

# Partnership for Improving Health System Resilience (PIHSR) in Laamu Atoll, Maldives



# Geared Up to Build Health Sector Resilience

The World Health Organization is one of the seven members of the UN Country team in the Maldives supporting the Low Emission Climate Resilient Development (LECReD) project. The project is a USD 9.2 million investment by the Danish government for development of Laamu Atoll. WHO takes pride in providing technical assistance to strengthen the communities and health facilities resilience to climate related health diseases. WHO activities are implemented in coordination with the LECReD Programme Coordination Unit (PCU) Ministry of Health and Ministry of Environment and Energy. WHO received USD 621,500 from The UN Trust Fund for the project implementation. The brief captures details of major activities supported through the Project.

# Driving Policies to Strengthen Health System Resilience

Building on partnerships and through a collaborative approach, WHO has worked extensively with the Ministry of Health, Ministry of Environment and Energy, Local Government Authorities, Atolls and Island Councils, NGOs and UN partners to address vulnerabilities essential to adapt, mitigate and build resilience to climate change impacts of Human Health in the Maldives.



## Ground Basis: Vulnerability and Adaptation Assessment (V&A) to health impacts of climate change in the Maldives

During September, 2014 WHO supported to prepare and train “Stakeholder Committee on health sector climate vulnerability and adaptation (V&A) assessment” and conduct the assessment in Laamu Atoll. WHO recruited an international expert for the above assignment. The framework for this vulnerability and adaptation assessment is based on a WHO publication, “Protecting health from climate change”.

High priority climate sensitive health risk identified through the assessment included diarrhoea, food borne disease, vector borne disease, nutritional problems, and mental stress. Based on the report of the assessment WHO in partnership with the Ministry of Health and Ministry of Environment and Energy have devised and implemented mitigation measures.



## Calling for Action: Launching of the Nationwide Vector Control Campaign

Vector borne diseases are some of the best studied diseases associated with climate change due to their widespread occurrence and sensitivity to climatic factors. Dengue has been endemic in the Maldives and is of major public health concern.

The principal vectors for dengue *Aedes aegypti* and *Aedes albopictus* are climate-sensitive. Given the climatic vulnerability of the nation and abundance of vector, launching of a nationwide campaign was essential to give more emphasis and create awareness. Nationwide Vector Control Campaign was jointly launched by Minister of Health, WHO Representative, UN Resident Coordinator, Head of UN agencies along with Atoll Council and Atoll Hospital in September, 2016 in Laamu Atoll. Following this campaign, another vector campaign was launched in Addu atoll and a series of epidemiological and entomological trainings have been conducted nationwide on vector identification, prevention and control.



## Initiation of Green Health Care Waste Management System



To reduce the risk of improper handling of healthcare waste in the Maldives, enforcement of a policy is extremely important. WHO has supported Health Protection Agency to develop the Healthcare Waste Management (HCWM) Policy and Strategy for the country. This was driven from the pilot initiative in Laamu to manage medical waste supplies through LECReD programme.





Health Care waste management site was inaugurated in Laamu Atoll Hospital on 23rd October 2017 by H. E Minister of Health, Abdulla Nazim Ibrahim and WHO Representative Dr Arvind Mathur. This is a pilot project in the country and a gigantic leap towards medical health care waste management. Through this project waste management autoclave was installed in the Regional Hospital and tabletop autoclaves in all health facilities.



## Solar Power feasibility assessment for the health facilities in Laamu atoll

WHO recruited a local expert to assess feasibility and cost effectiveness of installing Solar Power generated energy system in Laamu Regional Hospital and Island Health Centers. The assessment was conducted during 28th September to 8th October 2016. The assessment included a visit to Hospital and health center. The assessment team met with the management and obtained information of the Hospital, age of its buildings, its functions and maintenance practices.





The technical report shares findings and proposed energy reduction measures and concept design of the proposed roof-top Solar PV System. The annual cost on energy requirement of the regional hospital is about USD 97,000 and the Investment cost including maintenance is about USD 650,000. Thus the payback time is 6.7 years.

Similarly, energy requirement of an Island Health Center per year is at least USD 12,221 and the cost of 25 KW Solar PV system is USD 71,494. The payback time is 5.85 years. As Maldives depends on imported diesel to generate electricity, solar PV system is a cost effective and sustainable alternative for health centers. The result of the assessment will also help policy decisions on energy planning for health centers.



## Procurement of Air quality monitoring system and handover to Ministry of Environment and Energy



WHO procured an air quality monitoring equipment and handed them over to the Ministry of Environment and Energy in October 2016. The country can now generate regular local information on quality of air. This information will support to identify health hazards, prioritize activities to address the issues, monitor progress and report to national and international bodies.

# Delivering Innovative technology & program management tools

## Resilience Strengthening Interventions in the Hospital Sector of the Republic of Maldives



WHO provided technical support to conduct a survey of health care facilities vulnerability to disasters during October, 2014. The Hospital Safety Index occupies a central place in local, national and global efforts to measure the functioning of hospitals in emergencies and disasters. Based on the assessment of hospital safety index, a plan has been developed for addressing urgent, medium-term, and long-term improvements to infrastructure and relevant health systems in the country. Health facilities with staff trained in adapting the hospital's capacities to deal with extraordinary circumstances are inherently more 'resilient' independent to physical limitations of the facility.

## Emergency Preparation Strengthened Interagency Health Emergency Kit Prepositioned



WHO's Interagency Emergency Health Kit 2015 (IEHK) is a standardized kit of essential medicines, supplies and equipment. This kit is designed to meet the health needs of 10,000 people for 3 months during emergencies.



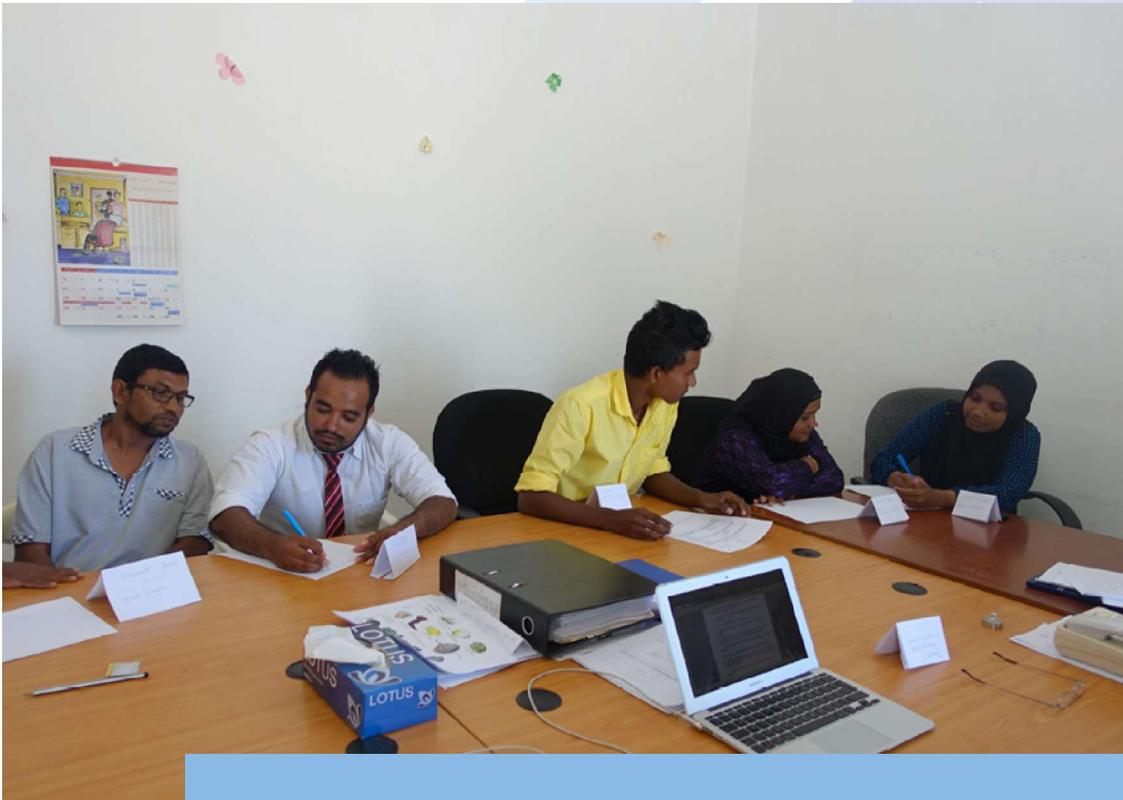
## First Aid Training for communities of Laamu Atoll

First Aid training was provided to 36 participants from Laamu atoll during May 2015. The training was imparted in partnership with the Maldivian Red Crescent. The participants represented various islands of the atolls and sectors such as Health, Education, Island Working Groups, Women's Development Committees etc. The training was part of the disaster preparation activity and focused on real life scenarios expected in the atoll.



## Development of Guidelines

Guidelines for drinking water quality and surveillance have been developed to build capacity and establish a water quality surveillance system. Rain Water harvesting guideline has been developed and designed as a reference and training resource for health personnel, island councils, schools and communities. This would enable them to identify and manage risks to the rain water quality at household and community levels. In addition, water safety plans has also been developed to deliver a standard program which is specific to the island communities.



## Epidemiological Analysis workshop

Epidemiological analysis, utilization and dissemination of data training workshop was conducted for 30 health care professionals from all Atolls. The week long training was held in August 2014 and also included field work. The skill of the health workers were enhanced on disease surveillance and use of data for action, identification of mosquito larvae and vector control, detect disease outbreak and immediately respond. In addition, best performing health workers were identified for supporting similar training at other Atolls and island health centres and disseminate analytical thinking at Laamu Atoll.



## Water Quality Surveillance Program

Challenges in the provision of drinking water in Laamu Atoll needed serious attention. There was a need to improve water quality to protect health and develop community capacity to manage available resources. To address these issues WHO supported to develop water quality monitoring and surveillance guidelines, identify appropriate water testing kits for procurement, train health workers to use the kits and train staff to water quality surveillance system. These activities were completed during the last quarter of 2014 in close coordination with Island Councils, Health Centers, Schools, Hospitals, Ministry of Environment and Energy and Ministry of Health.



### Reverse Osmosis plants installed in Regional Hospital and facilities

WHO supported to install RO plants in all health facilities of Laamu atoll

# Dauntless Communities

Empowering communities through participatory processes through trainings, workshops and mass awareness programmes is an ongoing process necessary to create strong, determined island communities ready to respond to climate change impacts on human health.

## Dengue Outbreak Assessment and support



WHO held two missions to Laamu atoll in 2016 to assess reported dengue outbreak and support control. On 13 July 2016 Ministry of Health informed WHO of possible dengue outbreak in Laamu atoll. Twelve dengue cases and one death were reported from Laamu Isdhoo.

WHO supported public health response to a dengue outbreak focusing on heightened preventive measures adopted by the community, surveillance, early diagnosis and confirmatory testing, medical care and vector control. The assessment has revealed critical deficiencies in communications and coordination between health facilities, councils and Ministry of Health that needs to be addressed to prevent and contain disease outbreaks in the future.



## Sharing Information to Community on Progress



During the third Laamu Climate Change Forum ( LCCF3), a session was held on Public Health and Disaster Risk reduction. Experiences were shared from the field on aedes mosquito borne disease and control and lessons learnt from epidemiological analysis, utilization and dissemination of disease data trainings . WHO also developed a video on vector control which was launched during the LCCF3 by the Minister of Health H.E Abdulla Nazim and WHO Representative Dr Arvind Mathur.



## Management of LECReD Project

The LECReD Project is implemented by seven participating organizations ( UNDP, UNOPS, FAO, UNFPA, WHO, UNICEF, UN Women) under one Umbrella program coordinated by UNDP and in close consultation with respective Government counterpart organizations. The Programme Technical Committee ( PTC) provides technical and operational guidance and reports to the Programme Board ( PB), which is responsible for approving any amendments to the Joint Programme Document.

The main areas of work in LECReD Programme are:

- Partnership, coordination and participation platform
- Data and knowledge Systems
- Local Level Planning and Management of LECReD
- Practical Local Experience

The overall coordination of the programme is done by the Programme Coordination Unit ( PCU) based in Laamu atoll. The participating UN organizations ( PUNOs) are responsible for delivering the assigned programme or joint workplan activities. The monitoring, evaluation and reporting of the programme is done in accordance with the terms of the Maldives One UN fund. The overall program monitoring focuses on the output and outcome levels based on the Annual Work Plan.

All PUNOs prepare statements and reports in accordance with the harmonized accounting and reporting procedures such as quarterly work plans and progress reports. Annual narrative progress reports, monthly and annual expenditure statements are also prepared. Scheduled and planned meeting of various committees are held based on the LECReD Calendar.



Health Protection Agency  
Ministry of Health  
Republic of Maldives



Low Emission  
Climate Resilient  
Development

LECReD  
UNDP  
UNICEF  
UNFPA  
UNOPS  
WHO  
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Maldives

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