

To: Ms Isabela Cunha, United Nations (cunhai@un.org)

Input from KTH Royal Institute of Technology and Södertörn University, both Stockholm, Sweden, to the UN OCEAN CONFERENCE, 2017

Themes for the partnership dialogues: 1. Addressing marine pollution

a) Status and trends

Research in natural sciences clearly shows that stated objectives on international, regional and national level concerning e.g. presence of hazardous chemicals (including via plastic debris distribution) and levels of nutrients (causing eutrophication) in the marine environment, are generally not met. For some substances in some regional seas, the trends are overall positive but the opposite is true in other cases and the knowledge level and data availability is very limited. In addition, new challenges, such as potential release of nanoparticles to the marine environment, might emerge. Research in social sciences also shows that governance systems in place, on most levels, in both public and private domains, are commonly far from sufficient to adequately cope with the challenges at hand, in particular in an integrated manner in line with the EAM. At the same time though, an increasing number of studies, as well as real cases, point out how potentially successful science-based marine governance strategies can be designed.

b) Challenges and opportunities

The main challenge for better addressing marine pollution is to, based on the existing scientific knowledge, put in place effective governance systems and processes that facilitate transformative change, which in turn requires improved institutional coordination, sector integration, scientific interdisciplinarity, precautionary approaches, stakeholder deliberation, public communication and adaptability in policy. Sustainable governance also offers a multitude of opportunities, from a broad societal perspective in the short and long run, and for entrepreneurs and responsible companies.

c and d) Existing partnerships; Possible areas for new partnerships

Partnerships exist within and between regions and public and private stakeholder groups, with a great variation from one context to another. Even if there is some knowledge and experience of success factors and barriers, the learning between contexts is limited, partly due to high complexity in both the system that is to be governed and the systems of governance. Fostering learning between different regional contexts facing similar challenges is a key importance for addressing marine pollution.

e) Guiding questions for the dialogue

A key dialogue question should focus on how experiences and knowledge from one setting can be fed into other contexts meeting similar challenges, i.e. promoting social learning and improved governance is more important than new scientific data on pollution parameters. The latter is of course not unimportant, not at all, but ensuring that scientific data and technological options are rapidly coming into use is of major significance.

Yours Sincerely,

Dr. Mikael Karlsson, KTH mikaelka@kth.se Professor Michael Gilek, Södertörn University michael.gilek@sh.se