

## **SUMMARY REPORT NATURAL DISASTERS AND TRADE SYMPOSIUM**

26 April 2018, 10 a.m. to 1 p.m. Room W

### **Opening Session**

Moderator: Shishir Priyadarshi, Director, Development Division, WTO

- Roberto Azevêdo, Director General, World Trade Organization
- Elhadj As Sy, Secretary General, International Federation of the Red Cross and Red Crescent Societies
- Frances Lisson, Ambassador, Permanent Representative of Australia to the World Trade Organization
- Kirsy Madi, Deputy Special Representative, Director, United Nations Office for Disaster Risk Reduction

### **Technical Panel**

Moderator: Shishir Priyadarshi, Director, Development Division, WTO

- "Trade and Natural Disaster Response" – Ricardo James, Senior Trade Officer, Permanent Delegation of the Organization of Eastern Caribbean States
- "Trade and natural disaster recovery" - Mina Aryal, Deputy Permanent Representative, (Commerce), Nepal
- "Trade issues arising in emergency response" – Jesper Holmer-Lund, Chief, Emergency Services Branch and the Field Coordination Support Section, United Nations Office for the Coordination of Humanitarian Affairs
- "Disaster Resilience – a private sector perspective", Maryam Golnaraghi, Director of Extreme Events and Climate Risks Program, The Geneva Association

Comments from the floor

### **Information Session**

- Overview of research project on Natural Disasters and Trade – Michael Roberts, Head, Aid for Trade Unit, Development Division, WTO

### **Opening Session**

1. **Shishir Priyadarshi, Director, Development Division**, welcomed participants and outlined the purpose of the Symposium as examining the steps that the trading system could take to help countries facing natural disasters. He then invited the Director-General to give his keynote remarks.

2. **Roberto Azevêdo, Director-General, World Trade Organization** began his intervention by asking: "How can trade policies and practices help in dealing with natural disasters and what could the WTO itself do to support this effort?". He recalled that the United Nations Office for Disaster Risk Reduction (UNISDR) argued that "disaster risk reduction is everyone's business" and he hoped that the Symposium would stimulate dialogue on this issue. He suggested there was a need to better appreciate the nature of the hazards faced, to understand the work that is being undertaken to respond to disasters, to promote recovery and resilience. The Symposium was an opportunity to share ideas and explore what role the trade community might play in tackling this issue. He welcomed the participation of the International Federation of the Red Cross and Red Crescent (IFRC), UNISDR and others both within and outside the UN system. Director-General Azevêdo expressed his thanks to Ambassador Lisson and the Australian Government for their support to take this work forward.<sup>i</sup>

3. While to some it might not be immediately clear what role trade had in the debate on natural disasters, Director-General Azevêdo highlighted some connections that had already been made by WTO Members themselves. The Declaration by Dominica and other Eastern Caribbean states which

was made at the WTO's eleventh Ministerial Conference in December last year in Buenos Aires was one example. This Declaration, and the plenary statements made by Ministers highlighted the catastrophic damage caused by last year's hurricane season and the role that the multilateral trading system could play in promoting recovery by enabling the flow of essential supplies.

4. Director-General Azevêdo highlighted that natural disasters appeared regularly as an issue in Trade Policy Reviews (TPRs). Haiti's 2015 TPR was a case in point; it discussed the 2010 earthquake and successive storms that had hit the island after the terrible earthquake. The Tohoku earthquake and tsunami were referenced in Japan's 2013 TPR and references to Hurricane Katrina could be found in past TPRs of the United States. Vanuatu 2018 TPR would be an opportunity to look at recovery from Cyclone Pam. This cyclone had delayed Vanuatu's graduation from least developed country status until 2020 and was an indication of the impact that these events could have. Amongst the waivers approved by the General Council were trade preferences granted to Nepal in the wake of the April 2015 earthquake and a package of tariff preferences for Pakistan after their 2010 floods.

5. Natural disasters had also been raised in the context of the Trade Facilitation Agreement. Director-General Azevêdo recalled the view of Ambassador Conejos from the Philippines that the TFA "would provide an enabling environment to allow Members to respond more quickly to future crisis". Against this background, Mr Azevêdo argued that there was a role for trade in supporting resilience. He noted services trade, for example, as essential in providing the necessary insurance cover.

6. To date, the WTO had been largely reactive on this issue. The organization had been finding solutions and highlighting problems as and when they arrived. There had not been any initiative to examine this problem holistically and to considering ex ante how to respond. He noted that the effects of measures could cut both ways. The right trade measure could help boost supply side capacity and restore trade after a disaster. The wrong measure could stifle recovery, erode resilience and restrain development.

7. Outlining how to move forward, he noted that there was already a body of work at WTO that could be examined and a tremendous amount of work that was going on in other bodies. How we moved forward would be up to Members and there was no intention to create new processes. He expressed confidence that the trade community would play a positive role in responding to this urgent issue. Director-General Azevêdo concluded his remarks by noting that studies suggested that the frequency and severity of natural disasters was likely to increase. In short, this issue was not going to go away. He recommended that we be better prepared and better informed the next time that we are called to respond.

8. **Elhadj As Sy, Secretary General, International Federation of the Red Cross and Red Crescent Societies (IFRC)** stated that the severity and frequency of natural shocks and hazards, was increasing as evidenced by recent data published by the World Meteorological Organization. Forty years ago, in bad years, IFRC had had to respond to 80 or up to 100 shocks and hazards per year. Looking now at the frequency of response there were about 400 shocks and hazards per year. The number of incidents had more than quadrupled not only in number, but also in severity.

9. He pointed out a combination of elements that were driving this process. These included climate change and demographic pressure seen in parts of the world that were prone to disasters as well as unplanned urbanization that were creating new forms of risks and increasing the vulnerability of millions of people across the globe.

10. Secretary General Sy recalled spending time in Sierra Leone and Guinee at the height of the Ebola crisis. Some of the measures taken at that time had exacerbated underlying problems and increased mortality and morbidity. These measures had included the closure of borders, cancellation of flight connections, closure of markets and restrictions on the use transportation facilities. These measured had impacted income, access to medical services, and it also affected the nutritional status of pregnant women and babies. Secretary-General Sy emphasized the importance of market access and income generating activities in building resilience in the face of shock and hazards.

11. Another example he cited was standing in the rubble of Antigua and Barbuda after the last cyclone season in the Caribbean. IFRC had provided short-term humanitarian assistance to the population of Barbuda evacuated to Antigua, such as food, shelter, water, sanitation, hygiene and

health. Some 15% of the evacuated population had decided to go back to Barbuda citing a lack of trading possibilities, banking facilities and markets.

12. Challenges faced during humanitarian responses included trucks with relief goods lining up for days, containers getting stuck on ports and not being facilitated because of customs regulations that did not consider the situation of natural hazards and disasters. In addition, it was sad to see that when people needed food, it was being rationed at the port or at the airport. Or the situation when people needed drugs and those drugs had expired because they had been stored in the sun in normal containers or had too short a shelf-life to be effective.

13. Noting that shocks would happen and could not be prevented, Secretary General Sy stated that humanitarian assistance and logistical problems had more to do with elements that were related to trade, customs and non-customs regulations than disasters. He expressed his concerns that despite all the information and science available today, the level of preparedness was still very low.

14. Citing monsoon and cyclone seasons and cyclical droughts as some of the shocks and hazards that became disasters at a scale that impacted many people's lives, Secretary General Sy emphasized that the level of preparedness, or lack thereof, would determine if those shocks would become a disaster or not. Furthermore, in the arsenal of preparedness tools and mechanisms available, trade related elements were also extremely important. In this context, he stressed the importance of engaging with member states and organizations like the WTO to make sure that there was an enabling legal and regulatory framework that would allow for such kind of work to be undertaken.

15. The level of preparedness, or lack thereof, would determine future mortality and damage from climate-related disasters. And that was pushing people to say there was no such thing as a natural disaster, all disasters were manmade. Shocks and hazards may be natural, but the disasters depending on us, human beings, on what we do on time or what we fail to do on time.

16. Mr Sy expressed his appreciation for the research being undertaken which would help deepen the understanding of the correlation between different elements, but more importantly point out more systematic ways of doing managing disaster. He mentioned that the WTO had been partnering, sometime on an ad-hoc basis, convening member states and the National Societies of the Red Cross and Red Crescent to work on specific cases. Member states such as Fiji had been using platforms such as the climate summit to put those issues on the table and this drove SG Sy to ask how those different pieces could be brought together in a solid piece of research.

17. After the response and recovery from shocks and hazards, it was important communities were not left in the same situation of vulnerability. This would mean changing building costs and functionality. He also emphasized the need to have long-term agreements, pre-position supplies for early response ensuring goods arrive in places where they are intended in the most efficient way. Doing that would create trade possibilities, open new markets and market access.

18. Secretary General Sy also pointed out that the humanitarian world was changing its modus operandi in disaster-affected places as well as in conflict affected states, moving away from away from delivering of supplies in a sophisticated and complicated way to cash transfer programmes. This would incentivize the local economies and local markets and also provide opportunities for the private sector to bring goods in a way that was needed thus creating trade opportunity.

19. He recalled the devastations experienced during Philippines' cyclone season where coconut trees were falling on housing and people but as soon as the dust settled and the recovery phase came, trade opportunities opened up through exporting coconut wood out of the rubble. This served as an entry point for trade as well as an exit strategy contributing to the income generating activity and resilience building.

20. In his concluding remarks, Secretary General Sy drew attention to the Trade Facilitation Agreement of 2014, as well as the joint research which he hoped would allow for the consolidation of a base to work together in two ways: deeply understanding the interconnection and the correlation between those different elements, finding ways of partnering to respond early, respond fast and to respond better. Doing that would build resilience, open new markets and use trade for the improvement of the lives of people that were affected in many parts of the world.

21. **Frances Lisson, Ambassador, Permanent Representative of Australia to the World Trade Organization** began her intervention by recognizing that addressing the trade related challenges arising from natural disasters was a priority for many WTO Members. She highlighted that Australia was highly exposed and the total economic costs for natural disasters from natural disasters was on average 18.2 billion dollars per year. Australia's risk profile was increasing due to the climate change, population growth and urbanization. One estimate suggested that Australia's annual losses from natural disasters would more than double by 2050.

22. The Indo-Pacific region was one of the most disaster prone in the world and many of Australia's closest neighbors were particularly vulnerable to earthquakes and serious weather events. She referred to examples of shocks and hazards experienced in 2018 including: earthquakes in Papua New Guinea, cyclones and floods in Fiji, Samoa and Tonga and volcanic eruptions in Indonesia, the Philippines and Tonga. These events had devastating impacts, for example more than 34,000 people had been displaced following the earthquakes in Papua New Guinea. Tropical Cyclone Pam in 2015 had caused to Vanuatu the value of 64% of its GDP. Tropical cyclone Winston in 2016 affected 540,000 Fijians, nearly two-thirds of that country's population.

23. Noting that the interruptions to trade that result from such events could be devastating, Ambassador Lisson highlighted that there had been comparatively little work on the links between trade and natural disasters. She suggested that increasing a country's disaster resilience had benefits on that country's capacity to trade. Strengthening a country's trade regime before natural disasters hit, its policy regulations and infrastructure could increase its overall resilience to natural disasters. For instance, more liberal sectors' policies would allow for greater provision of much needed services from insurance to medical services to ICT, both in the lead up to and in the wake of natural disasters. Improved customs procedures and certification processes would quicken the delivery of much needed goods and internationally consistent standards would help develop disaster resilient infrastructure.

24. Given the importance that trade plays in a country's development and UN member's commitment to investing in disaster reduction under the Sendai Framework for disaster risk reduction, she pointed out that further work on this question was vital. Australia had offered the WTO an extra budgetary contribution of CHF 110,000 to conduct research examining the trade impact of natural disasters as well as the role that trade measures play in natural disaster response, recovery and resilience. This work would build on the support Australia currently provides on natural disasters through their overseas and humanitarian programmes, particularly in the Indo-Pacific region.

25. In her concluding remarks, Ambassador Lisson encouraged other WTO Members to support this important initiative and stated that she was looked forward to discussing the findings from the initial research and scoping work with other WTO Members once it is completed later this year or early in 2019.

26. **Kirsi Madi, Deputy Special Representative, Director, United Nations Office for Disaster Risk Reduction (UNISDR)** expressed her appreciation for the WTO initiative. She described the UNISDR as the focal point in the UN system for the coordination of the disaster risk reduction. It had been established in 1999 following the international decade for natural disaster reduction which sought to raise awareness of the underlining risks which drive disaster events.

27. On natural shocks and hazards, she emphasized that preparedness for response and effective understanding and reduction of the risks related to them that made all the difference. Following the Indian Ocean tsunami in 2004, the United Nations had adopted a 10-year blueprint for reducing disaster losses known as Hyogo Framework for Action.

28. In 2015 when member States met at the third UN World Conference on Disaster Risk Reduction in the city of Sendai in Japan, the conclusion was that most countries had made progress in managing and responding to disasters and good progress had been made in reducing mortality as well as in improving preparedness. However, examples where the risk of disasters was understood and was fully factored into social and economic investments or where risk knowledge was fully integrated into development planning and decision making were still an exception.

29. The Sendai Framework for Disaster Risk Reduction adopted in 2015 then came into play. It was a 15-year non-binding, voluntary agreement which had been adopted by all the member States. It applied to small- and large-scale disasters caused both by natural hazards and man-made hazards as well as related environmental, technological and biological hazards and risks. The Sendai Framework represented a paradigm shift for managing and reducing disaster risks and strengthening the resilience of the societies to react and cope with shocks. The Sendai Framework set 7 clear global targets for reduction in disaster losses both economic, financial, human losses and it also set out goals and targets to increase collective action to enable these targets to be reached.

30. In March 2018, Member States started to report on their progress made against those 7 targets of the Sendai Framework including: substantial reduction in the loss of life; reducing numbers of affected people; reducing the economic loss and damage to critical infrastructure.

31. Deputy Special Representative Madi highlighted accountability as a cornerstone of the Sendai Framework and emphasized the importance of monitoring processes. These processes would be conducted coherently together with reporting against the Sustainable Development Goals (SDGs), and many of the 38 indicators of the Sendai Framework coincided with SDG indicators. She mentioned other enabling targets; one which aimed at increasing substantively the number of national and local disaster risk reduction strategies to be in place by 2020; and a target related to the Paris Agreement on having national adaption plans, bringing the different perspectives and looking at the progress in this critical area in a coherent manner. She mentioned that reporting would soon start on enhanced international collaboration for disaster risk reduction and increased access to early warning and risks assessments.

32. The Sendai Framework recognized that the primary responsibility for reducing disaster risks rested with the governments and that progress would not be possible without an inclusive approach. Various stakeholders had a key role to play, especially the private sector and including everyone involved in trade and was dependent on uninterrupted access to markets and global supply chains. The implications of successful implementation of the Sendai Framework would be profound for sustainable development and the resilience of society

33. The World Bank estimated that the annual cost to the global economy of disasters amounted to 520 billion dollars. The greater burden of absolute economic losses fell on high income countries like US which suffered a record number of billion-dollar disasters in 2017, yet it was the low- and medium-income nations which suffered the greatest setbacks and lost most if not all of their development gains. Resources spent on reconstructing damaged infrastructure could be spent more productively on fostering more competitive economies and investing in areas of social expenditure such as health and education. She stated that disasters affected business performance and undermined the longer-term competitiveness.

34. Globalized supply chains created new vulnerabilities. A case in point was that of Toyota which lost US 1.2 billion dollars in revenue as a result of the 2011 Japan earthquake and tsunami due to shortages for parts which affected then vehicle production in the US, India and China. Food security was another area where the world trading system had been severely tested. The global food crisis in 2007 and 2008 was triggered by a series of poor harvests caused by drought in different parts of the world. Over 30 governments had imposed export restrictions as fears grew of domestic food shortages. Protests had erupted in 61 countries and resulted in violence in 23 countries. This was one of the most traumatic manifestations of the impacts of drought risks on the international trading system to exacerbate humanitarian needs and to contribute to political and social tensions around the globe.

35. Trade had the potential to be a driver for the successful implementation of the 2030 Agenda for Sustainable Development, and for achieving the eradication of poverty. To do that, trade would need to be inclusive and address inequality by taking affirmative action to support those countries which were on the front line of climate change and extreme weather events.

36. Deputy Special Representative Madi concluded her intervention by emphasizing the importance of the WTO research considering how much damage earthquakes and extreme weather events had inflicted, particularly on low and middle-income countries in recent times. She mentioned that disruption to manufacturing, tourism and trade would play a significant role in the GDP losses sustained in these events, particularly in the small island, developing states.

## Technical Panel

37. **Ricardo James, Senior Trade Officer, Permanent Delegation of the Organization of Eastern Caribbean States (OECS)** began his presentation by recalling Dominica Prime Minister's address to the United Nations in which he had stated that the Eastern Caribbean was at the front line of climate change and its impacts. Mr James highlighted that 2017 had been a particularly devastating year in terms of hurricanes. He focused his presentation on the experience of Dominica with Hurricane Maria. Living in the hurricane belt in the eastern Caribbean was becoming increasingly traumatic and stressful for the citizens.

38. Recalling his childhood, Mr James recounted the experience of growing up in Dominica in the wake of the 1979 Hurricane David. He remembered being in the house with his family and hearing the wind and the rain coming in. That was his first experience of a hurricane. Tropical storm Erika in 2015 had also hit the island. Growing up, most of the younger generation viewed hurricanes as something that could be an exciting event. After Hurricane Maria, all that had changed, and there was concern at the increasing frequency and intensity of hurricanes and the economic impact that it can cause on small island states like Dominica and other OECS countries.

39. The Caribbean faced other hazards too ranging from hurricanes, earthquakes, volcanos, including Tsunami threats and floods. These disaster events destabilized growth prospects. Hurricane Maria had been the worst natural disaster on record for Dominica and the tenth most Atlantic hurricane on record. Another feature of Hurricane Maria was the way it had rapidly intensified. Mr James recalled that his mother had informed him that the hurricane was not going to hit Dominica and cast doubt on the accuracy of predictions. Less than 24 hours later, Dominica had been directly hit by the category five hurricane. On September 17, Maria had been a category one storm, but 24 hours, it had grown to a category five hurricane. The day before hurricane, on a Sunday, no one thought that they would face such a category five hurricane; so many people were caught off-guard. When the hurricane made landfall at 9.15 Atlantic Standard Time, the intense and heavy rainfall, severe winds, flash floods, landslides, inflicted damage to almost every roof, buildings were swept away, communication services destroyed.

40. Dominica was known as the "Nature Island" of the Caribbean. When Mr James returned on 23 September, he was struck by the lack of green. All the mountains had been stripped bare. Trees had been stripped of their leaves and were sticks sticking out of the ground. The damage was catastrophic. The economic impact based on a post disaster needs assessment was estimated at 226% of the 2016 gross domestic product for the island. He mentioned that the identified recovery and needs for reconstruction incorporating the principle of Building Back Better where possible amounted to US 1.37 billion dollars. A total of Eastern Caribbean 9.4 billion dollars had been lost in income, with a 25% reduction in overall consumption likely increasing the poverty head count from 28 to 42% of the population. A deficit of 21% of GDP had been projected for 2018.

41. Tourism, which was a growing sector for Dominica, had incurred a loss of US\$116 million dollars and needed US20 million for recovery. Agriculture had suffered USD 179 million in losses; commerce and micro business USD 77 million. Many schools and hospitals had been damaged or destroyed. Around 90% of the housing stock had suffered damage, either from loss of their roof or total destruction. There had also been damage to roads and bridges; water and sanitation and damages to the electrical grid and the telecommunications infrastructure.

42. According to Antigua and Barbuda's Prime Minister, the Honourable Gaston Browne, Barbuda had been rendered uninhabitable by the passage of Hurricane Maria and the entire population had had to be moved over to Antigua. Dominica was a small island developing state with limitations in terms of its administrative, legislative, regulatory infrastructure and governance. Disasters made the job of governance and managing the economy much more difficult, but the government, the Prime Minister and the people were rising to the task.

43. The long-term goal in the aftermath of Hurricane Maria, was to make Dominica the first climate change resilient nation in the world as had been indicated by the Prime Minister in his address to the United Nations.

44. A response plan had been put in place and relief provided by many governments, regional and international organizations and agencies, who had come to the aid of Dominica. A pledging

conference for the Caribbean had also been held at the UN. In terms of recovery, the goal was to have restore key infrastructure, utilities, water, electricity, telecommunications, rehabilitation of roads and bridges, stimulation of the domestic demand. In terms of economic policies, some measures would include tax and duties exemptions, provision of grants and financial support to the agriculture sector and farmers to help them to rehabilitate agricultural production. It also included ensuring job creation because immediately after the hurricane and with the destruction of hotels, supermarkets and small businesses, there was an immediate rise in unemployment on the island. There had also been an immediate rise in emigration. Dominica's population hovered around 70,000 people, but it was estimated there had been an exodus of approaching 20,000 people to neighbouring islands that 14 days after the hurricane.

45. Building a resilient Dominica was the long-term goal, one it shared with many other countries facing natural disasters linked to climate change. He outlined that the goal was to develop national climate resilience and a recovery plan. This was an ongoing process that had been initiated and it would require the creation of agency to coordinate and spearhead this process. The climate resilience executive agency for Dominica was being supported by donors who provided resources.

46. Emphasizing build back better as the underlying goal and theme, he mentioned some of the elements in increasing Dominica's resilience: new construction codes, investment in new climate resilience systems to ensure food security, energy security and ICT security, identification and use of international best practice approaches for the construction of climate resilient, energy efficient, affordable homes and houses.

47. Mr James noted the importance for small island states to find ways to reduce their vulnerability and increase their resilience. He recalled that during MC11, there was an initial proposal to acquire from the WTO some flexibility and recognition of the destruction caused to trade. The OECS had proposed some textual language of a political nature that would be reflected in the outcome document. Ministers of the group of small and vulnerable economies had issued a declaration in which they highlighted the impact of natural disasters on trade and to call for the full flexibility of the multilateral trading system to be deployed regarding reconstruction measures. He proposed a more concrete reflection of this declaration at the WTO and welcomed the proposed initiation of a research project on this issue. He highlighted Article IX which provided for waivers, as a provision that could be used by Members given the unpredictable nature of the shocks and hazards. He mentioned the need to explore a more systemic, methodological approach with a system that would automatically kick in if a country faced a natural disaster.

48. Mr James posed the following questions: What additional flexibilities and special and differential treatment could be provided? How could aid be further facilitated by the various rules? How could the Trade Facilitation Agreement facilitate the import or the provision of aid from outside? And how could the rehabilitation of productive sectors and the export trade be facilitated by market access? He suggested that other measures, such as Article 27.4 of the Subsidies and Countervailing Measures Agreement provided for transition periods that allowed certain developing countries to continue to provide certain subsidies that were prohibited. Noting that this provision had been phased out, he suggested that this was an area that could to be explored. In his concluding remarks, Mr. James stated that OECS countries were prepared to make specific proposals and submissions as necessary, engaging with other members to be in consensus as appropriate.

49. **Mina Aryal, Deputy Permanent Representative, (Commerce), Nepal** began her intervention by highlighting research indicating Nepal as the fourth most earthquake vulnerable country in the world and eleventh in terms of climate induced hazards. An earthquake measuring 7.6 on the Richter Scale by Nepal's National Seismological Centre struck at 11.56am on 25 April 2015. A further earthquake, measuring 7.3 on the Richter scale, had struck on 12 May with an epicentre 76 km northwest of Kathmandu. The National Seismological Centre had also recorded more than 40,000 aftershocks of more than 4 on the Richter scale.

50. The earthquakes claimed over 9,000 lives and left more than 22,000 people injured. Thirty-one of Nepal's 75 districts had been affected of which 14 were severely damaged. Roads, bridges, schools, heritage sites, monuments, hospitals, water supply systems, agricultural land, trekking routes, hydropower plants and sports facilities were all impacted, some being severely damaged. Hundreds of historical or cultural monuments and temples had been destroyed or damaged, including seven sites out of ten listed by UNESCO World Heritage.

51. After the quake, a meeting of Disaster Central Relief Committee had been held within two hours. National Emergency Operation Centre provided an initial report to the Central Disaster Relief Committee which focused on search and rescue, and lifesaving actions. International search and rescue (SAR) teams from 34 countries, including Nepal's immediate neighbours, responded to Nepal's request for help. Under the SAR search and rescue, more than 4,000 helicopters flights and over 90% of security forces and over 22,500 civil servants had been mobilized immediately. As a result, 7,500 people had been rescued by air and around 5,000 by land under the SAR officers.

52. Recovery and reconstruction was under way. According to National Reconstruction Authority, by 25 February 2018, over 100,000 houses had been rebuilt and more than 300,000 houses were under construction. The construction of 207 government buildings had been completed and 125 were under way. Similarly, construction of 2,890 educational institutions had been completed with 1,458 under construction. Reconstruction of 79 cultural and heritage sites had been completed and 111 were in the works.

53. The recovery phase normally involved a set of policies, tools and procedures; restoration of basic services and the repair of physical, social and economic damages; rebuilding of roads and bridges, restoring economic activity, etc. The goal of recovery was to return the community's system and activities to a normal situation and achieve services regularly. In addition, the recovery phase would involve development coordination and execution of services and it would take several years to rebuild all sectors including agricultural, manufacturing and services. Noting that this would be the most important phase of disaster management, she called for international support.

54. For a resource-constrained country like Nepal, she highlighted that reconstruction and full recovery after a big disaster would be a significant challenge and take time. She highlighted that the government of Nepal expected that donor and development partners would come forward with timely disbursement of their commitments in the aftermath of disaster.

55. She mentioned that the nexus between trade and natural disasters was complex and challenging and that such a situation called for a cooperative and collaborative approach. Trade measures had an on the whole cycle of disaster management such as preparedness, rescue, recovery and reconstruction. The rescue and relief activities – basically the supply of shelter-related materials and food items – suffered the most from trade measures such as customs duties, documentary requirements and test procedures and so on.

56. Similarly, natural disasters had an impact on trade and economic development. At a time when Nepal was regaining its trajectory of faster economic growth and prosperity, the severe earthquake damage had depressed annual growth projections from 4.8% to 0.8% for the year 2016. The actual growth rate had been only 0.7%.

57. Tourism had been adversely affected. Over 90% of tourists had cancelled their bookings. The Post Disaster Needs Assessment stated that about 33% of cottage industries had been severely affected in 14 districts, that were hit hardest by earthquakes. In agriculture, the earthquake had destroyed stockpiles of stored grains and devastated the livestock sector.

58. Supply-side constraints included a low-level of physical infrastructure development, the downward spiral of export performance and the decreased productive capacity and the high cost of doing business. The disaster exacerbated this situation, creating a lot of hardship in the production process and productivity.

59. Another challenge was coordination of aid by donors to accomplish the rebuilding and reconstruction task as per the Post-Disaster Recovery Framework 2016-2020. Similarly, reviving the damaged industrial infrastructure and keep them competitive in the market would also be a challenge. The ballooning trade deficit presented another challenge. At present, the ratio of export to import was one is to 14.3.

60. Regarding the way forward and role of the multilateral trading system. She suggested the following areas of collaboration:

- First, the acknowledgement of the proposal submitted by the Caribbean and Small and Vulnerable Economies for flexibilities in the WTO obligations required for recovering from natural disasters submitted during MC11, contained in document WT/MIN (17)/37.
- Second, implementation of the Trade Facilitation Agreement, particularly measures related to advance rulings, release and clearance of goods, border agency cooperation, relief from stringent test procedures, and freedom of transit which could be critically important for disaster management.
- Third, encouragement of special trade preferences schemes granted by the developed and larger developing countries in a position to do so, to help in the speedy recovery of the trade of countries hit by disaster. Nepal had received such support from the United States of America in December 2016 through which preferential treatment had been granted to 66 tariff lines of Nepali products exported to US market. The objective was to help Nepal to recover from the natural disaster which had set back Nepal's economy and trade sectors. The waiver was granted until the end of 2025, under Article IX:3 of the Marrakesh Agreement Establishing the WTO.
- Fourth, to enhance institutional capacity such as those of the National Reconstruction Authority, the National Disaster Relief Fund under the Chairmanship of the Prime Minister, the National Seismological Centre and other concerned agencies. This would be essential for applying the Build Back Better approach encouraged by the Sendai Framework for disaster risk reduction.
- Finally, to support the building of a robust trade related infrastructure and enhance productive capacity through predictable, transparent and enhanced Aid for Trade and support from the Enhanced Integrated Framework. Such support could be instrumental to support in the recovery, reconstruction and resilience building of trade and the economy.

61. Jesper Holmer-Lund, **Chief, Emergency Services Branch and the Field Coordination Support Section**, UN Office for the Coordination of Humanitarian Affairs (UNOCHA) began his intervention by sharing his views from a humanitarian perspective, discussing the reality on the ground and some of the initiatives undertaken which were creating a space for connections between the commercial and humanitarian system.

62. UN agencies had a responsibility to facilitate effective delivery of assistance to people in need. He recalled that when Hurricane Ivan and Maria swept through the Caribbean, UNOCHA was tasked with deciding on whether to contact potential affected governments. UNOCHA requested for international assistance and it deployed expert teams to facilitate the coordination of the humanitarian assistance.

63. One stereotypical perceptions people had about natural disasters was that people affected by a flood or other event fled their homes, gathered somewhere and the government and international community came in and rescued them, with international assistance pouring in to help. The reality was different. The number of disaster events was going up and the question as to whether this was because of climate change, population increase, or urbanization remained moot. On average, every year the numbers of casualties were going up, but disaster affected Members were getting better and better at handling these types of situations which in turn led to fewer requests for international assistance.

64. Early warning, preparedness and resilience was already having a significant impact. Compared to previous 2016, there had been a sharp drop in death tolls arising from climatic and non-climatic. This was because of early warning mechanisms. UNOCHA was aware of when hurricanes would happen and they therefore informed people beforehand.

65. Many countries had built resilience. For example, in Bangladesh the number of deaths had declined significantly as the Government of Bangladesh had built in very strong systems of early warnings, the population had been trained and they knew exactly where to go in case of an alarm. For non-climate disasters such as earthquakes, tsunamis, building resilience would involve building codes, and measures such as sea walls.

66. Looking at the financial impact of natural disasters, he highlighted two peaks; one after Hurricane Katarina and another after the tsunami in Japan. Another peak would occur in 2017 because Hurricane Irma had affected Florida and prompted the highest financial losses ever recorded by a disaster.

67. Urbanization meant that most people affected by natural disasters lived in cities and this created a totally different dynamic as to how assistance would be provided. Using as illustration a photo of himself that he had taken during Yolanda typhoon in the Philippines, he highlighted that the role of UN humanitarian response was bringing life back to a level of normality where livelihoods were restored, people had food and water, access to education and they were protected from violence.

68. The reality of today's disasters was not only that people needed food, shelter, healthcare, protection but also connectivity to connect with loved ones. He recalled working six months in Mogadishu five years ago and Mogadishu was at that time the capital in the world with the highest number of mobile phones per inhabitant. He was a bit surprised to see that the average Somalian had 3 to 5 mobile phones. This was because the different networks did not interlink so you could not have roaming between the networks, but secondly the phone was your life insurance because that would tell you where there were risks or where there were opportunities to get food. He urged Members not underestimate the importance of connectivity. Re-establishment of markets was a key indicator that life was returning to normalcy.

69. Humanitarian agencies were shift from traditional delivery of assistance to re-establishment of infrastructure that was there before that enabled people to procure goods and services. The humanitarian world was moving further and further away from the expensive distribution of relief to distributing credit cards and cash through SMS vouchers or other means. That would allow the affected community to decide what they needed because they would be able to procure what they felt were the most important commodities for them. He emphasized the need to establish infrastructure that would allow the use of these mechanisms and the need to ensure that the market economies were back again and the trade was reappearing. Mr Holmer-Lund gave another example from Turkey where there were 3.5 million Syrian refugees. They received credit cards at age 18 and a fixed amount of money every month with which they could go and shop for whatever they felt they needed.

70. Infrastructure was core to recovery. During operations, assistance was organized in clusters; clusters around healthcare, food, water, sanitation and education. He recalled leading an operation in the Philippines after Yolanda and recalled that they started experiencing challenges after some months. He then met with his Philippine counterparts who told him what they were experiencing in the different 11 clusters but he kept insisting that they were 12 clusters as one was needed for electricity, because without electricity there would be no recovery of markets, no industry, and no livelihoods. Without the appropriate infrastructure, whether it was for transportation of fuel or electricity etc. there would be no regeneration and no re-establishment leaving people dependent on humanitarian assistance.

71. The humanitarian world was shifting from the rural operational approach to an urban one which was more complicated. There was a need to rethink and understand the vital role that commerce played. He pointed out that the way the private sector was promoting themselves especially through social media and this imposed yet another challenge. He echoed WCO remarks on instances where donor countries that shipped relief supplies indicated their preferences for relief commodities through ASYCUDA or ASYREC and this limited the donor private companies.

72. Scarcity of products during the recovery period created a direct impact on prices and he emphasized on the importance of bringing back markets which would allow people to buy products at the same price as they had before. He recalled challenges faced during the ebola epidemics where countries were closing off borders. Despite having effective humanitarian assistance, disasters had a negative impact on commerce, transportation and storage.

73. There was a need to rethink long term the impacts of humanitarian donations. Here he recalled the earthquake in Haiti. Well-intended organizations came in and distributed water for free so driving companies on the island with commercial water production out of business. As soon as the international organizations ran out of supplies, though, there was nobody to distribute food and water anymore.

74. He mentioned some of the initiatives that had been put in place such as the IFRC's International Disaster Response Law that set out a framework of responsibility and technical laws on customs. He called on members to look at these laws that put responsibilities on affected

countries to go and see how organizations handled specific situations, and how they dealt with migration of international relief workers.

75. [ASYREC](#), (Automated SYstem for RElief Consignments) was a customs facilitation programme that allowed customs facilitation without any delay of relief consignments. The initiative had been started to get airports ready for disasters and making them more effective. Airports became bottlenecks in emergencies. One of the big challenges the international community had in responding in Nepal was that thousands of tourist trekkers had been left stranded at the airport and could not depart as commercial flights had stopped operation to allow relief flights to pick them up. People were stranded at the airports because their airlines could not pick them up.

76. Mr Holmer-Lund concluded his intervention by discussing UNOCHA's [Connecting Business Initiative](#). This initiative came out of the World Humanitarian Summit and would bring commerce and the private sector together in disaster-prone countries before an emergency occurred.

77. Maryam Golnaraghi, Director of Extreme Events and Climate Risks at Geneva Association divided her presentation into three parts. A first segment would discuss disaster losses and how disasters impacted governments and the economy. A second section discussed the global movement over the past decade to building economic resilience. The third part would discuss the role of market-based insurance in bringing financial resilience and recommendations in this regard.

78. Over the past five years not only had the number of natural disasters grown, but the financial impacts of these disasters had increased together with the insured losses. Referring to Munich Re information on global disaster loss information, she highlighted that weather-related disasters accounted for over 90% of total disasters. The frequency and severity of these disasters was on the rise, and were linked to the changing climate. The financial impacts of disasters was increasing due to vulnerability linked to fast urbanization, higher concentrations of people and properties in high-risk regions, poor development planning and construction practices. Complex inter-dependent supply chains and trade patterns cascaded the failure effects of critical infrastructure, and the impacts of natural and man-made catastrophes as witnessed in Japan in 2011. In addition, climate change played a critical role particularly in relation to changing patterns of hazards.

79. Examining direct impacts, she stated that losses were experienced in government budgets because of emergency spending on relief and response, relocation of affected and/or at-risk citizens, reconstruction or improvement of non-insured or partially-insured public infrastructure and family dwellings, costs of social and economic programmes for rehabilitation and recovery, contingent liabilities for state-owned and other enterprises. She focused attention on what really needed to be accounted for in terms of what constituted financial losses and solutions in managing these losses.

80. The disruption of supply chains and exports market access had global impacts that resulted in supply-chain destructions around the world. She emphasized the need to think about countries with limited economic diversity where a single large catastrophe could lead to profound economic impact. For low-income nations, these types of economic shocks could deepen poverty levels and lead to complex emergencies, such as droughts and related complex events that could follow.

81. Explaining the concept of disaster risk management over the last five decades, she noted that climate change and sustainable development had emerged from humanitarian, scientific and environmental debates into an economic debate. The Sendai Framework for Disaster Risk Production, the Paris Agreement on climate change and the Sustainable Development Goals all addressed the impacts of natural disasters as an economic development issue as part of their priorities for action. She highlighted a study which showed that natural disasters had become a responsibility of the ministries of emergency, preparedness and response. As a result, this issue had always been handled as a humanitarian one with reference to the "disaster cycle of relief and response followed by recovery and reconstruction". However, thinking around these issues were starting to evolve into much more comprehensive all-of-society approaches aiming at preventing and reducing these disasters. One dollar spent in prevention could save anywhere between four to ten dollars in response and recovery. Similarly, in the area of climate change and sustainable development, these topics had emerged from the fields of science or environment, but increasingly though there was recognition of the profound economic implications and the necessity for converging these areas under the national economic development and budgeting of nations. Over the last decade, a highly complex global stakeholder landscape had emerged supporting governments with respect to the

development of their capacity for addressing disasters with a more preventive and preparedness approach. She emphasized the need to focus on early warning systems and building the resilience before a disaster struck.

82. A comprehensive stakeholder landscape had emerged that now span into development communities, international and development banks, the United Nations community as well as the private sector, and particularly the insurance industry. There was also convergence with what was coming out of the scientific community, where governments were starting to realize a paradigm shift in their approaches from post-disaster response towards a more proactive approach to addressing and managing financial and societal impacts of disasters. This approach had been highlighted in Sendai Framework for Action.

83. Ms Golnaraghi highlighted that the basic element to be able to manage financial risks of disasters was the ability to quantify those risks: Who is at risk? What is the nature of that risk? Can we quantify that risk? Can we price that risk? Through cost risk analysis, governments had started to look at risk reduction and preventive measures to reducing existing risk and to prevent new risk. These were through actions such as land zoning, development and enforcement of building standards, as well as investing in natural infrastructure and buffer zones to create distance between people and as natural hazards to just name a few. A critical element of development over the last decade had been the recognition by governments of the need for pre-disaster financial planning and the important role that market-based insurance and risk-transfer mechanisms played in bringing financial stability and resilience in face of disasters.

84. Recalling the issue of building back better, she urged Members to think about building back smarter given that disasters hit some countries recurrently. This had become part of the conversation in many countries and the whole framework was starting to come into focus of ministers of finance and planning in many countries around the world. The role of market-based insurance and alternative risk transfer mechanisms was starting to be recognized by governments and it was increasingly recognized that interconnectivity and vulnerability of supply chains was further adding to societal and economic vulnerability.

85. Market-based insurance was helping nations to build their economic resilience to disasters. A number of empirical studies from previous disasters had shown that countries with more mature insurance markets recovered faster and even realized economic benefits following a disaster. It was mostly the uninsured part of catastrophe-related losses that drove the subsequent macroeconomic losses. Recalling the tsunami and nuclear accident in Japan versus the 2004 Indian Ocean tsunami, she compared the experience of fishers. Insurance for fishers in Japan had allowed them to replace their instruments and boats and be able to go back to sea whereas many fishermen around the Indian Ocean lost their livelihoods.

86. Since 2005 new insurance and risk-transfer mechanisms had been developed in many countries, particularly in middle and low-income nations. These types of solutions were being developed through development of national insurance programmes, or was the case of the Caribbean, the Pacific and Africa, through the development of regional facilities providing insurance support to governments in anticipation of a disaster or post-disaster. These mechanisms ensured that funds were available to the government in a more reliable fashion so hastening the return to normality. Initiatives included mechanisms in Caribbean Catastrophe Insurance Facility, the African Risk Capacity and the Pacific Capacity Risk Assessment - financing initiatives that included collaboration with the World Bank, other regional development banks and the insurance industry.

87. Where mature insurance markets were available, the benefits that society could realize through access to insurance were products that would help build financial resilience. These were insurance programmes to provide protection against floods, hurricanes and a whole range of products and services to protect against business interruption and supply-chain failure. Insurers also provided significant underwriting and protection of critical infrastructure. Setting up innovation units and incubators to develop adaptation research and share that with the governments was an area where many countries around the world, the local reinsurance sector as well as the global reinsurance sector were supporting governments with developing better protection measures and risk-reduction solutions.

88. In the 1990s, a run of disasters (hurricanes and storms) in Europe and United States led to the bankruptcy of a number of insurance companies. It was at that time that this industry brought together its resources to support development of the field of catastrophe risk modelling. This was the latest technology in bringing information from natural hazards together with assets and their vulnerabilities to be able to assess what were the financial risks in face of a disaster. This is what enabled this industry to thrive and be able to provide more services and expand the markets for insurance around the world. Over nearly ten years ago the United Nations through the Office of UNISDR realized this tremendous capacity and with support from the World Bank, UNISDR and a number of other agencies, insurance industry capacity in risk-modelling was transferred to the public sector to enable the government to better assess risk. It also permitted more risk-informed decisions to support the various stages of prevention, preparedness, early warning and post-disaster response and reconstruction.

89. The ability of insurers to assess a disaster and pay-out faster was enabling governments to access funding through regional facilities that had been established in a number of regions. These were just preliminary results and the industry was working very closely with development partners and international donors to develop these capacities at scale. She pointed out the G-7 [Insurance Resilience Initiative](#) whereby the governments of the United Kingdom, Germany, Canada, and United States were working with the insurance industry, the World Bank and the UN to provide insurance solutions for the world's most vulnerable people. She mentioned some of the factors that were hindering financial protection solutions to all countries, even the most developed including limited access to risk information and risk pricing. To develop a good and effective insurance programme there was a need for access to risk information. Public policy legislative and regulatory issues related to investing in risk reduction and risk transfer capacity would need to be further developed to enable the insurance industry to operate in different regions.

90. Ms Golnaraghi drew member's attention to regulatory barriers to access global insurance and reinsurance markets in some countries. The Geneva Association worked with the CEOs of the largest global insurance and reinsurance companies and governments to pave the way to open-up access to the global insurance and reinsurance markets to all nations. The Association had been exploring hurdles that prevented insurance capital from entering different markets. She also drew attention to studies conducted by the Global Reinsurance Forum of the Geneva Association on regulatory barriers to facilitating insurance and reinsurance solutions particularly to middle and low-income nations. These were available at [www.GRF.org](http://www.GRF.org).

91. In conclusion, Ms Golnaraghi stated that the Geneva Association was working to help all nations with their efforts to build financial and economic resilience to disasters and in that regard hoped to work on stronger collaboration and cooperation with United Nations agencies, the WTO, the development community and governments to bring forward the value proposition of this industry. This value proposition lay in the shape of better quantification of risk and development of sound financial protection measures that could help governments, people and businesses address risk and be better prepared to be able to handle the impacts of these catastrophes.

### **Comments from the floor**

92. A representative of **UNCTAD** highlighted the organization's keen interest having worked for some time on the implications of climate change on maritime transport and transportation infrastructure throughout the supply chain. More recently, UNCTAD had undertaken further research particularly reference and emphasis on climate change impacts and adaptation to disaster risk reduction for ports and airports and small island developing states. She emphasized the importance of an integrated, holistic consideration of the implications of climate change and natural disasters on trade throughout the supply chain, also with reference to infrastructure. The Trade Facilitation Agreement was important in this regard especially for small island countries who depended on maritime transport and air transport to bring in tourism. On risk and vulnerability assessment studies, she brought attention to Caribbean Development Bank Project that had been undertaken to assist ports and airports to agree adaptation priorities. She also advocated a close collaboration

93. The **World Customs Organization (WCO)** highlighted that the guiding principles of WCO's work were achieving preparedness, awareness, communication and cooperation. In terms of preparedness, WCO had several tools available to its members, including [Recommendations of the Customs Co-operation Council \(1970\)](#), provisions in two of WCO's conventions. The first one was the Convention on the Harmonization and Simplification of Customs Procedures, broadly known as

the Revised Kyoto Convention. It had specific and special procedures, and one of the [chapters therein was devoted to relief consignments](#). This chapter contained the facilitation measures that the contracting parties were invited to implement so that aid could reach those in need in a timely manner. The second convention was the Convention on Temporary Admission, broadly known as the Istanbul Convention, which contained an [Annex on temporary admission of equipment for humanitarian purposes](#). There was also a [resolution of 2011](#) which invited its members to implement facilitation measures for the exportation, importation and the transit of relief items. The WCO was implementing, in cooperation with UNOCHA, [a project](#) funded by the Dutch government for three ebola-affected countries which aimed at preparing standard operating procedures. The procedures to be triggered and implemented in the event of a disaster included: building the capacity of the customs administrations and their stake holders to implement these standards, the operating procedures and conducting simulation exercises. The WCO had cooperated with the IFRC and many other stakeholders, and was open to cooperating with the WTO on the research project.

94. A representative from **Vanuatu** drew attention to the impact of Tropical Cyclone Pam on his country. Following up on the issue of early warning system that needs to be set up within the countries prior to a disaster, he highlighted some of the key issues that need to be addressed. He emphasized the need to work in coordination with all the agencies. He highlighted shortcomings from relying on external exports for training in Vanuatu as there was little continuity. He highlighted support that had been received from the EIF for rehabilitation of its sea wall after Cyclone Pam. He urged all Members to build capacity and resilience before disaster so as to reduce vulnerability.

95. The Permanent Mission of **El Salvador** reiterated Director-General Azevêdo's comments about the importance and timeliness of the event given that disasters were likely to occur with greater frequency and intensity as a result of climate change. She highlighted that her country had also suffered from disasters. El Salvador was regularly hit by droughts, floods and earthquakes which lead to the loss of human life and destruction. She assured Members of El Salvador's support for the continuation of these discussions at the WTO in seeking to identify measures which would assist in mitigation of the effects of disasters and increase resilience of Members to confront disasters and to promote reconstruction. All of this would be on the basis of a comprehensive approach tackling the situation faced by all vulnerable members who faced this kind of disaster.

96. The representative of **the Pacific Island Forum Secretariat** recalled Ambassador Lisson's comment that the Pacific was one of the regions that were most vulnerable to natural disasters and climate change. She referred to the World Risk Report put out by the UN University which showed that Vanuatu and Tonga were the top two most vulnerable countries out of the 171 countries listed in that report. Within the top 15 countries, five were from the Pacific, namely, Vanuatu and Tonga, Solomon, Papua New Guinea and Fiji. Drawing from this report, she pointed out that the Pacific region was very keen to engage in these discussions, particularly to try and find the nexus between trade and natural disasters, but more importantly to look at how WTO rules could address some of the trade losses and damages that were caused by natural disasters, and the need to focus on building resilience and preparedness using existing WTO rules. Recognizing hikes in prices as a result of food shortages prompted by natural disasters, one action taken by Pacific Island Forum was to support a permanent solution for public stock holding that would support the need for some countries to stock pile food for natural disasters, so as to create food security and to stabilize the price of food after natural disasters.

97. The representative of **CARICOM** emphasized that the group attached great importance to the symposium on trade and natural disasters given how exposed the region was and how vulnerable it was to climate change in general and to natural disasters in particular. Some 165 natural disasters had affected the Caribbean between 1990 and 2008. The damage and loss that were suffered over that period had been estimated to be in the region of USD136 billion. Natural disasters had become increasingly frequent and their consequences ever worse, particularly in terms of the loss material and infrastructure damage. Climate change meant that the frequency and intensity would also increase.

98. The damage caused by Hurricanes Matthew, Irma and Maria caused to Dominica, Antigua and Barbuda in 2017 were perfect examples of the challenges faced by the Caribbean. They illustrated just how natural disasters could wipe out many years of development progress. They had a negative effect on trade in goods in services, on investment flows, and had led to high unemployment, poverty and other problems. For example, after the Islands had been struck by Irma and Maria, the United Nations estimated the economic loss to Dominica, Antigua and Barbuda at some USD 400 million

dollars, with some USD 1.1 billion of total damage. In Dominica the economic impact was more than 200% of its GDP. These examples showed the extent to which the Caribbean was vulnerable to natural disasters and the need to bring comprehensive solutions to help Members rebuild and relaunch their economic growth and their development.

99. As seen in the proposal from Antigua and Barbuda, Dominica, Grenada and Kitts and Nevis, St Lucia, St Vincent and the Grenadines, in their document WT/MIN (17)/37, the multilateral trading system had to provide the necessary flexibilities to the most vulnerable members and the weakest members following natural disasters so that they can rebuild and continue their development. This was the reason behind special and differential treatment granted to members during reconstruction periods. It allowed the measures taken to continue to comply with WTO agreements. He concluded by stating that CARICOM believed that the granting of the necessary flexibilities to WTO rules would help increase the economic resilience of those members who were highly vulnerable to natural disasters.

100. **Japan's** representative highlighted that the country was also vulnerable and had been affected heavily by natural disasters. Japan represented only 0.82% of the world's land area but 20% of the earthquakes over magnitude 6 on the Richter Scale took place there and it also had 7% of the world's active volcanos. She recalled the interventions of previous speakers who had mentioned Japan's disaster that occurred in 2011 and expressed gratitude for the level of support received from all over the world. He emphasized that Japan is a country which had been working hard not only for response, but also early warning and resilience and promoting preparedness to natural disasters. Some of the products, the fruits of their endeavours had been shared with others, including cooperation to establish early warning for tsunamis in the ocean. Japan had hosted country three UN World Conferences on Disaster Risk Reduction: in Yokohama in 1994 and 2005 in Tokyo and latterly 2015 in Sendai. He mentioned that Kobe was the place where the big earthquake took place in 1995 with over 5,000 casualties. Sendai was the area which was most heavily affected by the tsunami in 2011. He looked forward to further collaborations in the discussions in the WTO.

101. A representative of the **European Union** registered how shocking it had been to hear the statistics and the facts and figures on disasters. She called for collaboration between different actors who saw the different dimensions of things and understood and knew the reality of disaster recovery reaction resilience as it was clearly very complicated.

102. The **UN Environment Programme** commended the WTO for its initiative and expressed their interest from a UN environment side to work very closely on this endeavour.

### **Information Session**

103. **Michael Roberts, Head of Aid for Trade Unit, Development Division**, welcomed the presentations and comments made by WTO Members and fellow international organizations. He then outlined how the proposed research on natural disasters and trade would be taken forward. A first stream of work would examine trade effects, looking at goods and services, while a second thread of work would look at mapping legal instruments. The research would be framed through the prism of trade effects and issues arising in disaster response, disaster recovery and disaster resilience. A structured questionnaire would also be circulated to Members and organizations involved in this area. The responses would be compiled and analysed as part of the research. The information collected in the two reports would then be synthesized down into an overview or issues report that would be launched at the end of the first quarter of 2019. He concluded by stating that the WTO was keen to work with all those who had manifested an interest and would welcome ideas, suggestions and proposals from all stakeholders.

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