There is an international waters of 2.8 million km² in the distant Arctic Ocean. For a long time, the fishery resources there have not been known by the outside due to it is covered by ice all year round. However, with the global warming trend continues and the Arctic sea ice is melting, the Arctic coastal countries and countries with deep-sea fishing capacity have been paying attention to the "virgin land" in recent years. They are developing fishery resources investigation, assessing the environmental carrying capacity, forbidding carrying out commercial fishing......A sustainability agreement or mechanism of fisheries management in the Central Arctic Ocean is increasingly highlighted.

Therefore, the Roundtable on CAO fisheries issues was sponsored by Tongji University, Queen's University and Shanghai Jiaotong University and held in Shanghai on January 15th and 16th, 2015. This is the first time that an international Arctic fisheries held in China. The Roundtable is a very important step in the process of international negotiations. Experts, scholars and government officials from domestically and abroad discussed the current ecosystems in the CAO, the prospects of the development of fishery and fishery management, and so on. They were seeking to build an effective international agreement or specialized institution to regulate the management of fishery resources in the CAO and avoid potential overfishing in the future.

**Commercial fishing in ice-free summer in the Arctic Ocean is not far.**

Geographically, the arctic international waters, an area of 2.8 million km², is encircled by Canada, America, Russia, Greenland (Denmark) and Norway. As the sea area has been covered by heavy ice all year around, commercial fishing in this area had not aroused concern before. However, in recent years, with climate changing, as summer approaches, the
permanent ice in the Arctic international waters has been melting into open water areas. Especially in the summer of 2012, 40% of the ice in the arctic international waters completely melted.

It is predicted that ice-free summer may appear in the Arctic Ocean in the coming decades, with the trend of global warming.

From geological view, there exist similar deep-sea basins and shallow sea continental shelves in the Arctic international waters to other fishing zones in the world. 25% of the water area (approximately 0.614 million square kilometers) consists of ranges and continental shelves, with the depth of no more than 2000 meters.

The fishing technologies today make man fully capable of carrying out fishing activities in this depth of water conditions. The Chairman of the meeting, Professor Peter Harrison of the School of Policy Studies at Queen’s University in Canada said, when he was interviewed by the reporter of China Ocean News, “with sea ice melting, the Northern water area of the Chukchi Sea – adjacent to the U.S., Russian and Canadian maritime boundaries north of the Bering Strait are likely to have the greatest fisheries potential in the coming years”.

According to the United Nations Convention on the Law of the Sea (referred to as the UNCLOS), all the countries have the right to fish in the high sea. Therefore, once the ice in the Arctic international waters speeds up melting, the natural barrier which hinders every country from commercial fishing will disappear. As a result, it may not be far away to open a new era of commercial fishing in Arctic Ocean.

**Do not conduct commercial fishing blindly in the fragile ecological environment.**

However, it may not be favorable news to open the era of commercial fishing in the arctic international waters for lack of regulation in regional international agreements. Peter Harrison told the reporter that the ecological environment in the Arctic Ocean is very fragile under low temperature all year round. In such a fragile environment, the marine creatures will be easily influenced by human fishing activities. The decrease in quantities or the change in habitats of marine creatures will absolutely affect the entire Arctic food chain.”

Furthermore, according to Dr. Pan Min, the deputy director of center for Polar and Oceanic Studies in Tong Ji University, our scientific research in the Arctic ecosystem, including the fish, has been far from enough so far. We are in short of relevant data. Hence, as to the Arctic international waters, all the experts at the meeting agreed to reach an international agreement to ban commercial fishing in this area before we have adequate scientific information and evidence to prove its feasibility.

“By far, we don’t know when we could conduct commercial fishing”, said Peter Harrison, “but we are sure that we cannot proceed blindly without sufficient evidence.”
All parties work together to build a management system in advance.

No commercial fishing may be the core principle in fishing management in the Central Arctic Ocean in the next few decades. But in terms of the current status of fishing management, international communities, as well as the Arctic coastal countries, should take precautions to prepare in advance.

One of the attendees in the meeting, Professor Huang Shuolin, the vice president of Shanghai Ocean University, told the reporter that in international standard management level, only 8% of the Arctic international waters is under the jurisdiction of the North East Atlantic Fisheries Commission so far and the rest 92% lacks restraint of regional regulations.

“At present, all the other related international conventions or regional regulations cannot cover the whole Arctic Ocean international waters. They have no sufficient legal effect.” said Huang.

According to Prof. Huang, under Article 117 in the UNCLOS, all states have the duty to take, or to cooperate with other States in taking such measures for their respective nationals as may be necessary for the conservation of the living resources of the high seas. So, any country can fish in Arctic international waters, as long as the fishing activities are not against the relevant laws and regulations. The United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, approved by the United Nations General Assembly on 4 August 1995, specifies the content of the conservation obligation, which is stipulated by the UNCLOS, pointing out the ways, methods and measures of conservation and confirming the principle that no country should refuse to carry out conservation and management measures on grounds of lacking adequate scientific evidence. Moreover, in November 1993, the United Nations Food and Agriculture Organization passed the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, which aims to prevent flag states from avoiding conserving or managing high seas biological resources by hanging flags of convenience or arbitrarily changing flags.

Huang indicates that even though all those regulations are legally binding, they have no specific and professional provisions for commercial fishing in high seas biological resources. To the Arctic international waters, definite legally binding regulations are still insufficient.

Huang also pointed out that besides those legally binding international conventions and related regulations, there are some mutual or multilateral agreements among regions and states. However, those mutual or multilateral agreements, which have effects only on their member states, cannot develop an uniform regulation on fishery management and utilization in the arctic international waters. As a consequence, “We should reach a regional agreement aimed at managing commercial fishing in the arctic international waters in the future.” This is the very direction of the joint efforts of every state.
The earlier to participate, the better to act in our own interests.

As for reaching a new regional agreement, in the meeting, some experts propose that we could build an Arctic commercial fishing management system under the Arctic Council. While other scholars and officials hold the idea of reaching a regional agreement which is independent of the Arctic Council and negotiated by parties of interests in order to cover the issues of fishery management and ecosystem protection in the Central Arctic Ocean.

The experts who are for fishery management under the Arctic Council think that the Arctic Council, founded in 1996, has been perfecting its systemic flaws. The secretariat, established in 2013, has formulated a lot of legally binding documents, gradually transforming itself from a high-level forum among governments into an international organization of making political decision. So it would be easier to build an arctic fishery management system under the Arctic Council, and its executive force could be ensured.

But those who are against this idea think that these issues regarding the Arctic fishery management are unfit to discuss under the Arctic Council, because of the limitation of its own mechanism. It is up to the parties of interests to make regional agreements. David Balton, U.S Deputy Assistant Secretary, points out that there are three impeding factors: firstly, the Arctic Council is not an international organization; secondly, the arctic international waters only involves the five coastal countries. Finland, Sweden and Iceland are not proactive in it; thirdly, some fishing powers, such as China, Japan and Korea are only observing states in the Council who have no rights to speak and vote obviously. “So the Arctic Council is not a suitable organization to discuss this issue.” said Balton.

And to those non-arctic states such as China, it is vital to participate in Arctic fishery management. The earlier they participate in, the better they can act in their own interests. “China and some other fishing powers should have their right to speak on the issue of ocean-going fishing in the Central Arctic Ocean.”? said Huang.

Whereas, as to the human society, opportunity coexists with challenge when facing the enigmatic and impanoramic Arctic international waters. Establishing a perfect fishery management system could not be done in a short time, and it is even a pendent issue to conduct commercial fishing in the arctic international waters. But there is no doubt that because of the fragile ecological environment in the Arctic, when discussing about the regional agreements of fishery management in this area, all the countries are required to formulate and implement preventive measures as soon as possible.