

**NATURAL DISASTERS AND TRADE SYMPOSIUM
10 MAY 2019
SUMMARY REPORT**

Programme

Session 1: Opening of the symposium

- Yonov Frederick Agah, Deputy Director-General, World Trade Organization

Session 2: Taking resilience forward - engaging the trade community in disaster risk reduction

Moderator: Shishir Priyadarshi, Director, Development Division, WTO

Keynote speakers:

- Bradly Felix, Minister of Commerce, Industry, Enterprise Development and Consumer Affairs, St Lucia
- Kirsi Madi, Director, United Nations Office for Disaster Risk Reduction
- Frances Lisson, Ambassador, Permanent Representative of Australia to the WTO
- Jaime Chissano, Minister Plenipotentiary, Permanent Representation of Mozambique to the WTO

Question and answer session

Session 3: Presentation of country research results

Moderator: Giovanna Adinolfi, Professor, University of Milan

Overview of research results:

- Michael Roberts, Head, Aid-for-Trade Unit

Comments and reactions:

- Madhu Kumar Marasini, Joint Secretary, Head of Multilateral Trade and Trade Cooperation, Ministry of Industry, Commerce and Supplies, Nepal
- Matthan Walter, Director of Trade, Ministry of Trade, Energy and Employment, Dominica
- Roy Mickey Joy, Ambassador, Director General, Ministry of Tourism, Trade, Industry, Commerce & Ni-Vanuatu Business
- Esterlina Kautoke 'Alipate, Senior Trade Officer, Trade Division, Ministry of Trade and Economic Development, Tonga
- Vueti May, First Secretary, Permanent Mission of Fiji to the WTO

Question and answer session

Session 4: Next steps

- Speaker: Michael Roberts, Head, Aid-for-Trade Unit

OVERVIEW

1. On 10 May 2019, a third Symposium on Natural Disasters and Trade was held at WTO. It focused on validation of country research work undertaken by the WTO Secretariat examining the experience of six recently disaster-affected Members (Dominica, Fiji, Nepal, Saint Lucia Tonga and Vanuatu). The research examined the macro-economic impact of natural disasters on the affected countries, and trade issues arising in disaster response, recovery and resilience. The reports can be consulted using the following hyperlinks:

- [Summary of findings](#)
- [Nepal study](#)
- [Caribbean study \(focusing on Dominica and Saint Lucia\)](#)
- [Pacific study \(focusing on Fiji, Tonga and Vanuatu\)](#)

SESSION 1: OPENING OF THE SYMPOSIUM

2. Yonov Frederick Agah, Deputy Director-General, WTO opened the Symposium by recalling that the catalyst for this research work was the devastation suffered by the Eastern Caribbean in 2017. The damage inflicted by the passage of Hurricanes Irma and Maria became the subject of discussion, both in the General Council and at the last WTO Ministerial Conference. He further noted that an increasing number of Trade Policy Reviews was also capturing the impacts of natural disasters. Regrettably, such events kept happening and inflicted a high level of human and economic costs. He noted that urbanization was a risk factor. Climate change was also making extreme events more frequent and severe.

3. Absent to date was a systematic attempt to understand the nexus between natural disasters and trade. This was the objective of the on-going research work being funded with the support of the Government of Australia. Deputy Director-General (DDG) Agah highlighted that the studies being discussed at the Symposium focused on: the macroeconomic and trade impact of natural disasters, and the trade issues arising in the context of disaster response, recovery and efforts to reduce risk and promote resilience. One message that he urged participants to take away was that much more needed to be done to mitigate the economic and trade effects.

4. The macroeconomic and trade impact of natural disasters could be considerable, particularly when the economy affected was small and focused around a few key activities. Trade issues clearly also arose in the context of disaster response, recovery and efforts to reduce risk and promote resilience. Furthermore, many of these trade issues were very familiar for trade negotiators and policy makers. Examples included changes in a disaster-affected Member's sanitary or phytosanitary status, how to speed up the border clearance of goods and how best to support farmers when faced with drought or flood damage. In these circumstances, what was new was not the issues *per se*, but rather the context in which they were framed i.e. that of natural disasters.

5. Discussing why the research was both timely and it mattered, he recalled that the United Nations Office for Disaster Risk Reduction would organize the [Global Platform on Disaster Risk Reduction](#) on 15-18 May, 2019. The focus of the event would be the implementation of the [Sendai Framework](#) for Disaster Risk Reduction. In DDG Agah's opinion, there was much that the WTO could do from a trade perspective to contribute to these processes. Notably, WTO could contribute its understanding of how and why the trade issues it deals with on a day-to-day basis matter in the context of dealing with, recovering from, or preparing for disasters. In this context, he highlighted that previous Symposiums on this topic had highlighted that natural disasters were predictable or emanated from known risks. Trade could be used as a tool and play an effective role to recover from or prepare for disasters. In closing, DDG Agah suggested that the research work was an *aide-memoire*. It can help develop a road map towards a better management of the linkages between disasters and trade, including developing adequate and efficient risk assistance.

SESSION 2: TAKING RESILIENCE FORWARD - ENGAGING THE TRADE COMMUNITY IN DISASTER RISK REDUCTION

6. In his keynote remarks, Bradly Felix, Minister of Commerce, Industry, Enterprise Development and Consumer Affairs, Saint Lucia stated that the symposium came at an opportune time when Heads of International Organizations were in Geneva to track the progress of the implementation of the Sustainable Development Goals (SDGs). In that context, the Organisation of Eastern Caribbean States, of which St. Lucia is a member, was particularly interested in hearing about progress on SDG

13 - climate action. He noted that while preparing his remarks, Cyclone Fani had struck North-Eastern India and Bangladesh and that Cyclone Idai had hit Southern Africa, killing hundreds and displacing thousands more in Mozambique, Malawi and Zimbabwe.

7. The Caribbean region was no stranger to natural disasters. The region was prone to hurricanes, earthquakes, sea level rise, floods, landslides and volcanoes. The Caribbean was one of the most disaster-prone areas in the world. The six-member countries of the Eastern Caribbean Currency Union ranked among the top ten most disaster-prone countries in the world when considering disasters per land area or by percentage of population.

8. During the 2017 Atlantic Hurricane Season, Hurricanes Irma and Maria had caused havoc across the Caribbean, with the latter in particular causing near unprecedented destruction on the island of Dominica. Losses for Dominica as a result of Hurricane Maria were estimated at 240% of Gross Domestic Product (GDP). St Lucia's sister island of Barbuda was hit by Hurricane Irma which had transformed the verdant and unspoilt island into a vast wasteland.

9. According to the International Monetary Fund, exposure to disasters had important macroeconomic effects on small states such as Saint Lucia, resulting in lower investment, lower GDP per capita, higher poverty, and a more volatile revenue base. Natural disasters posed an existential threat to the economy, quality of life, infrastructure and very existence. Against this background, Minister Felix commended the WTO for convening the symposium. In his opinion, it confirmed that the multilateral trading system had a major role to play in building resilience for disaster risk reduction.

10. Trade could come to a complete standstill if critical infrastructure such as airports and seaports, roads, bridges and factories were destroyed or severely compromised by a natural disaster. In the digital age, natural disasters could negatively affect infrastructure critical to connectivity. In turn, this could lead to chronic shortages of food, medicines and other vital supplies. Natural disasters affected productivity as they disrupted the effective discharge of the factors of production. The picture he painted was that natural disasters can and do have a debilitating effect on trade.

11. Minister Felix also cautioned that we must not lose sight of the fact that trade also negatively impacted on the environment. According to the Organisation for Economic Cooperation and Development, economic growth resulting from trade expansion could have a direct impact on the environment by increasing pollution or degrading natural resources. In addition, trade liberalization could lead to specialization in pollution-intensive activities by some countries – a phenomenon known as the pollution-haven hypothesis. There was wide acceptance in the scientific community that this type of pollution contributed to climate change and extreme weather events. These events had implications for small states in terms of the impact on vital economic sectors, notably tourism, agriculture and fishing. One hurricane lasting eight hours could erode decades of economic progress.

12. At the last Ministerial Conference in Buenos Aires, a proposal had been tabled by some disaster-prone countries seeking special and differential treatment allowing developing countries to deviate from GATT obligations to reconstitute industrial capacity destroyed or compromised as a result of natural disasters. Although the proposal did not enjoy consensus, it had started a discussion on the need to tackle some of the challenges facing many of the prone-disaster countries.

13. Minister Felix argued that to address the damage already caused, and to mitigate losses from future disasters, United Nations Small Island Developing States should pursue joint efforts through relevant multilateral fora such as the United Nations Framework Convention on Climate Change, the WTO, the World Bank and the International Monetary Fund. These efforts should be directed at securing an international settlement that would meaningfully address the systemic risks that climate change and resultant disasters posed to small states.

14. As a complement to multilateral action, official development assistance provided by both traditional and non-traditional partners should also focus on building resilience in small states. More specifically, Minister Felix recommended that small states should work in tandem towards the following objectives:

- ensuring that the targets set under the Paris Climate Accord were met;
- holding the international community accountable to meet Goal 13 of the SDGs which called for urgent action to combat climate change and its impacts. In this regard, developed

countries in particular were encouraged to make progress towards the goal of jointly mobilizing US\$100 billion annually by 2020 to address the needs of developing countries in the context of meaningful mitigation actions.

- strengthening and scaling-up disaster risk insurance such as the Caribbean Catastrophic Risk Insurance Facility; and
- securing concessionary finance through the international financial institutions to strengthen resilience and assist small states to adapt to climate-related threats and recover from natural disasters.

15. Internally, the sustainable development strategies of small states had to focus on increasing their capacity to counter and withstand natural disasters.

16. Kirsi Madi, Director, United Nations Office for Disaster Risk Reduction stated that she was encouraged by the interest shown in exploring the links between trade, disaster risk reduction, and resilience. In her view, the WTO research was both a timely and urgent initiative as change was taking place to the global risk landscape more quickly and surprisingly than previously thought possible. Understanding the rapidly changing risk landscape, adapting and developing comprehensive policy frameworks, standards and regulation was essential to address the cascading and interconnected nature of risk. The WTO had a role to play in this regard.

17. Ms Madi stated that the private sector was also recognizing this changing risk landscape. A [recent study](#) by Blackrock, the worlds' biggest asset manager, highlighted that the majority of its investment was currently made risk blind and that better climate and disaster risk assessments were needed to ensure sustainability of our systems. She recalled that the Sendai Framework required the public and private sector to work hand-in-hand to ensure that hazards and risks were fully internalized into investment decisions, including through regulatory frameworks that incentivized resilient investment. In this regard, she argued that the sixth session of the Global Platform for Disaster Risk Reduction from 13-17 May 2019 would be a milestone.

18. The Global Platform would take stock on where governments stand in implementing the Sendai Framework, including the development of national and local disaster risk reduction (DRR) strategies and plans by all countries by 2020 as to Sendai target (e). The outcomes of the Global Platform would in turn feed into the High-level Political Forum on Sustainable Development in July where progress on implementing the SDG 13 would be reviewed and the United Nations Climate Summit, High-Level Dialogue on Financing for Development and SDG Summit in September.

19. Ms Madi identified the need to reduce economic losses, as required by Sendai Target (c) and (d), as a critical element to 'make or break resilience'. The [2019 Global Assessment Report on Disaster Risk Reduction](#) underlined that risks could not be treated in isolation or outside of their socioecological and socioeconomic contexts. The WTO research highlighted that trade issues were among the issues that needed to be considered.

20. In conclusion, Ms Madi recalled that through the Sendai framework, signatories had agreed to urgently reduce economic losses caused by disasters. This could only effectively be done through an *ex-ante*, comprehensive multi-hazard approach that considered all elements of socio-economic development and resilience. As the WTO research findings underlined, the trading system had a role to play in the global efforts to reduce existing risks, to prevent the creation of new risks and to build resilience.

21. Frances Lisson, Ambassador, Permanent Representative of Australia to the WTO outlined Australia's rationale to finance the research work. She stated that trade had an important role to play in countries' development, and that interruptions to trade resulting from natural disasters could be devastating. The Indo-Pacific region was one of the most disaster-prone globally, a reality which gave Australia a unique perspective on the importance of building resilience and strengthening national systems, including those systems that support and facilitate trade. She recognized that analysing and seeking to address the trade-related challenges that arose from natural disasters was important to many WTO Members.

22. Ambassador Lisson thanked the Secretariat for the comprehensive country reports. In Australia's view, the reports underlined that trade was a critical factor in disaster planning, response and recovery. In particular, there were important links between efforts to develop trade capacity

and to build resilience to natural disasters. Strengthening a country's trade regime – for example through integrated policies, systems and regulations, as well as market liberalization – could help to minimize the economic impacts from disasters. The same was also true in reverse. Building resilience to natural disasters, through improved infrastructure, would help facilitate trade more generally.

23. She cited the report on Nepal and highlighted that the 2015 earthquakes exacerbated existing challenges with key infrastructure such as airports and roads. These constraints limited immediate growth prospects in the important sector of tourism – one of Nepal's main services exports which accounted for roughly 4% of GDP. Efforts to develop Nepal's tourism sector and related services were intertwined with efforts to build disaster-resilient infrastructure – the two went hand-in-hand.

24. The report on Dominica had highlighted a number of trade facilitation issues in the context of immediate responses to recent hurricanes. For example, surges in deliveries of relief goods had implications for container processing, the application of import tariffs and duties, and storage capacity. In the recovery phase, sanitary and phytosanitary (SPS) compliance capabilities resulting from crop damage had important implications for exports. And in terms of building disaster resilience, insurance coverage and weather forecasting services arose as opportunities to develop and expand domestic markets, including through trade.

25. Among the Pacific Islands, trade played a vital role and there had been significant growth in trade-to-GDP ratios – from 28% to 78% in Vanuatu over the period 2000-2016; and from 42% to 96% in Tonga over the same period. Clearly, the potential impacts on trade from natural disasters were significant, and recent cyclones were particularly damaging for agricultural exports.

26. At the same time, there are some encouraging signs, particularly in terms of the resilience of certain services sectors. In Tonga, for example, telecommunications and digital connectivity were not lost during, or in the aftermath of, Tropical Cyclone Gita. This enabled critical communications within the country and overseas, so giving confidence for investors to expand those sectors. Similarly, investment in disaster-resilient infrastructure in recent years meant that tourism continued after major events, ensuring important revenue sources continued.

27. In conclusion, Ambassador Lisson underlined that WTO research reports highlighted that there were both challenges and opportunities in these areas – and that efforts in one space, be it disaster resilience or trade capacity, were likely to have important benefits for the other.

28. Jaime Chissano, Minister Plenipotentiary, Permanent Representation of Mozambique to the WTO updated on the impact of Tropical Cyclones Idai and Kenneth on economic activities and trade and commended the role WTO undertook to link up natural disasters and trade. Tropical Cyclone Idai had had a heavy toll with over 600 lives lost. Cyclone Idai impacted some 1,5 million people, equivalent to 306,221 households. Some 715,378 hectares of crops had been lost to the Cyclone. Cyclone Idai had devastated the strategic social and economic infrastructure, i.e. the investments and progress made through years of investment in trade facilities had been drastically reversed. Farms, subsistence activities and livelihoods had been destroyed, threatening the food security of thousands, if not millions of households. One of the affected strategic infrastructures was the Beira Corridor, which consisted of a highway, railway and pipeline. The corridor serviced neighbouring countries of Malawi and Zimbabwe and, other countries further afield.

29. Mozambique had then witnessed a second extreme event: Tropical Cyclone Kenneth. Striking the northern part of the country, Cyclone Kenneth destroyed the entire district of Mocimboa da Praia and damaged districts in the Cabo Delgado province. In total, the cyclone has affected 213,462 people, corresponding to 45,833 households. Forty-three people had lost their lives and the cyclone had destroyed 31,431 hectares of crops. Cyclone Kenneth had also damaged the Pemba harbour.

30. The Government, with the support of international community, notably relevant UN humanitarian agencies, national and international NGOs, had assisted affected populations, through search and rescue operations, provision of food, medicines, and emergency shelter.

31. Mozambique's engagement with the United Nations Disaster Risk Reduction (DPR) framework had helped to mitigate human losses in both extreme events. Mozambique had already adopted legislation on DRR, including, but not limited to, the Law on Natural Disasters. Strategies at national, provincial and district levels, as per Sendai Framework, were also adopted and under implementation. Mozambique was determined to re-emerge and get back on its feet.

32. The Government had put in place a Post-Disaster Reconstruction Office with the mandate to survey and design a reconstruction plan, following an integrated approach. The Government had decided to exempt businesses in affected areas, of duties and other financial obligations, up to 31 December 2019, as to assist them to recover, rehabilitate and re-build, given the magnitude of destruction. The customs and tax exemptions were to benefit economic operators in the provinces and affected areas by an authorization for advanced release of imports of construction materials and food products.

33. In conclusion, Mr Chissano highlighted that the Post-Disaster Reconstruction Office was still assessing the damage caused by Cyclones Idai and Kenneth. The Government of Mozambique planned to present a full assessment during the Aid for Trade Global Review. The representative of Mozambique thanked the international community for their support.

34. In the question and answer session, the representative of Switzerland highlighted that Switzerland would host and co-chair the 6th session of the Global Platform for Disaster Risk Reduction 2019 which would focus on the topic of the "Resilience Dividend: Towards Sustainable and Inclusive Societies". This title reflected recognition that disaster risk reduction paid enormous dividends in creating resilient societies. Without disaster and climate risk management and risk-sensitive planning, development would not be sustainable and the goals of the 2030 Agenda and the Paris Agreement could not be achieved. Risk management was of vital importance to achieve these landmark agreements and thereby to achieve the goals that the international community had set for itself for 2030.

35. Investing in resilience came at a cost, but the benefits were far greater than the costs incurred. Current studies estimated that each dollar invested in risk prevention, avoided losses of at least US\$4 on average.¹ Switzerland therefore strongly advocated for measures to prevent disasters. Hazards could no longer be tackled in isolation. Risk drivers – such as conflict, fragility, poverty and poor governance – exacerbated the destructive impact of disasters on the economy, societies and communities. Preparedness and prevention measures had to be undertaken jointly. This underscored the need to create and reinforce new partnerships to promote risk-informed investments. Decision makers at all levels had to go beyond the siloed engagement of stakeholders in charge of climate change, environment and disaster management. New and innovative partnerships were needed.

36. The Caribbean Community (CARICOM) Group stated that the topic of the Symposium was of great interest for CARICOM. In light of its exposure to the negative effects of climate change and predisposition to natural disasters, CARICOM proposed to use the Symposium as an opportunity to promote awareness among WTO Members of the adverse effects of natural disasters on trade.

37. Natural disasters had become more frequent and the impacts more severe in terms of loss of lives and damaged infrastructure. In the Caribbean, as Minister Felix had pointed out, the 2017 hurricane season had registered a record six consecutive hurricanes which had caused US\$229 billion in damage across the region.

38. The 2010 earthquake in Haiti was another example of how natural disasters could decimate economies. The destruction to the economies in CARICOM provided a clear illustration of the substantial threat and impact of natural disasters on trade for the global community. Hurricane Maria in September 2017 had caused destruction estimated at over 200% of GDP in Dominica.

39. The Caribbean region was particularly vulnerable to natural disasters and comprehensive solutions were needed to address the harmful effects on trade. It was essential for CARICOM to be afforded a special treatment beyond what was now offered by existing WTO rules. It was evident that small, vulnerable economies needed flexibilities appropriate to their vulnerabilities. In an effort to help affected Members to build and revive growth and development, CARICOM called on WTO Members to establish a mechanism that could be activated subsequent to catastrophes of natural disasters and provide the necessary policy space to achieve recovery in the shortest possible time. The Caribbean countries were among the most vulnerable nations in terms of natural disasters. CARICOM supported the crafting of rules that promoted the building of economic and trade resilience.

40. CARICOM recalled the proposal that was put forward by Antigua, Barbuda, Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines during MC11 in Buenos Aires.

¹ Mechler, R (2016). Reviewing estimates of the economic efficiency of disaster risk management: opportunities and limitations of using risk-based cost-benefit analysis. *Natural Hazards*, **81**, 2121-2147

CARICOM believed that WTO rules and disciplines must not stand in the way of reconstruction. The full flexibility of the multilateral trading system should be deployed so that reconstruction measures taken by affected Members would be deemed compatible with the WTO Agreements.

SESSION 3: PRESENTATION OF COUNTRY RESEARCH RESULTS

41. Michael Roberts, Head, Aid-for-Trade Unit, WTO Development Division, presented an overview of the findings of the country research papers that focused on six disaster affected states (Dominica, Fiji, Nepal, Saint Lucia, Tonga and Vanuatu). His presentation focused on: (i) hazards and macroeconomic effects; (ii) trade and disaster response; (iii) trade and disaster recovery; and (iv) trade and disaster resilience.

42. Hydro-meteorological risks such as tropical cyclones, hurricanes, flash flooding and landslides were the most common types of disaster. Geophysical events, such as the earthquake that struck Nepal in 2015, were also a threat. Geophysical events could also provoke secondary hazards, such as tsunamis in coastal states. While these were not necessarily new risks, climate change threatened to make hydro-meteorological risks more frequent and intense.

43. Mr Roberts quoted International Monetary Fund research that in any given year, it was likely that the five islands surveyed would be either hit by, or recovering from, a major natural disaster, most commonly hydro-meteorological in origin (storms, hurricanes, cyclones, flooding, etc). He used the analogy of entering a bad luck lottery. In any one year, policymakers did not know if they would get hit by a disaster, how hard that event would strike, or whether or not there was the possibility of multiple disasters. He cited the examples of Dominica and Mozambique. Damage caused by Tropical Storm Erika in late August 2015 was estimated at 90% of Dominica's GDP. Just over two years later, Hurricane Maria had hit the Caribbean island adding damage estimated at 226% of GDP. In 2019, Mozambique suffered two storm hits in the same season when Tropical Cyclones Idai and Kenneth made landfall. Furthermore, there was not just one risk that had to be contained. For example, Nepal had to contend with seasonal rains, flooding, and seismic hazards.

44. Economic and trade policymaking was complex when faced with the volatility induced by external shocks and the risk of natural disasters. To illustrate the point, Mr Roberts referred to Dominica's public debt trajectory over the period 2001 to 2017. The Government together with IMF, taken actions to bring the public debt down in the period 2001-2007. After 2009, public debt had grown as the Government contended with the effects of the global financial crisis. Measures to curtail public spending had again brought public debt under control. In the wake of Tropical Storm Erika in 2015, public debt had started to grow again due to reconstruction activities. In 2017, Dominica had had to struggle with the task of cleaning up after Hurricane Maria which had caused damage estimated at over 220% of GDP. He quoted the conclusion of the IMF that that natural disasters create a significant risk to debt sustainability in Dominica.

45. Several trade issues were identified that could arise during the response to natural disasters. Some trade issues were caused by delays in triggering emergency legislation. In an emergency situation, goods needed to come in quickly and customs needed enabling legislation to be in place so as to apply waivers from customs duties for imports of certain goods (e.g. humanitarian relief). Without the necessary legislation in place, customs and other border agencies could not allow imports into the country duty-free or apply simplified customs procedures. He quoted the example of Tonga which had triggered emergency legislation in advance of the arrival of Tropical Cyclone Gita which had significantly facilitated the relief efforts. This contrasted strongly with examples cited elsewhere in the research where delays of six weeks or more in clearing containers through customs has been experienced.

46. Uncertainties to whether or not an organization or consignment should be exempted from customs duties or taxes was another cause of delays in the disaster response period. These issues were compounded by the actions of some relief actors who sought to work outside of official channels – a tendency that could create difficulties for government control. Other specific issues also arose, such as import licences for specific goods. The storage and disposal of unsolicited bilateral donations (expired medicines, second hand clothes etc) were also cited as concerns. Implementation of the Trade Facilitation Agreement would help address some of the trade frictions that arise, both commercial consignments and also relief goods.

47. Trade issues also arose in disaster recovery. Vanuatu's export performance for merchandise goods was given as an example. The trade gap between imports and exports had grown significantly since 2010. Cyclone Pam in 2015 had further accentuated this trend has further increased.

Vanuatu's merchandise exports had remained static over the period, while imports had shown tremendous growth. Other specific issues included: pressure on manufacturing and the fishery sector, the need to import environmental services, customs clearance issues and tariff issues related to equipment parts, access to finance, SPS issues and other non-tariff concerns.

48. Trade policy could also play a role in promoting disaster resilience. In Nepal for example, the provision of reconstruction subsidies in the wake of the 2015 earthquake was made conditional on the use of building techniques which were adapted to seismic risk. There was an international trade dimension since 80% of building materials in Nepal were imported. High tariff rates on building materials could act as a disincentive and push the construction sector to use lower grade materials. Trade issues relating to operation of agricultural markets, food aid, control of SPS/TBT issues, also arose in the context of measures to promote resilience.

49. In conclusion, he highlighted that the Sendai Framework for Disaster Risk Reduction 2015-2030 put emphasis on *ex-ante* action and "building back better". There was a considerable role for trade and trade policy to play in limiting the economic impact of disasters in such areas as standards, promoting trade connectivity, government procurement and through tariff policy.

50. Madhu Kumar Marasini, Joint Secretary, Head of Multilateral Trade and Trade Cooperation, Ministry of Industry, Commerce and Supplies, Nepal began his statement by highlighting that the Symposium was an opportune event to exchange country experiences, learn from each other, transmit good practice, and invite international attention and support for disaster mitigation, resilience, and recovery. In his view, trade had an important role to maintain the robustness of the economy in the face of disaster risks. He likened trade to the circulation of blood in the economy, connecting producers to end users and establishing backward and forward linkages. Trade kept markets and societies creative, competitive, and dynamic. The global community had a responsibility to ensure that no disaster became a stumbling block to trade. Following the spirit of the 2030 Sustainable Development Agenda and the Sendai Framework for Disaster Risk Reduction, it was imperative that no one should be left out.

51. Against this background, Mr Marasini thanked the WTO for the Nepal case study and the Government of Australia for providing funding. The Nepal study report drafted by the WTO was inclusive and comprehensive, both in terms of context and coverage. Nepal's geography made it vulnerable to natural disaster (it was the 4th most vulnerable country to climate change-induced hazards, and 11th in relation to earthquakes). The study discussed the devastating earthquake of 2015 and its effects on the Nepali economy and society and put them to use to understand the ramifications of such an event on a landlocked, least developed country. The study rightly elaborated the consequences of this natural disaster, not only on trade, but also on the wider impact on the economy and society. These impacts were so pervasive that Nepal had had to defer its ambitious target of graduation from LDCs status. As such, the WTO study would be a good reference for all scholars and practitioners of natural disaster and development.

52. Mr Marasini noted his appreciation of the report's acknowledgement of the Government of Nepal's prompt action in response to the 2015 earthquake and related investment in preparedness. The study had also fairly pointed out the limitations and difficulties encountered in the course of rescue and rehabilitation phases. Despite the constraints of being landlocked and being a least developed economy, the response to the 2015 earthquake had been commended by international partners. Noteworthy was the resilience of Nepali people, built on traditional community principles.

53. Natural disasters were not only the results of Nepal's exposure to geophysical and meteorological hazards, but were equally the result of global warming and manifested themselves in many forms: such as landslides, floods, inundation, draughts, avalanches, bursting of glacier lakes, etc. He suggested that the correlation between climate change and growing frequency of natural disasters should also be included in this study.

54. The [Post Disaster Needs Assessment](#) estimated the impact of the disaster on Nepal at 33% of GDP. Growth declined sharply from 4.6% in 2014 to 0.4% in 2015. The manufacturing, trade and tourism sectors met with huge losses. Due to the scale of the challenge posed by the 2015 earthquake, Nepal's graduation from the United Nation's least developed country category had had to be deferred to allow further time for recovery. He suggested that losses in the education and UNESCO heritage sectors could also be included in the study as they would have a long-term bearing on Nepali society and economy.

55. The Nepali economy was highly trade-oriented and dependent on remittances (around 26% of GDP). The export-import ratio had reached to 1:15.5 in 2017/18. The surge in imports had continued in the aftermath of the disaster and the trade deficit continued to widen. Remittances had been a social safety net instrument. But for the sustainability of the Nepali economy, support had to be mobilized on economic transformation, productivity enhancement, and creating domestic employment at a larger scale. Systemic shortcomings had to be addressed and the necessary instruments of support be mobilized from development partners through the Aid-for-Trade Initiative.

56. Policy and institutional reforms had been enacted during reconstruction. The National Reconstruction Authority had been created, which was also supported by necessary laws and policies. The import of reconstruction materials had contributed to a widening of the trade deficit. Ironically, there was a shortage of labour in the construction and agriculture sector. Yet, the flow of outbound labour continued. Without a revival in the manufacturing sector it would be challenging to retain workers.

57. The International Conference on Nepal's Reconstruction had collected commitments totalling US\$4.1 billion for post-earthquake reconstruction. The aid money, together with matching funds from the Government, was being utilized primarily for the reconstruction of housing, schools and heritage sites. There were shortfalls in financing trade-related infrastructures such as the roads to connect to border points. Customs buildings and dry ports on borders were not yet in full operation. The transit difficulties repeatedly encountered by Nepal as a landlocked country also had to be acknowledged. Therefore, it was critically important to mobilize Aid for Trade as well as trade facilitation assistance in addition to the humanitarian support. The disaster-damaged economy required large scale investment, which could not be funded by domestic revenue alone.

58. The nexus between trade and natural disasters was complex and challenging. The situation called for a cooperative and collaborative approach. Trade measures impacted the whole cycle of disaster management from preparedness, rescue, recovery to reconstruction. Rescue and relief activities, basically the supply of shelter-related materials and food items, had been the most impacted by trade measures such as customs duties, documentary requirements, test procedures, etc. Thus, implementation of the WTO Trade Facilitation Agreement was imperative.

59. Mr Marasini concurred with the trade and resilience issues identified in the study that Nepal needed to restructure its public investment programme, intensify competition in sectors such as transport and logistics, to reduce the cost of doing business, and to integrate Nepal into the global economy. This would only be possible with the support by institutions such as the WTO. He also acknowledged 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 in December 2017 (WT/MIN(17)/37). It was also relevant for Nepal.

60. The representative of Dominica, Matthan Walter, Director of Trade, Ministry of Trade, Energy and Employment, expressed his gratitude and appreciation to the Members and the WTO Secretariat for acting on the MC11 call to look at the natural disasters and thanked the Mission of Australia for providing the funding for the study on natural disasters and impact on trade. Without these funds, the correlation and link established between the impact on natural disasters on trade, would not become a reality. He also thanked the Development Division for its comprehensive study.

61. Mr Walter recalled than two years ago, about 226% of Dominica's GDP had been washed away in a few hours. The focus after the hurricane had been on recovery, rebuilding, saving lives and providing food and accommodation for the displaced people. True flexibility during that period at the regional and multilateral level was a consideration which required contemplation, accompanied by the evidence required to establish a link between natural disasters and a country's ability to trade. The Symposium established this link in Mr Walter's opinion.

62. Dominica, after Hurricane Maria, had begun to build its resilience, and planned to become the first climate resilience nation in the world. The idea was to ensure resilience and speedy recovery. A number of initiatives had been implemented. The Office of Disaster Management had ensured that houses and specially constructed emergency centres in key locations were resilient, improved communications had been established, together with an island-wide network of radios and training individuals in the communities of the use of equipment.

63. Dominica's Sea and Port Authority had established an automated of container tracking system through the adoption of ICT technology. Some 30.000 square meters of land had been converted and rehabilitated in an effort to separate household goods from business cargo, together with fast

lanes where high volume business could be pre-cleared. In addition, open-air space had been allocated for the placement of empty containers and vehicles. Container fees had been raised to dissuade shippers from using the port as a storage area so as to reduce congestion at the port. A contact database had also been set up in case of emergency, so the port could contact clients to inform them about cargo arrivals and to avoid cargo congestion. Through these actions, Dominica wanted to ensure, that issues indicated in the study would be mitigated.

64. The Customs Directorate of Dominica had developed an *ex-ante* preparedness plan together with the port authorities. The plan identified key personnel from both agencies to work on the recovery efforts, identification of services locations to stock cargo outside of the place of the operations. Proactive plans were developed for the processing of vehicles and aircraft passengers in coordination with other relevant governmental agencies. Distribution points in case of natural disasters had also been identified so as to ensure adequate supplies such as food, water, medicines sufficient to withstand weather stress. The Ministry of Agriculture had also developed the implementation of building codes for farm and animal houses, identified climate resilient crops, provided support for the irrigation system to allow for quick re-establishment of farms and maintenance of food security, etc. These were a few of the initiatives taken to build resilience,

65. The impact of natural disasters could be significant and even move a country from developing status to that of an LDC. Dominica requested the WTO Membership to acknowledge that the reconstruction, recovery and development of post-disaster would take many years and therefore during this time, WTO rules and disciplines should not stand in the way of reconstruction.

66. Dominica sought the full flexibility of the multilateral trading system to be deployed, so that reconstruction measures taken by the affected Members would be considered compatible with WTO Agreements. More specifically, Dominica requested amendment of GATT Article XX to reflect a derogation from WTO rules, contingent on the passage of a natural disaster, during the recovery period. Dominica also sought consideration of the Agreement on Subsidies and Countervailing Measures to allow specific and prohibited subsidies to be provided to affected industries in an effort to stimulate quick recovery, while not being subject during this period to countervailing measures by other WTO Members. Dominica also requested consideration in the area of market access and the application of tariffs above bound rates to encourage farmers for example, to invest in agriculture in an effort to avert food security concerns.

67. Consideration was also requested for a waiver or deferral of contributions to the WTO for a prescribed period. Dominica believed that if affirmative consideration was given to these recommendations, disaster-prone countries could recover faster and would more easily reintegrate into the global trading system.

68. The representative of Vanuatu, Roy Mickey Joy, Ambassador, Director General, Ministry of Tourism, Trade, Industry, Commerce, presented the challenges that Vanuatu was facing and underlined the economic impacts of the natural disasters. Such events negatively affected the country's competitiveness in international trade arena. In recent years, natural disasters had increased in frequency and intensity. He underlined the need for coordination between WTO and other agencies to avoid duplication and ensure a holistic approach in dealing with natural disasters.

69. Vanuatu was extremely vulnerable to natural disasters and was considered as the country most at risk on natural disasters by the United Nations. Between 1950 and 2011, natural disasters were responsible for a loss of 6.6% of annual GDP according to the World Bank report of 2017. Cyclone Pam which was one of the major natural disasters, caused damage equal to 64% of GDP. It affected the country's economy, including one of the key sectors, tourism. Expenditure for reconstructions increased, leading to an increase in public debt to GDP ratio by 20 percentage points. Merchandise exports declined by 37%, while the imports had increased by 21.4%, so worsening the trade deficit.

70. Vanuatu was a rural nation, with 80% of the country still engaged in agriculture. One of the few merchandise goods in which Vanuatu had a comparative advantage was kava. Kava accounted for 50% of the merchandise exports in 2018 and there is also a driving domestic market. Kava took between three to seven years, with a minimum of three years for the domestic market and up to four or five years for export markets. Natural disasters such as cyclone Pam, had a negative impact on the kava industry and a negative impact on Vanuatu's trade, both domestically and internationally. Kava was very important culturally, economically and also politically for Vanuatu. Major political considerations were made over kava. The level of consumption locally was very high

and in the case of a kava shortage, most people would not be able to pay higher prices. The demand for kava was also increasing internationally.

71. Tourism was the most important sector for Vanuatu in terms of GDP contribution. Vulnerability to natural disasters provided a strong disincentive to invest in the tourism sector. As well as tropical cyclones, Vanuatu was vulnerable to other natural disasters such as earthquakes, tsunamis and volcano eruptions. In 2017, up to 11,000 people had to be evacuated due to volcanic eruptions.

72. The future of climate change and the impact of natural disasters was still very uncertain. There was a possibility that the frequency and the severity of natural disasters would increase. In the long run, climate change could have a devastating impact on Vanuatu. Some islands could become unpopulated, with key tourist destinations under threat.

73. On adaptation and climate change, the World Bank estimated that by 2040, 22% of GDP would need to be spent on adaptation costs every year. This represented a huge cost for a poor country like Vanuatu. This money could be better spent on investments or simply on consumption.

74. On mitigation, Vanuatu was committed to 100% renewable energy, with an interim target of 65% by 2020. However, this could prove difficult to achieve. Vanuatu currently produced 80% of its grid electricity from diesel. Support from donors was required to achieve renewable energy targets.

75. Ambassador Joy then made proposals for consideration. Global rules could contribute to building resilience to natural disasters by addressing the needs and identifying measures for countries that were graduating from the LDC status. Stronger coordination between WTO and other UN Agencies such as UNCTAD was needed so as to enhance coordination and avoid duplication. Regional and global integration need to be encouraged at the WTO in supporting of building resilience to external shocks. He called on WTO Members to support the needs of small Members like Vanuatu that depended on the multilateral trading system. Work was needed to build resilience into the WTO, but also to make sure that bigger countries did not compromise the rules of the system.

76. Esterlina Kautoke Alipate, Senior Trade Officer, Trade Division, Ministry of Trade and Economic Development, Tonga thanked WTO for its work which was of outmost importance for her country. She highlighted that the connection between natural disasters and trade was vital for a small island developing country like Tonga. The onset of climate change, and the unpredictability and frequency of natural hazards and natural disasters, not only affected and devastated the natural environment, but it could also set back development efforts in one single day. This connection was crucial in better recognizing the unique vulnerabilities that Small Island Developing States encountered. It helped to put the spotlight on the trade and natural disaster nexus which would enable us to devise better and effective policy responses, especially with respect to the important role trade is expected to play in the achievement of the SDGs.

77. Tonga's geographical, geological and socio-economic profile made it highly susceptible to events such as tropical cyclones, tsunamis, sea-level rise, earthquakes, droughts, with consequences that were often unpredictable. Tonga's economy was highly dependent on remittance flows, donor grants, agriculture, tourism and fisheries exports which posed sustainability challenges when natural disasters were encountered. Geographical remoteness, high transportation costs, low diversification, narrow production base, and limited economies of scale placed Tonga at a competitive disadvantage.

78. Tropical Cyclone Gita, a category 4 tropical cyclone, had impacted 80,000 people in Tonga (two-thirds of Tonga's population) and caused economic losses of approximately US\$164.1 million or 30% of GDP. The cyclone had caused three times more damage (as measured as a percentage of GDP) than Tropical Cyclone Ian in 2014. The economic growth rate fell to 1.1% in 2017/18 well below the 3.0% earlier estimated, and far below the average of 3.4% of the previous three years. The agricultural, housing, tourism and fisheries sectors were greatly affected. The agriculture sector was the hardest hit with 90% of fruit trees and 40% of root crops destroyed, while the fishing sector for 2017/18 saw negative growth of 0.1% associated with Tropical Cyclone Gita damage to the fisheries sector.

79. Tonga was working to develop a coordinated, and whole of government approach to its resilience efforts to climate change. As a country ranked second at risk to natural hazards according to the World Vulnerability Index, building greater resilience, at all levels and in all sectors of government, was a priority for Tonga. To fully mainstream the goal of a resilient Tonga into government legislation, policies and planning at all levels, government, with the assistance of

development and donor partners, had taken steps to focus on disaster risk management and climate resilience by integrating it into the Tonga Strategic Development Framework 2015-2025. One of its seven goals was to commit Tonga to becoming more resilient to climate and risk. A Tonga Climate Change Policy and a revised version of the Joint Action Plan for Disaster Risk Reduction and Climate Change adaptation had been adopted that set out six policy objectives and targets to achieve its vision of a Resilient Tonga by 2035.

80. Taking a 'whole of Tonga' approach, remained consistent with the Framework for Resilient Development in the Pacific and international agreements including the Sendai Framework, the Paris Agreement, and the 2030 Agenda for Sustainable Development. In the wake of Cyclone Gita, donor partners and Tongan diaspora all over the world had helped by providing support for the recovery effort. The work undertaken by the Government included grants provided to farmers, fishermen and some business people (tourism related) to alleviate debts on recovery efforts, fixing of infrastructure. Tax exemptions for building materials imported from overseas for recovery efforts was another policy instrument. The Global Facility for Disaster Reduction and Recovery had supported the Government of Tonga to conduct a rapid disaster assessment that helped identify damage, loss, and recovery needs following Tropical Cyclone Gita. It had resulted in a US\$20 million request from the World Bank International Development Assistance Crisis Response Window to finance immediate climate resilient school repair and reconstruction and budget support.

81. Tonga was investing close to US\$40 million in building resilience through the improvement of multi-hazard early warning systems including: 1) Asian Development Bank Climate Resilience sector project for the upgrade of weather and coastal ocean monitoring equipment; 2) Pacific Resilience Project for the upgrade of multi-hazard early warning systems; and 3) Japan Grant Aid US\$25.5 million for Nation Wide Early Warning System. Additionally, the Government of Tonga had made strides in strengthening its financial resilience to natural hazard shocks

82. Challenges remaining included better incorporating the economic impact of natural disasters in the medium and long-term economic planning to improve fiscal policy decisions. Ms Alipate asked how Tonga could effectively integrate natural disaster planning into existing policies in accordance with the WTO rules, but also tailored to its own specific needs? Whilst many discussions were taking place in the international fora on developing resilience to climate change, such as the development of environmentally sound technologies, resilient infrastructure, it was vital to recognize the trade implications and the interlinkages on the issue of resilience. In doing so, it would allow for the avoidance of duplication and facilitate a coordinated approach towards resilience.

83. While humanitarian action to mitigate the impact of disasters would always be vitally important, the global community was facing a critical challenge: How to better anticipate - and then reduce - disaster risk by integrating the potential threat into planning and policies. For countries such as Tonga, it was crucial to recognize that efforts to promote resilience were not a unilateral effort but needed to be supported by donor partners. Learning from the experience with integrating health objectives into tariff policy, a similar approach could be piloted for disaster resilience.

84. The representative of Fiji, Vueti May, thanked WTO for the excellent work and the Australian Mission for the support provided. As a small and vulnerable economy, Fiji was exposed to the risk of natural disasters which caused huge economic losses and hindered Fiji's ability to compete on global markets. Natural disasters had transformed Fiji's natural world; extreme weather catastrophes and their frequencies was the proof that the world had changed.

85. Fiji was located in the tropical cyclone zone. Statistics clearly articulated the economic losses that Fiji had incurred. Without these losses, additional investment could have been made in other income-generating areas rather than rehabilitation. Fiji needed to build more resilience in the face of these global phenomena. A single extreme weather event, such as Tropical Cyclone Winston which had hit Fiji in 2016 and from which the country was still recovering, had wiped out one third of GDP.

86. He drew attention to unpredictable nature of tropical cyclones and the complications this had for planning and response. The intensity of tropical cyclones had upended Fiji's previous risk analysis. Tropical Cyclone Winston was the first time that a category five tropical cyclone had landed on Fiji. The intensity of the storm had not been predicted and the damage caused had surpassed past estimates. Tropical Cyclone Winston did not follow a traditional pathway from the North to West, thus making the scope and the scale of damage prediction challenging. Parts of Fiji that had traditionally been the least affected by cyclones were now among the worst hit.

87. Agriculture was the mainstay of Fiji's economy and contributing 28% to total employment and 9% to GDP. The sector took a lot of time to recover from natural disasters, with a huge effect on Fiji's exports. As a regional hub for the Pacific, natural disasters also impacted the regional economy through for example airline connectivity. When these events occurred, it created a lot of trade diversion and destruction, with implications for global value chains.

88. Fiji was building and remained committed to achieving the 2030 Sustainable Development Agenda. Fiji embedded commitments in its National Development Plan to ensure that it would sustainably develop, strive to reduce poverty and prioritize social and economic progress, so to ensure that no one was left behind. One of the key accomplishments was the launch of Fiji's vulnerability assessment report. The assessment was conducted by the World Bank and it reconfirmed Fiji's exposure to climate change. Annualized annual losses due to extreme weather events would amount to 6.5% of the GDP by 2050 according to World Bank predictions. Some US\$9.3 billion would be needed in the next ten years to finance adaptation work across Fiji.

89. In 2014, the Government of Fiji moved its first coastal community to safer ground. Two other communities had subsequently been moved. Tragically, Fiji was only at the start of these relocations. Another 43 coastal communities would follow. One point that Fiji stressed though was the need for these relocations to occur across borders as was as internally.

90. Extreme weather patterns made Fiji's economy and society more fragile. When economic and social fragility increased, institutions suffered. They became more open to manipulation by extremists, corruption, international criminals and geo-political opportunists. Fiji called for global efforts to assist vulnerable, small island economies to strengthen their resilience. Mr May urged the Symposium participants to use the disaster research to improve cooperation and ensure that small economies were on an equal footing in the global economy.

91. Fiji joined others in requesting flexibility in WTO rules when a state was in a recovers phase. Fiji looked forward to continuing to engage with the WTO and tackling the growing international trade consequences of natural disasters and climate change.

92. The representative of the Pacific Island Forum Secretariat highlighted that *ex-ante* planning was of paramount importance to withstand the impact of natural disasters. The Pacific was providing a regional response to this call at both policy and project level. At a policy level, the Pacific Island Forum Leaders in 2016 had adopted the Framework for Resilient Development in the Pacific (FRDP) 2017-2030, and the Pacific Resilience Partnership (PRP). The FRDP was an integrated approach to address climate change and disaster risk management considerations for resilient development. This framework brought together climate change, disaster risk management, low carbon development and their respective finance responses into one consolidated approach. It proposed collective action and regional approaches that provided opportunities for economies of scale, shared capacity, information and experiences, and leveraging resources as a group.

93. The Forum Secretariat and its regional partners were working on governance arrangements to implement the framework, which were known as the Pacific Resilience Partnership. The inaugural Pacific Resilience Meeting had been convened in the first week of May 2019 in Suva, Fiji and had attracted more than 300 participants. Work was now in progress to establish technical working groups to support the implementation of the FRDP.

94. At project level, the Pacific response focused on the Pacific Resilience Facility (PRF). Although a suite of risk-financing products was available to cope with the aftermath of disasters from extreme hazard risk events, there was very limited support for countries to invest in ensuring resilient infrastructure development to reduce the economic costs and losses from disasters. Risk-proofing investments upfront could yield substantial benefits. For example, global research showed that for every US\$1 spent on building resilience to catastrophic events saved up to US\$7 in disaster response and recovery. This insight had prompted the Forum Economic Ministers Meeting in 2017 to task the Secretariat to consult and design with Members a concept for a regional fund/facility. With support from Australia, international consultants were engaged to consult and design the governance and legal aspects of the facility. The paper would be considered at a special meeting in July 2019.

95. The PRF proposed a regional fund/facility to assist governments, private sector and communities to co-finance and leverage additional funding for both new infrastructure projects and/or retrofitting existing infrastructure - to prevent and/or reduce risk, and in doing so build resilience. The PRF also provides all Pacific Island Forum countries with the opportunity to develop and refine national policies and planning processes through targeted capacity building, particularly

in the management of growing risks and externalities associated with climate change. The work on the PRF represented an investment in a regionally developed and innovative financial arrangement, for managing current and future climate change risks.

Session 4: Next steps

96. Michael Roberts, Head, Aid-for-Trade Unit, WTO Development Division, updated on the next steps planned for the Natural Disasters and Trade research at WTO which were to: (i) finalize the various country studies that have been published in draft form. A deadline for submission of comments was set as 17 May 2019; (ii) draft a paper on how the issue of disaster response, recovery and resilience and trade; and (iii) finalize the legal mapping which looked at how the issues discussed could be addressed under the existing WTO Agreement. Once these documents were ready, a further Symposium would be organized in the fall.
