Every year, during the General Assembly, the United Nations (UN) host conferences regarding the Sustainable Development Goals (SDGs). On September 20, the scientific representation of the IRD (French National Research Institute for Sustainable Development) at the UN, in partnership with the Office for Science and Technology at the Embassy of France in the United States (OST) and the permanent mission of France to the UN, organized a conference entitled “Equity and fisheries in a global context”.

The general debate of the 71st session of the General Assembly of the UN, that was conducted from September 20 to September 26, was convene under the theme “The Sustainable Development Goals: A Universal Push to Transform our World”.

In line with the follow-up actions post-COP21 engaged by the OST, the marine environment and the ocean and climate interactions has been identified as a priority for scientific cooperation. The SDG on oceans, seas and marine resources (SDG14) and the ongoing debate on the Exclusive Economic Zones (under the UN Convention of the UN on the Law of the Sea (UNCLOS) are the two main instruments to mobilize the international community on the sustainable management of marine resources.

According to the Food and Agriculture Organization, 4.3 billion people depend on fish to have animal proteins and 10 per cent of the global population rely completely on fishing to feed themselves, particularly in Southern countries. The access to marine resources and to the fish market is an equality problem between the North and the South; the impacts of global warming and the multiple stresses the ocean is confronted to, affect in particular the South and increase the inequalities.

These issues are at the center of the researches led by the IRD department OCEANS. In partnership with researchers from the scientific department, in particular Frédéric Ménard and Marina Levy, respectively Director and Deputy Director of the OCEANS department and with the support of IRD’s representative within the UN, Laetitia Atlani-Duault, and the OST contributed to the organization of the conference “Equity and fisheries in a global context”.

In his introduction, Jean-Paul Moatti, President of the IRD, recalled that his institute is the only institute entirely devoted to research on developing countries. He emphasized the fieldwork led by IRD teams all around the world and the necessity to hear out researchers in Southern countries without trying to impose solutions designed only by developed countries. He also pointed out the key role of science in the elaborations of UN’s policies, in particular for SDGs on climate and oceans.

The scientific panel, moderated by Philippe Cury, researcher and representative of IRD for Europe, gathered French, South African, Canadian researchers and the Director of Paul Ricard Oceanographic Institute:

- Dr. Marina Lévy, CNRS/IRD, Pierre and Marie Curie University, in Paris
- Pr. Coleen Moloney, University of Cape Town, South Africa
- Pr. Daniel Pauly, University of British Colombia, in Vancouver
Pr. Daniel Pauly drew up an alarming report on the evolution of fishing practices at global scale and on the evolution of the quality and the quantity of fish stocks. He recalled that in 40 years the total capacity for fishing, expressed by the accumulated power of the fishing fleet (GW), has been multiplied by 4 in Europe and 10 in Asia. At the same time, to face the declining catches in their traditional fishing zones, countries have considerably widened their fishing zone all around the world while increasing the capacity of the ships and their technological sophistication.

For 22 countries in West Africa (from Morocco to Namibia), the expansion of the fishing zones causes foreign fleets to catch more than half of their fishes, usually illegally, at the expense of artisanal fishing and of subsistence fisheries. Europe was partly responsible in the 80s, however nowadays it is Asia, and particularly China, who exert the strongest pressure.

After reevaluating the fish catches in the world (taking into account the non-declared volumes), Pr. Pauly showed that despite an increase in the resources devoted to fishing, the global quantity of captured fishes is decreasing since 1996. It peaked at 140 millions of tons in 1990 before diminishing on a regular basis to 120Mt in 2010, with a decreasing trend since. This results in overfishing in certain zones, which did not allow the stocks to reconstitute themselves, and it is worsened by an increase in disturbances related to human activity (pollution, global warming, acidification…). In addition, the subsidies encourage the overcapacity of industrial fleets; with 35 billions of dollars per year, it represents 33% of world catches (Asia represents 43% of the subventions, followed by Europe with 25% and North America with 16%).

Pr. Pauly estimates that the interdiction of fishing in high seas could increase the worldwide quantity of captured fishes on a global scale. This apparent paradox can be explained by the reconstitution of the fish's stocks induced by this measure and the augmentation of catches in the Exclusive Economic Zones of the different states; it would also result in restoring equity between the North and the South.

The presentation of Dr. Marina Levy (IRD/CNRS) addressed the impact of climate change on oceans and its consequences for marine resources: since the beginning of the industrial era, the ocean absorbed 90% of the surplus of heat due to global warming, which itself is related to the increase in of CO2 emissions. At the same time, the ocean absorbed 30% of the atmosphere’s CO2 emissions, which significantly restricted the increase of the air temperature since the beginning of the industrial era.

This mitigation role caused an important modification of the physico-chemical characteristics of the ocean and in particular it led to an increase of its average temperature by 1°C, a decrease of the oxygen level in certain zones and an acidification related to the dissolution of CO2. The acidification of the waters dissolves shells and marine organisms’ skeletons with serious consequences on coral reefs, which a quarter has been destroyed and more than two thirds are in danger (bleaching phenomenon).

Patricia Ricard, director of the Oceanographic Institute Paul Ricard, stressed out the crucial role played by the coastal zones where more than half of the world population is living and that constitutes an essential habitat for the marine organisms from shallow zones. The coastal ecosystems are essential to the development of the marine wildlife and billions of people depend on them for their resources, their food supply, their health and their leisure.

Under the increasing anthropic pressure exerted on the coastal ecosystems, the Paul Ricard Oceanographic Institute supports programs for research and education in favor of the preservation and the restoration of these environments. Among these restoring or protecting solutions for the marines’ habitats, Patricia Ricard cited the solutions already experienced such as the creation of artificial cliffs, new innovative forms of aquaculture,
measures to limit pollution of boats in ports, the purification and the purge of waste water, creation of marine protected areas… She recalled that a voluntary policy in the Mediterranean area resulted in protecting 28% of the coastal zones and it led to the return of certain endangered species such as the grouper who almost disappeared in the 60s.

This conference organized during the UN General Assembly, gathered a high level audience from different foreign delegations. This event was the occasion to present the French specificity and excellence in research for sustainable development. The thematic of equal access to fishing resources is relatively new and the presence of the best international experts has led to a complete overview that will result in a common publication of the speakers. The representative in charge of the ocean's politic at the UN, has expressed an important interest for this new approach and will relay the works of the panel among the organization.