

## **International Environmental Agreements in the Age of Big Data and Algorithms**

Big data is considered as the new oil due to the fact that such data is constantly being generated and used for the purpose of making a great amount of money by tech companies. In this context, data is sold after being processed via algorithms. Already several ethical and legal issues have been found and are currently being examined and discussed by policy-makers, experts and academics. These issues are most likely going to cause damage for the individual for several reasons such as the lack of privacy and autonomy and so on. However, with the problems that are being noticed in the private sphere, there are new questions emerging and revolving around the potential effect of big data and algorithms in the environmental field from a legal perspective. In fact, already big data collected in the water or agricultural sector or for the purpose of further understanding climate change are being processed via certain algorithms in order to further develop each sector or taking measures for facing the negative consequences of global warming. This reality has created several problems which need to be examined in each of these sectors. That said, since big data and algorithms have become more and more relevant in the environmental field, one would wonder whether international environmental agreements should start taking this fact into consideration through the incorporation of new provisions in these agreements tackling these matters instead of only including provisions on the duty of information exchange. To answer this question, this article will first discuss the concept of big data and algorithms as applied in the private sphere. Then, a brief overview of the ways in which big data is being introduced in the environmental field will take place. Then, the issue of whether international environmental agreements should incorporate these matters in their provisions shall be examined where the current duty of information exchange will be studied and a specific emphasis on transboundary water agreements will be made. The final section of the article will attempt to provide a suggestion for the incorporation of new provisions in international environmental agreements that adequately tackle big data and algorithms. To do so, the focus shall be on several provisions of the regulation 2016/679 of the European Union (EU) entitled General Data Protection Regulation (GDPR). As such, the article will propose the inclusion of specific provisions in the international environmental agreements that mirror the ones in the GDPR. Such inclusion would allow international environmental law to catch up with the big data revolution and algorithms that have occurred in the last decade.