The Principle of the Common Heritage of Mankind Can be Applied to Marine Genetic Resources

Yao Huang and Changshun Hu

Recent scientific research shows that many marine micro-organisms from deep-sea ecosystems possess unique genetic characteristics due to their ability to survive in a particularly extreme environment.* Such resources are often labeled as “genetic resources” to distinguish them from other marine living resources which are exploited for consumption.¹ With the progress in the knowledge of deep-sea ecosystems and emergence of biotechnology, the genetic material of those genetic resources are proved to be of great interest to both science and industry. This is why marine scientists and bio-prospectors are paying increasing attention to these resources.² However, there is currently no specific international regime addressing the protection and exploitation of marine genetic resources (mgrs) in areas beyond national jurisdiction, which has aroused intense debate in international forums and among research groups. The confrontation emerged between developed countries with financial and technological capability to exploit mgrs and developing states expecting a share in those new-found genetic resources. According to the records and outcomes of a series of international meetings on the legal regime regarding these resources, opinions diverge greatly on the applicability of the common heritage principle. Since most of the mgrs are found near hydrothermal vents which are located in the seabed or deep ocean floor,³

---

* This research has been funded by the China Social Sciences Foundation (Project No. 14ZDB165).
the debate on the legal regime mainly focuses on those located in the deep seabed, namely the Area.\textsuperscript{4}

\textbf{Current Debate on the Legal Regime for MGRs of the Area}

\textit{Governance Gap in Managing MGRs of the Area}

With respect to international regulation of MGRs in the Area, a number of international instruments are relevant, such as the United Nations Convention on the Law of the Sea (‘LOS Convention’) and the Convention on Biological Diversity (‘CBD’). However, neither of them contains specific legal regime addressing MGRs or bio-prospecting\textsuperscript{5} in the Area.\textsuperscript{6}

Since its adoption in 1982, LOS Convention was recognized as the legal framework for all activities in the oceans.\textsuperscript{7} However, the LOS Convention makes no reference at all to “marine genetic resources,” let alone establishing specific regulatory regime for those resources. The majority of the articles in Part XI of the LOS Convention centre around mineral resources of the Area. Article 136 of the LOS Convention provides that the Area and its resources are the common heritage of mankind. However, According to Article 133, the term “resources” for the purpose of Part XI is limited to “all solid, liquid or gaseous mineral resources in-situ in the Area at or beneath the seabed, including

\begin{footnotes}
\footnotetext[4]{See Frida M. Armas Pfirter, “The Management of Seabed Living Resources in ‘the Area’ Under UNCLOS,” 11 Revista Electrónica de Estudios Internacionales (2006), pp.19–22. On the basis of an analogy with the status of sedentary species on the continental shelf, some authors argue that those resources that are either immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil are clearly resources of the Area.}
\footnotetext[5]{Bio-prospecting is considered as “the exploration of biodiversity for commercially valuable genetic and biochemical resources” or “the process of gathering information from the biosphere on the molecular composition of genetic resources for the development of new commercial products.” See Tullio Scovazzi, “Mining, Protection of the Environment, Scientific Research and Bio-prospecting: Some Considerations on the Role of the International Seabed Authority,” 19 The International Journal of Marine and Coastal Law (2004), p.400.}
\footnotetext[6]{For more details, see Yoshifumi Tanaka, “Reflections on the Conservation and Sustainable Use of Genetic Resources in the Deep Seabed beyond the Limits of National Jurisdiction,” 39 Ocean Development & International Law (2008), pp.130–139.}
\end{footnotes}