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# Book review: 'Intellectual Property Rights and Climate Change: Interpreting the TRIPS Agreement for Environmentally Sound Technologies'

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## **BOOK**

Wei Zhuang, Intellectual Property Rights and Climate Change: Interpreting the TRIPS Agreement for Environmentally Sound Technologies, 2017, Cambridge University Press, 428 pp, ISBN 978 1 107 15808 5

### **REVIEW**

In this timely monograph, Wei Zhuang considers the potential of the TRIPS Agreement to facilitate innovation and transfer of environmentally sound technologies (ESTs), thus, in turn, climate change mitigation. Doubtless to say, it is a very exciting interdisciplinary book project which, inevitably, carries certain degree of risk of not engaging with relevant discipline-specific material. Clearly, the author balanced perfectly her profound IP and world trade law expertise with the right amount of climate and environmental ingredients to come up with practical proposals for the reform of the global IP rights regime.

The main thread is set out clearly in the book: the TRIPS, despite being silent on ESTs, may unlock the ESTs' potential to contribute to the global climate change mitigation efforts; yet, if reforms are pushed too far, the Agreement may trump the global innovation and competitiveness. This dilemma resembles somewhat the discussions over the access to affordable essential medicines which led to signing the 2001 Doha Declaration. Yet, as Wei Zhuang highlights, environmental technologies are more complex than the medicines because the former are "system



technologies" (p. 307), which often rely on combining several patents owned by different persons. One could recall John Dryzek, who famously labelled environmental problems as 'doubly complex', ie. oscillating on the boundary between environmental science and human systems.

The underlying political and policy context on the tensions between North and South is far more complex, but Wei Zhuang manages it well throughout the monograph. The raw data is alarming: nearly 80% of ESTs' patents are owned by just only six states (the US, Japan, Germany, France, Korea and the UK) whereas the transfer of these technologies to the developing countries amounts to around 22% (p. 34-39). Even though some of those developed countries benefited from the liberal IP rights during the key phases of their economic development, they are currently in favour of rigid and stronger IPR regime. The wealthy states' stance may sound hypocritical, but Wei Zhuang takes a balanced scholarly approach by exposing TRIPS as a 'double-edged sword' able to both enable and hinder the transfer of ESTs to the developing countries. In doing so she concentrates on making the most of the current framework through her innovative treaty interpretation and a proposal for a Doha-type declaration of climate change. The author is also cautious to make pretentious claims. She highlights for example that the findings of her study "may not apply to LDCs" (least developed countries, p. 5) and she is right in taking this modest approach given numerous tensions within the developing countries.

The book's structure is very clear and some of the chapters can be read outright thanks to the precise referencing system which will direct the reader to the earlier chapters as appropriate. The introduction, which specifies the objective with two main research questions, is followed by seven chapters grouped in two parts. Part 1 constitutes an overview of the relevant material on IP, climate change and TRIPS, whereas Part 2 is far more analytical and focused on innovative interpretation of TRIPS to facilitate the creation and transfer of ESTs as well as on the author's own proposals for balanced reforms.

Chapter 2 will be particularly useful for those who are less familiar with wider concepts of the IP, climate change, ESTs and the relevant global geopolitical themes. The chapter is based on extensive literature review and published empirical data with some original statistical calculations performed by the author especially for this book. The chapter sets out the abovementioned political and policy context, which will be referenced to or explored deeper in the following chapters as appropriate.

Chapter 3 moves to the overview of the legal frameworks relating to IPRs, climate change, innovation and transfer of technologies and ESTs infused with the relevant policy context. It will be particularly useful for readers who want to familiarise themselves with these regimes from the evolutionary perspective. The Chapter covers the Paris Convention for the Protection of Industrial Property 1883, the role and North-South tensions within the World Intellectual Property Organisation and WTO, and, of course, the TRIPS Agreement. The Chapter analyses the key TRIPS



articles relating to the technology transfer and makes it clear that, in the Agreement, "the protection of IP rights is not an end in itself, but rather an important means to enhance technological innovation and transfer of technology" (p. 74). It then moves to the climate change framework that is The United Nations Framework Convention on Climate Change 1992 (UNFCCC), the Kyoto Protocol 1997 and the recent developments such as the agreement signed at the 2015 Paris Climate Change Conference. The chapter is excellent in providing the key legal concepts from the IP and environmental disciplines hence the experts in either area can skip some parts as appropriate.

The TRIPS Agreements sets out the floor and not a ceiling so that the contracting Parties can provide higher IPR standards. Many developing countries had to upgrade their IPR regimes to comply with the TRIPS whereas the LDCs were granted extensions. Chapter 4 explores the implications of such an approach on the innovation and transfer of ESTs by taking a more focused and analytical course. The pros of the minimum IPR protection include the incentives for innovation (which is of utmost importance for complex ESTs), increased trade and foreign direct investment (FDI). The cons of such a regime include patent blockage, high licencing fees or refusal to licence. The minimum IPR framework can also be hypocritical given the history of global economic development as mentioned above.

Thereafter the discussion shifts to Part 2, i.e. the interpretation of TRIPS to facilitate innovation and transfer of ESTs. The Agreement covers a wide range of technologies and, crucially, it is not explicit on the innovation and transfer of ESTs. To fill this gap, Wei Zhuang performs a creative interpretation of the TRIPS by taking a step-by-step approach which is appropriate for this interdisciplinary inquiry. Chapter 5 introduces the rules governing the interpretation of the international legal treaties and the relevant TRIPS articles that will need to be focused on. This Chapter can perhaps be omitted by the readers familiar with the aspects of international law interpretation (such as the Vienna Convention). Sustainable development concept discussed here in detail could perhaps be linked with key environmental principles (such as 'common but differentiated responsibility') earlier in Chapter 2.

Chapters 6 and 7 are impressive in discussing in patent- and competition-related flexibilities in the TRIPS to facilitate the creation and transfer of ESTs. These chapters provide an in-depth overview of these flexibilities against the background of the interpretative principles and key international cases such as *Canada – Pharmaceutical Patent* (2000). Each flexibility is then explored in the context of ESTs. Wei Zhuang is clear that, whereas TRIPS can facilitate the innovation and transfer of environmentally sound technologies, there is scope for further improvement. Rather than rewriting the whole regime, she proposes a "Doha-Type Declaration on Intellectual Property Rights and Climate Change" (p. 346-7) with potential elements of this document. Only time will tell whether her proposal will be taken up, though, given the overall clarity of her argument, it is definitely going to inform the global debate.



Overall the book balances extremely well the complex interdisciplinary material to guide the reader through the IP and ETS-related climate change worlds. It is well researched, positioned in a fascinating geopolitical context, thought-provoking and action-orientated. It will be a useful source for scholars, lawyers and policy-makers. The reviewer himself would be interested in working together to explore further the connection between the IP-ESTs and the finance aspects such as the FDI touched by the book.