2013 Health & Humanitarian Logistics Conference Summary

The 2013 Health & Humanitarian Logistics Conference was co- organized by the Georgia Tech Center for Health & Humanitarian Logistics (HHL) and the MIT Humanitarian Response Lab and hosted by the Malaysia Institute for Supply Chain Innovation (MISI), a member of the MIT Global SCALE Network, in Kuala Lumpur on June 4-5. The conference identified both the logistical challenges and successes in disaster response, global health and food security and ways to strengthen supply chains in the face of these challenges in order to meet basic human needs. The headline topic, "Adaptive Supply Chains to Increase Resilience," featured four plenary panels and a number of break-out workshops on related sub-topics. The conference's innovative approach to stimulating new conversations and the exchange of research and best practices among a diverse set of participants led to interesting and productive discussions about priorities and future goals in policy, strategy, and investments in the global health and humanitarian sectors.

Following the panel and workshop sessions, participants visited the regional United Nations Human Resource Response Depot (UN HRD) where they examined resource storage, transportation fleets, and distribution models. Furthermore, the conference location in Malaysia allowed the participants to observe recent and ongoing recovery operations in the regional hub for humanitarian logistics, one that has been particularly necessary given that in 2011, 86.3% of all disaster victims were reported in Asia.

Below, is a summary of conference information including information about the participants and speakers, feedback from the attendees, and the panel and workshop discussions. Further details about the 2013 Health & Humanitarian Logistics Conference are available on the conference website, which includes speaker presentations, video recordings of the sessions, poster abstracts, etc.: http://www.scl.gatech.edu/humlog2013.

PARTICIPANTS

This year's HHL Conference brought together 113 participants from 25 countries (including Australia, Canada, Cyprus, Denmark, Germany, India, Indonesia, Kenya, Japan, Netherlands, Norway, Nigeria, Malaysia, Pakistan, Republic of Korea, Saudi Arabia, Singapore, Sudan, Switzerland, Thailand, Uganda, Ukraine, United Kingdom, USA, and Zimbabwe), with representatives from:

- **Non-governmental organizations** (Aidmatrix, Aqsa Syarif Berhad, CARE, Catholic Relief Services, Global Peace Mission, Heifer International, International Federation of the Red Cross/Red Crescent (IFRC), International Relief and Development Organization (IRD), MERCY Malaysia, Oxford Committee for Famine Relief (OXFAM), Partners in Health (PiH), Plan International, Save the Children, SHI–Logistics (Nigeria), United Nations Africa Mission in Darfur (UNAMID), United Nation International Children's Emergency Fund (UNICEF), World Food Programme (WFP), World Vision International);

- **Industry** (Bader Gateway, Creative Agri Solutions, DHL Global, GlaxoSmithKline, John Snow Inc., Kimetrica, Menlo Worldwide Logistics, ORTEC International, UTI Worldwide, VirtuStores);

- **Academia** (BI Norwegian Business School, Columbia University, FORE School of Management (New Delhi), Georgia Institute of Technology, George Washington University, Griffith Business School, Korea Advances Institute of Science and technology (KAIST), Kühne Logistics University, Kyoto University, Cooperación Universitaria Minuto de Dios (Columbia), Massachusetts Institute

of Technology (MIT), Nanyang Technological University, Texas A&M, Universidad Diego Portales (Chile), University of Bangkok, University of Melbourne, University of Neuchâtel, University of Quebec, University of Sheffield, University Teknologi Mara, University of the Thai Chamber of Commerce);

- **Public and private institutions** (American-Malaysian Chamber of Commerce, Everywhere Humanitarian Response Services, Logistics Institute Asia Pacific, NYC Office of Emergency Management, The Kuehne Foundation, The UPS Foundation, and U.S. Agency for International Development (USAID)/Office of Foreign Disaster Assistance (OFDA)).

CONTENT

Panel discussions on food security, global health logistics, and planning/preparing for disaster relief explored the topic of "Adaptive Supply Chains to Increase Resilience" through new SCM models, technology use, and collaborations across sectors and borders while the workshops examined specific cases and methods in greater detail.

Panels

Introductory Remarks and Other Comments

The first panel began with introductions from conference co-organizer Jarrod Goentzel (MIT), who introduced MISI host Dr. Mahender Singh. Co-organizer Julie Swann (GA Tech) presented background on the annual conference, now in its fifth year, and thanked staff, volunteers, and sponsors, including the UPS Foundation. Professor Swann assigned the conference participants the "homework" to network and learn as much as possible at the conference, but ultimately to choose a tool or idea they could use to make important changes and decisions when they returned home to their various organizations. Introductory comments on the health and humanitarian sectors were provided by Harlan Hale from USAID. In particular, Mr. Hale emphasized capacity building towards resilient systems, where resilience is defined as the ability to bounce back or recover from shocks. The concept of resilience is important for disaster response, but it is also relevant for ongoing health and development needs, especially for communities focused on becoming sustainable and resilient in the face of possible shock or harm to the families, markets, or region as a whole.

I. **Food Security: Value Chain Analysis** *(Profiling value chains for key commodities such as cereals, pulses, and livestock)*

This panel highlighted the need to reach beyond traditional logistics and supply chains to better serve aid beneficiaries. Peter French and Adrian van der Knaap reviewed the possibility of adapting WFP systems to delivering vouchers rather than food in order to spend resources more effectively. Ben Watkins compared the "nutrient gap" method of evaluating nutritional aid based on the quantitative/caloric values of need versus a more cost effective model (such as that of a market-based investment where the "transfer efficiency" serves as the "rate of return"). William Matovy of

Heifer International presented results from a value chain analysis of a milk supply chain in Africa, where the goal is ultimately to lift people out of poverty. Panelists discussed the possible negative effects of food aid from foreign humanitarian sources on factors such as recipients' digestive systems and local markets. Speakers emphasized that a market-sensitive analysis of the value chain for humanitarian aid items such as food would depend on engagement with local economies, reliance on national statistics, and institutional and donor coordination to build capacity in local markets.

Peter French, Independent consultant and Former Deputy Head of Logistics, World Food Programme (Moderator)
William Matovu, Country Project Manager, Heifer International
Adrian van der Knaap, Deputy Head of Logistics, World Food Programme
Ben Watkins, Founder, Director Technical Services, Kimetrica

II. **Disaster Response: Capacity Building for Resilience** *(Resource pooling and skills development in preparation for various types of disaster response)*

Panelists emphasized the importance of building networks to share knowledge and resources across divides (such as humanitarian vs. development, local vs. international, divisions across the humanitarian sector) in order to improve capacity building at all levels. Ian Heigh gave the analogy of disaster response to firefighting, noting that firefighting requires significant preplanning and collaborations set up in advance, ultimately allowing one to be adaptive when the actual crisis hits. Harlan Hale of the East Asia/Pacific office of USAID emphasized the cooperation necessary between the disaster relief and long-term development arms of the humanitarian sector in resilience efforts in order to overcome cultural differences and varying donor funding patterns. Dato' Ahmad Faizal Mohd Perdaus underlined the need for responders from local communities to international governments and NGOs to share knowledge and resources to serve beneficiaries. Several panelists emphasized the importance of disaster response teams working together with programs and long-term development, with the goal of developing communities that are more resilient to disasters.

Ian Heigh, Director, Everywhere Humanitarian Response and Logistics Services and Senior Logistics Advisor, IFRC Global Logistics Service
Dato' Ahmad Faizal Mohd Perdaus, President of MERCY Malaysia
Harlan Hale, East Asia/Pacific Regional Advisor, USAID Office of Foreign Disaster Assistance
Dr. John Park, Assistant professor, MISI (Moderator)

III. **Global Health: Immunizations & Cold Chain Logistics** (Strategies and practices in the delivery of temperature-controlled products)

The three panel speakers discussed innovations in health supply chains from sensing and forecasting demand to managing warehouse stores and policymaking. Each speaker presented a model of local capacity building in health supply chains that could be applied in other cases/countries. Heather Papowitz of UNICEF identified the complex steps required to detect and respond to cholera, steps which have been integrated into country office programs for greater resilience. Jon Lascher of Partners in Health shared a model for the distribution of a cholera vaccine in Haiti based on strong collaboration with local health authorities and communities. Igor Novykov of VirtuStores pointed

out the challenges of paperwork systems to manage supplies in congested warehouses and the success of new logistics management information systems that prove more effective for SCM.

Igor Novykov, Project Development Team Leader, VirtuStores
Jon Lascher, Haiti Program Manager, Partners In Health
Heather Papowitz, Senior Advisor for Health-Emergencies and the Cholera Focal point in the Health Section, UNICEF's headquarters New York
Pinar Keskinocak, GA Tech Center for Health & Humanitarian Logistics, Co-Director (Moderator)

IV. **Urbanization: Complexities of Delivering Goods and Services in Megacities** (Challenges and strategies in providing essential goods in densely populated areas)
Through analysis of the risks and challenges of managing disasters in large urban areas (and the examples of New York, Bangkok, and Tokyo), the three panelists identified methods of planning, coordination among authorities, response monitoring, and communication with the public that all three organizations shared as effective tools for disaster resilience in megacities. In New York City, cross-administrative partnerships and planning proved essential in the response to Hurricane Sandy. Former Deputy Mayor Mekvichai of Bangkok identified challenges such as providing for the poor, organizing volunteers, and addressing the public which require preparation, coordination and consistent monitoring. Professor Kenji Ono pointed to the health and safety of evacuees, assisting stranded victims, and minimizing the risk of fires as additional challenges which demand coordination among a variety of city agencies. Several panelists discussed the secondary impact of initial disasters, such as food shortages.

Jonathan Jenkins, Director of Logistics, New York City Office of Emergency Management
Dr. Banasopit Mekvichai, Former Deputy Mayor for Bangkok and Assoc. Prof. at Chulalongkorn University
Dr. Kenji Ono, Former Director of Planning for Infrastructure and Disaster Management, Government of Japan, and Professor in the Disaster Prevention Research Institute at Kyoto University
Martin Blansjaar, Head of Logistics and Supply for the Humanitarian Department, Oxfam GB (Moderator)

Workshops

Technology and Collaboration in Supply Chain Operations
CARE, Save the Children, and Catholic Relief Services (CRS) focused on inter-agency collaboration by analyzing the new SCM system developed by Aidmatrix (SCM4Good®), which the three organizations have implemented to improve timeliness, accuracy, efficiency and accountability in relief operations. Aidmatrix is a leading nonprofit that provides SCM technology for humanitarian relief, standardizing processes and enabling more open communication and data sharing internally and between organizations. See website for press release and further details on this workshop: http://humanitarian.scl.gatech.edu/home.

Tracy Tumlin Allardice, CARE International, Commodity Tracking System Senior Project Lead
Nicole Balliete, Catholic Relief Services, Dir. Of Commodity and Supply Chain Management
Carmen De Socio, Save The Children USA, Project manager of Supply Chain Management

Case Studies in Asia Pacific
The study of three particular emergency scenarios in Asia Pacific emphasized the importance and complexity of supply chain logistics. Participants examined the Myanmar Cyclone Nargis 2008, the Yogyakarta earthquake 2006, and the Thai floods 2011, working in interdisciplinary groups to devise a structured supply chain set-up they would present to a group of donors. They confronted specific challenges in emergency relief logistics (ERL) for large-scale disasters in a mega-city context such as finding and rescuing stranded people and quenching urban fires. The workshop leaders illustrated the importance of communities/countries preparing for natural hazards and unforeseen risks by pooling knowledge and resources in specific regions such as the Association of Southeast Asian nations (ASEAN) Logistics hub or the ASEAN Agreement on Disaster Management and Emergency Response (AADMER) in Asia. They also emphasized capacity building through supply chain exercises.

Robert de Souza, Logistics Institute Asia Pacific (Singapore), Executive Director and CEO
Jonas Stumpf, The Kuehne Foundation, NUS Humanitarian Logistics center Asia Pacific, Program Director

Forecasting for Disaster Preparedness and Response
The three workshop leaders posed the question of how to base disaster preparedness and initial response planning on forecasts, presenting different models and their own experiences. One forecasting model was based on historical disaster statistics and response operations, and the second was a stockpile planning model based on disaster affected population forecasts from 23 different regions worldwide. Ian Heigh, Senior Logistics Advisor for the International Federation of the Red Cross & Red Crescent (IFRC) then shared experiences in the IFRC operations' forecasting for preparedness and planning, prompting a group discussion on future steps for further improvement of forecasting models.

Ian Heigh, Director Everywhere Humanitarian Response and Logistics Services and Senior Logistics Advisor, IFRC Global Logistics Services
Marianne Jahre, Professor, BI Norwegian Business School & Lund University
Jarrod Goentzel, Director, MIT Humanitarian Response Lab

Field Vehicle Fleet management in Humanitarian operations
Presenters examined common problems facing field vehicle fleet operations for International Humanitarian Organizations (IHO) such as the IFRC, World Food Programme (WFP), and World Vision International (WVI) - aging fleets, excessive fleet size, low fleet standardization, accidents, service delays and cost. Using real data collected at various IHO headquarters- at the regional, national, and field levels- the leaders compared the different approaches to fleet management including enablers and barriers to field vehicle operations. Through group discussion, the participants explored how the knowledge of better fleet management could be transferred to other asset management for humanitarian organizations.

Maria Besiou, Assistant Professor of Logistics, Kuehne Logistics University
Martin Blansjaar, Head of Logistics and Supply for the Humanitarian Department, Oxfam GB

Challenges of Serialization in Developing Countries
Nada Adams, Supply Chain Security Manager of GlaxoSmithKline (GSK) led an initial presentation on the importance of the serialization of medical products, in the form of bar codes and sms labels, to combat counterfeit and control other supply chain risks. Participants discussed various logistical approaches and the application of new technologies in securing a safe and legitimate supply of vaccines and other essential medications to field locations.

Nada Adams, Supple Chain Security Manager, GlaxoSmithKline

Supply Chain Capacity Development for National Organizations Involved in Humanitarian Action – National aid organizations play a vital role in the effectiveness of humanitarian assistance (particularly in first response and last mile delivery). This workshop examined the importance of capacity development for national agencies as part of the humanitarian community's response to disaster. Ian Heigh (Senior Logistics Advisor of the IFRC) led the discussion by focusing on the area of supply chain management in capacity building, addressing the challenges organizations such as the IFRC have faced to remain relevant amidst the changing role of national aid organizations.

Ian Heigh, Director Everywhere Humanitarian Response and Logistics Services and Senior Logistics Advisor, IFRC Global Logistics Services

Supply Chain Key Performance Indicators (KPIs) and Continuous Improvement in the Humanitarian Sector
The workshop focused on performance measurements, such as key performance indicators (KPIs), in the humanitarian supply chain. Sergio Silva of the Logistics Development Unit of the WFP and Mallory Soldner, a Ph.D. student at Georgia Tech, analyzed ways that a multi-year initiative at the WFP used the KPIs and data-based performance improvement to meet organizational goals. The two focused on the use of a few specific diagnostic measures to improve supply chain operations.

Sergio Silva, Logistics Development Unit, WFP
Mallory Soldner, PhD Student, Georgia Tech

Feedback

The positive feedback received has proven the conference's success while many have suggested helpful ways of improving certain aspects for future conferences. Here are some quotes from the written comments received through conference evaluations or by email:

"Many of the speakers were very strong communicators and it was a great opportunity for networking."
"I really appreciated the effort the organizers made to engage people in active participation."
"Great variety of topics and excellent break-out sessions."

“Valuable integration of academia with operational agencies in a practical manner.”
“The content of the conference is well mixed and provides a better picture of the topic. Presenters were well selected and able to share their knowledge and experience.”

We are pleased with the enriching discussions and practical skills and knowledge shared during the 2013 Conference and we look forward to seeing the impact the shared contacts, information, and new tools will have on the efficiency and effectiveness of the many organizations in the health and humanitarian sectors. We look forward to bringing together another diverse group of participants next year!

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MIT Humanitarian Response Lab

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Pinar Keskinocak, Georgia Tech, Center for Health and Humanitarian Logistics
Mohinder Singh, Malaysia Institute of Supply Chain Innovation
Julie Swann, Georgia Tech, Center for Health and Humanitarian Logistics