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UNIVERSITY OF RIJEKA
FACULTY OF HUMANITIES AND SOCIAL SCIENCES
DEPARTMENT OF PHILOSOPHY

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**Climate Change and International Distributive
Justice**

M.A. Thesis

Rijeka, September 2016

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Climate Change and International Distributive Justice

M.A. Thesis

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Abstract

Climate change is the problem we hear about more and more often. We hear about the damages it causes, as well as the discussions about how to deal with those detrimental effects. The problem is of international interest because what causes climate change and its negative effects (usually emissions of waste gases in rich countries) is regularly felt in poor parts of the world. In contrary, in most cases, poor states haven't contributed to climate change harms and don't have enough resources to deal with them. This situation obviously requires adverting to the issues of justice, namely global distributive justice.

The paper aims at finding an appropriate distributive principle for allocating the benefits and burdens of climate change. In that respect, I argue that egalitarian approach doesn't give a complete and suitable response to the climate change problem. As an alternative approach to that, I find the minimalist account, and corresponding distributive principles (the polluter pays and ability to pay principles) more successful in resolving issues linked to climate change and accounting the questions of fair distribution.

Keywords: global climate change, international distributive justice, distributive principles, equality, historical responsibility, ability to pay, human rights

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1. Introduction

The main issue discussed in this paper concerns the problem of human-induced climate change and its relation to international distributive justice. Anthropogenic climate change raises many ethical and political issues, and the one that I will explore refers to the question of fair or just distribution of the benefits and burdens of climate change mitigation and adaptation among responsible state and non-state actors. Namely, in the context of climate change, the question of international justice pertains to the problem how to allocate the benefits and burdens of using the atmosphere's capacity to absorb human waste gases, i.e. greenhouse gases (GHG), which represent the detrimental effect of human interference with the climate system. When applying principles of distributive justice to the problem of climate change, the central question is who should bear the responsibility for the harmful effects caused by climate change, as well as the costs of their reduction. There is a serious problem of an inequitable allocation of the atmosphere as a global commons among developed and developing states that calls for the establishment of a just and fair climate change regime that will amend those inequities. Related to this, moral and political philosophers have tried to give solutions in terms of determining a fair distributive principle applicable to the issue of climate change.

In this text I will touch upon different normative challenges this issue raises, as well as try to give my opinion regarding the question which distributive principle or a combination of principles is the most successful in confronting the distributive issue of climate change. So, this paper is structured as follows: first, I will introduce the problem of climate change and how it relates to the international distributive justice, and set the framework for the discussion in relation to two main approaches to global distributive justice –

egalitarian and minimalist. Secondly, I will determine the scope of international distributive justice in regard to the main subject of distribution, and the actors responsible for anthropogenic climate change. Thirdly, I will explain time-slice and historical distributive principles and try to apply them in the context of climate change. With respect to that, equal per capita emissions shares and historical accountability approach, i.e. the polluter pays principle (PPP) will be addressed. Then I shall present main objections directed to the PPP; responses to the listed objections and defend the view according to which the PPP (or 'beneficiary pays principle' as a more appropriate version of the PPP) has to be supplemented with an additional principle, and that is the ability to pay principle. Finally, I shall examine three different formulations of the ability to pay principle (Caney's hybrid account, Shue's proposal, Miller's principle of equal sacrifice) and argue that their positions, as combinations of historical account (PPP/BPP) and the ability to pay approach to the distributive issues of climate change, are the most plausible solutions to the posed problem.

I support the view that the mere historical accountability isn't sufficient for bearing the costs of climate change mitigation, but the responsible actors should also have the capacity, i.e. financial ability to cope with the climate change burdens. Likewise, Caney's, Shue's and Miller's solutions refer to the importance of promoting basic human rights as a crucial aspect of dealing with climate change, i.e. they endorse the minimalist approach to global distributive justice that I consider to be a preferable one, as opposed to the egalitarian approach.

2. International distributive justice

Traditional discussion of distributive justice is mainly concerned with the distribution of wealth or some other good (usually related to the economic sphere) among the present members of some nation-state. In other words, it is "confined" within state borders and relevant for the citizens of a particular country. In accordance with that, one of the most important political philosophers, John Rawls, advocates the following view, depicted by Charles R. Beitz:

"Rawls holds that, strictly speaking, there is no such thing as international distributive justice. Individual states, which he takes to be the basic agents in the global normative order, are not obligated to achieve and maintain any definite global distribution of wealth."¹

For some time, international or global justice wasn't something that philosophers paid attention to when it comes to the distributive issues. Conversely, they were primarily focused on the domestic realm and how to share a particular good among individual members of some society. In addition to this, there has been long denial among philosophers that conceptions of justice from domestic context can be applied internationally. They have emphasized the central reason for that to be the lack of a 'global government' or some other institution that will have sovereign authority for making political decisions and a power of enforcing them. As Beitz contends, at the domestic level there is a structure regulated by principles of political justice, which is comprised of a shared control over decision-making, as well as the restrictions regarding the state's authority to make political decisions. He further emphasizes the essential problem that there is no such structure present at the global level. There isn't any analogous sovereign power, legislature or coercive institution

¹ Beitz (2005), p. 20.

necessary for the regulation of the political decisions on how to distribute some good among different nation-states.² But, is the mentioned coercive institution or another form of an authority necessary for global distributive justice to come about? Should we limit distributive justice to the state level because there is no formal global government?

According to Chris Armstrong, two opposing approaches can be advocated in respect to the posed question. First, *relational approach* suggests that there should be some kind of a relationship between people (e.g. shared institution, citizenship or government), for distributive justice to become relevant.³ We can call this position a strong version of relational approach because the requirement of such form of a relationship rejects the very idea of global distributive justice. Since there is no formal institution at the global level or common world citizenship, therefore we cannot hold the concept of global justice relevant. Furthermore, as Armstrong asserts, there are other accounts of relational approach. For example, somewhat weaker versions tell us that it is enough that people share a single world, or that distributive justice is relevant because people affect each other's lives outside their nation borders.⁴ I think that this account of relational approach is more convenient regarding the present issues and problems in the international relations because it doesn't set such strict requirement for global distributive justice as the strong version. Nevertheless, relationists are quite determined in setting a specific institutional relationship as a condition for principles of justice to be valid at the global level.

In respect to that, I find *non-relational approach* to be more suitable approach because it gives us quite persuasive reasons to hold global justice necessary and relevant. According to Armstrong, non-relational approach gives us less stringent requirement for global justice to come about. The fact that what

² Beitz (2005), p. 24.

³ Armstrong (2012), p. 25.

⁴ Ibid., p. 27.

people share by virtue of being human is satisfying for principles of justice to impose global distributive duties on people.⁵ In the following quotation, Armstrong remarks the key point of non-relational approach to global distributive justice:

"In contrast to relational approaches, non-relational approaches typically suggest that humans have entitlements simply *as* humans, and not because we happen to share certain institutions, for example. They suggest that our humanity, or dignity, ought to be respected, and that doing so has distributive implications."⁶

I consider non-relational approach to global justice to be superior to the relational one for the following two reasons, acknowledged by Armstrong. First, today the world is more connected than before and although there is no formal global government (necessary for relational account), organizations such as World Bank, World Trade Organization, and the UN, as well as various international conventions, can be considered to constitute some form of a shared global institutional order, required for the regulation of international distribution of goods.⁷ Second, a feature of non-relational approach which I deem to be of great importance is a reference to *human rights*. Namely, basic human rights extend beyond borders and exist irrespective of some shared institution or government. Thus, non-relationists think that we should create a global institutional order that will secure the fulfillment of basic human rights. Also, the fact of our humanity is sufficient for people to have global distributive duties and entitlements, with an aim of meeting at least minimal conditions for a decent life.⁸

⁵ Armstrong (2012), p. 25.,30.

⁶ Ibid., p. 30.

⁷ Ibid., p. 28.

⁸ Ibid., p. 30.

Moreover, the emphasis on the notions such as *duties* and *rights or entitlements* is important because generally speaking, the principles of distributive justice give us guidance for a just allocation of *the benefits and burdens* connected to a certain good that is shared between people. In respect to that, the benefits correspond to our entitlements to a shared good, and the burdens usually correspond to our duties of justice, i.e. what are we liable to do in order to have a fair distribution.⁹ To give an example, we are entitled to food and water in order to sustain life (basic human right to subsistence), and if a group of people lacks subsistence goods, others should have a duty to provide them with these goods.

Although in many cases of international relations there are various impediments on solving problems because of the lack of coercive institutions analogous to the ones at the state level, justice among different states shouldn't be undermined and important common issues (e.g. global poverty, migration, violation of human rights, climate change, and environmental dangers) must be addressed, especially in today's globalized world. Hence, I will start from the assumption that we can look at the world as a "global community", an entity suitable for the application of interpretations of distributive justice. According to Paul G. Harris, the world is a community made up of states that are part of complex international economic, cultural and political relations, and therefore we can apply different formulations of justice to the world.¹⁰

My aim here is to apply the principles of distributive justice to the international context of global climate change. The central distributive question that results from the international relationship between states is what is a just distribution of the benefits and burdens concerning some good. In this paper, specifically, the benefits and burdens of climate change, where the atmosphere

⁹Armstrong (2012), p. 16.

¹⁰ Harris (1999), p. 12.

represents a global common good that must be allocated internationally, according to some distribution pattern.

Before tackling this specific problem, I want to introduce another important distinction crucial for a better understanding of distributive justice and principles. Armstrong distinguishes between *egalitarian* and *minimalist* approaches to global distributive justice. First, as the very term suggests, an egalitarian approach puts emphasis on the notion of *equality*, as we can notice from the following quote:

"It might specify that some important resource should be distributed equally between all people, or that people should at least have an equal chance to obtain it for themselves if they work hard enough... Some egalitarian accounts suggest that inequalities are sometimes acceptable, but try to specify and to place limits on the kinds of inequalities that are justified."¹¹

We can see that several egalitarian accounts are existent in contemporary discussion on equality, but for the sake of the topic of this paper, I wish to underline the importance of two positions: first, the idea of *strict equality* (some good must be allocated equally amongst all) and second, the *global equality of opportunity* (no one should have worse opportunities to obtain some good because he or she was born in a disadvantaged country, i.e. nationality as a morally arbitrary characteristic should not be of any relevance in the distribution of a global good).¹² We shall see later how these concepts are connected to the specific issue of climate change.

Secondly, a minimalist approach suggests that global injustice consists in the fact that some people don't have enough resources or goods to lead decent lives, i.e. the minimal conditions for meeting their basic human rights aren't

¹¹ Armstrong (2012), p. 35.

¹² Ibid., p. 59.

fulfilled. As a human rights - oriented approach, it tolerates some global inequalities between countries:

"Crucially, once the goal of securing a decent minimum for all is secured, inequalities in the distribution of various goods over and above that will not be condemned as unjust."¹³

Proponents of the minimalist approach to global justice claim that people's need to meet basic human rights can impose duties of distributive justice. Primary responsibility for securing the rights of individuals falls on the nation-state. On the other side, in situations where human rights are violated, and a certain state fails at securing them, that responsibility is transferred to other states.¹⁴

Bearing these two approaches in mind, how are we ought to distribute the burdens and benefits connected to the global problem of climate change? Should they be allocated equally among all the people in the world, or according to some other principle? Can some inequalities in distribution be justified in order to protect basic human rights? Before dealing with various positions concerning the principles of justice, I would like to introduce the problem of climate change and how exactly it is linked to the concept of distributive justice.

¹³ Armstrong (2012), p. 36.

¹⁴ Ibid., p. 89., 90.

2.1. The problem of climate change and international inequity

According to the latest assessment of the Intergovernmental Panel on Climate Change (2014), the main source of the scientific, technical and socio-economic information regarding the understanding of human-induced climate change, the main problem consists in "anthropogenic greenhouse gas emissions that have increased since the pre-industrial era, driven largely by economic and population growth, and are now higher than ever."¹⁵ Also, according to IPCC, "(t)his has led to atmospheric concentrations of carbon dioxide, methane and nitrous oxide that are unprecedented in at least the last 800,000 years."¹⁶

The negative changes in our climate, as well as the environmental degradation, including a decrease in cold temperature extremes, an increase in warm temperature extremes, an increase in extreme high sea levels and an increase in the number of heavy precipitation events in a number of regions, are closely linked to human influences.¹⁷ We can see that human activities (e.g. burning of fossil fuels and the use of non-renewable energy sources that result in excessive emissions of waste gases) are essential causes of negative climate change effects. For example, the emissions of greenhouse gases in the rich industrialized countries usually have destructive effects on the environment of other, less developed parts of the world. According to Amstutz, we consider global warming, air pollution and other negative consequences to be *collective "bads"*. The harms of GHG emissions cannot be kept within one's national borders, but expand them and affect other societies across the globe. Conversely, clean air and environmental protection represent *collective goods* that also extend across borders and benefit everyone in the global community.¹⁸ For example, if global warming is reduced due to the cutting back of GHG

¹⁵ IPCC (2014), p. 4.

¹⁶ Ibid., p. 4.

¹⁷ Ibid., p. 7.

¹⁸ Amstutz (2013), p. 249.

emissions in some countries, every other country in the world would benefit from that reduction.

The key point that is indicated here is that the problem of climate change affects us all, no matter where we live, or when we are born. Thus, the actions of past persons have caused climate conditions that are present today, and our present actions will affect future generations and their lives. In that manner, the question of international justice and what distribution of the benefits and burdens is fair can also have another dimension concerning intergenerational justice and conflict between people's current needs and the claims of future generations. Therefore, distributive justice in the environmental context has a spatial dimension (justice among present actors), as well as a temporal dimension (justice among the past, present and future generations). I find these two dimensions to be closely interconnected when discussing distributive principles. Later I will tackle this issues more when referring to GHG emissions from the past.

Now I wish to point to the *moral challenge* of global climate change. Marc R. Amstutz argues that the moral challenge consists in balancing national interests with shared global concerns, and a moral approach to the problem of combating the climate change must ensure that access to the global commons is fair and that the distribution of the commons' resources is perceived as just. Furthermore, he says that this challenge is substantially problematic because of different perceptions of political and economic reality by decision makers, but more importantly for the main issue of this paper, they also hold different conceptions of justice (what distribution of climate change burdens and benefits is fair).¹⁹ It is important to indicate the fundamental tenet on which the climate change policies are designed. UNFCCC (United Nations Framework Convention on Climate Change), an international environmental treaty, together

¹⁹ Amstutz (2013), p. 248.-249.

with the Kyoto Protocol, established the international principle of the protection of the climate system '*on the basis of equity and in accordance with common, but differentiated responsibilities, and respective capabilities*' to be the main principle of climate change regime with an objective to '*stabilize greenhouse gas concentrations in the atmosphere at a level that will prevent dangerous human interference with the climate system.*'²⁰ Nevertheless, there are certain difficulties that complicate the design and implementation of a fair climate change regime and policies in the international community.

Namely, they are primarily normative challenges posed by three main inequities involved in the causes and effects of climate change and manifested in the developed countries of the North and the developing countries of the South, illustrated by Steve Vanderheiden. He states first concern to be the *relative causal responsibility of nations*, meaning that some nations are more responsible than others for contributing to climate change, due to varying levels of economic and technological development related to greenhouse gas emissions, which we had already seen to be the most problematic human-induced causes of change in climate. Secondly, another international inequity manifests itself in the some nations' *greater economic capabilities* to undertake large-scale GHG reduction projects. And third inequity refers to the *predicted harmful effects of climate change*, which will primarily be borne by poorer developing nations, that are less causally responsible and have the lesser capability (financial resources) to undertake mitigation and adaptation projects.²¹ As it is estimated in IPCC's report:

"Climate change will amplify existing risks and create new risks for natural and human systems. Risks are unevenly distributed and are

²⁰ UNFCCC (1992), p. 4.

²¹ Vanderheiden (2008), p. 82.

generally greater for disadvantaged people and communities in countries at all levels of development."²²

Here we can notice several notions that are mentioned, and that are of great importance for the later discussion, such as 'responsibility' and 'capability'. *Moral responsibility* for the negative effects of climate change is also considered something to be justly distributed. Various commentators that discuss distributive justice in the context of climate change, tend to refer to different things that they consider to be a matter of distribution. In general, that are *benefits* and *burdens* of some kind. Are those benefits caused by GHG emission activities? Or rights to emit waste gases? Are those the costs either of mitigation or adaptation when amending harmful climate change effects? Or does the distribution refer to the allocation of the atmosphere's limited capacity to absorb GHG? With an aim to clarify this issue, in the next section, I will determine on what exactly I will be referring to as the main subject of distributive justice in the context of climate change.

²² IPCC (2014), p. 13.

3. Distribution of what and among whom?

I think it is very useful to focus the attention on four questions adduced by Simon Caney, which aim at determining the scope of international justice. These are the following:

- "(1) What sorts of entities are included within systems of distributive justice (humans, all sentient creatures, collective entities such as states or nations)?
- (2) Who are the rightful recipients of goods, and who is obligated to distribute these goods?
- (3) What should people have fair shares of (income, happiness)?
- (4) According to what criterion of distributive justice should goods be distributed (equality, according to the desert, or the market)?"²³

In this section, I will address questions (1) and (3), and later on (2) and (4), as they are closely linked to the subject of distributive principles, but in the context of environmental justice. Regarding (1), Caney poses the central question in the following way: what is the relevant unit of analysis? And in relation to the global climate change, who is the main actor of pollution and emission of GHG, i.e. among whom should the benefits and burdens of climate change be distributed? Are there one or more entities, and which of these play the greatest role?²⁴ In dealing with this issue, he states few possibilities as probable answers: (a) *individuals* – for example, individuals use electricity for heating and consume fossil fuels by driving cars and in that manner are responsible for GHG emission; (b) *economic corporations* – e.g. they consume vast amounts of fossil fuels and bring about deforestation; (c) *states* – many

²³ Caney (2005), p. 103.

²⁴ Caney (2005), p. 754.

authors consider nation-states to be the main unit of analysis in a sense that they decide on whether a country should cut back on GHG emissions or not; (d) *international regimes and institutions* – some argue that the causes of climate change should not be traced to 'states' or 'countries' but rather to international institutions, that by promoting economic growth encourage countries to engage in GHG emission activities.²⁵

So, who of these four actors should be considered to be the main polluter and bear responsibility for climate change? Caney differentiates between two main approaches - the *individualist* and the *collectivist* position and endorses the individualist one. Hence, he argues that individuals are basic units for allocating responsibility for GHG emissions and thinks that one position excludes the other. Conversely, Paul G. Harris criticizes the standard 'among countries' view and argues that a discussion about fair global distribution should not be restricted to nation-state actors, nor to individuals, as in the Caney's case. Moreover, it should take into account different groupings of people, such as non-governmental and international organizations, multinational corporations, as well as individuals overall.²⁶ He asserts the reason for that to be the fact that the world is comprised of diverse actors that relate to one another in various complex, cross-cutting and cooperative ways that have a significant influence on the course of international relations, analogous to the relations between individuals in the domestic realm.²⁷ We can see that Caney, for example, focuses only on individuals as the relevant unit of analysis, and Harris takes into account all the subjects responsible for negative climate change effects.

Various commentators have referred to different entities and consequently, the notions of distributive principles tend to apply to distinct actors, as we shall see later on. For this reason, I don't want to support strictly individualist nor collectivist approach, but will in that respect refer to two

²⁵ Caney (2005), p. 754., 755.

²⁶ Harris (1999), p. 7.

²⁷ Ibid., p. 7.

distinct entities. On the one hand, *individuals*, as actors who have certain rights regarding the benefits connected to global climate change, and on the other, *nation-states*, i.e. *countries* as crucial actors in international relations with a corresponding institution, i.e. a government with an important role of decision-making. Taking this into account, every individual has a right to his or her share of the atmosphere as a common good and is responsible for pollution while using its capacity to absorb waste gases. In addition to this, his or her right to GHG emission can be limited by a state's decision to cut back on GHG emissions. This 'twofold approach' that encompasses individual actors, as well as nation-states, is nicely illustrated in the next citation: "Justice ought to be aimed at individuals, but states are the mediators that act to achieve it."²⁸

Regarding (3), the issue at stake is what exactly should people/states have fair shares of? We must determine the exact good to which we will apply principles of distributive justice. In the context of climate change, authors again diverge when it comes to defining the subject of distribution. At this point, it is important to precisely define what kind of good is *the atmosphere*, and in what way does it, for example, differ from a *stable climate*. This distinction is nicely described by Christian Baatz & Konrad Ott.²⁹ According to them, the difference is evident in terms of two conditions: excludability and rivalry. The atmosphere, understood as the limited earth's capacity to absorb greenhouse gases and other pollutants, represents:

"A *global commons* which is non-excludable but rival in use: when it is provided to some others cannot be prevented from consuming the good as well (non-excludability) and consumption of the good by some constraints the consumption of others (rivalry)."³⁰

²⁸ Harris (1999), p. 9.

²⁹ Baatz & Ott (2015)

³⁰ Baatz & Ott (2015), p. 2.

But, if we successfully prevent negative impacts of climate change, Baatz & Ott argue that we have realized a new good, i.e. a protected or stable climate. It differs from the atmosphere regarding the rivalry condition.

"Consumption of this good is non-rival and non-excludable. Others cannot be prevented from benefiting from a stable climate and consumption of some does not inhibit the consumption of others."³¹

In this respect, stable climate falls under the category of *public goods* (non-excludability and non-rivalry), as typical examples like national defence or roads. Although the atmosphere's limited ability to absorb GHG (global commons) represents an important aspect of the discussion on distribution, this is a too simplistic way to approach the issue of distributive justice regarding global climate change. As we have already seen, distribution has to pertain to the benefits and burdens connected to the allocated good. The atmosphere provides us with benefits (while using its capacity, we produce goods which benefit us), as well as burdens (in order to maintain its ability to absorb our GHG, we have to cope with different burdens). So, what these benefits and burdens might be? For example, Lukas H. Meyer and Dominic Roser argue that the answer to this question are *emissions*, or to be more precise *tradable emissions rights*. In connection with this, the goods to which we apply distributive principles refer to the *benefits* from emissions, i.e. the use of emission rights.³² They go on stating that:

"(E)mitting itself is not beneficial but rather the activities – such as industrial production or the flights into vacation – which have as their necessary by-product emissions. It would thus be still more precise to speak of benefits from emission generating activities."³³

³¹ Baatz & Ott (2015), p. 3.

³² Meyer & Roser (2006), p. 227.

³³ Ibid., p. 227.

Other authors, such as Harris, write about the benefits and burdens linked to environmental pollution caused by human-induced environmental changes. As examples of *benefits*, he cites the protection from harmful ultraviolet light from the sun, as well as benefits associated with international agreements, financial aid by the Multilateral Fund, technology transfers on preferential terms and extensions in emissions schedules, etc. On the other side, there are *burdens* connected to climate changes, and Harris emphasizes the following ones: the harmful effects of ozone depletion (e.g. skin cancers, damage to agriculture and fisheries) that are more severe in poor developing countries; direct costs associated with ozone-destroying chemical emissions reductions, and restrictions on the beneficial uses of ozone-destroying chemicals, also in larger part felt by developing states.³⁴

Furthermore, Caney defines the subject of distributive justice in terms of the distinction of *two kinds of burdens* imposed by climate change. First, *mitigation burdens*, that designate the costs to actors of not engaging in emission activities which cause harmful effects of climate change. For example, mitigation involves cutting back on activities like the burning of fossil fuels, using of cars, electricity, and air flight, as well as investing in other energy resources, such as renewable energy. And second, *adaptation burdens*, that represent the costs to actors of adopting measures which enable them to cope with the negative and harmful effects of climate change.³⁵

We can notice that various thinkers define the scope of international distributive justice concerning the climate change in a slightly different way, but what they generally agree on is that the subject of distribution refers to certain *benefits and burdens*, as is commonly discussed in general theories of global justice. So, similarly to the previous 'twofold approach' regarding responsible actors, here we have a resembling state of affairs. In the following text, where I

³⁴ Harris (1999), p. 9.

³⁵ Caney (2005), p. 751., 752.

will revolve the discussion around the principles of distributive justice, I will address next two aspects of climate change distributive issue: first, the allocation of *tradable emissions rights* to use the remaining atmosphere's capacity to absorb waste gases; and secondly, the distribution of the costs of climate change *mitigation* and *adaptation*. I think that the benefits related to climate change are most comprehensible in terms of emissions rights because all other benefits come with the utilization of those rights. When it comes to climate change burdens, I think it is useful to refer to the costs of mitigation and adaptation, as they clearly correspond to emissions reduction activities. Also, distributive principles have to ascribe certain *entitlements* and *duties* to responsible actors. With respect to that, entitlements are frequently manifested in some kind of rights that humans possess, and duties in international relations often represent the costs and financial obligations of rich countries to the poor ones. In the section that follows, I shall present some general notions and concepts underlying the discussion of distributive principles, and then try to apply those principles in the context of global climate change.

4. Time-slice and historical principles

Relevant for the discussion about justice in the climate change context, an important distinction should be mentioned, presented by Robert Nozick in his seminal work *Anarchy, State, and Utopia*, and that is between *historical* and *time-slice* distributive principles. According to Nozick, conception of distributive justice can be historical, where whether a distribution is just depends upon how it came about, or it can refer to current time-slice principles of justice, which hold that the justice of a distribution is determined by how things are distributed (who has what) as judged by some structural principle of just distribution. Thus, when determining if a distribution is just, we can either look how the situation came about (take notice of the historical background of it) or question if the existing distribution satisfies the specific principle of fairness at a particular point in time.³⁶

Having in mind this distinction, we can raise a question what 'type' of distributive principle is more convenient for applying to the climate change context? Or, which principle is 'more competent' in realizing a fair distribution of climate change benefits and burdens? I would like to start the discussion by referring to the established international principle of '*common but differentiated responsibilities*' of the UNFCCC, as well as regulations from the Kyoto Protocol, which determined that:

"(I)ndustrialized countries reduce their greenhouse emissions by about 5 percent below their 1990 level no later than the year 2012. To achieve this goal, the protocol established significant cuts in

³⁶ Nozick (1974), p. 153.

pollution – 8 percent for the European Union, 7 percent for the United States, and 6 percent for Japan."³⁷

Developed countries were assigned the biggest cuts in pollution because they are considered to be the greatest polluters. On the contrary, developing countries such as China and India weren't assigned any binding targets, and in that way, the Kyoto framework imposed a great burden on rich industrialized states and their energy consumption patterns, especially on the US, that is considered to be the biggest polluter.³⁸ The justification for such decision is the fact that developed countries are principally responsible for the current high levels of GHG in the atmosphere as a result of more than 150 years of industrial activity.³⁹ Since the Industrial Revolution, some countries developed more, and as a result, produced more GHG, while others achieved much weaker economic growth, as well as emitted GHG far less. This inequality continued to the present day and many policy makers try to amend it, i.e. reduce the overall GHG emissions into the atmosphere, while at the same time, meet every nation's wants and needs. This is a quite challenging assignment, as there are different requirements for reducing carbon emissions for developed and developing nations.

The question arises: how exactly should we allocate responsibility for harmful climate change effects and the burdens (costs of GHG mitigation and adaptation) among developed nations of the North and the developing nations of the South? Some think that *historical moral responsibility* for GHG emissions from the past must be taken into consideration when distributing the burdens of climate change mitigation and adaptation. Others are inclined to argue that this approach is not suitable and that we should introduce the concept of *equality* into this debate in order to make distribution more just.

³⁷ Amstutz (2013), p. 251.

³⁸ Ibid., p. 251.

³⁹ Kyoto Protocol (1997)

So, a philosophical position that resembles the decision of the international community (as the one from the Kyoto Protocol) to place unequal duties of justice on developed and developing states, takes into consideration past emissions and polluters. Hence, some philosophers (e.g. Shue⁴⁰, Neumayer⁴¹, Caney⁴², Baatz⁴³) support *historical-accountability* approach, or *the 'polluter pays' principle (PPP)*, which "offers a responsibility-based account of the proper distribution of costs: those who are responsible for causing the problem through their historical emissions are the ones that should pay, and in proportion to those historical emissions."⁴⁴

They argue that developing states should be granted higher emissions rights on grounds of developed countries' greater historical responsibility for GHG emissions. Accordingly, the developed nations should bear greater responsibility for combating climate change with respect to the mitigation of its harmful effects and adaptation, i.e. dealing with the costs of GHG reduction. Simply put by Caney:

"Those who have caused a problem (such as pollution) should foot the bill. In other words, the key principle is that 'the polluter should pay'."⁴⁵

According to Vanderheiden, UNFCCC acknowledges that 75 percent of past GHG emissions is caused by the world's developed industrialized countries. Thus, the PPP tells us they ought to be allocated primary responsibility for amending the harmful climate change effects.⁴⁶ The industrialized nations of the North must shoulder much greater mitigation and adaptation burdens, but still,

⁴⁰ Shue (1999)

⁴¹ Neumayer (2000)

⁴² Caney (2005)

⁴³ Baatz (2012)

⁴⁴ Vanderheiden (2008), p. 70.

⁴⁵ Caney (2005), p. 752.

⁴⁶ Vanderheiden (2008), p. 71.

that doesn't exempt other poorer countries from the commitment to reduce GHG emissions. They have to shoulder less burden, as a consequence of a lesser causal responsibility for pollution.

Nevertheless, this model has been criticized that binding targets for GHG emission imposed significant economic burdens on the developed nations. Some thinkers hold that the PPP is not just because it places unequal burdens on different countries and in that way deprives certain individuals of their fair share of the atmosphere. According to the most commonly advocated time-slice principle, and that is *equal per capita emissions shares* (Singer⁴⁷, Baer⁴⁸), every individual should have a right to an equal share of the atmosphere's capacity to absorb greenhouse gases, while past GHG emissions and polluters are ignored.

A crucial thing to notice are the different approaches of a historical account and equal per capita shares to the subject of global distributive justice. Thus, historical accountability approach centres the debate on the allocation of the climate-induced burdens (the costs of mitigation and adaptation) between developed and developing countries, while equal per capita shares approach focuses on the distribution of emissions rights between individuals and the division of a remaining capacity of the atmosphere to absorb GHG. They differ in this respect due to diversity and complexity of the issues linked to the realm of global climate change. Accordingly with that, various normative principles (or a combination of several principles) could be applied to different aspects of climate change issue. I shall examine each of the two mentioned approaches/principles respectively and try to show that historical responsibility approach is a better solution to the problem of global climate change, as opposed to equal per capita shares approach. Thus, I will argue that equality does not indicate an adequate criterion for the distribution of climate change benefits and burdens. Also, while I do not want to deny every individual's equal right to a

⁴⁷ Singer (2010)

⁴⁸ Baer (2002)

global commons such as the atmosphere, I argue that questions of just distribution shouldn't be founded on such a principle separated from historical reasons that have influenced present unjust distribution.

4.1. Equal per capita shares vs. historical accountability approach

It is generally thought that every human being should have a right to an equal share of the atmosphere's absorbing capacity as it is a global common good belonging to all humans, irrespective of one's national affiliation. It seems self-evident that neither particular individual should have a larger share of this common good than others. But clearly, this is not the case in today's world where "the wealth of the developed nations is inextricably tied to their prodigious use of carbon fuels (a use that began more than 200 years ago and continues unchecked today), and it is a small step from here to the conclusion that the present global distribution of wealth is the result of the wrongful expropriation by a small fraction of the world's population of a resource that belongs to all human beings."⁴⁹

So, when talking about concerns linked to *equality* in the context of climate change, we generally think of an unequal use or misuse of a global commons— specifically, the atmosphere's capacity to absorb human-produced greenhouse gases (e.g. carbon dioxide, methane and nitrous oxide), which destroy ozone layer necessary for the protection of the earth and environment from the damaging influence of sun's rays. The issue at stake is that this global common good is not equally distributed among the world's individuals. And still, the atmosphere is considered to be a common good and no person can be excluded from using it. On the other hand, we have already said that besides

⁴⁹ Singer (2010), p. 189.

non-excludability, what characterizes the atmosphere is that it is rival in consumption. The problem arises when we have a limited earth's sink capacity to absorb GHG, i.e. a definite amount of acceptable gas emissions can be tolerated. Baatz & Ott even claim that the feature of non-excludability is controversial for the following reason:

"This seems to indicate that the respective good is not a *pure* global commons because others can be excluded to use the good to a certain extent under a regulatory scheme."⁵⁰

International conventions and regulations on climate change can impose certain entitlements and duties on countries in terms of a determined amount of GHG emissions either country is allowed to emit. These decisions also affect GHG emissions rights of individuals. The main question is: how should we decide to distribute the benefits of climate change in the form of emissions rights?

As a representative of an equal per capita emissions rights approach, Peter Singer argues that "everyone has the same claim to part of the atmospheric sink as everyone else."⁵¹ Similarly, another supporter of this position Paul Baer argues that "the central argument for equal per capita rights is that the atmosphere is a global commons, whose use and preservation are essential to human well-being."⁵² Furthermore, regardless of historical responsibility, all countries must participate in reducing greenhouse gas emissions. Here we can ask a question why should then emissions rights be assigned equal per capita, and not equal by country? Some hold that every country should have a right to an equal share of the atmosphere, but Baer gives us justificatory counter-argument that this position isn't plausible because the benefits of the use of the resource fundamentally accrue to people; the allocation of emissions rights to countries is a pragmatic compromise, and he states that no one would argue that

⁵⁰ Baatz & Ott (2015), p. 2.

⁵¹ Singer (2010), p. 190.

⁵² Baer (2002), p. 401.

some small country, such as Fiji, should have the same emissions rights as the big industrialized countries, such as the United States.⁵³

The essence of equal per capita shares approach is quite easy to grasp due to its simplicity – the rights to emit GHG should be distributed equally among all the people. The supporters of this view, such as Singer and Baer, think that the historical responsibility model of allocating the burdens of climate change to past big polluters is not the right solution because it puts a heavy burden on the developed nations. At first, their position sounds appealing because it allows developing countries such as China and India to increase their emissions with an aim to develop and 'catch up' the developed countries that are simultaneously obligated to decrease their GHG emissions. But we can notice that the objection directed to the historical account (that it is not favorable for developed nations) can also be valid for equal per capita shares approach.

Singer and Baer are aware of the difficulty of applying *strict equality* to the distribution of permits to use the atmosphere's capacity to absorb GHG. Emphasized by Singer:

"(T)he real objection to allocating the atmosphere's capacity to absorb greenhouse gases to nations on the basis of equal per capita shares is that it would be tremendously dislocating for the industrialized nations to reduce their emissions so much that within five, ten or fifteen years they were not producing more than their share, on a per capita basis, of some acceptable level of greenhouse gases."⁵⁴

Both philosophers suggest a mechanism of *emissions trading* as a solution to this objection, that is fully compatible with the equal per capita shares

⁵³ Baer (2002), p. 399.

⁵⁴ Singer (2010), p. 195.-196.

principle. They argue that it can make the developed countries' big burdens of coping with climate change much easier while producing great benefits for the developing nations. It works in a way that countries with below-average GHG emissions are allowed to sell their emissions rights to countries with excessive levels of GHG pollution. That way rich countries gain more rights to emit GHG and developing countries receive needful financial support. This mechanism is actually implemented and various countries have adopted it.

While it has quite a persuasive strength, it is not without its challenges. Amstutz asserts that the trade of emissions rights will be performed by governments. So, it is quite doubtful that the financial aid the poor countries would get from selling their emissions rights will benefit the most needful people of that countries. Also, the effort to reduce negative climate change effects becomes a part of the enormous global market, and every human's right to use the atmosphere becomes commercialized.⁵⁵ In addition to this, Armstrong asserts another morally problematic aspect of emissions trading:

"In some ways, we might think that the idea of emissions trading is morally suspect – because it allows the wealthy to continue polluting far too much, just because they can afford to buy rights from the poor – rights which they cannot use at present because they are poor and 'under-developed'."⁵⁶

After all, it is questionable whether poor societies would in that way have a requisite opportunity to develop in the same manner as industrialized countries did in the past. I think that this weaknesses and uncertainties linked to the mechanism of emissions trading represent a significant challenge for the time-slice principle of equal per capita shares.

⁵⁵ Amstutz (2013), p. 254.

⁵⁶ Armstorg (2012), p. 203.

Another challenge is introduced by Stephen M. Gardiner. He argues that per capita shares approach doesn't take into account the fact that GHG emissions may play very different roles in people's lives, may vary over time (with the existing technology), as well as the need for them depends on the available alternatives. Additionally, he distinguishes between emissions that are used to produce *luxury* items and the ones that are necessary for most people's survival, i.e. *subsistence* emissions.⁵⁷ It is unquestionable that people should have rights to the minimum emissions necessary to sustain their lives. But, what about luxury emissions and how they ought to be distributed? Gardiner claims that "(t)he guaranteed minimum principle does not imply that allocation of any remaining emissions rights above those necessary for subsistence must be made on a per capita basis. The guaranteed minimum view is distinct from a more robust egalitarian position which demands equality of a good at all levels of its consumption, hence, above the minimum some other criterion might be adopted."⁵⁸

We might argue that regarding the so-called 'luxury emissions', poor developing countries should be granted greater emissions rights, reflecting their greater needs and a right to develop. On the other hand, rich developed countries should be assigned less rights to emit GHG, due to their past emissions. But, before examining the historical account, i.e. the polluter pays principle (PPP) as an alternative solution to the distributive issues of climate change, I want to show how equal per capita emissions shares approach is flawed in a meaningful way. Namely, it has been criticized to be inappropriately *atomist*. As a starting point for an explanation of atomism in this context, I would like to introduce Baatz & Ott's account of equal per capita shares approach, *emissions egalitarianism (EE)*, but which does not differ in any significant way from already described time-slice principle. In this paper's introductory part on global

⁵⁷ Gardiner (2004), p. 584.

⁵⁸ Ibid., p. 585.

distributive justice, I have mentioned an egalitarian approach to global distributive justice, and equal per capita emissions shares falls under this broader theory of justice since it adverts to *equality* as the normative time-slice principle for the distribution of emissions rights. So, the argument for EE is structured in the following way:

"(P1) The atmosphere is a global commons.

(P2) A global commons is owned by everyone equally.

(P3) If a global commons is owned by everyone equally, the right to use it should (*pro tanto*) be distributed equally amongst all.

(C) The right to use the atmosphere should (*pro tanto*) be distributed equally amongst all."⁵⁹

The third premise is problematic because it is only plausible if we endorse atomist position, which I think is not appropriate one for the climate change context. The aim of EE is to distribute emissions rights, but as Baatz & Ott argue, it fails in dealing with the burdens of climate change, by which they refer to the costs of mitigation and adaptation. The burdens of climate change seem to be too important to be neglected, so we can rephrase the third premise:

"(P') If a global commons is owned by everyone equally, the costs related to its (over-)use and maintenance should be distributed equally amongst all."⁶⁰

Here Baatz & Ott refer to mitigation and adaptation as two different realms of climate change that should be addressed separately. Thus, EE could account for the costs associated with *mitigation* because when we determine a cap on total GHG emission output in terms of assigning equal per capita emissions shares, we act in view of reducing the engagement in activities that produce GHG. But on the other side, EE doesn't give us a solution to the

⁵⁹ Baatz & Ott (2015), p. 1.

⁶⁰ Ibid., p. 6.

question of distribution of the costs of *adaptation*.⁶¹ It seems unreasonable to assert that the costs of amending the negative effects of climate change should fall on developed and developing countries equally.

In that respect equal per capita shares approach is considered to be atomistic. It does not consider all the relevant aspects of climate change, including the costs of both mitigation and adaptation. If we take a *holist position* (a principle or a combination of principles should apply to all the realms of climate change), then it is difficult to defend emissions egalitarianism as an appropriate approach to distributive issues of climate change.⁶² Thus, Baatz and Ott's conclusion is that "it is very unlikely that future emissions entitlements ought to be distributed equally when costs for adaptation and rectification are included."⁶³

So, is there some better solution to these difficulties, and more acceptable distribution principle regarding climate change mitigation and adaptation? I don't want to disclaim every person's equal right to the use of global common goods such as the atmosphere, but I think that equality isn't favorable solution for the just distribution of climate change burdens. Also, equal per capita shares approach ignores *past* GHG emissions, as well as benefits and burdens associated with them. This is also an important intergenerational aspect of climate change that has to be addressed.

An alternative approach to these issues, that I have already mentioned before, is *historical accountability approach*, i.e. *the polluter pays principle*. It takes into account polluter's historical responsibility. For example, Henry Shue justifies the historical responsibility model of fairness with the following formulation of principle of equity:

⁶¹ Baatz & Ott (2015), p. 6.

⁶² Ibid., p. 6.

⁶³ Ibid., p. 6.

"When a party has in the past taken an unfair advantage of others by imposing costs upon them without their consent, those who have been unilaterally put at a disadvantage are entitled to demand that in the future the offending party shoulder burdens that are unequal at least to the extent of the unfair advantage previously taken, in order to restore equality."⁶⁴

So, present inequality in putting greater binding targets for richer countries is justified with their greater historical liability for past GHG emissions. As Shue argues, applying this principle to the problem of climate change mitigation and adaptation, it would mean that those countries whose activities have damaged the atmosphere ought to bear sufficiently unequal burdens to amend the inequality that they have caused. Nevertheless, in this case, everyone is bearing costs – because the damage is universal – but the primary duty-bearers for the costs of mitigation and adaptation are those who have become rich in the process.⁶⁵

We can see how inequality in this specific context doesn't necessarily have to designate a distributive principle to be unfair. Ignoring the historical responsibility of rich countries, i.e. past polluters, would give them a licence to disadvantage the poorer countries. As though they aren't already in a disadvantaged position by being poor. In fact, I think that Eric Neumayer has given a crucial argument in favor of this position as he argues how the historical accountability is actually supported by the principle of *equality of opportunity*. With respect to that, his position can partially be considered egalitarian, but in a wholly different way from emissions egalitarianism. His position is expressed in the following quotation:

⁶⁴ Shue (1999), p. 534.

⁶⁵ Ibid., p. 534.

"(T)he natural absorptive capacity of the planet earth that allows for the decay of a certain amount of greenhouse gas emissions truly belongs to nobody and should, therefore, be equally assigned to everybody in order to give everybody *equal opportunity* to benefit from emissions. To ignore historical accountability would mean to privilege those who lived in the past in the developed countries and to discriminate against those who live in the present or will live in the future developing countries."⁶⁶

Chris Armstrong also argues in favor of global equality of opportunity. He asserts that if we support the view according to which individuals' lives should not start at a disadvantage because of his or her ethnicity or gender (as morally arbitrary features), then we ought to also support the view that someone who is born in Mozambique rather than Monaco shouldn't be at a disadvantage because of his or her nationality.⁶⁷ Unfortunately, this is the case:

"Being born into a poor country deals just as bad (and arbitrary) a blow to one's prospects as being born a serf rather than a lord used to in feudal times. If we object to the inequalities of feudalism, we should object to *global* inequalities of opportunity too."⁶⁸

Indeed, although equal per capita shares approach in a way "takes care" of future generations to come and respects everyone's right to a common good, what about the violations of equal emissions rights of past persons? It seems that egalitarian response to climate change disregards past persons' equal opportunities for using the atmosphere and developing. Consequently, it puts present individuals from different countries in an unequal position, mostly unfavorable position of suffering detrimental effects of climate change. Irrespective of a certain attraction of equal per capita share principle in a sense

⁶⁶ Neumayer (2000), p. 188.

⁶⁷ Armstrong (2012), p. 59.

⁶⁸ Ibid., p. 60.

of "its simplicity, hence its suitability as a political compromise and because it seems likely to increase global welfare"⁶⁹, and the fact that it is more convenient for the rich countries, I think the past emissions and benefits produced by them shouldn't be neglected. It is important to address this aspect of climate change, as well as take into consideration all the realms of climate-induced costs. I have argued that time-slice distributive principle, i.e. principle based on equality fails to do so.

However, I don't think merely the polluter pays principle is sufficient for the application in the context of climate change, but should be complemented with an additional principle. Before indicating a combination of principles in question, in the next section, I will be dealing with objections directed to the polluter pays principle. Thus, I will present three most common ones that are generally thought to represent a threat of holding developed countries responsible for pollution and GHG emissions in the past. I shall also argue that various philosophers respond to these objections in a successful way.

4.2. Objections to the polluter pays principle

First, Michael Grubb objects that past emissions enabled the development of public goods, such as modern medicine and better technologies, that have also raised living standards in developing countries and made it easier for them to gain the same living standards with fewer emissions.⁷⁰ This means that some of the benefits of previous GHG emissions aren't restricted to developed nations that have emitted those GHG. Here we can make an analogy with Adam Smith's theory of an "invisible hand" and the justification of the rich countries' right to their wealth, described by Peter Singer. Smith thinks that the rich don't deprive

⁶⁹ Singer (2010), p. 194.

⁷⁰ Grubb et al. (1992), p. 316.

the poor of their "portion" of the world's wealth because they divide with the poor the products of all their improvements, i.e. they spread their wealth throughout the economy. He justifies his position with a principle of an "invisible hand" that distributes goods 'nearly the same' as it would have if a principle of equality had distributed those goods.⁷¹ This analogy is not successful in supporting the posed challenge to the historical responsibility approach because of the following reason:

"...many of the world's poorest people, whose shares of the atmosphere's capacity have been appropriated by the industrialized nations, are not able to partake in the benefits of this increased productivity in the industrialized nations - they cannot afford to buy its products - and if rising sea levels inundate their farmlands, or cyclones destroy their homes, they will be much worse off than they would otherwise have been."⁷²

Also, with an average American who uses more than 15 times as much of the atmosphere's limited capacity to absorb GHG as the average Indian, it can be clearly seen how the rich effectively deprive the poor of an equal opportunity to develop in manner rich countries once did in the past.⁷³ Eric Neumayer responds to the posed objection as well. He argues that it is difficult to measure the exact emissions shares which we wish to attribute to the provision of the public goods such as medicine and technology, that developed countries have benefited from. In addition to this, he stresses that the most benefits from emissions activities have contributed to the developed countries and not to the rest of the world, especially not to under-developed and poor parts.⁷⁴

⁷¹ Singer (2010), p. 188.

⁷² Ibid., p. 188.

⁷³ Ibid., p. 189.

⁷⁴ Neumayer (2000), p. 189.

The second objection is generally known as the 'objection from ignorance.' It says that people in the past were unaware of the harmful effects of their GHG emissions. This objection implies that someone can be blamed for an act only if he or she has the knowledge of the effects this act produces. Singer's version of this objection is made in the statement that at the time when the developed nations emitted the largest amount of greenhouse gases into the atmosphere, they couldn't know the limits to the atmosphere's capacity to absorb those gases.⁷⁵ But, Neumayer refutes it by giving several notions. The first warning of global warming dates back to the last century and it is fair to say that it was not before the mid-1980s that the public and decision-makers became aware of the greenhouse effect.⁷⁶ This claim can additionally be supported by the line from the IPCC assessment report:

"Changes in many extreme weather and climate events have been observed since about 1950. Some of these changes have been linked to human influences."⁷⁷

In response to this 'objection from ignorance', Neumayer further argues that historical accountability approach isn't aiming at putting moral blame or guilt on present generations for what their ancestors have done in the past. It does not even require from responsible actors that they had to be consciously and deliberately aware of the harmful effects that they had caused concerning a shared global commons- the atmosphere.⁷⁸ The historical account just tries to amend present inequities linked to the global climate change by assigning greater responsibilities and duties on the rich developed countries because they have exploited earth's sink capacity in excessive ways in the past. It is a matter of their compensation for "taking" more shares than it actually belonged to them

⁷⁵ Singer (2010), p. 190.

⁷⁶ Neumayer (2000), p. 188.

⁷⁷ IPCC (2014), p. 7.

⁷⁸ Neumayer (2000), p. 188.

while disrupting poor societies' equal opportunity to use a global commons that is supposed to belong to all the humans, irrespective of their place and date of birth. Similarly, Henry Shue argues that the objection from ignorance identifies punishment for an action and being held responsible for an action. Namely, it is unfair to punish someone for actions they couldn't have known were negative. But, it is not unfair to make them amend those negative effects because they caused the problem.⁷⁹

We can make an analogy between holding past polluters accountable for present climate change effects on the one side, and a situation of *affirmative action* on the other. Affirmative action in most cases takes a form of a positive discrimination where some disadvantaged groups, due to historical reasons (e.g. slavery), are favored in certain areas of social cooperation. For example, a quota system can be used to secure a certain number of job vacancies for African-Americans in the US due to their historical suffering from discrimination and oppression. Present generation's white members are not directly guilty for their ancestors' wrongdoings. Nevertheless, they enjoy certain benefits that arose from that actions. Thus, they can be held accountable for today's disadvantaged position of African-Americans and affirmative action represents a mechanism for a rectification of the produced damages. If we accept affirmative action as a fair approach to social justice, we should also support the polluter pays principle according to which we hold developed countries accountable for negative impacts of climate change, that are largely felt in poor countries. Accordingly, we ought to impose greater duties of dealing with climate-induced costs of mitigation and adaptation on those rich societies.

Finally, there is a 'problem of past generations'. Paul Baer asserts that it is dubious to hold living persons responsible for the activities of their ancestors.⁸⁰ In other words, people that are currently alive shouldn't be considered

⁷⁹ Shue (1999), p. 535.

⁸⁰ Baer (2002), p. 402.

responsible for the actions of their ancestors, that have caused the harmful climate change effects. Who is then responsible and who should pay the costs of climate change mitigation and adaptation when the polluter isn't alive anymore? Eric Neumayer opposes this objection by asserting that "fundamental counter-argument against not being held accountable for emissions undertaken by past generations is that the current developed countries readily accept the benefits from past emissions in the form of their high standard of living and should therefore not be exempted from being held accountable for the detrimental side-effects with which their living standards were achieved."⁸¹

This reply is known as the *'beneficiary pays' principle* (BPP), that represents a slightly different interpretation of the PPP. It is examined in more detail by Christian Baatz. He admits that with respect to this objection, the scope of the PPP is limited. While it gives satisfying perspective in the intra-generational context, it does not do so within the intergenerational one. He also claims that it is very demanding to justify the position according to which we hold nations or people responsible for GHG emissions since the industrial revolution, as anthropogenic climate change can be traced to the 250 years in the past.⁸² He goes on stating that we can more easily account for the developed countries' obligation to compensate negatively affected members in poor societies since 1990 due to the appropriation of their fair shares (when we can claim with certainty that climate change is in part human-induced). The problem arises when we must address damages caused by GHG emissions before 1990, the ones which cannot be associated with the resources raised from present generations and according to the polluter pays principle.⁸³ So, with the beneficiary pays principle, Baatz defends the position that present people and states could be liable for their ancestors' emissions and that compensation might

⁸¹ Neumayer (2000), p. 189.

⁸² Baatz (2012), p. 5.

⁸³ Ibid., p. 6.

be due even if the harmful effects were not caused by the agent herself.⁸⁴ He has also given a specific definition of BPP that can be summarized in the following way:

"In case agent A performs action X that harms agent C, agent B is under an *obligation to compensate* C, if:

- (i) C's harm cannot be (fully) addressed by the responsibilities of A (who might be dead, unable or inhuman),
- (ii) B receives a net-benefit from X.

B has to compensate until:

- (a) further payments would make B fall below a sufficiency threshold,
- (b) B has delivered all her net-benefit,
- (c) C's harm is fully compensated."⁸⁵

For now, I find the BPP to be a satisfying principle for the distribution of responsibilities for GHG emissions and accompanying costs of mitigation and adaptation. Intuitively, it has a strong appeal and I think it successfully responds to the crucial intergenerational problem for the polluter pays principle in its original form. However, I would like to mention one more worry about taking a historical approach as the only way of dealing with the distribution of environmental responsibilities. As indicated by Caney, historical accountability approach may be unfair for the currently poor states. If we consider a country that has in the past caused a great deal of pollution but remains impoverished, we might argue that it shouldn't bear the burdens of paying the costs for its pollution. Thus, the PPP/BPP seem unfair in that they ask too much of the poor

⁸⁴ Baatz (2012), p. 6.

⁸⁵ Ibid., p. 8.

polluters.⁸⁶ In the following section, I will present an answer to this problem by introducing a complementary principle- an *ability to pay principle*.

4.3. Ability to pay principle

In most cases interconnected with the greater historical responsibility comes the greater *capability* of a country to reduce GHG emissions and cope with the burdens of mitigation and adaptation. According to Vanderheiden, that capability denotes "a function of national wealth, current GHG emission patterns, and potential for improvement in energy and transportation infrastructure."⁸⁷ It is generally thought that what makes one country more capable of reducing GHG emissions than another are financial resources and economic wealth.

With respect to this, the additional principle of equity that should complement the polluter pays principle is greater capability, i.e. ability to pay. I will present three formulations of it. First, I will examine Simon Caney's so-called 'hybrid account', and secondly, describe Henry Shue's proposal and the one of David Miller. My aim then is to show that their positions present the most satisfying solution to the distributive issue of global climate change, in view of the fact that they fall under the minimalist approach to global justice (human rights-based approach).

⁸⁶ Caney (2005), p. 763.

⁸⁷ Vanderheiden (2008), p. 73.

4.3.1. Caney's hybrid account

Contrary to egalitarian approach to global distributive justice, Simon Caney supports *minimalist* approach and claims that people's need to meet basic human rights can impose duties of distributive justice. Thus, he constructs his 'hybrid account' theory in regard to the notions of *human rights* and *duties*, i.e. obligations to others. In addition to this, he contends that we can look at principles of distributive justice from two perspectives, an 'entitlement' perspective and a 'duty-bearer' perspective. While the former considers the reasons why people have rights to certain goods, the latter refers to reasons why people are obligated to others.⁸⁸

So, first, I will explain his human rights approach to the international distributive justice in the context of climate change problem. Caney grounds this approach on Joseph Raz's theory of rights and emphasizes the crucial role of human rights in the protection of human interests. To be clearer, he summarizes his perspective in the following assumption:

"A person has a right to X when X is a fundamental interest that is weighty enough to generate obligations on others."⁸⁹

According to him, climate change has the impact on persons' fundamental human rights, while endangering their basic interests. In what way? We can start from this assumption:

"Persons have fundamental interests in not suffering from:

- (a) drought and crop failure;
- (b) heatstroke;
- (c) infectious diseases (such as malaria, cholera, and dengue);

⁸⁸ Caney (2005), p. 111.

⁸⁹ Caney (2005), p. 767.

- (d) flooding and the destruction of homes and infrastructure;
- (e) enforced relocation; and
- (f) rapid, unpredictable and dramatic changes to their natural, social and economic world."⁹⁰

With this premise, he contends that "persons have the human right not to suffer from the disadvantages generated by global climate change"⁹¹ and that that claim expresses a strong case in protecting basic human rights. How exactly does global climate change endangers key human rights? In his article *Climate Change, Human Rights, and Moral Thresholds*, Caney argues that climate change jeopardizes three basic human rights: the human right to life (every person has a human right not to be "arbitrarily deprived of his life"), the human right to health (all persons have a human right that other people do not act so as to create serious threats to their health), and the human right to subsistence (all persons have a human right that other people do not act so as to deprive them of the means of subsistence).⁹²

In climate change context, he argues that dangerous climate change systematically undermines the widespread enjoyment of listed human rights. Also, climate scientists are definite that current and future climate change are partially caused by human activities. Thus, the threats to persons' human rights to life, health, and subsistence are also the products of other people.⁹³ In that way, we come to the distributive implications of Caney's human-rights approach, related to allocating the costs involved in reducing negative climate change effects. Here we can again ask a central question of this paper: who has the duty to bear the burdens and costs of global climate change, i.e. what kind of form should the distribution of the duties take place in order to protect basic

⁹⁰ Caney (2005), p. 768.

⁹¹ Ibid., p. 768.

⁹² Caney (2005), p. 166.,167.,168.

⁹³ Ibid., p. 169.

human rights threatened by climate change? Caney states four types of duties with an aim to defend his 'hybrid account' that relies on attributing additional principle to the PPP/BPP and that follow from previously mentioned 'human right not to suffer from the disadvantages generated by global climate change'. For the sake of the topic of this paper, I will mention the first three duties. They are:

"(D1) All are under a duty not to emit greenhouse gases in excess of their quota.

(D2) Those who exceed their quota (and/or have exceeded it since 1990) have a duty to compensate others (through mitigation or adaptation) (a revised version of the 'polluter pays' principle).

But what of GHG emissions arising from (i) previous generations; (ii) excusable ignorance; and (iii) polluters who cannot be made to pay? These, we recall, were the kinds of GHG emission that could not adequately be dealt with by a purely 'polluter pays' approach."⁹⁴

His suggestion here is that we accept the following duty:

"(D3) In the light of (i), (ii), and (iii) the most advantaged have a duty either to reduce their greenhouse gas emissions in proportion to the harm resulting from (i), (ii), and (iii) (mitigation) or to address the ill-effects of climate change resulting from (i), (ii), and (iii) (adaptation) (an ability to pay principle)."⁹⁵

From this structured review of duties allocated to the actors involved in causing climate change, we can see in what way Caney defends his 'hybrid account', that is aimed at recognizing that the polluter pays approach needs to be complemented with the ability to pay approach. He does so by ascribing duties to

⁹⁴ Caney (2005), p. 769.

⁹⁵ Ibid., p. 769.

the most advantaged and those whose human rights are mostly threatened shouldn't be asked to bear the responsibility and pay the costs of dealing with climate change mitigation and adaptation. Similar responses are adduced by Shue and Miller.

4.3.2. Shue's proposal and Miller's principle of equal sacrifice

The ability to pay principle proposed by Henry Shue is formulated in the assertion that among the responsible actors who are bound to contribute to some common endeavour, those who have the most resources should contribute the most to the endeavour.⁹⁶ Namely, if some country significantly contributed to the environment pollution and carbon concentration in the atmosphere, but is poor and has no financial resources to remedy this damage, then it would be unfair to demand that from that country. Instead, countries with greater ability to pay should help and give financial aid for the common goal of reducing GHG emissions.

One more thing that he proposes is a *progressive rate of payment*- insofar as a party's assets are greater, the rate at which the party should contribute to the enterprise in question also becomes greater.⁹⁷ In this case, the richer the country, the greater financial contribution is supposed to be given for the climate change mitigation and adaptation. Shue then states an objection that is usually raised against progressive rates of contribution- *disincentive effects*: "If those who have more are going to lose what they have at a greater rate than those who have less, the incentive to come to have more in the first place will be much less than it would have been with a *flat rate* of contribution."⁹⁸

⁹⁶ Shue (1999), p. 537.

⁹⁷ Ibid., p. 537.

⁹⁸ Ibid., p. 538.

In other words, someone might not be as much productive if anything extra he or she produces could be deprived of their possession. Shue gives three notions to defend his theory and the equity principle formulated to justify unequal burdens. First, he is stating that being fair and providing incentives are two different matters, and there is no guarantee that whatever arrangement would provide the greatest incentives would also be fair. Secondly, concerns about incentives often arise when it is assumed that greatest production and unlimited growth are the ultimate goals of a country. It is evident that many current forms of production and growth are unsustainable and the last thing we should do is to give people reasons to consume as many resources as they can. And thirdly, there is an issue about means, which means that if we assume that our goal in specific circumstances is to stimulate more production of something we would have to ask ourselves: how much incentive is needed to stimulate that much production?⁹⁹

Shue draws up a conclusion based on the assumptions that there is already an existing inequality in the world and that the contributions for climate change mitigation and adaptation should be made by the richer countries.

"(W)hatever needs to be done by wealthy industrialized states or by poor non-industrialized states about global environmental problems like ozone destruction and global warming, the costs should initially be borne by the wealthy industrialized states."¹⁰⁰

Furthermore, David Miller offers a similar but I would say a more 'radical' view than Shue. Namely, he concurs with Shue that wealthy industrialized states should "pay the bill" for pollution and climate change. But, differs in that he absolves poor countries of any responsibility for bearing the costs of climate

⁹⁹ Shue (1999), p. 538.-539.

¹⁰⁰ Ibid., p. 545.

change. Accordingly, all acts of mitigation and adaptation should fall on the rich societies. Those societies that are facing 'endemic' poverty, should not be demanded to mitigate GHG emissions, but contrary to that, should be allowed to increase their emissions.¹⁰¹ This part of his position seems to be pretty reasonable and I think he has a point here. According to him, "richer countries should alone bear the costs of mitigating climate change, and that in so doing they should make *equal* sacrifices to their standards of living."¹⁰²

Miller has been accused of endorsing partially egalitarian approach because he asserts that those who are capable of bearing the costs of mitigation and adaptation should do so in an *equal* manner. However, he is not referring to strict equality or equal per capita shares, for those emissions above the line of poor countries' approved subsistence emissions. He emphasizes 'equal sacrifices' and by this, he means that when total emissions reduction is set, contributions of different countries (that are not poor) should be according to the amounts that are equally *costly* to them. In that way, some countries will make larger GHG reductions and the other smaller.¹⁰³ It seems that it resembles Shue's progressive rate of payment.

I find Shue's and Miller's positions to be convincing because of their reference to the importance of preserving *human rights*. Climate change is a global phenomenon and it has to be dealt with collectively. Industries in developed countries are the biggest polluters, but negative effects are primarily borne by poor people and developing countries. When we oppose the existence of industries and their development in rich countries to peoples' survival and basic needs in the poor ones, I definitely think that the latter should take precedence over the former.

¹⁰¹ Armstrong (2012), p. 197.

¹⁰² Ibid., p. 196.

¹⁰³ Ibid., p. 198.

5. Conclusion

To conclude, the main focus of this paper was the central issue concerning the application of distributive principles to the problem of allocating common burdens and benefits of the human-induced climate change among state and non-state actors. I have presented some philosophical positions and views with an aim of determining which distribution is more just and which distributive principle, i.e. a combination of principles I deem to be most suitable for climate change problem. Thus, I have described equal per capita shares approach, as a part of the egalitarian response to global distributive justice and argued that this position is inferior to the minimalist approach, which underlines the importance of including the notion of human rights and preserving them.

Global climate change raises a number of complex moral issues and questions and it is important to address them because global warming is not a problem of future generations. It is our problem as well and I think that the reduction and prevention of the negative impacts should be our main goal when combating climate change. We have seen that the consensus on the question of a fair allocation of international duties for such common endeavour is not easy to achieve. With respect to that, I think the main responsibility and correspondent duties should fall back on the rich countries of the world, both because of their greater historical liability and their advantaged position regarding financial resources and assets. By that, I don't mean that the poorer countries should give up on striving for more sustainable ways of living, but should have fewer responsibilities in amending negative effects for the reason that they are those who suffer from them in most cases.

Thus, I support the view that the historical accountability approach, combined with an ability to pay principle gives the most appropriate solution for distributing the costs of climate change mitigation and adaptation. With an aim to propose the best solution for devising a fair climate change regime, I claim

that egalitarian approach is flawed in that it does not address all the important aspects of climate change issue and that minimalist account offers preferable answer to various obstacles in constructing and implementing a fair model for controlling climate change.

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