The role of Science, Technology and Innovation in building resilient communities, including through the contribution of citizen science

Report of the Secretary-General

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CSTD
COMMISSION ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT

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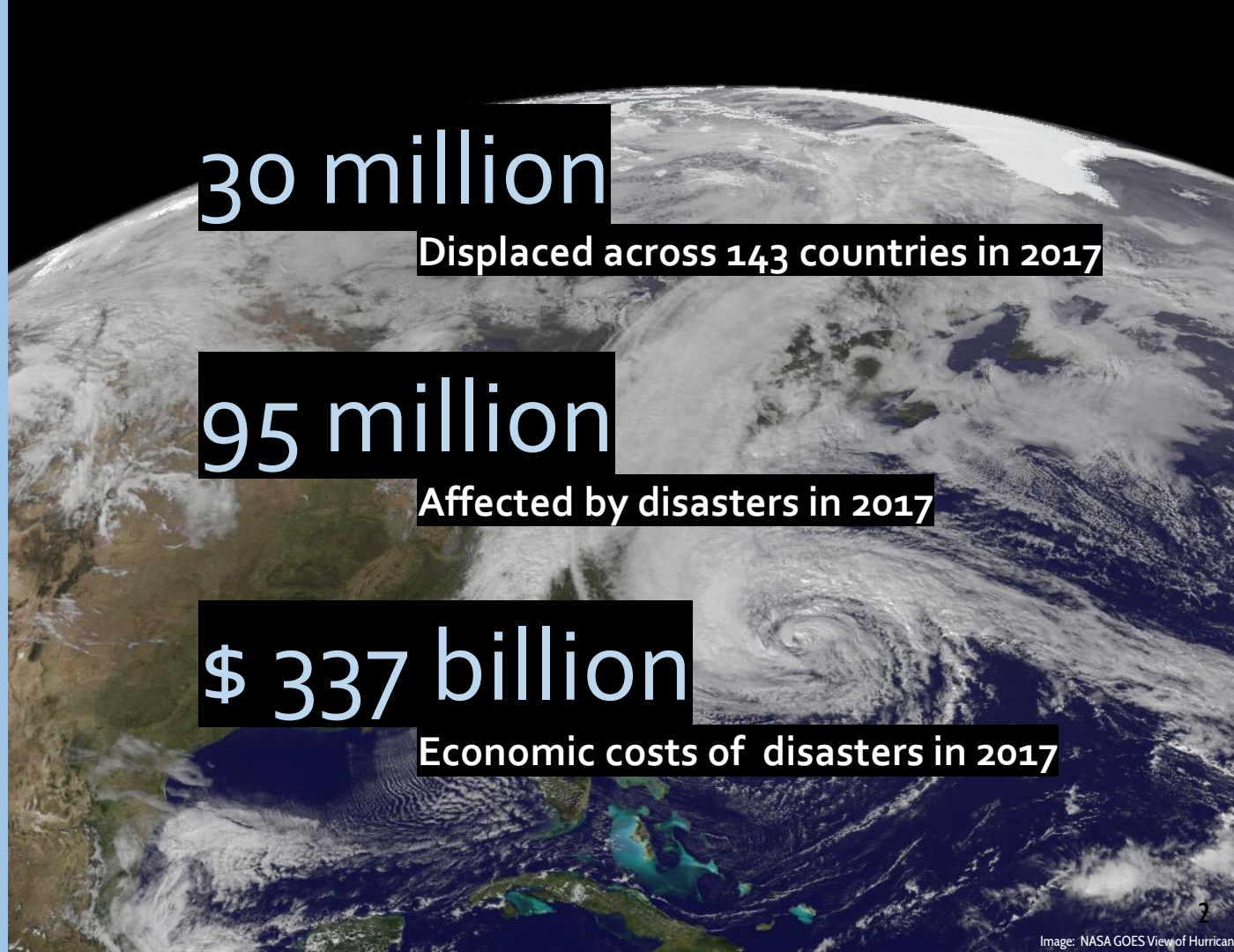
People around the world affected by shocks



30 million

Displaced across 143 countries in 2017

95 million

Affected by disasters in 2017

$ 337 billion

Economic costs of disasters in 2017

Image: NASA GOES View of Hurrican

Build Resilience at Community Level

Engagement

Participation

Act quickly

Find solutions for their own problems

Image: Reuters/Alvin Baez, community after hurricane

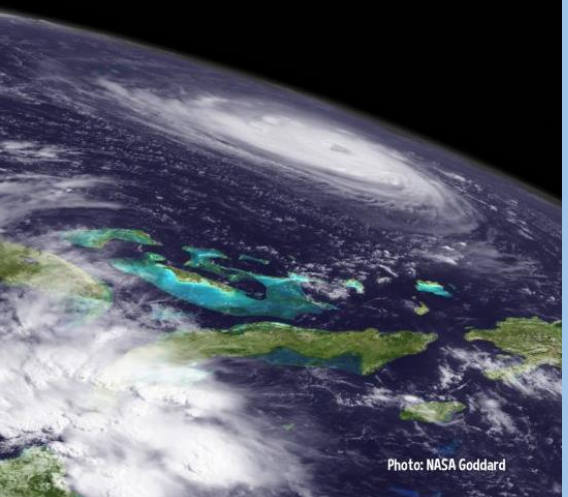


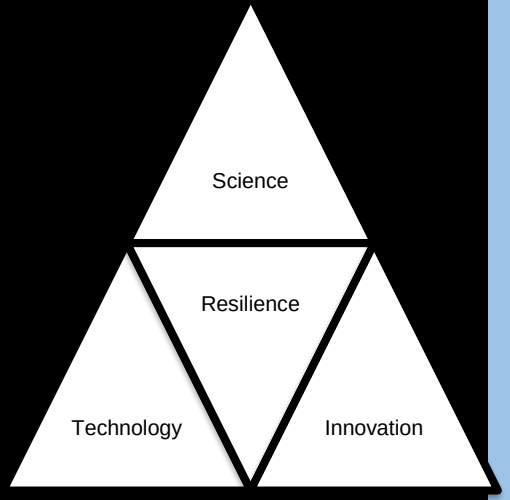
Photo: NASA Goddard

Societies that empower

Economies that adapt

Environment that is protected

STI for resilience



Science:

harnessing indigenous knowledge and engaging citizen's participation

Technology:

building the resilience of communities

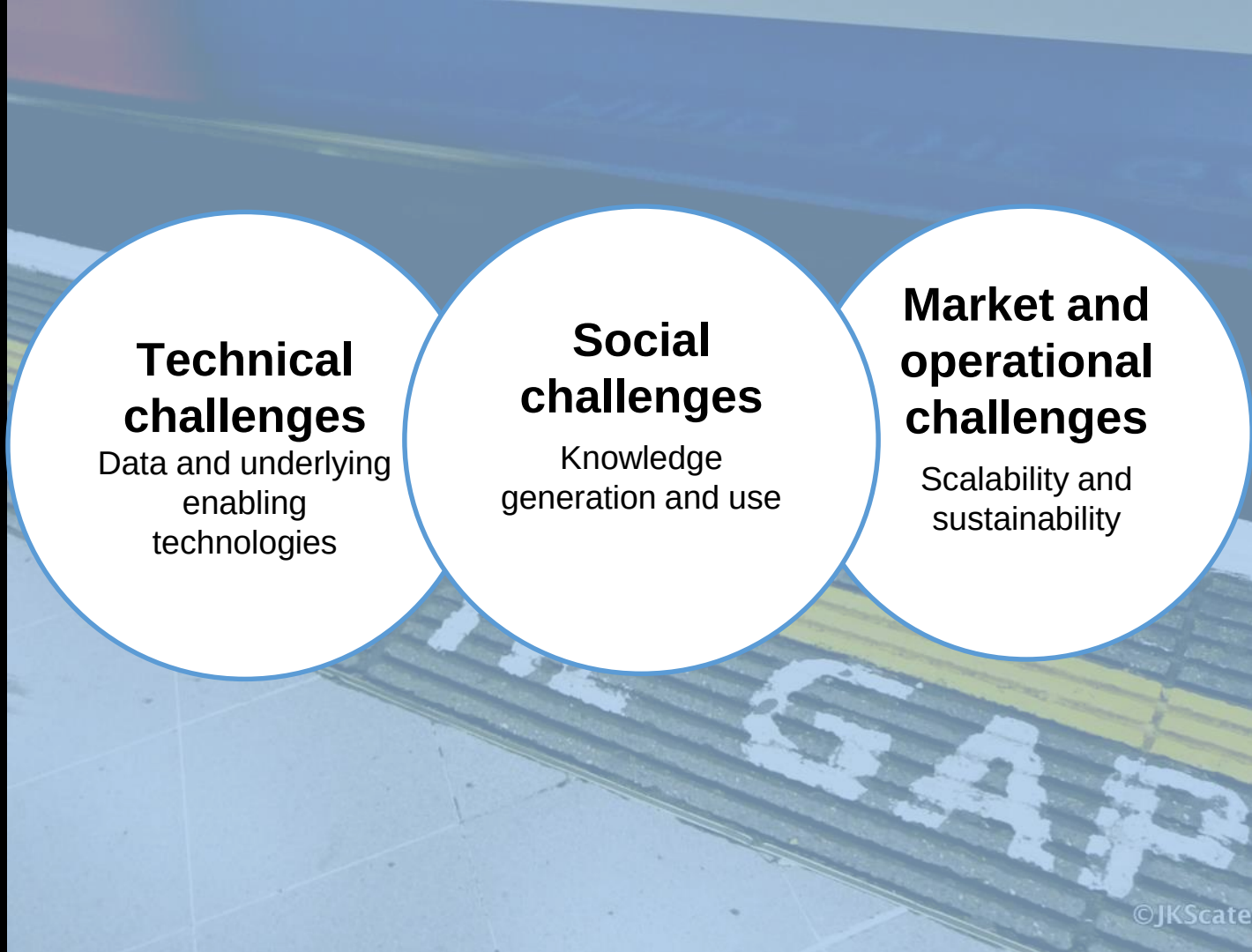
Innovation:

a mission-driven approach to resilience

Citizen Science

- Use new technologies to engage volunteers to scientific explorations
- Educate and empower communities

Key challenges to address



Areas of International Cooperation

- Collaborative global research platforms
  - Precision FDA: connects experts
  - Engaging governments and practitioners
  - Digital volunteers
- Development Cooperation
  - Build capacity in new technologies
  - Intergovernmental process for disaster risk reduction
- National and international initiatives for citizen science
  - European Citizen Science Association, Citizen Science Association, etc.
  - *Citizen Science Global Partnership*, meta network of citizen science
- UN System
  - Offices and Specialized Agencies: e.g. UNISDR, WMO, WHO, OCHA
  - Regional Commissions

Image: CubETH nano-satellite, E

Policy suggestions: For Member States

- Fully support the development of STI solutions for building resilience
- Adopt inclusiveness in formulating STI for resilience strategies
- Align STI policies with public health, disaster management and other relevant policies
- Establish or strengthen existing national platforms for more effective use of STI for resilience
- Invest in enabling technology infrastructure such as ICTs and electricity, with a specific emphasis on ensuring affordable access

Policy suggestions: International community

- Promote and implement participatory research methods, interdisciplinary and transdisciplinary scientific collaboration
- Consider traditional, local and indigenous knowledge and use them systematically in scientific research
- Use mechanisms such as incubators, accelerators, innovation labs, as well as social innovations
- Embed citizen science in the standard modalities to support the policymaking process
- Promote an open dialogue on resilience between scientific and technology sectors and policymakers

Policy suggestions: CSTD

- Facilitate bilateral and multilateral, North-South and South-South partnerships that help build capacity for STI for resilience, including through citizen science
- Promote various types of effective STI for resilient communities, sharing practical and advanced STI-based resilience cases
- Promote citizen science, including through adding citizen science as an angle to contribute to priority themes.
- Guide the global community to adopt policies and strategies that encourage women and the youth to participate in innovation approaches towards resilience, including through citizen science

Thank you for your attention

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