: A BEST PRACTICE IN THE LINK BETWEEN SCIENTIFIC RESEARCH AND DECISION-MAKING

<i>SDG to which it relates</i>	SDG 5 Gender Equality. SDG 10. Reduced Inequalities. SDG 16. Peace, Justice and Strong Institutions.
<i>Participating countries</i>	Cuba, Argentina, Brazil, Colombia, Mexico
<i>Summary</i>	<p>The MOST Committee / Cuba was established as a Hub of Social and Humanistic Sciences, which carries out research aimed at diagnosing, evaluating, predicting and proposing actions that would help solve and prevent priority issues faced by society. Its working methods are based on four organisational elements that, when applied, facilitate the use of research results in designing, executing and monitoring public policies. These elements include:</p> <ol style="list-style-type: none"> <li>1. Satisfying government requirements to support evidence-based decision-making.</li> <li>2. Increasing scientific research projects and results that transcend the diagnoses and formulate proposals to solve the problems under study.</li> <li>3. Systematising mechanisms and spaces for dialogue and consensus among members of the scientific community and decision-makers at different levels through MOST Schools.</li> <li>4. Establishing direct and horizontal relationships with other countries and/or entities in order to solve common problems, exchange research results and successful policy experiences, and strengthen strategic partnerships in order to jointly tackle the challenges of sustainable development.</li> </ol> <p>The Committee operates simultaneously as: i) a promoter of research and proposals to address social problems through public policies; ii) a collective body that provides guidance to decision-makers on the design, execution, supervision and assessment of policies; and iii) a mechanism for exchanging experiences and research results with other MOST Committees and entities.</p>
<i>Lessons learned</i>	The adoption of policies aimed at social transformation, based on evidence in the fields of social and human sciences. Two important examples are the studies "Measures to increase productivity in agriculture" and "Measures to enhance society's capacity to address natural disasters."

MOST is a UNESCO inter-governmental scientific programme for social sciences. The main objective of the experience of the MOST Committee / Cuba is to strengthen links between research results, decision-making processes and the design and implementation of policies. Although this experience can be applied to each SDG, it is directly related to SDG 5 (gender equality), SDG 10 (reduced inequalities) and SDG 16 (peace, justice and strong institutions).

The UNESCO MOST Programme, created in 1994, has an international, regional and national scope.

At the international level, the programme is directed by the Inter-governmental Council, comprised of 29 Member States for the 2017-2019 period, and assisted by a Scientific Advisory Committee, composed of experts who provide advice to the projects. Execution of the programme is the responsibility of the MOST Secretariat, located at the UNESCO Paris Office.

At the regional level, the programme is coordinated from the UNESCO Regional Bureau for Science in Latin America and the Caribbean, located in Montevideo, Uruguay.

At the national level, programme development corresponds to the National MOST Committees. These Committees promote the same general programme objectives, but also respond to local concerns. National MOST Committees are responsible for strengthening local capacities for social science research, and also play a role in the on-going dialogue between policy makers, the scientific community and civil society. In this sense, they create opportunities to demonstrate the relevance of scientific research to the adoption of public policies that address priority social problems.



Reducing the risk of disasters and adapting to climate change in the Caribbean are issues that will be addressed at UNESCO's next International Scientific School



The MOST Committee / Cuba also serves as the country's Hub of Social and Humanistic Sciences, created in 1992. The highest levels of State governance have tasked The Hub with promoting, organising, advising and developing research on priority issues faced by society.

This entity is comprised of 25 leading national scientific institutions, with the participation of working groups and specific programmes in order to address the issues designated as priority in the updated version of the Cuban Economic and Social Model.

### Scientific institutions participating in Cuba's MOST Committee

1. The Institute of Philosophy, Cuba
2. Centro de Estudios Demográficos (CEDEM-Centre of Demographic Studies)
3. Centro de Investigaciones de Política Internacional (CIPI-International Policy Research Centre)
4. Instituto de Literatura y Lingüística (Institute of Language and Literature)
5. Instituto Nacional de Investigaciones Económicas (INIE-National Institute of Economic Research)
6. Centro de Estudios de la Economía Cubana (CEEC-Centre for the Study of the Cuban Economy)
7. Instituto Central de Ciencias Pedagógicas (ICCP-Central Institute of Pedagogical Sciences)
8. Instituto Superior de Relaciones Internacionales "Raúl Roa García" (ISRI-Raúl Roa García" Higher Institute of International Relations)
9. Instituto de Historia de Cuba (IHC-Cuban Institute of History)
10. Centro de Estudios de Población y Desarrollo (Centre for Population and Development Studies)
11. Centro de Estudios de la Mujer (Centre for Women's Studies)
12. Instituto Cubano de Investigación Cultural "Juan Marinello" (ICIC-"Juan Marinello" Cuban Institute for Cultural Research).
13. Centro de Investigaciones Jurídicas (Centre for Legal Research)
14. Centro de Estudios de la Juventud (CESJ-Centre for Youth Studies)
15. Centro de Investigaciones Psicológicas y Sociológicas (CIPS-Psychological and Sociological Research Centre)
16. Centro de Estudios Martianos (CEM-Centre for Studies on José Martí)
17. Centro de Investigaciones de la Economía Mundial (CIEM-Centre for Research on the World Economy)
18. Escuela Superior del Partido Único López (Único López Party High School)
19. Consejo Provincial de Ciencias Sociales de Villa Clara (Villa Clara Provincial Council for Social Sciences)
20. Consejo Provincial de Ciencias Sociales de Holguín (Holguín Provincial Council for Social Sciences)
21. Consejo Provincial de Ciencias Sociales de Pinar del Río (Pinar del Río Provincial Council for Social Sciences)
22. Asociación Nacional de Economistas y Contadores de Cuba (ANECC-National Association of Cuban Economists and Accountants)
23. Facultad Latinoamericana de Ciencias Sociales (FLACSO-Cuba, Latin American School of Social Sciences)
24. Centro de Estudios Perfeccionamiento de la Educación Superior (CEPES-Centre for Higher Education Development Studies)
25. Centro de Estudios de la Economía Internacional (Centre for the study of the International Economy)

In order to strengthen pillars 3 and 4 of its working methodology, the MOST Committee / Cuba held its first national MOST School from July 12-15, 2016, under the title: "Methodologies for inclusive youth policies: participatory research, intermediation of knowledge and anticipatory systems." The success of this event led the organisation to hold a second edition in 2018, this time with a sub-regional scope for the Caribbean area, under the title: "Building resilient societies by promoting the connection between research and disaster risk reduction and adaptation to climate change in the Caribbean." This second edition was a joint collaboration initiative between the UNESCO international scientific programmes in order to create skills that provide a space for collective learning in relation to environmental adaptation in the Caribbean small island developing states (SIDS).

In 2018, the MOST School will focus on identifying skills gaps that might exist at the sub-national, national and sub-regional levels with respect to the connection between scientific research and environmental adaptation agendas. Participants will address possible alternatives for filling these voids.

The main elements of the MOST Committee / Cuba are: i) to encourage social research with systemic and proactive approaches as a basis for decision-making; ii) to support research and evidence-based decision-making; iii) to evaluate the impacts of social change in the country; and iv) to promote research, evidence gathering and controls by MOST Schools as mechanisms for dialogue and exchange.

The diverse solutions generated are shared through international networks of researchers in which the MOST Committee / Cuba has a strong presence, for example, the Youth and Children Work Group pertaining to the Latin American Council of Social Sciences (CLASCO), in which countries such as Argentina, Brazil, Colombia and Mexico participate. They are also shared through the MOST Programme's multiple channels, including its forums and managing bodies, and through skills training mechanisms.



### **MOST Programme Governmental Forums and Bodies**

- MOST programme inter-governmental forums, which enable it to seek the collective support of Member States by demonstrating the programme's ability to influence the establishment of international agendas and to provide the technical bases that they require.
- Social Development ministry forums, which seek to strengthen cooperative relationships between countries and forge links between social sciences research and the formulation and implementation of public policies in order to address the challenges of development collectively and effectively.
- MOST Inter-governmental Council bi-annual meetings, where priority research topic areas are established, decisions are made regarding general policy and financing, and relationships between the Programme and government authorities are managed.

### **MOST Programme Capacity-Building Mechanisms**

- The Inclusive Policy Lab, which promotes the cooperative development of knowledge, the use of this knowledge in decision-making and the sharing of know-how in order to adopt inclusive policies.
- MOST Schools, which are activities that focus on creating skills aimed at strengthening the competencies of Member States in order to promote scientific evidence-based decision-making. At these events, different actors with different roles in social transformation (researchers, academics, decision makers, civil society representatives) participate, thus ensuring holistic approaches to the problems under study, and representativeness in order to guarantee consensus on the proposed solutions.

Over the course of these 25 years of work, Cuba's MOST Committee has had a huge impact and has achieved significant results which have influenced the design of eight National Science and Technical Programmes involving 125 on-going research projects. The research carried out has also produced 26 results directly linked to decision-making. Other relevant impacts are:

- The elaboration of recommendations and proposals for social transformation that are more comprehensive and based on social and humanistic sciences.
- An increase in research projects that include cross-cutting themes (territory, gender, skin colour, age groups, etc.).
- Guidance for local and provincial governments, state central administration organisations, and social and political organisations on incorporating research results into their working strategies.
- The creation of on-going working groups to support government organisations in implementing the proposals and results of the research.
- The sharing and promoting of results and information that respond to areas of general interest through the media and social networks.
- The update of bibliographical materials included in university curricula, based on the results.
- The creation and strengthening of education and training spaces for social actors by incorporating the results of the research conducted.
- Better use of research results throughout the territories in order to generate highly qualified human resources to occupy positions in different institutions around the country.

**Example # 1. Study: "Measures for increasing productivity in agriculture"**

The study was developed by a MOST Committee working group created for this purpose.

The results were presented to government authorities in June 2007. The results of the study included the elaboration of Decree-Law 259 on the delivery of idle land in usufruct, which was applied as of 2008.

**Example # 2. Study: "Measures for increasing the capacity to address natural disasters"**

The analysis of the social impacts (specifically in terms of housing) of natural disasters was conducted by a MOST Committee working group created specifically for this purpose. The results were presented to government authorities in February 2009. The group concluded that the amount of underutilised housing in the country was equivalent to the production contemplated in the triennial housing plan. The results of the study included the modification of Chapter V of the General Housing Law and the adoption, as of 2011, of Decree-Law 288, which authorised the sale of homes between natural persons, as well as 86 other short- and long-term measures.

The results did not come without challenges, mainly because there is no habit of using social research results to design and implement policies, and there is also a tendency to produce limited research results for diagnosing and assessing the problems under study, often without elaborating proposals to resolve them. Similarly, it has been necessary to find participative methods that facilitate systematic dialogue between researchers and decision-makers.

Cuba's MOST Committee, in its role as the Hub of Social and Humanistic Sciences, holds bimonthly plenary sessions where research results on priority issues in the country are presented. Representatives from the organisations that present the results, social organisations and the press are also invited. These meetings are often presided over by the First Deputy Chairman of the State and Ministry Councils. These meetings are a direct channel for dialogue between scientists, decision-makers and social communicators, which helps strengthen consensus and

overcome weaknesses in decision-making on priority issues, and enhances society's strategic projection.

The MOST programme, and in particular the MOST schools, have helped increase the effectiveness of both decision-making processes and social research, resulting in more comprehensive and impactful social transformation.

For more information on this experience, please consult National MOST Committees around Latin America and the Caribbean, and the regional mechanism of the UNESCO Regional Office for Culture for support.

# PART III. RISK MANAGEMENT AND CLIMATE CHANGE

## PROMOTING THE RESILIENCE OF COASTAL ECOSYSTEMS AS A STRATEGY FOR ADAPTING TO CLIMATE CHANGE IN CUBA

<i>SDG to which it relates</i>	SDG 6. Clean Water and Sanitation. SDG 11. Sustainable Cities and Communities. SDG 13. Climate Action. SDG 14. Life Below Water. SDG 15. Life on Land.
<i>Participating country</i>	Cuba
<i>Summary</i>	A description of Cuba's experience over the last 25 years in managing biodiversity and rehabilitating coastal marine ecosystems, and its environmental services, as a strategy for adapting to climate change. The results of applying the Integrated Coastal Management and the Adaptation Based on Ecosystems are highlighted.
<i>Lessons learned</i>	Project the adaptation to climate change along the coastal area using a cross-sector and inter-sectoral approach, with a high level of participation by governments and local communities. Incorporate the adaptation measures into local development plans. Develop a communication strategy to increase local communities' perception of the risk.





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This project has permitted the development of methodologies for the ecological restoration of the mangrove ecosystem and other coastal ecosystems

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The coastal area of Cuba is very vulnerable to extreme hydro-meteorological events and to the predicted impacts of climate change, in particular coastal flooding and saline intrusion. This scenario is further aggravated by the severe effects on the main coastal protective ecosystems (coral reefs, seagrasses, beaches and coastal forests), which then reduces their capacity to act as a barrier. This situation is a serious threat to coastal communities and to all the production and service activities that take place in these areas.

The coastal adaptation to climate change experience is based on the contribution of several projects implemented by UNDP over more than 25 years, mainly funded by GEF, the Adaptation Fund and the Cuban Government. These projects have been executed in a staggered and complementary manner under the leadership of the Environmental Agency and the National Centre for Protected Areas, which belongs to the Ministry of Science, Technology and Environment. The approach has evolved from studies and actions related to biodiversity and ecosystem conservation, to the implementation of ecosystem-based adaptation as a strategy for increasing the resilience of coastal areas.

Here is a list of UNDP projects that support the results of this experience: "Strengthening the National Protected Areas System SNAP", (2002-2027), "Management of Marine Protected Areas in Southern Cuba" (2007-2014), "Integrated Watershed and Coastal Area Management in Cienfuegos" (2008-2010), "Sabana-Camagüey Ecosystem" (1993-2015), "Ecosystem-based Adaptation in the South of Artemisa and Mayabeque" (2014-2019), "Small Grants Programme (SGP)" (2005-2018), "Prevention, Control and Management of Invasive Alien Species" (2011-2017), "Second National Communication on Climate Change" (2008-2015).

This experience was successful because it has generated and gradually validated both knowledge and integrated methodological tools. This has helped to prepare key

institutions and national actors for designing and implementing an effective climate change strategy that combines the risk scenario with the country's sustainable development goals. Some of the main components that have guaranteed the successful implementation of this strategy are the following:

- A strong alliance with the production and service sectors, as well as a high level of government and community ownership and involvement.
- The strengthening of legal and regulatory frameworks and institutional capacity, and the generation of scientific knowledge and methodologies.
- Marine and coastal protected areas were set up, with improved management.
- Human welfare studies and economic valuation of environmental goods and services in coastal communities were carried out.
- Integrated Coastal Management (a methodology applied widely on a global scale adapted to Cuban conditions) was implemented as a strategy to reduce impacts on productive activities and strengthen integration between the conservation and production sectors.
- Pilot projects for economically viable and environmentally sustainable activities in the tourism, fishing, agricultural and forestry sectors were developed.
- Research was carried out on the vulnerability and impacts of climate change as a basis for the identification and implementation of sectorial and territorial adaptation measures.
- Hazard, vulnerability and disaster risk studies were modelled and developed at the municipality level, particularly with respect to coastal flooding, heavy rains and strong winds.

- Communication and awareness-raising strategies were developed to increase the communities' perception of risk and their participation in adaptation measures.
- Protocols for monitoring biodiversity and key marine and coastal ecosystems were established and implemented, and the impacts of climate change impacts were evaluated.

Important results have been obtained from this experience. The actions implemented as part of Integrated Coastal Management covered a total area of influence of 75,000 km<sup>2</sup> (five provinces and 23 municipalities); 22 capacity building centres were established, together with a centre for the sustainable development of tourism (with four provincial subdivisions); 14,000 people were trained; the Masters in Integrated Coastal Management was developed; nine municipalities have applied the Environmental Management Model; 19 municipalities have implemented Integrated Coastal Management, and 13 of these have been certified; seven areas under Integrated Coastal Management regimes were established (covering 15 municipalities); the Cuban Standard: "The design, construction and use of causeways for tourism in the cays of the Sabana Camagüey Archipelago" was established; four new nature tourism products and three alternatives for sustainable fishing were validated; two buffalo farms were set up with demonstrations of their practices; 70 jobs were created; and 15 scientific publications were produced.

In terms of biodiversity and protected areas, there was a significant increase in the National System of Protected Areas—from 35 in 2001 to 103 in 2012, which represents 16.92 per cent of Cuban territory; ten protocols for monitoring biodiversity and key ecosystems of the marine and coastal region were established; methodologies were put in place for improving the effectiveness of the management of marine and coastal protected areas, for identifying and proposing new protected areas, and for designating regions under the Integrated Coastal Management regime; finally, the

cooperative monitoring capacity of the inspection bodies was strengthened in order to minimise negative impacts on biological diversity.

In terms of climate change adaptation, the report "Study of the impact of climate change and adaptation measures in seven sectors: human health, human settlements, land use, forests, water resources, biological diversity, coastal areas and marine resources" was published; methodologies were developed for the ecological restoration of the mangrove ecosystem and other coastal ecosystems (swamp forest); and an Early Warning System was designed and implemented to manage and control invasive alien species.

The main challenges that arose during the implementation of this experience were: i) working with diverse areas of knowledge in an integrated way; ii) involving various sectors and key actors at the national and territorial levels; iii) incorporating environmental issues into strategies and development plans; and iv) carrying out communication and awareness-raising activities related to the risk perception of vulnerable communities.

The experiences described have been systematised and can be shared in videos as well as printed or digital material and publications. The Sabana Camagüey project was included in the UNDP global publication celebrating 25 years of collaboration with the GEF: "Voices of Impact: Speaking For The Global Commons. Stories from 25 years of environmental innovation for sustainable development" (2016). It is also worth mentioning the article by Heraldo Muñoz, UNDP Regional Director, published in the Cuban magazine TEMAS (January-March 2013): "A Biodiversity Superpower: adaptation challenges for Latin America and the Caribbean: reducing vulnerability on the coasts of Cuba."





These initiatives have led to a significant increase in the National System of Protected Areas



## PROMOTING SUSTAINABLE LAND MANAGEMENT AND CLIMATE CHANGE ADAPTATION IN CUBA'S AGRICULTURAL SECTOR

<i>SDG to which it relates</i>	SDG 2. Zero Hunger. SDG 4. Quality Education. SDG 5. Gender Equality. SDG 6. Clean Water and Sanitation. SDG 7. Affordable and Clean Energy. SDG 8. Decent Work and Economic Growth. SDG 12. Responsible Consumption and Production. SDG 13. Climate Action. SDG 15. Life on Land. SDG 17. Partnerships for the Goals.
<i>Participating country</i>	Cuba
<i>Summary</i>	Presentation of the results of the implementation of Sustainable Land Management (SLM) as a strategy for stopping land degradation and fighting drought, as well as the strategy implemented in order to incorporate measures to adapt to climate change in the agricultural sector.
<i>Lessons learned</i>	The need to apply an SLM focus in order to strengthen the functions of agricultural ecosystems, due to their comprehensive approach and proven effectiveness. The need to take a comprehensive approach in order to respond to climate change as a developmental challenge; awareness of the fact that adaptation processes are more effective when they are based on widespread participation by the different actors involved; and the importance of using demonstrative actions at a local level in order to contribute to the design of sector policies at a national level.



Cuba has a total land area of 10,988,400 ha, of which 6,686,749 ha is agricultural land. Agriculture has been directly affected by the strong land degradation process (76 per cent is affected to some degree) and by the impacts of climate change.

Land degradation has been identified by the National Environmental Strategy as one of the main environmental issues. Since 2005, UNDP has promoted initiatives to implement Sustainable Land Management (SLM) as well as other climate change adaptation measures in the agricultural sector in order to contribute to the environmental sustainability of this area.

This experience has been supported by contributions from the following initiatives:

- Country Partnership Programme supporting the National Programme to Combat Desertification and Drought (2008-2023), financed by the GEF and the Cuban Government. At the national level, it is implemented by the Environmental Agency, which is part of the Ministry of Science, Technology and Environment. UNDP manages the Programme, while this same agency and UN Environment are responsible for its execution. FAO provides technical cooperation. One of the ultimate goals of the Programme is to effectively incorporate SLM for more than 1.2 million hectares of agricultural, livestock and forested areas.
- Environmental Foundations for Local Food Sustainability Project (2012-2020). The Environment Agency/Institute of Tropical Geography execute this project at the national level in close collaboration with the Ministry of Agriculture. UNDP is responsible for implementation with the financial support of the European Union (EU), the Swiss Agency for Development and Cooperation, and the Government of Cuba. In addition, the EU's Joint Research Centre participates with support for scientific research activities.
- GEF Small Grants Programme. This programme supports community organisations and

cooperatives in implementing more than 100 projects focused on addressing local problems related mainly to biological diversity conservation, climate change mitigation and land degradation prevention.

The main components of this experience include:

- Establishing strong alliances with the following sectors: agricultural and forestry, physical planning, scientific-environmental, water resources, education and banking. A high level of ownership and participation by governments and communities is also vital.
- Methodological design and implementation of SLM, including the preparation of manuals and other educational materials.
- Strengthening the legal and regulatory framework for implementing SLM.
- Methodological design to promote adaptation in the agricultural sector.
- Technology transfer related to cover crop systems (cultivation houses) and biodigesters made with PVC geomembrane.

Important results have been obtained from this. Specifically, two new Cuban standards that support SLM were approved, and SLM was incorporated into more than 100 technical standards from the Ministry of Agriculture; methodological procedures were established to implement SLM in Cuba; the principles of SLM were incorporated into the National Scheme for Land-Use Planning by 2030; a Digital Repository on SLM was established (<http://mst.ama.cu>); 25 technical, informative and educational manuals were developed and published to support the implementation of SLM; the SLM concept was incorporated into study programs at the national middle, technical and higher education levels; a Masters in SLM was certified at the University of Camagüey; more than 270 training sessions were given (with more than 4,070 beneficiaries); SLM practices were applied

to 30,889 ha on 1,893 farms, across 35 demonstration areas (so-called polygons) established by the Ministry of Agriculture; in collaboration with the National Institute of Hydraulic Resources (INRH) information related to ecology, sedimentation and loss of reservoir capacity in basins of interest was collected; the INRH Monitoring System was strengthened, and national indicators were established with an SLM approach for Water Monitoring, as well as the Early Warning System for extreme weather events in the Pinar del Río province; a resolution was approved that provides for the "Recognition for the declaration of SLM areas"; and the first two agricultural production units were certified in 2017.

Agricultural practices and technologies for climate change adaptation have benefited 18,000 ha; 7,000 people (1,500 women) have benefited by increasing the adaptive capacity of their productive units; 5 gender-based affirmative action projects were implemented with improvements for 120 women from three municipalities; 26 productive units now apply technological solutions to use bioenergy resources, renewable energy sources and improved energy efficiency; 2,260 people (530 women) from three municipalities receive agrometeorology products and services; and seven Capacity Building and Knowledge Management Centres and three Environmental Information Systems have been established in the same number of municipalities.

This experience has revealed that cross-cutting intervention strategies such as capacity building, communication and gender focus must be part of any climate change adaptation process. They contribute by raising awareness amongst the different actors involved, making the process visible and disseminating project activities, and generating multiple opportunities for learning and innovation processes.

The experience of applying SLM on a farm in Pinar del Río was selected among eight success stories worldwide, and was included in

the GEF, UNDP and UNCCD publication called "Listening to our Land: Stories of Resilience." The book was launched at the UNCCD CoP 13 held in September, 2017 in China.

At the same time, the climate change adaptation experience is being systematised. This systematisation includes tools, lessons learned and guidelines for implementing processes at each phase.

Experiences in agrotourism and agroecological practices developed by the SGP have been transferred to farmers in Fiji and the Solomon Islands, Guatemala, Nicaragua, Belize and Jamaica. In 2016, this experience was given the South-South Cooperation Award promoted by UNDP and the LAC Region. It was also selected among the nine best experiences at a global level (123 countries) and was presented at the Global South-South Development Expo held in Turkey, in November 2017.



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The concept of Sustainable Land Management has been added to the curriculum in secondary, higher and polytechnic education in Cuba.

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## CUBA AND HAITI: STRENGTHENING RESILIENCE IN THE CARIBBEAN

<i>SDG to which it relates</i>	SDG 13. Climate Action
<i>Participating countries</i>	Haiti and Cuba, with support from the German Government through the programme “Forecast-Based Preparation for Emergencies”
<i>Summary</i>	<p>This experience aims to improve national and local capabilities in Haiti for handling extreme hydrometeorological events, in order to reduce their impact on food and nutritional security by transferring the expertise of Cuban institutions on this topic, and adapting it to the needs of Haiti.</p>
<i>Lessons learned</i>	<p>It is not only important to be aware of necessities, but also of the actual conditions for the implementation of actions. From the ideas stage, and throughout the development of the project, while it is important to have in-depth knowledge of the interests and objectives of each country, it is also vital to understand their real technical capabilities and human resources, which will ensure that the activities are carried out within the planned period. It is not enough to be convinced that the goals are necessary and useful; participants must be sure that all of the technical, logistical and even structural conditions that guarantee the realisation of the activities involved in the project are in place. Choose the right people. The personnel taking part in the training sessions and other activities that form part of the project should be carefully selected based on the objectives to be achieved and the real ability of the attendees to implement the knowledge they acquire in these activities.</p> <p>Evaluate the real impact of the actions carried out using SMART indicators. In workshops where the results obtained are analysed, it is important that all participants understand how to meet project objectives and to what extent each one has fulfilled its role. Participants must understand how the actions implemented contribute to the fulfilment of the project’s objectives. Include the SAN approach in projects. Plan for the application of WFP tools associated with the project objective which offer added value and support the presence of WFP in coordinating the actions. Clarity in the project scope in relation to other actions in similar collaborative projects. During project creation, it is important to map out the collaborative actions carried out in the countries involved so that the intended scope and objectives are well defined, and synergies can be established without overlapping objectives. Take into account all previous findings associated with the scope of the project. Carry out an exhaustive review of the results obtained in other projects which can be used as a starting point for the planned actions.</p>





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The development of the skills of Haitian institutions and specialists has improved their ability to handle the extreme weather events faced by the country

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This experience aims to improve national and local capabilities in Haiti for handling extreme hydrometeorological events in order to reduce their impact on food and nutritional security. The initiative is based on transferring the expertise of Cuban institutions in this area, and adapting it to the needs of Haiti. Considering that there is evidence linking the increase in the severity of these events over the last 15 years with climate change, this project ties in with SDG 13, associated with adopting urgent measures to combat climate change and its impact.

Haiti and Cuba experience similar levels of exposure to extreme hydrometeorological events, such as hurricanes and droughts. However, in Haiti these events have a more severe impact on food and nutritional safety, and other vital sectors of the economy. According to a study conducted by the World Bank, this country has one of the highest levels of exposure to multiple events in the world. With 96 per cent of its population living in vulnerable conditions, Haiti is considered to be the region's island country that is the most vulnerable to tropical cyclones (12.9 out of 13).

This collaborative initiative first came about at a regional workshop held by the World Food Programme (WFP) Regional Office in December 2014, so that Cuba, Haiti and the Dominican Republic could share their experiences. The national authorities from these three countries, and WFP representatives participated. The German Government financed one of the areas of collaboration established during the workshop, related to strengthening early warning systems through the project entitled "Forecast-Based Emergency Preparations," which involves technicians from Cuban institutions sharing their expertise in order to strengthen Haiti's risk management capabilities and its response to these events.

The initiative aims to improve the effectiveness of the country's response by planning actions to be applied in the event of specific forecasts, and includes the following components:

- Strengthening weather monitoring by transferring tools designed in Cuba to improve the surveillance and forecasting of these events, together with the creation of more detailed and reliable information products which can be used for decision-making on a local level.
- Identifying communication channels which ensure that key local actors receive the data generated by weather surveillance institutions in a timely manner.
- Planning the responsive actions that form local contingency plans based on specific forecasts for each event and the level of risk at the time of impact.
- Risk estimation that enables local actors to make decisions in order to reduce the risk and detect areas of weakness which have still not been resolved when an event threatens.
- Training Haitian technicians on the surveillance of extreme weather events and on disaster risk management in Cuba and Haiti.

The solutions provided can be shared with the countries of the South by transferring methods and tools, as well as by training and knowledge management activities.

As a result of the initiative, Haiti now has new tools to strengthen its capacity for disaster risk management and response to extreme events, enabling it to mitigate the impact on food and nutritional security. The main results obtained include:

- The adoption of a numerical model by Haiti's National Meteorological Centre which enables it to establish the possible path of a hurricane between 48 and 72 hours in advance.
- The training of Haitian staff to carry out studies of danger, vulnerability and risk at community levels. Between 2016 and 2017, over 40 people were trained to carry out studies in two communities located in the



commune of Jacmel. During this same period, the Cuban Meteorological Institute trained 10 Haitian technicians from the Meteorological Centre, and six officials from risk management institutions were trained by Civil Defence

- The strengthening of Haiti's National Hurricane Contingency Plan. Several actions are currently being implemented to continue improving weather surveillance, with the addition of new models for coastal flooding and intense rains, in order to improve national and local communication and strengthen community contingency plans. There are also plans to strengthen capacities in comprehensive drought management.

One of the biggest challenges faced was the lack of equipment necessary for implementing the numerical models developed by Cuban specialists, and the lack of data for carrying out risk studies. Setting up a numerical model in Haiti developed by specialists from the Atmospheric Physics Centre of the Institute of Meteorology was an enormous challenge, since Haiti's National Meteorological Centre did not have computer systems capable of supporting the installation of the model; this required additional investment and therefore lead to a delay.

Documents are available which systematize the procedures and tools adapted to Haiti which make it possible to replicate this experience in other locations. Some of these are: the procedure for organising the response to tropical cyclones; the procedure for the early warning system in the event of extreme hydrometeorological events; and methodologies for Hazard Vulnerability Assessment (HVA).



## RESILIENT COMMUNITIES: DISASTER RISK REDUCTION

<i>SDG to which it relates</i>	SDG 11. Sustainable Cities and Communities. SDG 13. Climate Action.
<i>Participating countries</i>	Cuba, Jamaica, Trinidad and Tobago, Guyana, Dominican Republic, British Virgin Islands and the municipality of Talcahuano in Chile.
<i>Summary</i>	<p>Many developing countries require management tools for disaster risk prevention, and face similar problems associated with extreme hydro-meteorological disasters such as hurricanes, floods and landslides caused by heavy rains and coastal flooding. They also face problems associated with the risk of earthquakes, and the impact of climate change: extreme droughts, rising sea levels and high temperatures. These risks limit sustainable development. The UNDP, together with the Cuban authorities, implements cooperation projects based on risk prevention, impact recovery and the adoption of measures to adapt to climate change. Through these projects it has made use of a set of work tools and methodologies, as well as experiences that strengthen risk management on a local level.</p>
<i>Lessons learned</i>	<p>During the knowledge transfer developed, there is a need for a methodology for South-South cooperation in which the roles of recipient, provider and facilitator are well defined. The ownership and involvement of the recipients, and the commitment of the provider are vital for the successful adaptation of the tools to suit the local context and the gaps identified by the countries receiving the cooperation.</p>





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These projects have supported the strengthening of Early Warning Systems for Hydrometeorological Hazards, such as hurricanes, severe storms and floods

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Since 2005, UNDP Cuba has been implementing cooperation programmes to promote effective local governance of disaster risk reduction (DRR) and encourage resilient human settlements. The Country Office has a toolkit and methods that bring together risk management and adaptation to climate change in sustainable development strategies and disaster prevention and response plans.

Its main components are:

- Strengthening the management and decision-making capacities of local governments and key service and industry sectors through: i) the creation of Risk Reduction Management Centres (RRMC) and Early Warning Systems (EWS) in vulnerable communities; ii) the use of Hazard, Risk and Vulnerability Analysis (HRVA), Disaster Reduction Plans and Land Use Planning (LUP); and iii) strengthening coordination mechanisms between local actors through protocols and information exchange platforms.
- Strengthening Early Warning Systems (EWS) for hydrometeorological hazards such as hurricanes, severe storms and flooding by: i) strengthening and expanding the coverage of weather surveillance and forecasting systems; the use of technology for the interpretation of satellite images and the transmission of data from automatic weather stations; and the use of “volunteer observers” in vulnerable communities; ii) the use of tools to analyse the data and make timely decisions to protect the population and its financial resources; iii) using media outreach strategies to strengthen local capacities in public announcements; and iv) educating and involving the community (gender-focused risk perception survey, educational manuals).
- Strengthening EWS and adaptation to drought through the comprehensive management of the water chain through: i) the transfer of technologies and methodologies for monitoring water sources (dams and underground basins); ii) the creation of a special plan for the management

and protection of underground basins; iii) designing a protocol for drought detection, used as a tool to support water management; iv) strengthening water distribution systems for more efficient use (manual); v) introducing measures by which communities are able to adapt to drought (catalogue of water harvesting solutions and the systematization of drought adaptation measures).

- Increasing urban resilience to the impact of disasters by perfecting local management tools: a technical manual on the basic principles of urban resilience; the use of standards for the management of urban areas and risks currently in force in the country; the proposal of gender-based indicators in the context of urban resilience; and planning methodologies, urban/rural land records and urban regulations.

The experience of the RRMCs and their tools was shared with five Caribbean countries: Jamaica, Trinidad and Tobago, Guyana, Dominican Republic, British Virgin Islands and the municipality of Talcahuano in Chile, and involved the following actions:

- Compiling the procedures and methods to be transmitted.
- Preparing guides in order to orient recipient countries on the minimum conditions required for adapting the experience, and the role that they will play in its replication.
- Visiting recipient countries to learn about their experience and raise awareness among local and national decision makers.
- Technical training missions in Cuba for personnel from the recipient country.
- Consultancy missions by Cuban experts for the replication of the tools prioritised.
- Publication of the South-South transference methodology applied: Sharing Experiences: South-South cooperation for disaster risk reduction in the Caribbean.

The most significant impacts this knowledge transfer had on the recipient countries were:

- Dominican Republic: Risk Reduction Management Centre in the municipality of La Victoria (population 60,900). Early Warning System in Hacienda La Estrella (population 12,000). Protection against the risk of flooding, hurricanes and earthquakes.
- Jamaica: RRMC in Spanish Town (population 162,359). Two EWS: Old Harbour (population 23,610) and Linstead (population 15,046). Protection against the risk of landslides, hurricanes, urban flooding and flooding in the area adjoining the river.
- Guyana: RRMC in Lethem (population 12,000). EWS in the communities of Mickey's Landing, Massara (population 418) and Sand Creek (population 805). Protection against the risk of flooding, fires and droughts.
- British Virgin Islands: RRMC and EWS in the municipality of Anegada (population 308). Protection against the risk of flooding, hurricanes, earthquakes and tsunamis.

- Trinidad and Tobago: RRMC in Río Claro (population 3,552). EWS in Biche (population 2,350) and in Radix (population 1,514). Protection against the risk of flooding on rivers and coasts, strong winds, land and coastal erosion, landslides and potential risks caused by coastal drilling.
- Municipality of Talcahuano de Chile, hit by a tsunami: the construction of community centres, a combination of RRMC and EWS for vulnerable areas.

This experience has been systematised for its possible replication in other countries. There is a guide available on the requirements that must be met in order to adopt this experience, and the toolbox containing the main instruments for the functioning of RRMCs can also be used.



## ACCESS TO SEXUAL AND REPRODUCTIVE HEALTH IN EMERGENCIES

<i>SDG to which it relates</i>	SDG 3. Good Health and Well-Being, and SDG 5. Gender Equality.
<i>Participating countries</i>	Caribbean island states.
<i>Summary</i>	<p>Developed by the Maternal and Child Health Programme (PAMI) run by the Ministry of Public Health (MINSAP), with support from UNFPA, this experience aims to reduce maternal and infant mortality in populations affected by emergencies, while also helping to guarantee access to basic sexual and reproductive health (SRH) services among women of reproductive age, pregnant women and adolescents.</p>
<i>Lessons learned</i>	<p>The preventive action taken by PAMI before emergencies makes it possible to provide services for pregnant women in hard-to-reach places, who are at risk or whose homes are particularly vulnerable.</p>

Caribbean countries face significant challenges during emergencies. It is essential to develop collaboration strategies in order to improve preparations for providing timely responses that cover the basic needs of women, young people and adolescents.

A successful programme has been applied in Cuba through the Maternal and Child Health Programme (PAMI) run by the Ministry of Public Health (MINSAP), with support from UNFPA. This experience has made it possible to reduce maternal and infant mortality among populations affected by disasters such as hurricanes, and guarantee their access to basic sexual and reproductive health (SRH) services, including teenage pregnancy prevention.

The initiative is directly related to SDG 3, aimed at guaranteeing “good health and well-being” and, in particular, it is related to targets 3.1, 3.2 and 3.3, concerning reducing maternal and infant mortality and HIV infection rates, as well as target 3.D, which is focused on strengthening the capacity for early warning and health risk management in these countries. It also ties in with SDG 5, aimed at achieving gender equality, and in particular with target 5.6: “To ensure universal access to sexual and reproductive health and reproductive rights.”

The effectiveness of the programme developed by PAMI and UNFPA, has been confirmed during several emergencies (Hurricanes Sandy, Mathew and Irma), and supports the process of revitalising health institutions in affected areas in order to guarantee the functionality of obstetric services and SRH, and to offer quality care in the medium-term. It also covers urgent pregnancy prevention needs and the treatment of sexually transmitted infections (STIs), including HIV.

Access to health services can be difficult during emergencies since health facilities are damaged, destroyed or become inaccessible. There is also an increase in maternal mortality and sexual violence. This is in addition to the shortage of reproductive health services, including care during pregnancy and childbirth.

According to UNFPA data, approximately 75 per cent of the population of Latin America and the Caribbean lives in high-risk areas: emergencies are responsible for three out of every five preventable maternal deaths and 45 per cent of new-born deaths.

Cuba is internationally renowned for its disaster risk reduction and prevention capacity. In the case of the SHR, this is specifically addressed by PAMI, established in 1980 to contribute to improving health among communities through prevention, promotion, protection and health recovery actions. As part of the Cuban health system, PAMI is activated in emergency situations to provide an immediate response during any of the four phases established by Cuban Civil Defence in order to guide the progressive response to weather-related disasters: the informative phase; the alert phase, when hurricane winds may hit within up to 48 hours; the alarm phase, when a hurricane is imminent and will hit in 24 hours or less; and the recovery phase, when the danger has ceased and the process of recovering services begins.

As a United Nations agency, when UNFPA declares a situation of emergency it forms part of the humanitarian response network that works with governments to help affected populations. This action falls within the framework of the budgets established by the organisation in its SHR Minimum Initial Service Package (PIMS) for emergency situations, on which Cuban PAMI specialists have been trained.

The combined response of PAMI and UNFPA began in 2008 and contributes to improving maternal health and family planning, to protecting women, girls, young people and adolescents against sexual violence, and to preventing STIs and HIV.

#### **The main objectives of this experience are:**

- To improve the nation’s capacity to guarantee access to basic SRH services among the affected population, in particular among key

groups such as pregnant women, adolescents and people with HIV.

- To create an action plan that includes SRH in national emergency preparedness plans.
- To offer a swift response to SRH needs in crisis situations.
- To improve access to services and information on SRH among affected populations, using a gender and rights-based approach.

Based on Cuba's experience in the provision of health services to other countries in the region, and the transfer of its early warning experiences within the framework of South-South cooperation, it is believed that this initiative can be reproduced in other Caribbean island states that are located in Hurricane Alley. One of the variables affecting success is having a well-developed preparation phase that, in the case of hurricanes in Cuba, begins at the very start of hurricane season. As such, PAMI has preventive systems that are activated prior to an emergency situation and make it possible to provide services to pregnant women who live in hard-to-reach or high risk places, or whose homes are particularly vulnerable. In addition, PAMI has access to demographic data that makes it possible to calculate the scope of the potential impact of the emergency and the required response. Lastly, the capacity of health staff to provide SRH care and prevent violence were improved.

During an emergency, an initial assessment of the damage is performed and the needs are defined; the established protection protocol is activated, paying particular attention to the needs of girls, adolescents and women; medical services and psycho-social support are made available to survivors, in addition to emergency obstetric care for mothers and new-borns. Additionally, supplies are obtained for:

- The hygiene needs of women and girls of reproductive age, and pregnant women and their families.

- The urgent demand for contraceptives such as condoms, pills, injectable birth control and emergency contraception.
- Supporting the restoration of health services for childbirth, abortion, obstetric surgeries and caesareans in the affected areas.
- Care of people with STIs and HIV.

### CHALLENGES:

Among the challenges it was necessary to address is the need to adjust the response to the real needs of the affected population. In order to do this, during the preparation stage it is important to have access to demographic data broken down by province, municipality and settlement, since this will help guarantee a more efficient and timely response.

Another challenge is associated with quickly obtaining and distributing resources during emergencies. In this sense, it is important to locate resources in nearby countries as a preventive measure, and to find fast ways of receiving them in the affected area. It is also important to establish direct relations with the Government of the country receiving the assistance, and the national companies that are responsible for importing and distributing it.

It is also necessary to have staff who are trained to use the manuals or kits that form part of the UNFPA response. The training of professionals dedicated to this task takes place at the PIMS prior to the start of the hurricane season.





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The experience has created prepared health care systems, making it possible to safeguard pregnant women living in hard-to-reach places, who are at risk or whose homes are particularly vulnerable.

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## SANITARY RISK MANAGEMENT

<i>SDG to which it relates</i>	SDG 3. Good Health and Well-Being
<i>Participating countries</i>	Haiti, Dominican Republic, Cuba
<i>Summary</i>	<p>Classical swine fever (CSF) is a cross-border disease because it threatens pig-farming worldwide and the dietary safety of countries affected by it, causing high financial losses. Following an epizootic silence of over 25 years, bouts of CSF began to appear in Cuba from 1993, eventually acquiring epizootic disease characteristics. This exposed a lack of development in diagnostic methods and a failure to answer many questions on their epizootiological behaviour. This shed light on the need to develop a scientifically-grounded programme for prevention and control. In 2002, FAO responded by offering Cuba technical support to strengthen the prevention and control of CSF.</p> <p>As part of the Continental Plan for the Eradication of CSF, Cuban specialists from institutions that had been supported by FAO in 2002 shared their knowledge with colleagues in Haiti and the Dominican Republic in 2016 and 2017 in order to: a) review and establish diagnostic and confirmatory tests (serological and virological), and standardise laboratory CSF diagnostic procedures, as recommended by the World Organisation for Animal Health (OIE); and b) strengthen the management of suspicious cases and outbreaks, train vets to recognize CSF on farms, and manage epidemiological surveillance and risk analysis.</p>
<i>Lessons learned</i>	<p>The similarities between countries in the same region, such as the Caribbean, facilitates technical exchange and cooperation through sharing best practices. Joint activities between neighbouring countries sharing a specific sanitary situation contribute to the technical cooperation needed to solve it. A thorough revision of the diagnostic procedures made it possible to correct them, taking into account recommendations from international agencies; this resulted in greater diagnostic sensitivity and more confirmed outbreaks of CSF. The recommendation for farm veterinarians to use mobile phones to report suspected cases helped the Department of Surveillance improve its records. The Dominican Republic was able to compile a record of cases, which contained indispensable additional information. This made it possible to study the disease in more depth, from an epidemiological point of view, and analyse the associated risks, thus facilitating decision-making on controlling the disease.</p>

This initiative ties in with SDG 3, (good health and well-being), especially in terms of strengthening the capacity of all countries, and of developing countries in particular, with respect to early warning, risk reduction and risk management for national and world health risks. As such, it contributes to improving the population's health through significant achievements in human health-animal health interactions. It also favours the security of the population's access to food by preventing/controlling diseases that lead to the death and reduction of the productivity of domestic animals, which are a common livelihood in countries throughout the region.

To this end, the Food and Agriculture Organization of the United Nations (FAO) has been promoting its continental plan for the eradication of CSF in the Americas since 2002. This ties in with the aims of Strategic Objective No. 5 - "Improve the resilience of livelihoods to threats and crises" - appearing in its strategic framework for 2010-2019. Thus, when CSF reappeared in the Dominican Republic in 2015, and given the poor sanitary conditions that favoured the disease in Haiti, in 2016-2017 Cuba developed an extensive programme of technical advice and experience sharing, with the support of FAO. This was aimed at strengthening the monitoring, detection and control of the disease in the field, as well as its diagnosis in the laboratory. Cuba, the Dominican Republic and Haiti, the Caribbean countries affected by CSF, have joined the programme for the eradication of the disease in the Americas, promoted by FAO.

The main elements of the case were: a) technical consultancy provided to the Dominican Republic Central Veterinary Laboratory (LAVECEN) in order to examine and establish the diagnostic testing for confirming cases of CSF (serological and virological), and standardisation of the procedures used for taking and sending samples

to the laboratory and the diagnostic procedure subsequently performed, pursuant to the recommendations of the World Organisation for Animal Health (OIE); b) technical advice in order to improve the handling of suspected and confirmed outbreaks, as well as training for veterinarians from the Dominican Republic and Haiti on detecting and monitoring CSF; and c) improving skills for epidemiological surveillance and risk analysis in the Dominican Republic.

The technical proposals for improving skills for monitoring CSF were shared among the Caribbean countries affected by the disease (Cuba, the Dominican Republic and Haiti), and which are part of the continental plan for eradicating it from the Americas, promoted by FAO. The most noteworthy results of this experience include:

- Consultancy to the Dominican Republic Central Veterinary Laboratory (LAVECEN). The diagnostic algorithm established by the OIE for CSF was implemented, together with the corresponding procedures manual for sampling, which made it possible to improve the sensitivity of the diagnostic tests, and lead to the detection of the disease in a greater number of the cases sent to the laboratory.
- Two courses/workshops were held, one of which involved both the Dominican Republic and Haiti, in order to improve the handling of suspected and confirmed outbreaks, and to train veterinarians in field testing and epidemiological monitoring of CSF.
- Each country presented an analysis of its own strengths and weaknesses in relation to the guidelines established by FAO for progressively controlling CSF.
- An agreement was made between the two nations for controlling the disease on the

island, with special attention to the inclusion of an action protocol for developing a containment zone on the border between the Dominican Republic and Haiti. The initiatives included the proposal of a bilateral communication strategy for cases of CSF in the containment zone, and the creation of Haitian/Dominican technical teams responsible for carrying out common epidemiological studies along the border.

- This cooperation was further strengthened by exchanges shared between Haitian and Dominican specialists as part of the discussion on different aspects of the disease, its diagnosis and control.
- It was recommended that farm veterinarians should notify the Animal Health Surveillance Division of suspected cases of CSF by mobile phone, and this was implemented in the Dominican Republic, making the reporting and registration of cases more agile.
- Theoretical and practical training on the use of CSF risk analysis tools was provided at the Dominican Republic Animal Health Surveillance Division in order to improve the monitoring and control of the disease in the highest risk areas.
- Based on the technical advice it received, the Dominican Republic Animal Health Surveillance Division created a database for the data recorded since the reappearance of CSF, which made it possible to carry out studies to determine the behaviour of the disease, and tests to identify the greatest risk areas.
- It was concluded that reducing the risk of the cross-border spread of disease through cooperation and technical advice favoured the resilience of livelihoods in countries affected by threats such as CSF.

It was also necessary to address several challenges associated with the different socio-economic conditions in Haiti and the Dominican Republic, which affected the standardized implementation of the CSF control programme on the island; the need to provide practical demonstrations of procedures for collecting and transporting samples in the field for laboratory diagnosis; the lack of sufficient information for carrying out epidemiological studies and risk analyses on the reappearance of CSF in the Dominican Republic; and the effective communication of the results of the preliminary epidemiological tests on the reappearance of CSF, and the risk analysis.

In this sense, several strategies were used:

- A workshop run by both countries to strengthen the existing alliances between the countries on animal health, and contribute to joint actions, with a specific focus on the border area, through the creation of technical teams with members from both nations.
- Analysis of strengths and weaknesses was carried out by the teams from each country in order to develop a programme for controlling CSF and to identify areas for cooperation between the two countries.
- The creation of a roadmap for the subsequent provision of technical advice.
- The organisation of a practical exercise involving performing a necropsy on a pig in field conditions and recording a video in order to share the experience on other training courses.
- On the initial technical visit, recommendations were offered on how to improve records of suspected and confirmed outbreaks of the disease, and in the end it was possible to perform the relevant tests.

- Recommending the use of mobile phones by the veterinary service in the Dominican Republic in order to improve the reporting of suspected cases with the necessary data for the epidemiological tests.
  - Holding a technical meeting with the staff from the Dominican Republic Animal Health Surveillance Department in order to discuss the results in detail and give recommendations on how to improve the control of CSF.
  - Recommending the hiring of part-time technical staff in order to create retrospective databases of CSF outbreaks based on archived printed documents.
- In order to reproduce the experience in other locations, the technical reports delivered to FAO include the procedures used and results obtained through the technical consultancy.



# PART IV. AGRICULTURE

## GENDER SENSITIVE METHODOLOGIES FOR THE PARTICIPATIVE AND EQUITABLE MANAGEMENT OF AGRI-FOOD VALUE CHAINS AT A LOCAL LEVEL

<i>SDG to which it relates</i>	SDG 1. No Poverty. SDG 2. Zero Hunger. SDG 5. Gender Equality.
<i>Participating countries</i>	Exchanges between several of the region's countries, such as Costa Rica, Uruguay, Mexico, Ecuador, Nicaragua and Bolivia, and European localities like Murcia and Trento.
<i>Summary</i>	The participative and equitable management of agri-food chains poses a challenge to many rural areas of Latin America. The UNDP has worked with the Cuban government to promote participation and equality in the agri-food sector, with an emphasis on cooperatives and small businesses that provide consumables and services at a local level. It also focused on the development of participative management models that promote horizontality and equality among the different value chain actors. It made use of a methodological package that includes the diagnosis and participative projection of the agri-food value chains, and a management system that favours gender equality in the economic actors' business practices.
<i>Lessons learned</i>	The participative methodologies which favour equality among the value chain actors make it possible to prioritise problems and identify possible solutions which will have a greater impact on the life conditions of those responsible for sustaining the changes: the actors themselves. As a result, their capacities for dialogue, coordination and establishing common goals is strengthened, and solutions are offered for the problems identified in the chains, based on relationship-building involving inter-cooperation, mutual aid, solidarity and inclusion. This contributes significantly to identifying, understanding and denaturalising existing inequalities, and to building a collective will in favour of equality. Changing established practices takes a sustained effort to strengthen the capacities of the different actors so that they are able to build these collective spaces; technical advice is recommended to ensure that everyone participates under equal conditions and with the same opportunities. Technical farming expertise provided by the country's institutions is important for ensuring the sustainability of the management changes generated within the chain and in each of the economic actors involved.



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Improvements in productive chains have benefited more than 3,000 producers, over 700 of whom are women

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Methodologies for participative management favouring equality in agri-food chains address the region's need for greater local economic development based on inclusion and equality. Their application contributes to SDG 1, since they favour improvements in income and the struggle against poverty in rural areas. They also contribute to SDG 2, because they make food more available, and to SDG 5 because they help to reduce gender inequality, among other inequalities that often appear in productive chains.

The sustainable development strategy in Cuba has prioritised the substitution of food imports in order to progress towards food sovereignty and sustainability. It indicates the need to develop productive chains that make it possible to revitalise local economic actors and to obtain diversified and quality foodstuffs. The strategy also emphasises that while improving productive capacities, it is also important to preserve social equality as an essential component of the transformations. Hence the need to work with models of economic management that combine efficiency with equity.

For several years UNDP has been working in Cuba with the Ministry of Agriculture and other national and local players to develop more efficient and equitable agri-food chains. Based on a national policy of decentralisation and the promotion of cooperatives, territorial productive capacity is strengthened, and the articulation and equality among the different actors is favoured. The main focus of this policy has been the reduction of gender inequality. Although Cuba has made considerable progress in favour of women, sexist stereotypes, occupational segregation in traditional roles, and an insufficient presence of women in management positions are still present in the farming sector.

This work has made it possible to offer South-South cooperation two methodological packages which have been applied and

systematised: 1) participative and inclusive methodology for diagnosing and projecting the improvement in organisations and productive capacities of local agri-food chains; and 2) the management system "Gender Equality for Quality Management of Food Security (IGECSA)."

The participative methodology for value chains offers a guide for analysing the context in which the chain is inserted, and its internal components. Based on the agricultural technology know-how provided by the country's institutions, an essential part of this methodology is the construction of a map of links in the chains and the relevant actors, the analysis of the actors' problems, and the study of the relationships between them, including the presence of inequality. Several agri-food chains have been applied in Cuba, where diagnoses have been obtained which reveal the problems prioritised by the local actors, who have developed new business ideas that offer innovative solutions and take advantage of existing entrepreneurial capacity. Unlike academic analyses on chains, since this methodology is implemented by the very actors involved in the chains, it encourages them to coordinate with each other in order to find and develop solutions to existing problems. Inclusive and sustainable territorial productive development is promoted.

IGECSA is the first demonstrative experience of a management system with gender equality in Cuba. It stands out as being the first initiative in the region for small- and medium-sized enterprises from the farming sector, and because its methodology has been developed by the very actors who aspire to transform management practices. This methodology permitted the diagnosis of gender gaps and management practices which could generate or deepen inequality, and as a result an action plan was implemented to modify them. A rigorous model of goals, and performance and development impact indicators has been set up, which is monitored externally through



gender assessments and audits. It has four certification levels which correspond to the magnitude of the achievements obtained in gender equality. Its application has encouraged female participation in the chains, changes in the sexist distribution of roles, and a greater commitment by the economic actors to promote equality.

These two methodological packages and their results have captured the interest of several countries in the region. Exchanges were set up with Uruguay, the Dominican Republic, Costa Rica, Ecuador, Nicaragua and Bolivia, and Cuba's experiences were presented at Regional Forums of Local Economic Development, and at Global Forums of Business for Equality.

The application of this methodology in Cuba has invigorated the productive creativity of actors in seven agri-food chains. Two hundred business plans have been prepared which have made it possible to increase local food production, improve coordination between players, and establish more equitable relationships. More than 20 farming cooperatives and dozens of local suppliers have implemented measures that favour the empowerment of women, increasing their participation, helping them access non-traditional roles, and improving their income. These changes have benefited more than 3,000 producers, over 700 of whom

are women. Thirteen farming sector entities have been certified with the First Level of IGECSA.

Participative construction, the involvement of local actors, political will in favour of equality, the systematic awareness-raising and training of decision-makers, and the methodological and knowledge management support given by UNDP have all contributed to making these experiences successful.

In order to replicate them, it is recommended that the materials prepared should be used for guidance. It is also important to consult technical staff, to organise exchanges of the experiences applied in Cuba, to refer to the completed diagnoses, and to make use of the audio-visual material in which the local players themselves tell their stories. The application of these strategies allows a territory to make their value chains more competitive and fair, for more inclusive and equitable economic development.







## CHAPTER III

**SOUTH-SOUTH COOPERATION IN CUBA  
AND THE SUSTAINABLE DEVELOPMENT  
GOALS**

Since the United Nations Member States agreed on the 17 Sustainable Development Goals (SDG) and their 169 targets in September 2015, Cuba has expressed its commitment to the 2030 Agenda. On this road towards sustainable development, it has reiterated its support for integration and the strengthening of partnerships between countries as an essential way of progressing towards the world we want.

As part of the process of formulating its national development strategy, Cuba has designed and implemented a series of policies and actions that add to the national commitment to a new route to development. As seen in the implementation of the National Economic and Social Development Plan for 2030, in line with the current United Nations Development Assistance Framework (UNDAF) agreed on with the Cuban government, these country priorities constitute the programme benchmark for joint action between the national authorities and the United Nations System in Cuba for the 2020-2024 period.

In the most recent *Human Development Report* (2016)\*, the Caribbean island appears among the countries with high human development (position 68), despite being a developing country, with limited natural resources and strong financial strain, as well as the impact resulting from the commercial, economic and financial embargo imposed by the United States of America, which has lasted over five decades.

Cuba was the first Latin American country to eradicate illiteracy; the first country in the world to eliminate the transmission of HIV/AIDS from mother to child; the country with the highest budgets for education (12.8 per cent of the GDP) and health (10.6 per cent of the GDP); the country with the highest number of doctors per 10,000 people (67.2), and the lowest infant mortality rate for infants under a year of age (four per thousand born alive). In terms of gender indicators, Cuba's results are mostly in the upper third, and in environmental

sustainability, between the upper third and the middle (*Report on Human Development*, 2016).

These accomplishments in the social sphere have made Cuba a major world reference, not only for their national scope, but also because of the proven capacity shown by the country to expand and share its best practices with other developing nations, particularly in Latin America and the Caribbean, and in Africa.

Through the different SSC experiences described in the previous chapter, Cuba has collaborated with a number of the region's countries in working towards SDG compliance. With important achievements, the country has advanced towards SDG 17 compliance in the area of strengthening partnerships in order to meet these objectives.

With respect to health and well-being (SDG 3), diverse examples of cooperation show how Cuba has played a vital role in sharing the expertise of its health personnel. This collaboration comes as a response to the needs posed by those countries receiving aid, and consists of sending health professionals and technicians, focusing mainly on primary health care, to rural and remote areas. Cuban medical brigades offer their services to the entire population, with no distinction between race, creed or ideology, and respecting every country's laws and customs.

With respect to quality education (SDG 4), the Cuban government has supported the development of educational policies aimed at raising the quality of education, eradicating illiteracy, and providing universal access to education for children, adolescents, youths, women, indigenous people and other vulnerable social groups. The Cuban contribution has been directed towards raising the relevance, quality and equality of higher education, and towards promoting the development of talent, intelligence, creativity, solidarity, cooperation and integration, and acknowledging and respecting the diversity of cultures and peoples.

\* Human Development Report 2016, UNDP. [http://hdr.undp.org/sites/default/files/HDR2016\\_SP\\_Overview\\_Web.pdf](http://hdr.undp.org/sites/default/files/HDR2016_SP_Overview_Web.pdf)

Cuba has also worked hard on environmental concerns (SDG 13 and 15) by collaborating towards strengthening networks and promoting dialogue and cooperation among specialists, scientists, technicians, public officials and other actors on issues related to risk management and disaster prevention. The country has also organised workshops, meetings, and seven International Congresses on Disasters, in order to promote specialised information exchange and encourage bilateral and multilateral cooperation. In many Latin American and Caribbean countries (Haiti and Santo Domingo), training courses have been organised on risk management, the assessment of disasters caused by earthquakes, and diagnoses on disaster risk reduction, among

other initiatives. In 2017 alone, assistance was provided to Antigua and Barbuda, Dominica, Mexico, Nicaragua and Peru after the natural disasters caused by hurricanes Irma and Maria.

These are just a few examples of the substantial contributions Cuba has made through South-South cooperation at a regional and global level, and which constitute an important benchmark for implementing the 2030 Agenda.





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