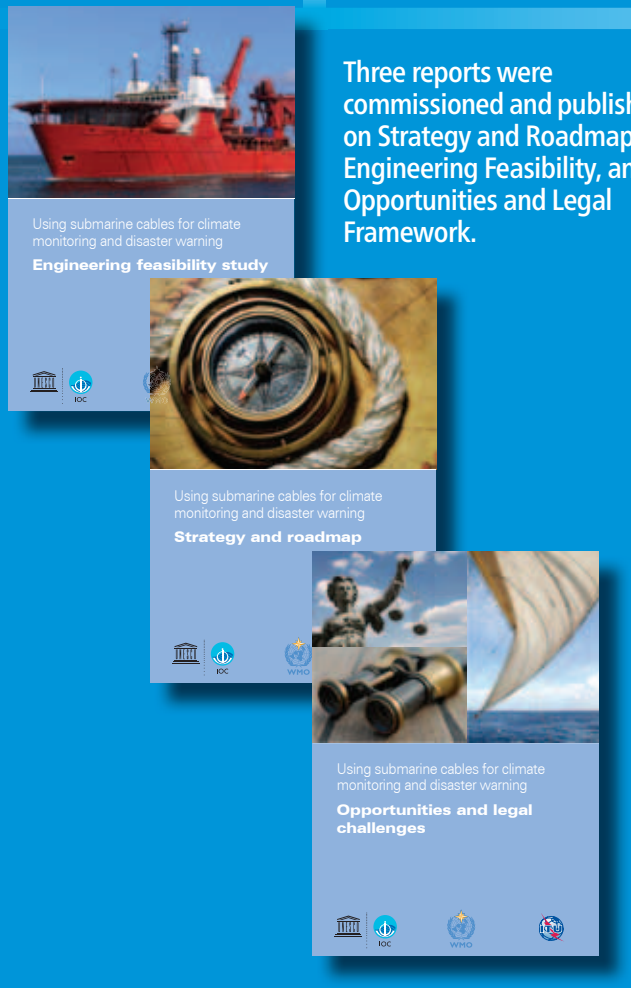
The JTF, formally established in 2012 with secretariat support from ITU, is presently composed of over 80 experts from the science, engineering, business and law communities. The 2nd Workshop on "Submarine Communications Networks for Climate Monitoring and Disaster Warning" (Paris, 20-21 September 2012) started the development of a strategic plan for the deployment of dual-purpose submarine telecommunication cables in the high seas. It explored scientific and societal needs, research into new engineering technologies, business opportunities, legal challenges, and proposed bases of sensor standards that may be applied for the development of submarine telecommunication cable projects that wish to be equipped with a suitable suite of sensors.

Through its five committees and meetings, the JTF is advancing a strategy and roadmap to enable the availability of green cables equipped with scientific sensors for climate monitoring and disaster risk reduction (tsunamis). It is also analyzing the potential renovation and relocation of retired out-of-service cables. Further focused discussions were held at the 3rd Workshop on "Propelling a Pilot Project on Green Cables" (Madrid, 19-20 September 2013).

CABLES FOR CLIMATE MONITORING AND DISASTER WARNING!



Three reports were commissioned and published on Strategy and Roadmap, Engineering Feasibility, and Opportunities and Legal Framework.

Interested experts can request to become members of the JTF, by contacting **greenstandard@itu.int.**

http://www.itu.int/en/ITU-T/climatechange/task-force-sc/Pages/default.aspx

The ITU/WMO/UNESCO-IOC Joint Task Force was established to investigate using submarine telecommunications cables for ocean and climate monitoring and disaster warning.

A new generation of scientific cabled ocean observatories is emerging at a few selected sites, but there is a need and opportunity to extend observations and monitoring over much wider area of the global oceans. Submarine telecommunication cables equipped with sensors to measure key variables such as water temperature, pressure and acceleration on the ocean floor are viewed as vital to monitor climate change and to provide tsunami warnings. Developing such a real-time ocean-wide monitoring system is a bold vision. Some pioneering projects have already proven the concept, launching ambitious initiatives in small key regions of the deep ocean to study ocean processes.

The International Telecommunication Union (ITU), the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO-IOC) and the World Meteorological Organization (WMO) organized a workshop on "Submarine Cables for Ocean/Climate Monitoring and Disaster Warning: Science, Engineering, Business and Law" on 8-9 September 2011. This was attended by all sectors of the cables for climate community, and adopted a Call to Action (below) inviting ITU, UNESCO-IOC and WMO to establish and coordinate a Joint Task Force (JTF) to explore the potential of a submarine climate monitoring and disaster warning system.

we, **the participants at the ITU, UNESCO-IOC, WMO Workshop on "Submarine Cables for Ocean/Climate Monitoring and Disaster Warning: Science, Engineering, Business and Law" in Rome, Italy from 8 to 9 September 2011 call upon the International Telecommunication Union (ITU), the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO-IOC) and the World Meteorological Organization (WMO) to establish and coordinate a joint task force composed of world renowned experts from science, engineering, business and law, which will:**

1. **Study** and evaluate scientific, engineering, business, and societal benefits, opportunities, challenges and risks associated to the use of submarine telecommunications cables for ocean and climate monitoring and disaster warning, as well as legal aspects of such use;
2. **Develop** a strategy and roadmap that could lead to enabling the availability of submarine repeaters equipped with scientific sensors for climate monitoring and disaster risk reduction such as pressure, temperature, salinity/conductivity, seismic, hydroacoustic and cable voltage in the near future;
3. **Analyze** the development of projects that could include renovation and relocation of retired out-of-service cables for disaster warning, ocean and climate monitoring;
4. **Consider** a business model of how sensor data from submarine cables could be provided and could be made available for scientific purposes and societal benefit;
5. **Cooperate** closely with the International Cable Protection Committee (ICPC) to investigate and report on the technical feasibility of incorporating the required scientific sensors into the design, manufacture, installation and operation of submarine repeaters in a safe manner without affecting cable systems and telecommunication signals, and avoiding risks that could affect the normal operation of the cables;
6. **Identify** financing models and opportunities to promote the development of ocean climate monitoring and disaster warning systems by the use of submarine cables;
7. **Consider** ways to further promote the implementation of the legal regime, as reflected in the United Nations Convention on the Law of the Sea (UNCLOS) and other instruments, for the protection of submarine cables, including awareness building and mobilization of support at the national and global levels;
8. **Organize** similar workshops to report on the progress;
9. **Ensure** that the outcomes of the above efforts/activities take into account and are consistent with international law, as reflected in UNCLOS;
10. **Invite** ITU to consider providing secretariat support for the joint task force.

We encourage ITU, UNESCO/IOC and WMO to bring this Call to Action to the attention of the United Nations Framework Convention on Climate Change (UNFCCC), the States Parties to UNCLOS and the United Nations Secretariat.