1.   Introduction

The threat of anthropogenic climate change is caused by worldwide human emissions of greenhouse gases (GHGs). It is a threat of global scale. All the components of the Earth, its terrestrial ecosystems, oceans, atmosphere and their relationships will be impacted upon and transformed, maybe for millennia (Archer, 2008). We are facing what the American philosopher Stephen Gardiner (2011) called 'a perfect moral storm'. On a geological timescale, all dimensions of human existence and activity will be affected. It is in the common interest of humankind to limit the scale and pace of these global changes to the conditions of life on Earth. The need for convergent international action is brought to its highest level: almost all people, through the states that represent them, but also by involving the various groups and organizations, from cities and regions to non-governmental organizations (NGOs) and businesses, must converge on the ways and means of ensuring the effective prevention of a possible catastrophic scenario. Time is now very limited for meeting these requirements due to the inertia of the physical processes involved and the delay imposed until 2015 on any serious action towards low-carbon technologies and economies, despite the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992.

To ensure that all people converge on expectations and priorities and commit to effective collective action, they must find a mutually acceptable answer to the issues of justice raised by the climate threat, but also by the existing state of the global economic (dis)order. For the common good of climate protection, will everyone, every community and every country, be fairly charged? On the international stage, all parties involved have expressed their desire to find 'fair and equitable' solutions to all practical aspects of the problem: the level of ambition for controlling GHG emissions; the distribution of efforts and costs; the conditions for adaptation to the already inevitable signs of climate change; the financial and technological transfers to be organized in support of climate-friendly actions and relief for the poorest. But serious disagreements arise when it comes to giving both theoretical foundations and practical meaning to these commitments to fairness and equity.

Those in the developing world who consider themselves to be essentially

the present and future victims of climate change ask those in the developed countries, which they consider to be the originators of the global threat, to assume a 'historical responsibility'.[1] By this, they mean that the developed countries should pay compensation and receive a far smaller share of the carbon budget still available for the future. At the same time, they have asserted their own right to unconstrained development, and initially saw calls for common action in favour of climate protection as highly dubious, since the developed countries were not behaving according to their expectations. The organization of climate negotiations has been regularly criticized for failing to give each party, and in particular the less-developed countries and local communities, fair representation and access to appropriate expertise. The developed countries have said that they are ready to consider the specificities of the developing countries, and to help them. But they have refused to acknowledge any obligation to pay compensation or to be penalized in the name of their historical emissions.

Some basic questions are raised: Who can legitimately be said to be responsible for what? How can the international community ensure actions aimed at controlling GHG emissions do not lock hundreds of millions of people into poverty and deprive them of minimum access to energy, which is essential to cover the basic needs of all (Shue, 2014; Moellendorf, 2014)? How should we tackle the huge differences in resources, income and lifestyles across the planet? Is it possible to simultaneously drive a major programme aimed at eradicating poverty and engage a rapid worldwide shift away from carbon energy sources, as is assumed by the 17 Sustainable Development Goals adopted by the United Nations in September 2015? It is impossible to think about such issues without referring, whether explicitly or implicitly, to general views on the requirements of justice and equity in an international context.

The concern for justice marked the first principles laid down in the UNFCCC text. Its article 3.1 reads:

> The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof.

Despite this agreement on the three principles of 'equity', 'common but differentiated responsibility' and 'capabilities', the international community failed to go very far in finding a precise common understanding of the practical means to give them substance. In 1992, the Parties had agreed that the developed countries – the Organisation for Economic Co-operation and Development (OECD), Eastern European and former

Soviet Union countries – should take the lead in the fight against climate change, and provide financial support to the developing countries for 'agreed' actions that the latter would undertake specifically for the protection of the global climate. This resulted in a division of the world into two groups, easily identified as the North and the South, to which differentiated obligations were assigned. The Kyoto Protocol, which was adopted in 1997 but only entered force in 2005, defined quantitative targets for controlling GHG emissions exclusively by the Northern Parties. Targets were also differentiated among these countries. The USA has never ratified this protocol, and Canada withdrew from it when it was enforced. The 2000s failed to show any significant progress in the organization of international action. The hopes placed in the December 2009 Copenhagen Conference of the Parties (COP 15) of coming to a decisive legally binding agreement were disappointed, then transferred to the Paris Conference of the Parties of December 2015 (COP 21).

The latter was considered a success because it arrived at the 'Paris Agreement' that preserves the existence of a full international cooperation framework on the climate issue, although it was clouded by the announcement of US withdrawal by President Trump in June 2017. In any event, it remained marked by a major contradiction between the objective announced (limiting temperature rise to significantly below 2°C, with the hope of remaining closer to 1.5°C) and the national objectives and plans disclosed at the time by the Parties which, taken together, have shown a global emissions control rate that was half of the figure needed to reach the global objective.

Over the years since 1992, global GHG emissions have grown at a sustained pace, despite reductions in European countries, and atmospheric concentrations of GHGs have inevitably followed suit, reaching levels higher than any seen in the last half-million years. Governments have lacked the motivation to do what moralists tell them they should do. But is it so surprising that governments are reluctant to impose profound changes and huge economic and political costs on their populations and constituencies for a benefit that will not be perceived for several decades, with its larger part benefiting future populations in other countries? It is often said that designing a fair and just agreement is critical for its general acceptance and its ultimate success at the implementation stage; efficiency would imply seeking justice. However, the various claims put forward in the name of climate justice, often extravagant and ill-founded, have contributed to turn the requirements of climate justice into an additional obstacle to reaching a sound agreement between the parties (Pickering and Barry, 2012).

The context is therefore a very difficult one. An agreement on some

abstract principles is far from delivering a full agreement on what it means in practice or resolving the motivational factor. At the very least, an intellectual clarification is needed to test the viability and usefulness of ideas of justice in enhancing the broad convergence of national economies towards climate-friendly, low-carbon technologies in more than 30 years' time; in other words, the 2050 time horizon.

The purpose of this book is to present and discuss the diversified and conflicting intellectual landscape of the idea of global climate justice. The latter can be driven towards either cosmopolitanist moral approaches or a more politically oriented international framework. It is an idea that is highly exposed to the risk of being reduced to naive moral calls, simple ideological slogans or political gesticulations from stakeholders and parties to negotiations.

The landscape of this idea has been built via two different approaches, which have had evident links both ways. Since 1990, international climate negotiations have been accompanied by a political process involving the conceptualization of a new ideological corpus based on the denunciation of inequalities and injustices imposed on the developing countries, or the most vulnerable populations of these countries, due to global climate change. Concepts of the 'historical responsibility' and 'ecological and climate debt' of developed countries have been put forward. These have been used by activist scientists, NGOs and some governments to enhance and disseminate the conviction that the North was the only culprit and should pay on different lines: huge compensation for existing and expected damage and for additional obstacles to development in the South; free technology transfer and assistance to facilitate adaptation and enhance development; and allocation of the smallest share, if any, of future carbon budgets, because of its past overconsumption of common natural resources since the beginning of the industrial revolution in 1850. At the same time, equity has been asserted in order to demand equal per capita allocation of GHG emissions rights to countries, the atmosphere being said to be the common property of humankind in which every human being has the same right. Overall, this ideological corpus has shaped a denunciatory and adversarial approach to climate justice, articulated with the assertion of new rights concerning environmental quality and prospects for economic development.

Both in parallel and in interaction with this political process, scholars have developed concepts and arguments to support or criticize views on global and international climate justice and their palatability for climate negotiations. Moral thinking, political philosophy and economics provided the main frameworks to drive this process. Key themes developed concern the extension of domestic norms of justice to the international level; the

content of a cosmopolitanist approach to justice; intergenerational justice and future ethics; moral and legal human rights and duties; and the pros and cons of the 'historic responsibility' concept.

The presentation of this dual landscape surrounding the same key concepts is intended to inform the critical examination of proposals made for the negotiation process as well as theoretical arguments put forward by scholars to support their views on the norms of justice and the rights and duties of different agents. Such a discussion cannot ignore the more general debates raised by theories of justice, but I will focus my account of discussions on those applications of theories that are explicitly directed at international relationships and climate change. In some cases, there are good reasons behind each of the main conflicting positions, but in other cases there are bad reasons or unconvincing arguments behind the proclaimed factual or moral evidence.

In this book, two aspects of the discussion will be particularly questioned:

1. Extending to the global level normative propositions hitherto designed for a 'well-ordered society' framed as a sovereign democratic nation state, one that has a territory marked by borders. This classical framework enabled the distinction between two types of norms: one for the internal justice of the society considered, and the other for organizing relations with people living in other countries. Is short-cutting this dual scheme a path to follow? What should we think of a cosmopolitanist viewpoint that considers the division of humankind into 200 nation states as an arbitrary heritage of history and an obstacle to the full acknowledgement of universal rights and values?
2. Bringing the natural environment of human activities into the intellectual circle of justice, based on the rights and obligations of human agents. Which concepts are the most appropriate to capture empirical expressions of climate change and weather events? Should we acknowledge a natural right to a stable climate? Can we legitimately base solutions for the twenty-first century on a retroactive application of the rights and obligations that some authors support had been those of the states from the beginning of the industrial revolution?

As a matter of fact, for 25 years, climate negotiations have been looking for solutions that could be accepted by all parties as fair, equitable and efficient, but they have not actually found them, even if the Chinese representative was authorized to declare, when the time came to approve the Paris Agreement (12 December 2015), that 'the Paris Agreement is fair and just, comprehensive and balanced, highly ambitious, enduring and effective, and with legally binding force' (Dimitrov, 2016).

Chapter 2 of this book presents an overview of concepts and distinctions about theories of justice and introduces two focal theories: that of John Rawls, and utilitarianism. Chapter 3 explores the relationships between justice and international coordination. It first examines how justice considerations may have a different role in international relations depending on the kind of model used to approach the international world. Next, it looks at how international relations may come into theories of justice, giving the spectrum of positions.

Chapter 4 introduces issues of justice raised by climate change. Elements of institutional history and objective data are given, before the main proposals made by various sources (NGOs, experts, governments and scholars) are presented.

Chapter 5 considers the issue of intergenerational equity, first by introducing the debate on standard economic discounting and then by discussing key ethical points. The issue of freedom of choice acknowledged to future generations is at the heart of the discussion of duties to the dead and the unborn, for which Janna Thompson (2009) proposed a challenging foundation. The classical but unresolved problems of non-existence and non-identity are introduced and discussed. All this concludes with the fragility of the idea of intergenerational justice between distant generations.

Chapter 6 provides a critical examination of the thesis of the 'historic responsibility' of countries for their emissions between 1850 and 1990. In fact, in argument after argument, it shows why we may doubt that this thesis is well founded either empirically or normatively.

Chapter 7 is future-oriented and considers the possible criteria for an equitable sharing of the carbon budget between countries. It begins with the issue of rights, which is not mentioned by the UNFCCC, and then continues with the three principles put forward by this international agreement: equity, capabilities (ability to pay) and responsibility, which is said to be common but differentiated.

Chapter 8 reconsiders all of these issues in a new light, that of justification theory, as understood by the French school. This theory focuses on ordinary procedures to resolve disputes and reach agreements. Within this theory, agents of a modern society have to play with a plurality of justification orders, the relevance of which depends on situations of social interaction. This theory helps us to understand which issues should be considered and which norms should be supported as appropriate to the situation in which coordination of climate policies should be implemented.

Chapter 9 concludes by suggesting that climate change is not so much an issue of justice, implying rights, duties and obligations, as an issue of motivation and desire for humanity that may push present generations to

make promises that are thrown to future generations, like the people who throw bottles into the sea to send messages to unknown recipients.

NOTE

1. In this book, the expression 'historical responsibility' exclusively refers to GHG emissions produced between the beginning of the industrial revolution (1850) and 1990. The latter date was chosen as a reference for the commitments laid down in the UNFCCC and the Kyoto Protocol and corresponds to the beginnings of organized international action to protect the global climate under a new regime of rules.