

GET AIRPORTS READY FOR DISASTER

RESULTS REPORT 2016-2019



Deutsche Post DHL Group

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Turkey, 2012

The GARD workshop at Istanbul Atatürk Airport contributed to the region's preparedness in the event of a disaster. Major recommendations were to involve local fuel suppliers and prepare a contingency plan to supply aircraft with aviation fuel, establish a field hospital at the airport to treat immediate cases and to relax customs and immigration regulations for the period immediately after a disaster.

Maldives, 2017

The Maldives Airports Company Limited, representatives of the military, the government and other humanitarian response experts attended the GARD training workshop at Velana Airport, the main international airport in the Maldives. The impact of the GARD programme consisted of the setup of a separate parking area for civil and military aircraft in case of an emergency.

2009-2019: A DECADE OF GARD

Dominican Republic, 2015

The GARD workshop at the Cibao International Airport was attended by 22 participants and was facilitated by 11 trainers from Panama, Guatemala and Costa Rica. A key recommendation of the GARD airport capacity assessment was the establishment of emergency response procedures to ensure adequate electricity supply for the most critical operations at the airport.

Bosnia & Herzegovina > Macedonia

El Salvaodor Honduras
Costa Rica Panama
Ecuador

Peru

Honduras 2019

The Toncontín International Airport of Honduras developed its first disaster preparedness and response plan along with relevant protocols and procedures as a result of the GARD workshop attended by 45 members of the National Risk Management System (SINAGER). The workshop included observers from the Airport Council International (ACI) and the International Civil Aviation Organization (ICAO).

Peru, 2018

The GARD workshop at the Jorge Chávez International Airport in Peru prepared 38 airport staff to best respond to disasters. As an outcome of the GARD airport capacity assessment, a specialized system was implemented to improve the administration of the handling equipment and scheduling on the apron. A reference document for the handling of humanitarian aid was developed in the case of disaster.



Mauritius, 2016

Africa's first GARD workshop was held at the Sir Seewoosagur Ramgoolam International Airport, gathering 29 airport managers and disaster response practitioners. One of the key results of the GARD workshop in Mauritius was the development of a contingency plan, a critical tool that helps authorities better plan for and respond to disasters when they occur.

India, 2018

The new GARD Train the Facilitator workshop was piloted at the Calicut International Airport in Kozhikode city, Kerala. Fourteen airport operations experts from across India gathered for a five-day training workshop to learn how to evaluate the current level of preparedness at airports, conduct training exercises, and develop specific recommendations and ready an action plan to ensure that airports are prepared for future disasters.





Nepal, 2010

The GARD workshop was used to evaluate five different airports in Nepal convening 24 airport managers. Following the workshop, the airport preparedness measures that had been recommended and implemented were tested during a simulation exercise led by the Nepalese army. A second GARD workshop was held in 2017 at Tribhuvan International Airport and Nepalgunj Airport.

Kazakhstan > (Turkey (Armenia ebanon) (Iraq) (Iran

Nepal Bangladesh

Maldives + Sri Landka Philippines +

India >

Seychelles >

Indonesia

Mauritius >

Indonesia, 2009

GARD was piloted at two airports in

Makassar and Palu in
Indonesia. The GARD
team trained three local
DHL experts who then joined
the training team to work with
17 trainees - airport authorities,
members of airport operations
and disaster management agencies - at the Makassar and Palu
airports. After the workshop, the
two airports benefitted from a
set of recommendations to guide
future airport relief operations.

Bangladesh, 2011

Twenty practitioners from airports and disaster response organizations took part in the GARD workshop held in Dhaka and Chittagong airports in Bangladesh. A major recommendation of the assessment at Chittagong Airport was to use larger warehousing options close to the airport facility for greater flexibility in terms of cargo accommodation and relief aid distribution.

Philippines, 2013

The GARD Workshop at Ninoy Aquino International Airport in Manila trained 32 airport staff to manage incoming flow of aid in the case of a disaster. Key areas for improvement of disaster preparedness included securing electricity and communication equipment by procuring generators with higher capacity and VHF radios. After the country was hit by cyclone Haiyan in 2013, a GARD Plus workshop was held at Cebu.



AT A GLANCE: GARD RESULTS 2016-2019









166 participants trained in 4 countries in *Americas*

airports and disaster management staff trained in Asia Pacific

participants trained in Europe, Middle East and Africa



GARD supports the implementation of SDG 9 by facilitating sustainable and resilient infrastructure development at airports that are primarily in developing countries



GARD supports the implementation of SDG 11 by enhancing the efficiency at airports to process life-saving aid into the country



GARD supports the implementation of SDG 13 by strengthening resilience and adaptive capacity at airports to climate-related hazards and natural disasters in all countries



GARD supports the implementation of SDG 17 by enhancing international support for capacity building at airports in developing countries through global multi-stakeholder and public-private partnerships.

GARD WORKSHOPS (2016-2019)

	THE THE PARTY OF T			
16 Countries	20 airpo	rts 653	air tra	port staff ined
Year Month	Country	City(s)	No. of airports	No. of Participants
1 2019 May	Madagascar	Toamasina	1	38
2 2019 April	Iraq	Erbil, Sulaimaniyah	2	30
3 2019 February	Honduras	Tegucigalpa	1	45
4 2018 September	Costa Rica	Alajuela	1	45
5 2018 September	Bosnia & Herzegovina	Sarajevo	1	25
6 2018 August	Peru	Pisco	1	38
7 2017 November	Iran	Tehran	1	55
8 2017 September	Kazakhstan	Almaty	1	50
9 2017 September	Ecuador	Quito	1	38
10 2017 August	Maldives	Male	1	36
2017 January/ Februar	ry Nepal	Kathmandu, Nepalgunj	2	46
12) 2016 December	Jordan	Aqaba	1	29
13 2016 September	Indonesia	Lombok, Denpasar	3	75
14) 2016 August	Seychelles	Pointe Larue	1	39
15 2016 April	India	Chennai	1	35
16 2016 February	Mauritius	Plaine Magnien	1	29

ABOUT GARD

Airports play major role in disaster response and humanitarian assistance situations as they ensure a fast mode of transportation of relief aid. In emergency situations, transport and logistical facilities may overwhelmed due to the sudden surge in incoming flights, lack of equipment for offloading relief goods and limited warehousing for storing relief items. The capacity of an airport to manage efficiently the influx of humanitarian aid and personnel determines the quality and timeliness of humanitarian assistance to affected people.

Airports need to be equipped with surge capacities to manage large scale humanitarian operations as well as the ability to effectively coordinate with other national actors for complying with customs regulations, immigrations, storage and movement of goods, and relief distribution. While the scale of disasters is unpredictable, capacities for preparedness can be developed beforehand to ensure an effective humanitarian response. This helps minimize loss of lives and curbs the physical damage caused by the disaster. Preparedness also includes the development of standard operating procedures delineating roles and responsibilities of the airport management and other entities to ensure that relief aid functions are pre-arranged prior to the disaster.

Get Airports Ready for Disaster (GARD) was initiated in 2009 as a public-private partnership between the United Nations Development Programme (UNDP) and Deutsche Post DHL (DP DHL) to address the need for preparedness and response capacity of airports in disaster situations. The GARD project builds upon the joint expertise and inputs of two organizations. DP DHL's expertise in logistics management and experience in international relief is complemented by UNDP's competencies in preparedness and privileged partnership with national governments. Since 2013, the GARD project has been funded by the Government of Germany and supported through in-kind contributions from UNDP covering national coordination and action plan implementation.

The objective of the GARD project is to train airport managers and staff from disaster management agencies on how to prepare for the logistics challenges posed by disaster situations. GARD builds local capacity at airports to increase the level of preparedness for response of staff and managers. To date, GARD has been implemented in 50 airports in 26 countries and trained 1,250 staff.

UNDP and DPDHL are committed to sustain the impact of the GARD project in countries where it has been implemented most notably through the rollout of GARD Plus and the Train the Facilitator programme. Similarly, the partners will continue to offer the GARD programme to countries who express interest in line with the human and financial resources available to deliver.

PROGRAMME RESULTS

UNDP plays an important role in supporting high risk countries to achieve their development goals by reducing loss to life and assets, and by strengthening long term resilience. UNDP works with governments at national and local levels to ensure that disaster risk reduction and preparedness are integrated into national development planning. UNDP's work focuses on resilience building and ensuring development remains risk-informed and sustainable.

Anchored in the 2030 Agenda for Sustainable Development and committed to the principles of universality, equality and leaving no one behind, the UNDP vision for the Strategic Plan (2018-2021) is to help countries achieve sustainable development by eradicating poverty in all its forms and dimensions. The GARD project contributes to the achievement of UNDP's Signature Solution 3 on enhancing national prevention and recovery capacities for resilient societies.

GARD is moving forward to ensure support to countries in achieving Sustainable Development Goals 9, 11, 13 and 17.



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

GARD empowers the local community by facilitating sustainable and resilient infrastructure development at airports that are primarily in developing countries.



Make cities and human settlements inclusive, safe, resilient and sustainable

By enhancing the efficiency at airports to process life-saving aid into the country, GARD decreases direct economic losses caused by disasters. GARD also improves the resilience of airports to disasters and fosters the development and implementation of disaster risk reduction strategies that are in line with the Sendai Framework.



Take urgent action to combat climate change and its impacts

GARD contributes to strengthening resilience and adaptive capacity at airports to climate-related hazards and natural disasters in all countries. It promotes mechanisms for raising capacity for effective climate change-related management in least developed countries and small island developing states.



Strengthen the means of implementation and revitalize the global partnership for sustainable development

GARD enhances international support for implementing effective and targeted capacity building at airports in developing countries. It also enhances the global partnership for sustainable development, complemented by multi-stakeholder partnerships to mobilize and share knowledge, expertise, technology and financial resources. GARD encourages and promotes effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.

The main results of the GARD project are:

- 1. Capacity of selected airport personnel enhanced to manage disaster relief surge and respond efficiently to humanitarian needs. This result is focused on ensuring the effectiveness of the GARD one-week training, which is always held at the airport to be made disaster-ready. The main deliverables are the Airport Surge Capacity Assessment (ASCA) Report and an Action Plan outlining the evaluation of the surge capacity, limiting factors and alternative uses for facilities and processes in and around the airport site. The training is providing participants with templates and information to conduct similar assessments in other airports in the country. The GARD training workshop is preceded by an airport pre-assessment.
- 2. Airport preparedness plans developed and aligned with national preparedness plans. This result is geared towards ensuring the sustainability of the GARD project by focusing on the development of a comprehensive disaster preparedness plan for the airport following the workshop. The disaster preparedness plan includes the response capacities of the airport to large scale disasters, standard operating procedures defining the roles and responsibilities of airport officials and their relationship with the national authorities.
- 3. Airport preparedness efforts sustained through fostering national ownership. In countries having benefited from the GARD training, the GARD Plus programme can be organized to conduct a second validation training to determine if the recommendations made through the initial GARD assessment were fully implemented. The GARD Plus may also cover a simulation exercise. During the GARD Plus validation training, the country national authorities will develop a new report and update or validate the initial GARD assessment recommendations. Similarly, the GARD Train the Facilitator programme has been developed to address issues of replication and sustainability of the GARD interventions by focusing on providing trainers the skills and know-how regarding how a local GARD training should be rolled out.



ACHIEVEMENTS 2016-2019

From 2016 to 2019, the GARD project was rolled out in 16 countries that are particularly prone to disasters and trained 653 staff from airports and disaster management agencies at 20 airports.







In these countries, the GARD project entailed the organization of a pre-assessment of the airport to receive the GARD workshop. The pre-assessment was facilitated by DHL experts and provided an important stock-taking exercise that supported the adequate adaptation of the training programme to the local context.

Following the pre-assessment, the one-week GARD training took place, combining classroom exercises, the airport assessment conducted by participants, and the development of the ASCA Report and Action Plan. The ASCA Report is meant to evaluate the airport regarding potential bottlenecks in times of crisis – for cargo, operations, facilities and passengers. The purpose is to identify critical points that will then be addressed in the Action Plan. The Action Plan provides recommendations on how capacities can be further reinforced to achieve an optimal level. In the 20 airports covered in the current project period, Action Plans are currently being implemented by airport authorities and national disaster management institutions.

166

participants trained in 4 countries in *Americas*

277

airports and disaster management staff trained in Asia Pacific 210

participants trained in Europe, Middle East and Africa



GARD workshop participants represented a broad variety of organizations that are involved in responding to a disaster at an airport: airport management, air traffic control, airport operations, customs, security, immigration, ground handling, airlines, civil aviation authorities, the military, fuel supply companies and the national disaster management agency. In addition, representatives from other airports in the country participated to the workshop with the aim to integrate learning in their own airport operations. The pre-assessment and training were ensured by DHL aviation and logistics experts. UNDP supported the coordination with airport authorities and the national disaster management agency, provided expertise in disaster risk reduction during the workshop and supported the organization of the workshop. In certain countries, UNDP had an important role to play in assisting the GARD Owner in the implementation of the recommendations coming out of the GARD workshop.

RESULT 1

CAPACITY OF AIRPORT PERSONNEL ENHANCED TO MANAGE DISASTER RELIEF SURGE AND RESPOND EFFICIENTLY TO HUMANITARIAN NEEDS





The GARD workshop was conducted on the African continent for the first time in 2016. The GARD workshop in Mauritius took place in February 2016 and prepared airport staff for disaster scenarios such as cyclones, storms and floods. The workshop was joined by airport managers from the island of Rodrigues and Seychelles, who are exposed to the same hazards. In August 2016, 38 participants were trained during a workshop at the Seychelles International Airport. Airport managers from Mauritius and the Maldives joined as well and shared experiences with the group. A regional network and exchange platform on disaster preparedness at airports was established for Island states in the Indian Ocean.

This has been a very fruitful workshop. I have met key stakeholders and I am confident that we are now more aware of our roles and responsibilities to ensure that the airport is safe during a disaster.

Rodney Zaine, Seychelles Air Force

During the GARD workshop in Bosnia and Herzegovina in September 2018, 25 airport staff were trained and preparedness measures that need to be established were identified. Follow-up activities are being implemented through a joint strategy by UNDP and the Ministry of Security of Bosnia and Herzegovina.

The training for the Almaty International Airport in Kazakhstan was tailored to its vulnerability to flooding and its purpose as humanitarian hub for the region. The deliverables of the GARD workshop at the Almaty International Airport in Kazakhstan need further efforts to be accomplished. The participants had difficulties identifying the most important challenges regarding the airport's capacity and the GARD Owner's role must be strengthened to ensure an authoritative and technical advisory role for further development.

Identifying parking space for additional aircrafts in case of disaster in Seychelles

Airport staff from the Queen Ali Airport in Amman, who were trained in 2014, joined the GARD workshop held in December 2016 at the King Hussein International Airport in Aqaba to share their experiences and lessons learned. The participants of the workshop were specifically trained in responding to earthquakes and floods.



In Latin America and the Caribbean region, GARD workshops have been conducted at airports in Ecuador, Honduras, Costa Rica and Peru. Over 160 airport staff and national disaster managers from a broad variety of organizations participated. They were primarily trained in preparing airports for earthquakes, hurricanes, flooding, drought and forest fires. ASCA Reports and Action Plans have been developed for all the four airports.

In addition to DHL aviation and logistics experts, a pool of UNDP experts, who often intervene in disaster response operations, were able to hold the training in Spanish. This resulted in a very engaged discussions among the participants.

In February 2019, the GARD workshop in Honduras was joined by aviation experts from the International Civil Aviation Organization and Airports Council International. The International Civil Aviation Organization is a specialized agency of the United Nations that sets the principles and techniques of international air navigation. Airports Council International is the only global trade representative of the world's airport authorities. Their analysis of the workshop content and delivery methodology will inform the future design of the GARD project, and will identify how the workshop materials can be supplemented from a regulatory point of view.

Assessment of additional space for relief items in Peru





Aibol Bekmukhambetov, President of Almaty International Airport

Following the first GARD training in 2013, UNDP and the Ministry of Emergency Situations in Armenia worked on implementation of the GARD Action Plan and took steps to keep the airport preparedness mechanism in place. In November 2016, the Ministry of Emergency Situations and UNDP jointly updated the Action Plan and developed a schedule for 2017. A team was established to support its implementation into the national preparedness plan. As a result, the Action Plan was incorporated into a "Host National Support" document which was approved by the Government and the Ministry of Emergency Situations.

In Sri Lanka, a GARD workshop was conducted in 2014. Two years later, GARD elements were incorporated into the National Emergency Operations Plan and the SOPs of the Ministry of Aviation. A response plan based on the GARD outcomes will be automatically initiated in case of a sudden onset natural hazard. Throughout the implementation process of the GARD results, UNDP supported the national authorities to build up partnerships with other UN agencies to develop a national DRR program.

Based on the outcomes of the recent GARD workshops in Indonesia, the Ministry of Transportation is finalizing guidance material on Airport Disaster Preparedness. Once finalized and endorsed by all relevant national stakeholders, it will become mandatory for airport authorities to conduct GARD workshops at airports across the country. In January 2019, the Ministry established a "quick response team" for emergency operations that refers to GARD outcomes.

Maldives Airport Company Ltd. incorporated the outcomes of the GARD workshop into their airport emergency plan. Amongst other preparedness measures, the plan is outlining actions, roles and responsibilities in the event of a disaster. It is planned to disseminate the emergency plan to all relevant stakeholders in collaboration with the National Disaster Management Center.

The National Institute of Civil Defense in Peru developed a contingency plan for sudden onset disasters of the Jorge Chávez International Airport. The protocol for the handling of humanitarian aid incorporated key preparedness measures that were recommended after the airport was assessed during the GARD workshop in 2014. The document was approved by all relevant authorities in 2016. In view of the current extension of the airport with a second runway, a GARD Plus workshop is planned in order to update the airport assessment report.



AIRPORT PREPAREDNESS EFFORTS SUSTAINED THROUGH FOSTERING NATIONAL OWNERSHIP

UNDP in collaboration with DPDHL have extended their programme of support through the establishment of the GARD Train the Facilitator (TTF). In August 2018, 14 airport managers from 10 different airports across India participated at the first TTF training. The Airport Authority of India has requested UNDP to roll out this workshop, in order to conduct the GARD training at 40 airports in India. The training included the assessment of the airports' capacities and guidance on how to develop an Action Plan. The training material was complemented by practical sessions on how to facilitate a GARD workshop.

With the continued threat of natural disasters occurring in the region, we recognize the vital role that our airports play in the relief efforts. This GARD workshop in Chennai follows our previous session in Guwahati in December 2015 as we remain committed to ensure that our airports remain operational during and in the aftermath of disasters.

A. K. Dutta, Airport Authority of India

The TTF programme strengthens national training capacities and ownership of a nation-wide approach to prepare airports for disasters. The TTF programme enables countries in risk-prone areas to strengthen airport preparedness nation-wide. The sustainability of the GARD project is thus enhanced through a higher number of airports than can be covered by having more facilitators and providing the possibility to conduct GARD workshops whenever domestic airports require it.

To ensure the sustainability of airport preparedness efforts, UNDP and DPDHL developed a GARD Owner concept. The GARD Owner is responsible for ensuring that the outcomes of the GARD workshop are implemented in a sustainable manner and aligned with the disaster preparedness plans of the country. The GARD Owner nomination procedure identifies the responsible institution well in advance of the pre-assessment and GARD workshop. The GARD Owner is typically a senior representative with decision-making power from an institution such as the Airport Authority receiving the GARD workshop, the Ministry of Transport/ Aviation, the Disaster Management Authority or the Ministry of Interior. The roles and responsibilities of the GARD Owner are defined and agreed to at the start of the engagement process.

LESSONS LEARNED



Ownership. National ownership is critical for both the sustainability of the capacity building aspect of GARD workshops as well as for the effectiveness of the implementation of follow-up measures. The GARD Owner nomination procedure and systematic pre-training meetings were established to ensure that all stakeholders are well informed about the role of the GARD Owner and expectations of the workshop.



Sustainability. Ownership goes hand in hand with anchoring GARD into a wider framework of programming or planning at country level. A GARD intervention has proven most impactful in contexts where the national authorities embedded it within their airport or national disaster preparedness planning. Proactive support of UNDP Country Offices to the GARD Owner facilitates an adequate approach towards the implementation of GARD follow-up activities.



Public-private partnership. GARD is a win-win activity for both UNDP which can get unique skills that would not normally have, and for DP DHL which can increase its external and internal reputation and fulfill its responsibility towards society by volunteering its logistics expertise, global network and the personal commitment of its individual employees. Both organizations learn from each other and provide to society an extremely cost-effective service.



Integration of the Action Plan into national disaster preparedness plans. Lasting impact of a GARD workshop requires efforts in ensuring that GARD activities and results are effectively embedded into national disaster preparedness or response plans. To achieve this, UNDP defined clear roles and established effective measures that assign follow-up responsibilities in the Action Plan to the GARD Owner.



Integration of the airport assessment into infrastructure development plans. Key recommendations emerging from GARD regarding airport operational capacities, such as cargo capacity or the quality of the landing lane, should be included not only in the airport response plan, but also in plans to improve and extend airport infrastructure. For instance, the assessment findings of the ASCA Report during the workshop in Maldives are planned to be integrated in the development of the new airport infrastructure targeted for 2020.

Bridge building activity. An intangible but valuable and appreciated outcome of GARD is it provided a platform to connect people and departments by starting new dialogues and promoting synergies. Attendees of GARD workshops appreciated it as a bridge building activity by stating that it helped to improve relationships with other departments. In many cases, GARD brought together people or functions for the first time and strengthened partnerships of civil aviation authorities, airport authorities and UNDP.



Variety of participants. The representation of all relevant departments, such as the airport management, operations management, air traffic control, security, military, national disaster management agency and the government/ministry of transport is crucial for the quality of the ASCA Report and Action Plan. A list of participants is requested beforehand to ensure adequate representation of key roles and functions and with the appropriate level of seniority. Relief agencies such as OCHA, WFP or NGOs based in the country are normally invited as resource persons.



Synergies through regional networks. Regional networks of airport managers increase the possibility for collaboration on common challenges. Linking together airports and enabling a platform of exchange between individuals increase synergies and the possibility to provide faster and more sustained efforts. A prime example of this is the regional network and exchange platform on disaster preparedness at airports which was established for Island states in the Indian Ocean after the GARD workshop in Mauritius in 2016.



Country selection criteria. GARD country selection criteria were introduced to include more information on the airport and the disaster management handling capacities in advance. Country selection was based on a country's disaster risk profile and on the willingness of the government to receive training as well as implement the Action Plan. It also considered UNDP's readiness and availability to engage and how GARD could be integrated as part of the preparedness support to the hosting nation.



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