PALACKÝ UNIVERSITY IN OLOMOUC

FACULTY OF SCIENCE

DEPARTMENT OF DEVELOPMENT

INTERNATIONAL DEVELOPMENT STUDIES

Barbora Žáčková

How green economy initiatives and strategies impact different social groups and patterns of inequality

Bachelor Thesis

Supervisor: Mgr. Petr Pavlík

Olomouc, 2015

I declare in lieu of oath that I wrote this thesis myself. All the resources I used during my work have been noted in the list of references.

Olomouc, 2015 ……

signature

UNIVERZITA PALACKÉHO V OLOMOUCI
Přírodovědecká fakulta
Akademický rok: **2013/2014**

ZADÁNÍ BAKALÁŘSKÉ PRÁCE

(PROJEKTU, UMĚLECKÉHO DÍLA, UMĚLECKÉHO VÝKONU)

Jméno a příjmení:	**Barbora ŽÁČKOVÁ**
Osobní číslo:	**R130451**
Studijní program:	**B1301 Geografie**
Studijní obor:	**Mezinárodní rozvojová studia**
Název tématu:	**Jaký dopad mají strategie a programy Zelené ekonomiky na různé sociální skupiny a modely nerovnosti**
Zadávající katedra:	**Katedra rozvojových studií**

Zásady pro vypracování:

Goal of this thesis is to analyze the social consequences of the programmes aimed at greener growth. It will consider the impact of such policies on the structural determinants of inequality and on different stakeholders.
Cílem této práce je analyzovat společenské dopady programů zaměřených na Zelený růst. Pozornost bude věnována dopadům těchto politik na strukturální faktory nerovnosti a dotčené skupiny.

Rozsah grafických prací: **dle potřeby**

Rozsah pracovní zprávy: **20 - 25 tisíc slov**

Forma zpracování bakalářské práce: **tištěná/elektronická**

Seznam odborné literatury:

McAfee, K. 2012. "Nature in the market-world: Ecosystem services and inequality." Development: Greening the Economy, Vol. 55, No. 1, pp. 2533.
Mearns, R. and A. Norton. 2010. Social Dimensions of Climate Change: Equity and Vulnerability in a Warming World. World Bank, Washington, DC.
Mkandawire, T. 2001. Social Policy in a Development Context. Programme on Social Policy and Development, Paper No. 7. UNRISD, Geneva.
Van Griethuysen, P. 2011. The Social Dimensions of Carbon Trading: Contrasting Economic Perspectives. Paper presented at the UNRISD Conference on Green Economy and Sustainable Development: Bringing Back the Social Dimension, Geneva, 1011 October 2011. www.unrisd.org/greeneconomy/vangriethuysen, accessed in November 2012.
Fraser, N. 1999. "Social justice in the age of identity politics: Redistribution, recognition and participation." In L. Ray. and A. Sayer (eds.), Culture and Economy after the Cultural Turn. Sage, Thousand Oaks.

Vedoucí bakalářské práce: **Mgr. Petr Pavlík**
Katedra rozvojových studií

Datum zadání bakalářské práce: **7. května 2014**

Termín odevzdání bakalářské práce: **16. dubna 2015**

L.S.

Prof. RNDr. Ivo Frébort, CSc., Ph.D.
děkan

Doc. RNDr. Pavel Nováček, CSc.
vedoucí katedry

V Olomouci dne 7. května 2014

Abstrakt

Tato bakalářská práce analyzuje Zelenou ekonomiku jako aktuální environmentální diskurz. Analýza je založena na jeho komparaci s ostatnímu environmentálními diskurzy, jejichž protichůdné prvky jsou použity jako analytický rámec pro diskurz Zelená ekonomika. Cílem je odhalit strukturální faktory určující nerovnost, které by politiky tohoto diskurzu měli eliminovat, stejně tak jako různé typy stakeholderů které tento diskurz definuje.

Klíčová slova: Zelená ekonomika, diskurz, nerovnost, stakeholdeři

Abstract

This bachelor thesis analyses Green economy as a current environmental discourse. The analysis is based on comparison with other environmental discourse. Their conflicting features are used to make a framework to analyze Green economy discourse. The aim is to reveal structural determinants of inequality which supposed to be eliminated as an outcome of its policies as well as to define different types of stakeholders within Green economy policies.

Key words: Green economy, discourse, inequality, stakeholders

Table of Contents

List of abbreviations

OECD	Organization of Economic Cooperation and Development
PES	Payments for Ecological Services
REDD	Reducing Emissions from Deforestation and Forest Degradation
UN	United Nations
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNRISD	United Nations Research Institute for Social Development
WB	World Bank

Introduction

The notion of environment is younger that it seems to be, originating in 1972 at the Stockholm Conference, when the environmental problem, together with the effects that human's actions, was considered for the first time. Subsequently, in 1983 the World Commission for Environment and Development was established followed by the discovery of the ozone hole over Antarctica in 1985, triggering the actions to keep an eye on the sources reducing the protective ozone layer (Buckingham, 2008).

The key understanding of a greening of capitalism is the very idea that humans are an inherent part of the environment as a dynamic concept (Britez, 2010). According to UNEP (2011) Green economy is built on the idea of *green growth* but extends it further with the social dimensions. The World Bank defined a conceptual transition from green growth to Green economy by making it relevant to all nations, including poor countries, and emphasizing its social inclusiveness dimension (Morgera, 2013).

Currently, most neoclassical economic contributions on climate change take for granted the efficient nature of market-based instruments and see the political or institutional tools only as barriers to their full operation (Woerdman, 2004). Therefore, there is an important role of social policy in achieving the structural transformation towards Green economy. There are strong interactions between social and environmental purposes as the main challenges are related to the use of food, water and energy (Cook, 2012).

In the definition of Green economy as *requiring reducing carbon emissions, efficient use of resources and social inclusion* (UNEP, 2011) are obviously mixing terms of environmental issues with *efficiency* and *inclusivity*, which means it tackles economic perspective on one hand, with the *political* terms of power and place on the other. Slightly different definition by OECD (2011) as the concept *tackling climate change, in accordance with existing international agreements and based on the principles of free trade and investment* is bringing together *international agreements* which are undoubtedly product of *political power* with the notion of unregulated *free trade*. However, social dimension is left behind.

Methodology

The concept of Green economy will be examined via a comparative analysis based on study of environmental discourses by John S. Dryzek as they are described in his book *The Politics of the Earth*. The arguments in debates and disputes on environmental issues are seen here as politically based in terms of which worldviews and ideologies are advocated by their protagonist. After all, Green economy was brought in discussions as *political* response to multiple global crises (Andreica, 2013). Furthermore, Dryzek suggests that all these discourses are still relevant, and none has disappeared completely which itself testifies to the increasing complexity of environmental affairs (Dryzek, 2012). Therefore, it is relevant to make such comparison. Green economy is presented here as a discourse in terms of its significant rhetoric power within the main international organizations and their programmes as well as national policies. That is why, at the same time, the term is used here with the capital letter.

However, Dryzek (2012) mentioned at the very beginning of his book: (…) *there is another dimension which a one-sided emphasis on discourse can miss: this is the dimension of interest and power. Discourse is not all that matters, and powerful actors who see established or emerging discourses as threatening their vital interests can attempt to override development at the level of discourse.* Therefore, apart from comparison, practical examples are given to show that even clear discourse rhetoric is much more complicated when it comes to practice. The aim is to try to reveal *structural determinants* of inequality driven by discourse policies and programmes as well as crucial *stakeholders*[1] who are defined by the discourse.

[1] Understood here as people who hold a stake in the area being developed, whether that is their home, their business or professional concern (Buckingham, 2008).

1. The emergence of Green economy

The concept of Green economy has emerged from the field of environmental economics to become influential in government policy over the last few years (UNEP, 2011). It is not a principally new concept, as the notion of environmental taxation, norms and regulations was stated already within literature written during the 1950s. The idea is based upon the allegation that placing appropriate values on the services provided by the natural environment is essential to ensure its sustainable use and conservation (Morgera, 2013).

It comes to light that the increasing pressure on the earth's resources such as water, energy and food will bring about more and more new challenges as the world's population will reach nine billion by 2050 (OECD, 2011). Green economy acknowledges the human causes of global environmental and climate change, offering solution to both protect the environment and stimulate the global economy by promoting low carbon growth, resource efficiency, conservation, and lowering greenhouse gas emissions (OECD, 2011; UNEP, 2011; WB, 2012). Its social dimension considers *win-win opportunities to improve the integration of economic development with environmental sustainability* (Dugarova, 2014).

The policy instruments used here can be categorized as follows (Babonea, 2012):

- Fair pricing
- Procurement policies
- Ecological tax reform
- Public investment in infrastructure development
- Public support for research and development in clean technologies
- Social policies for combining social objectives with economic policies

Indicators according to UNEP (2011):

- Initial stages : Indicators for environmental issues and targets
- Intermediary stages : Indicators for policy interventions
- Final stages: Indicators for policy impacts on well-being and equity

However, different types of resources require different types of policies (WB, 2012). For example, agriculture requires focus on innovation, efficiency and sustainability, and land-use. Extractable

renewable resources, such as fisheries, centered on improved property rights and facilitating businesses to move up the value chain (Borel-Saladin, 2013).

1.1. Green economy as a way out of multiple crises

The increasing popularity of this concept is explained by many as resulting from multiple crisis the world is facing now (Morgera, 2013; Britez, 2010; Bran, 2013; Andreica, 2014; Borel-Saladin, 2013). For instance, Britez (2010) stated*: we face a new age of poverty with rising employment in both the developing and developed worlds (…) the planet Earth faces multiple environmental crises including those of climate change, dwindling carbon-based energy resources, food security, and increasingly polluted water and air*. According to him, the world has countered the worst global economic, financial and social crisis since the Great Depression and the emergence of Green economy is attributed to the failure of neoliberal ideology of deregulation. This is not, in fact, an odd opinion as it can be found in *Financial Times* article from the time when the financial crisis culminated: *Remember Friday 14 March 2008: it was the day the dream of global free-market capitalism died* (Wolf, 2008). Simultaneously, *Goldman Sachs Group* stated in the same year that *for continuity, the green economy should be a path of revival for America, but also for the whole world* (quoted in Andreica, 2014).

After 2008, there have been issued no less than 32 global reports that deal with the topic of Green economy and tens of reports released at national levels (Bran, 2013). In 2009, a *global green new deal* drawn up by E. Barbier proposes to tackle *the financial crisis and its social, economic and environmental impacts, while simultaneously addressing global climate, food, fuel and water challenges* and suggests *the right mix of policies that can encourage recovery, growth and sustainability* (UNEP, 2011). In short, Green economy is an idea whose time has come (Borel-Saladin, 2013). Nevertheless, it can be as well put this way: *Change was selected because the current situation is unacceptable not because the outcome is very appealing* (Bran, 2013).

Bran (2013) also summarizes Green economy to be considered as one of these three alternatives:

- *Novel economic paradigm*
- *Vision of action*
- *Social transformation that comprises the change in economy*

On the other hand, according to Crassous-Doerfler (2011), restrictive budgetary policies engaged especially in Europe since the start of the financial crisis are a *stress test* for Green economy policies

(quoted in Depret, 2012). Especially, associated with unbalanced macroeconomic conditions and high government debt, progress towards greener growth may be hampered (OECD, 2014).

1.2. The advent of the concept and relevant international initiatives

The term *Green economy* (hereinafter referred to as GE) was first used in 1989 in a groundbreaking report *Blueprint for a Green Economy* written by a group of economists for the British Government. However, quite notably, the terms was mentioned only in the title and not specified any further (Andreica, 2014).

Basically, UNEP which runs the *Green Economy Initiative*, is the key international organization underlying the whole idea (Britez, 2010). Subsequently, the concept of GE was presented in report by the OECD: *Towards Green Growth* in 2011 and in the World Banks's *Inclusive Green Growth* in 2012. UN´s conference *Rio+20* in 2012 was crucial to introduce the concept in the context of sustainable development and poverty eradication (Bosselmann, 2012).

European Union, the extension of GE has been enhanced by interests relating to energy, resource use and environment management. The green growth is a part of the Europe 2020 Strategy accepted in 2010: a strategy for *smart, sustainable and inclusive growth* (EC, 2010) as an *industrial policy for the globalization era* (Morgera, 2013). Moreover, it claims 20 million less people should be at risk of poverty by 2020 in its member states (EC, 2010). Brussels also has been pushing GE into the *Lisbon agenda* and directing Europe to become a leader in green-innovation (Britez, 2010).

At the same time, the G8 and G20 declare their commitment to GE. The meeting of finance ministers and central bank governors took place in Mexico City in 2012 and brought about a consensus on *inserting green growth and sustainable development policies into structural reform agendas, tailored to specific country conditions and level of development* (IISD, 2012). Nevertheless, the social inclusivity and poverty reduction dimension is missing in the report.

Fostering of green growth policies by The Republic of Korea has played an important role in promoting the agenda in Asia (Morgera, 2013). China has been even more active in promoting green technologies spending over 50 billion USD in 2010[2] (Coe, 2013). The social dimension here is understood as the aspect of job creation.

[22] The investment in research actually propelled China to the positive results and growth even in times of economic crisis (Babonea, 2012).

As regards the green jobs, the UNEP (2011) data shows that there might be over 20 million jobs worldwide in wind, solar, and biofuels linked activities alone by 2030. It is stated that this sector accounted for 2.7 million jobs in the US in 2010. The federal government's *antirecession* package in 2009 allocated 60-80 billion USD over several years to clean technology (Coe, 2013).

However, in opinion of Bigg (2011), *green jobs* are only *political discourse* primarily driven by short-term economic difficulties and potential to get comparative advantages but it is not fundamental shifts in resource use.

1.3. Social dimension of Green economy

UN´s Research Institute for Social Development hold conference in November 2011 on *Green Economy and Sustainable Development: Bringing Back the Social Dimension* dealt with the topics such as diversity of knowledge and values, social structures, social impacts and distributional consequences, social and public policies etc.

According to UNRISD (2011) if GE fails to address the root causes of vulnerability and poverty it would fail to achieve sustainable development. At Rio+20 conference was noted some divisions among developed and developing countries. Moreover, at the People's Summit running simultaneously was formed noteworthy opposition to the concept emphasizing the limitations of the win-win discourse which was promoted by UNEP in the initial idea earlier. A social point of view also reveals the distributional consequences of both environmental change and policy responses (UNRISD, 2011). However, the provision of basic human needs for the population is often ignored in the discussions about the market and green capitalism (Britez, 2010).

We can categorize human needs as follows (UNRISD, 2011):

- Basic needs: water, food, energy, shelter, transport, security
- Individual needs: health, decent work, social protection, empowerment, mobile assets
- Social needs: equity and social inclusion, human rights, participatory politics, governance, cooperation and solidarity, education

GE is widely cited as a way to eradicate global poverty and to address social disparities (UNEP, 2011). There are many complementarities between green growth and poverty reduction, especially in

developing countries (OECD, 2011). GE is argued to address each of the three pillars of sustainability: the environmental, economic and social dimensions of development (Borel-Saladin, 2013).

However, the WB and UNEP pay more attention to the social aspect of sustainable development than the OECD. Their reports emphasize that greening the economy requires a pro-poor approach, however, there is some differences about how far it goes. The World Bank definition of green growth is simply *economic growth that is environmentally sustainable* (WB, 2012). This definition includes no mention of social inequality, however, WB does recognize that *pro-poor approach must be taken when designing green growth strategies* (WB, 2012). OECD report stated that *there are many important complementarities between moves to green the economy and poverty reduction* (OECD, 2011).

According to UNEP (2011), GE is one that *results in improved human well-being and social equity*. Specifically, UNEP report says: *the development path should maintain (…) natural capital as a critical economic asset and as a source of public benefits, especially for poor people whose livelihoods and security depend on nature* (UNEP, 2011). In this terms, it can enable the economy to grow while making it more socially inclusive (Borel-Saladin, 2013).

1.4. The importance of rhetoric

While logic focuses on implications, rhetoric shows arguments used to convince an audience of the value of one´s position. Traditionally, rhetoric is related to the study of the conceptual change in politics. Concepts are resources to be used in political struggles. Political innovators manage both to give new extended meaning to them and change the contents and direction of the policy making. However, even scientific arguments are also loaded to serve authors purpose and are addressed to particular audience (Miettinen, 2013).

Rhetorical studies showed, for instance, how technological nationalism was used in case of Indonesian aircraft production to legitimate the transfer of money from the Reforestation Fund. There was found a principle called a *regime of techno-scientific promise*, showing that rhetoric creates a fiction that the emerging technology will solve human problems. The point is that instead of perceiving the economy as sum of various activities they introduce a subset of economic, trying to achieve a hegemonic policy paradigm as well as statistical indicators, league tables, a set of useful concepts, slogans, and policy prescriptions which ranks and score countries (Miettinen, 2013).

As Sum (2010) puts it (…) *a knowledge can be defined as a hegemonic meaning making device promoted by the world-class guru-academic consultant who claim unique knowledge of economic world and pragmatically turn them into transnational policy recipes and tool kits*.

We can ask what role international organization have played in the process. For instance, Godin (2006) calls OECD an organization that *feeds policy makers* and *a producer of policy language* (quoted in Miettinen, 2013). Reports issued by these organizations constitutes an attempt to define a *world view* in a single document, often without substantial basis in empirical research or reference to literature. Common features of these reports are: *anonymity, a tendency to use clear-cut and converging definitions of basic concepts, self-referentiality, selective use of books and scientific journals, focus on economic literature, results of studies that are presented in the form of separate text boxes, tables of statistics and figures that largely independent of the text so called knowledge windows* (Miettinen, 2013).

2. The context of environmental discourses

Since the beginning of public debate on environmental issues every action taken, every policy pursued and every decision made should not be seen as an individual act of will of certain actor, government or institutions but rather as anchored in specific historical, political and economic era. That is why we should be aware of environmental discourses which will help us to analyze current debates. As stated by Ferguson (1994) : *Discourses have important and very real social consequences (…) the question is not how closely do these ideas approximate truth but what effects do these ideas (which may or may not happen to be true) bring about?* Dryzek proposes that discourse should be seen as the institutional *software* and formal rules as the *hardware* (Dryzek, 2012).

Environmental discourses themselves are embedded in industrial society. Industrialism is characterized as committed to produce goods and services in maximum possible and thus creating material well-being (Dryzek, 2012). GE discourse emphasis on environmental friendly technologies has led some authors to talk about a *new techno-industrial paradigm* (Depret, 2012). This is criticized by others as they would rather see a new discourse to be more suited in what they believe to be the most current – the information age which took place after the *second industrial divide* (Britez, 2010). On the other hand, Milani (2000) says that the acknowledgement of self-organization, protection of diversity, network flows, and the recognition of the significance of natural assets makes it truly *post-industrial* (quoted in Britez, 2010). It can even be seen as creating new era termed in some documents as *post-carbon era* (Nakicenovic, 1997; Foxon, 2008; Grubb, 2008; OECD, 2009) or as others argue, a new Kondratiev wave[3] – the age of sustainability and renewal resources based on an economics of abundance (Britez,2010).

Therefore, it is necessary to look at the discourses as reflecting (positively or negatively) the basis of industrial society. First, Dryzek divided environmental discourses into broader categories: *reformist* or *radical* and *prosaic* or *imaginative*. Prosaic discourses taken political and economic reality as given and require an action (reformist or radical) within these relations. Imaginative discourses, on the other hand, looking for a change of behavior of individuals as well as the society as a whole and redefining the political-economic settings. It looks at environmental problems as an opportunity for such a change to happen (Dryzek, 2012).

[3] In economics, Kondratiev waves are supposedly cycle-like phenomena in the modern world economy. It is claimed that the period of the wave ranges from forty to sixty years, the cycles consist of alternating intervals between high growth and intervals of relatively slow growth (Korotayev, 2010).

In this regard, GE is partially in both dimensions. On one hand, it is *prosaic* in the sense, it is based on the premise that development and wealth are to be achieved by exponential economic growth and do not suggest the limitation of consumption. For this reason is considered by some to be insufficiently *radical* to bring about a real change (Aşici, 2012) which made it much more *reformist*. On the other hand, GE can be seen *imaginative* as it takes into consideration a change in mentalities (Bonini, 2008) and behavior of consumers/citizens and voluntary commitment of countries to adopt its strategies. Salleh (2010) calls GE *ideology* and *imaginary interactions* as it is putting an economic value to the life-giving capacities of nature's services thus translates metabolic flows into fictitious units.

Dryzek suggests following elements to analyze each discourse (Dryzek, 2012):

1. ***Basic entities whose existence is recognized or constructed***
2. ***Assumption about natural relationships***
3. ***Agents and their motives***
4. ***Key metaphors and other rhetorical devices***

2.1. Survivalism

Originated in 1960s and linked to *The Club of Rome* which issued the well-known report *The Limits to Growth* written by Meadows in 1972.

This discourse is based on the claim that continued economic and population growth will eventually hit the capacity of its ecosystems to support human agriculture and industrial activity and the limits set by the Earth´s stock of natural resources (Dryzek, 2012).

Discourse Analysis of Survivalism

1. ***Basic entities:*** finite stocks of resources, carrying capacity of ecosystems, population as aggregate entity, élites
2. ***Natural relationships:*** hierarchy and control, human beings seems as having no agency - only as objects to be managed
3. ***Agents:*** élites - can choose to operate national political economies according to principles of maximizing economic growth with a touch of social justice
4. ***Key metaphors:*** overshoot and collapse, commons, spaceship earth, lily pond, computers

Dryzek describes survivalist discourse as *think globally, act globally*. However, it is hard to trace it into any action. In attempt to do so, he mentions population control policies pursued disastrously in India

and China in 1970s or *Montreal Protocol* signed by 24 nations in 1987. The discourse got defensive with the emergence of Sustainable development (Dryzek, 2012).

2.2. Promethean

Advocates of this discourse believe in ultimate ability of humankind and technologies to solve any issue including the environmental ones. The key argument was stated in a book *Scarcity and Growth* by Barnett and Morse in 1963. However, they deny any stress these activities may have on environment (Dryzek, 2012).

Discourse Analysis of Promethean

1. ***Basic entities:*** nature as only brute matter, markets, prices, energy, technology, people – population growth is celebrated
2. ***Natural relationships:*** Humans over everything else, Competition
3. ***Agents:*** Everyone (economic actors)
4. ***Key metaphors:*** mechanistic, trends, single-variable and simplified graphs

This discourse can be found most clearly in US from 1967 to 1975 with President Reagan in office who advocated the rhetoric that *the economic prosperity of our people is a fundamental part of our environment* (quoted in Dryzek, 2012). Prometheans were prevailed with the threat of climate change appeared in the late 1960s and with the arrival of *Survivalism* (Dryzek, 2012).

2.3. Problem solving discourse

Problem solving discourses offer three basic ways to solve environmental/social problems: bureaucracy, democracy and market.

2.3.1. Administrative rationalism

This approach is based on the assumption that natural resources management cannot be left to be dealt with by politicians. However, it has not been always just scientific management with no

political influence, especially in case of extractive industry, miners, loggers, oil companies (Dryzek, 2012).

Discourse Analysis of Administrative rationalism

1. ***Basic entities:*** liberal capitalism, administrative state, experts, managers
2. ***Natural relationships:*** nature subordinate to human problem solving, people subordinate to state, experts and managers control state
3. ***Agents:*** experts and managers
4. ***Key metaphors:*** mixture of concern and reassurance, the administrative (collective) mind controls body (state)

The shortcomings of this approach is the fact that its usual reaction to the failure of rules is to design more rules (Dryzek, 2012).

2.3.2. Democratic pragmatism

Democratic pragmatism does not necessarily involve the formal institutional structure of liberal democracy (Dryzek, 2012).

Discourse Analysis of Democratic pragmatism

1. ***Basic entities:*** liberal capitalism, citizens
2. ***Natural relationships:*** equality among citizens, interactive political relationships, mixing competition and cooperation, nature subordinate to problem-solving efforts
3. ***Agents:*** many different agents – their motivation a mix of material self-interest and multiple conceptions of public interest
4. ***Key metaphors:*** policy as scientific experimentation, thermostat (to trigger interventions), network

Dryzek suggests that the very act of discussion triggers public commitment to environmental values. On the contrary, some have pointed out that with this approach we can expect only piecemeal compromises (Gunderson, 1995 quoted in Dryzek, 2012).

2.3.3. Economic rationalism

Economic rationalism tell us that markets maximize social welfare, and markets in environmental goods should be no exception. As G. Bush the elder said: *The forces of the marketplace are powerful tools for changing individual behavior. If set up correctly, they can achieve or surpass environmental objectives at less costs and with less opposition than traditional regulatory approaches* (quoted in Dryzek, 2012).

Discourse Analysis of Economic rationalism

1. ***Basic entities:*** *homo economicus* (consumer or producer), markets, prices, property, governments (not citizens)
2. ***Natural relationships:*** competition, hierarchy based on expertise, subordination of nature – anthropocentric
3. ***Agents:*** self-interested *homo economicus*
4. ***Key metaphors:*** mechanistic (social world is treated as a machine whose products meet human needs), freedom (free market), horror stories (government actions that produces inefficient and costly results)

Quite notably, Dryzek considers *Economic rationalism* as completely inadequate as an orientation to environmental affairs, suggesting that its real usefulness may be in revealing the destructive effects of *homo economicus* and the need to be more socially, politically, and ecologically organized.

2.4. Sustainable development

Transformation into contemporary discourse is dated to 1987 when was issued the UN report *Our Common Future* written by its Secretary General G. H. Brundtland. The report defines it as follows: *development which meets the needs of the present without compromising the ability of future generations to meet their own needs* (quoted in Dryzek, 2012).

Discourse Analysis of Sustainable development

1. ***Basic entities:*** nested and networked social and ecological system, capitalist economy, ambiguity concerning limits, global and local outreach

2. ***Natural relationships:*** cooperation, nature subordinate, economic growth, environmental protection, distributive justice
3. ***Agents:*** many agents at different levels motivated by the public good, transnational and local as well as the state
4. ***Key metaphors:*** organic growth, nature as natural capital, connection to progress (social improvement in environmental era), reassurance (we can have it all)

However, according to Hardin (1993) Brundtland failed to ask whether the population growth she sees as inevitable and the economic growth she sees as desirable can be accommodated by the earth´s resources (quoted in Dryzek, 2012).

2.5. Ecological modernization

Environmental issues are understood here as a structural problem, however, there is no need for fundamental change of political-economic system (Dryzek, 2012).

Discourse Analysis of Ecological modernization

1. ***Basic entities:*** complex systems (consumption, production, resource depletion and pollution), nature as waste treatment plant- recycler of pollutants, defy human management, capitalist economy, the state
2. ***Natural relationships:*** Partnership (governments, business, environmentalists and scientists), subordination of nature, environment protection and economic prosperity go together
3. ***Agents:*** partners motivated by public good
4. ***Key metaphors:*** tidy household (*economics* and *ecology* both derive from the Greek *oikos*, meaning *household*), connection to progress, reassurance

Ecological modernization is rather friendly with *Administrative rationalism´*s strong state, however, *economic rationalists'* quasi-market inducements such as green taxes are often took into account (Dryzek, 2012).

2.6. Green radicalism

Green radicals is *radical* and *imaginative*, trying to distance individual and communities from both governments and corporates in order to create self-sufficiency alternatives (Dryzek, 2012).

Hay (2002) points out that their attitudes refer to the progress in future, not a return to some golden past. In contrary, Offe (1990) refers to it as *a selective radicalization of modern values*, especially freedom, equality, and democracy and framing them within the Enlightenment. Nevertheless, as Dryzek puts it, it might as well *represents the most significant ideological development of the late 20th century* (both quoted in Dryzek, 2012).

Dryzek suggests two categories: green consciousness looking for changing people and green politics seen through its attempt to change society.

2.6.1. Green consciousness

(Dryzek, 2012)

Deep ecology proclaims awareness of larger organic *Self* beyond individual as well as puts value on species in the sense that no species are more valuable.

Ecofeminism believes that patriarchy is cultural rather than natural. For example, Vandana Shiva from India emphasizes Third World´s women traditional knowledge of the land and its and social aspects.

Bioregionalism wants to replace local and national institutions with units along bioregional lines.

Ecological citizenship means to meet individual´s needs from the local resources.

Lifestyle greens represents green consumerism, vegetarian, recycling, bicycling, composting etc. This lifestyle might be, eventually, very economically profitable and in favor of *ecological modernization*.

Eco-theology, most significantly *Buddhist economics*, describes individuals seeking to maximize wellbeing at a minimum level of consumption.

Discourse Analysis of Green consciousness

1. ***Basic entities:*** global limits (sense of urgency), nature (inner and outer), unnatural practices (anthropocentric arrogance, economic rationalism, patriarchy), ideas (as opposed to materialism)
2. ***Natural relationships:*** relationships between humans and nature have been violated by humankind, equality across people and nature

3. ***Agents:*** human subjects some more ecologically aware than others, agency can exist in nature too (Gaia[4])
4. ***Key metaphors:*** organic metaphors, passion –the way people experience the world is crucial, institutions, empathetic orientation to nature, appeals to emotions (art, religious)

2.6.2. Green politics

(Dryzek, 2012)

Green parties: *realos* – believe in parliamentary politics or *fundis* – believe rather in social movement.

Social ecology: see all evil in society in unnatural hierarchy. Relationships perceived as competitive are in fact mutual benefit.

Red and green: while Marx himself was a Promethean, many eco-Marxists now looking at the ecological crisis as sign of a general crisis of capitalism revolving around material economic factors.

Environmental justice movement: allege that environmental risks fall most heavily on the poor and minorities. They seeking to prevent these risks rather than manage them. They engage in lobbying but also in demonstration and boycotts. It is rather weakly ecological.

Environmentalism of the global poor: the poor experience degraded environment directly as a result of deforestation, soil erosion, and physical displacement. The *Chipko movement* in India as one of the first such protests against logging in the 1970s. Kenyan *Green Belt movement* planted trees as fighting against soil erosion and provide fuel sources. The discourse is strongly related to social justice.

Anti-globalization and global justice: found the common ground in critique of global capitalism and promoting the need to subject transnational capitalism to the control of national governments. The term *anti-globalization* is rather journalistic simplification though the protest itself is globalized. Only some of the issues have an environmental aspect.

Discourse Analysis of Green politics

1. ***Basic entities:*** global limits, nature as complex systems -social, economic, and political structures
2. ***Natural relationships:*** equality among people, complex interconnections between humans and nature – more like a stewardship relationship

[4] J. Lovelock´s Gaia (1979): biosphere acts collectively to maintain the conditions for life on Earth. It is a self-regulating entity that can correct for threats- we may wipe ourselves out, but Gaia will persist just as it has outlasted the extinction of millions of species (Dryzek, 2012).

3. ***Agents:*** many individual and collective actors with multidimensional motivation, political life is mainly about promoting institutional structure and political action to evoke the more benign motivation
4. ***Key metaphors:*** organic metaphors, appeals to social learning (argument not just emotions), link to progress beyond an industrial order

Green politics action has infiltrated the wholesale political-economic life even though the price of participation in governments has often been a moderation of green demands. Ironically, if their politics succeeds it will deprive *green radicalism* by showing that transition to a totally different political economy is unnecessary (Dryzek, 2012).

2.7. Green economy vs. Sustainable development

Economic instruments which are key elements of GE were already endorsed in the document *Our common Future* issued by Brundtland in 1987. This report did not only defined *sustainability* but also discussed the possibility of a GE within current capitalism. Both discourses promise the emergence of a new set of *green* industries (Britez, 2010).

In many documents, the emergence of GE is built on the premises of the sustainable development and on the need to accelerate the progress towards its goals (Bran, 2013). However, it is emphasized that GE should not be viewed as a substitute for sustainable development (Borel-Saladin, 2013). The OECD definition is: *green growth ...is narrower in scope (than sustainability), entailing an operational policy agenda that can help achieve concrete, measurable progress at the interface between the economy and the environment*. OECD (2011) also states that green growth is *a subset of sustainable development but does not replace it*. In the WB and the UNEP reports GE is portrayed as the *pathway* to sustainability. According to some, GE has the potential to be *transformative change towards sustainable goals* (Borel-Saladin, 2013) or in other words, represent the *move beyond the stalemate that has mired most international negotiations on sustainable development over the past decade* (Bigg, 2011). On the other hand, others see GE rather as replacing the concept of sustainable development (Bran, 2013).

3. Comparative Analysis of Green economy

The aim of this chapter is to look at the current discourse in the context of environmental discourse discussed earlier. Their fundamental features will be further developed and comparison offered together with practical examples within GE. Six characteristics found as opposing in discourse analyzes by Dryzek have been chosen here in order to reveal structural determinants of inequality within environmental affairs and relate them to GE.

3.1. The global plan vs. local action

The global plans do very often appear to be convert uneasily into some kind of local action. The combination of these two aspects are, therefore, the most fundamental feature. Moreover, we can, in line with Martínez-Alier (2002), also ask: *Do local have tangible physicality, while global refer to placeless anonymous people?*

3.1.1. What we have seen

Essentially, *Survivalism* and *Prometheans* are about global issues. In their report, Meadows conclude that the ozone issue shows that it is necessary to have global scientific cooperation, a global information system, and an international forum within which specific agreements can be worked out (Meadows, 1972 quoted in Dryzek, 2012). The rhetorical power of the *ozone hole idea* is unquestionable, however, some caution is needed before seeing it as a prototype for global action[5] (Dryzek, 2012).

Promethean present the statistic that are not always global ones. Given the complexity and interdependence in environmental issues, improvement on one indicator in one place may mask worsening in another which can cause *problem displacement*. This happens when a country exports its polluting industry or toxic wastes (Dryzek, 2012).

[5] This is mainly because CFCs substitutes have had been developed and material interests of key actors: the US already which had had legislation and the European Community was basically forced by US threaten. It was fortuitous that the material interests of them could be eventually brought into line with global environment. Moreover, there was no guarantee of universal compliance. In fact, in 1995 former Soviet bloc were seeking exemption, China phased-out and India was going ahead on CFC production, all of which led to creation of substantial black market (Dryzek, 2012).

Ecological modernization brings little application to global analysis (Dryzek, 2012).

On the contrary, *Problem solving* focuses more on local level solutions. The popular practices of Democratic pragmatism- Alternative dispute resolution tends to be case-specific or site-specific. Localized policies have arisen all over the word especially after the UN Conference on Environment and Development in 1992 which produced the Local Agenda 21 Initiative (Dryzek, 2012).

Social ecology is associated with the eco-anarchist M. Bookchin who suggests the solution of small-scale, mostly self-sufficient local communities existing in harmony with their neighbors and with their local environment (Dryzek, 2012).

The World Summit in Johannesburg in 2002 made it clear that *sustainability* remained very much a discourse rather than a plan of action as it did not indicate any practical steps, even though its theoretical basis prescribes global and local outreach, transnational and local level. Rather the opposite is to be said about *Environmental justice* and *Anti-globalization* movements represent achievements in practice, however, without wider theoretical reflection (Dryzek, 2012).

3.1.2. Green economy perspective

GE perceives the global market as the best way how to tackle global issues (Bran, 2013). According to Stern (2006), only collective economic adjustment on a global scale can avert disaster. It requires a global management system as it represents the answers based on internationalization of externalities by financial reforms (taxes, subsidies), monetary assessment of natural capital, creation of markets for pollution and ecosystem services (quoted in Borel-Saladin, 2013). On the other hand, economic management mechanisms (e.g. levies) are available only on national level (Ioan, 2011). Also opportunities to create *green jobs* depend less on international factors than on local characteristics (Bigg, 2011). Population growth at global scale is also important as it puts pressure on natural resources and adds to the challenge of providing sanitation and other environmental infrastructure (OECD, 2014). Nevertheless, there is no *one-size-fits-all* strategy as contexts differ, especially in terms of differences between developed vs. developing country and different context at global, regional or local scale (Buckingham, 2008). These features are discussed further below.

3.1.3. Developing vs. developed countries

The social pillar of poverty reduction through GE is especially important for developing countries (Borel-Saladin, 2013). These facts form a double challenge that GE must answer: the reduction of the highly developed countries footprint and the simultaneously increase of social and material welfare in developing countries (Andreica, 2014). Otherwise, for some developing countries, GE would bear the label of Northern-driven rules or regulations that might decrease growth and strengthen North-South inequalities (Cook, 2012). These tensions turn out to be even clearer when it comes to the solutions for crisis since the support was much larger for developed countries (Bran, 2013). Indeed, according to Bigg (2011), at times of rapid change and uncertainty, it is much more likely that the rich and powerful will detach themselves from those at the bottom rather than act in solidarity. He also argues that it is unlikely *official development assistance* will still exist by 2050, therefore, countries should reoriented themselves toward to payment for natural services.

Moreover, concerns that GE might introduce restrictions on trade or aid so called *green protectionism* exist. That would mean that some countries might gain increased market access for their products, commercial advantage, which could involve the placement of new conditionalities on developing countries for aid, loans and debt relief (Khor, 2011). Therefore, according to UNEP (2011), it has to be guaranteed that resources, technical assistance and technology transfer allow countries to engage in competitive global green marketplace.

Later, UNEP in its *Towards a Green Economy* tried to refute that GE is *a luxury only wealthy countries can afford*, claiming that it to be *a new engine for growth as well as a strategy for the elimination of persistent poverty* (UNEP, 2011). In its report from 2012, WB stated that green growth should recognize developing countries' *urgent need for rapid growth and poverty alleviation* while avoiding *irreversible and costly environmental damage*, referring to *inclusive green growth*. It further suggests innovative solutions to link political legitimacy with the long-term objectives together with multi-stakeholder involvement (WB, 2012). The European Commission stressed that *the green economy offers opportunities to all countries, irrespective of their level of development and the structure of their economies* (EC, 2010).

However, at Rio+20 conference, discussion was carried on developmental and social dimensions, especially poverty eradication not being represented enough in the concept. Actually, UN´s Secretary-General highlights a bottom-up approach to economic decision making that responds to national and local priorities and challenges (UN, 2010). This summit reinforce the focus on *social inclusion, improving human welfare and creating opportunities for employment and decent work for all* and

inclusive economic growth, foster innovation and provide opportunities, benefits and empowerment for all and respect of all human rights as well as *the welfare of indigenous peoples and their communities, other local and traditional communities and ethnic minorities, recognizing and supporting their identity, culture and interests, and avoid endangering their cultural heritage, practices and traditional knowledge, preserving and respecting non-market approaches that contribute to the eradication of poverty* (Kohona for UN, 2010).

According to Salleh (2010), the UN as representing *transnational capitalist class*, looks to technology and new institutional system to push limits of life-support-systems, claiming it to be *economic necessity*. He also argues that new forms of logic like *carbon trading*, *geoengineering*, or *climate smart agriculture* will not restore the living ecologies damaged by industrial capitalism, nor will GE improve democracy as *green jobs* drafted by free traders would only *deepen the unequal exchange between global North and South*. In his opinion, the UN at Rio conference presented *common but differentiated responsibilities* as regards the relations between developed and developing counties, and while poverty alleviation is stressed, class power is not (Salleh, 2010).

However, some sociologists have stated that the study of class is no longer relevant (Butler, 2007) as it comes from economic relations in terms of *you are what you do* which is relevant in *work-based society* while current society is more *consumption-based* in terms *you are what you buy*. More important has also become spatial relations, in other words, *you are where you live* (Savage, 2005).

In fact, understanding social inequality has shifted from economics and politics towards symbolic representations of cultural difference (Savage, 2005). Spatial determination, associated usually with the field of geography, and the process of globalization has changed the national perception of class inequality (Butler, 2007).

Barbier (2012) suggests that the rural poor in developing economies are increasingly concentrated in ecologically fragile and remote areas. This means that tackling this structural problem of geographical clustering of impoverished households in marginal and remote areas is crucial. However, management of natural capital is not sufficient for eradicating persistent rural poverty in developing economies. The lack of ownership of assets, and the tendency of poor households in remote areas to stay where they are located, their livelihoods are often dependent on exploiting the surrounding environment and its ecological services for survival. But if access to outside markets and jobs is inadequate, the land available is unproductive, and the surrounding environment becomes degraded, then income opportunities remain poor and the surplus available for investing in land improvement or other asset acquisition also are negligible. In short, these poor households are prone to a poverty-environment trap (Barbier, 2012).

3.1.4. Cap and trade systems and carbon offsetting – global market and allocation of pollution

Green economy's answer how to deal with global-scale environmental issues such as pollution is to create market solution. Tools based on *cap and trade* principle was designed on global level via market initiatives for producers which means that a maximum was placed on emissions from all polluters and the right to pollute could then be traded between them[6] (Coe, 2013).

The most extensive one is designed to reduce the greenhouse gases - the pollutants that cause global warning and climate change. The Kyoto Protocol came into force in 2005, committed signatories to reduce greenhouse gases by a set percentage from their 1990 levels by 2012. While mainly European countries met these obligations many significant polluters did not (Australia, New Zealand, Spain and Canada). Since 2003 a variety of markets emerged including several US states and Australia, however, the most highly developed remains the EU Emissions Trading system (Coe, 2013).

However, environmental economists have identified several issues to be addressed here. For instance, the initial allocation of permits would impact negatively the international competitiveness of participatory actors and favor a delocalization of polluting activities in less or un-regulated contexts (Godard, 2002 quoted in van Griethuysen, 2011). Carbon emissions avoided in one place may be spatially displaced to another location (van Griethuysen, 2011). These problems can be related to problem displacement identified by Dryzek and mentioned earlier in this chapter.

Important part is so-called *carbon offset* - a reduction in emissions made in order to compensate an emission made elsewhere. One carbon offset represents the reduction of one metric ton of carbon dioxide or its equivalent in other greenhouse gases[7]. The Kyoto Protocol has introduced offsets as a way for governments and private companies to earn *carbon credits* that can be traded on a marketplace, each equivalent to one ton of CO_2, which can be counted towards Kyoto targets (UN, 2006). The Protocol also established the Clean Development Mechanism (CDM) allowing a country to implement an emission-reduction project in developing countries. A CDM project activity might involve, for example, a rural electrification project using solar panels or the installation of more energy-

[6] One of the first pollution markets was *Agency Acid Rain Program* started in 1995 in the US to reduce emission from coal-burning electricity generation plants. The unit being sold was a permit to release a ton of *Sulphur dioxide*. The first phase of program reduced emission by 40% was judged as success. However, it had certain advantages – focused on just one nation, one pollutant, one sector, baseline measurements, and it could implement monitoring of pollution sources –all missing in future cap-and-trade systems. (Coe, 2013).

[7] There are six primary categories of greenhouse gases. While carbon dioxide is relatively easy to measure, the sources of others are less well understood. It is also impossible to monitor all sources continuously. Moreover, it is difficult to establish the equivalence of different gases in terms of their effects on global warming (UNRISD, 2011).

efficient boilers[8]. The mechanism should stimulates emission reductions, while giving some flexibility how to meet the targets (UN, 2006). In fact, actual CDM projects taking place in countries without reduction commitments and moreover, many of them do not have extensive monitoring capabilities even for those gases that can be effectively measured (van Griethuysen, 2011). Since 2006, more than 1,650 projects mechanism has been registered (UN, 2006).

In this perspective, inherent limitations of the actual climate regime could be overcome through the establishment of a market of carbon allowances and offset credits at the world level (van Griethuysen, 2011). Nevertheless, although supporters claim that carbon offsets lead to reaching an overall carbon reduction at the lowest costs (Carr, 2008), opponents suggest compliance problems and that rather than encouraging the fundamental changes, carbon offsets provide an opportunity to assuage the polluter´s conscience (Lohmann, 2006; Spash, 2010).

In fact, critics of carbon trading look at it as focused on private profit and institutional innovation which benefit the most powerful economic agents, especially business and finance, while excluding the less powerful actors, from this wealth creation process. Critical theoretical texts of carbon trading are rather rare, however, they often worry about power asymmetries that rule environmental governance (Spash, 2010), especially the fact, that institutionalizing exclusive rights will strengthen the power of already powerful actors and leave aside powerless, insolvent people (Lohmann, 2006). Moreover, emission allowances consist of exclusive emission rights within an open access situation (Bromley 1992), nevertheless, most offset credits depend on uncertain rights (Lohmann, 2006) often competing with local possession rights that are not protected by property titles (Spash, 2010). Hence the regime creates new social conflicts, especially between businesses and local communities, leading to unprecedentedly inequities. Additionally, the long-term character of the exclusivity the difficulty for states to reduce the overall amount of allowances once allowed to economic agents, reinforces such dynamics that can be depicted as a governance lock-in (Spash, 2010).

According to van Griethuysen (2011), carbon trading has been prioritized because it is well-matched with the industry depending on fossil fuels and the requirements of profitability and competitiveness and not for it to be really sustainable, equitable and efficient.

The point here is that the consequences will be significant for those beyond the system as no economic activities could be undertaken without creating waste. The gap between rich and poor countries would as well become wider. Eventually, worse-off states will not stop their activities, therefore, it will not reduce CO_2 emissions at global scale which could be also discouraging for rich countries. In addition,

[8] It is stated by UN, however, that public funding for CDM activities must not result in the diversion of official development assistance (UN, 2006).

as Giampietro and Mayumi (2009) argue the dominant neoclassical economics in academic field are locking out of alternative theoretical approaches.

According to Bigg (2011) only problems that cannot be resolved at lower levels of governance should be tackled at global level. For instance, a globally instrument on forests proved impossible to negotiate and premised action at the wrong level, when regional and national frameworks locate responsibility closer to the particular governance context where decisions and trade-offs are exercised. Accountability for decisions taken is most desirable at local level, to ensure that progress made in meeting social and environmental needs through one means are not in conflict with other actions. All of this happen outside of international governance. However, there is a key role for some form of global action in legitimizing such activity and in addressing trans-national factors that impede progress at lower levels of governance (Bigg, 2011).

At the same time, careless adoption of global solution could lead to strategic mistakes in the management of natural resources. Moreover, respecting the logic of benefits at local and national level could avoid corporatist expansion even if it would be for GE sectors, it would serve the corporatist interests (Bran, 2013).

Political ecologist Rocheleau (quoted in Gezon, 2005) used term *glocalization* to show encounters among communities, livelihoods, landscapes, technologies, and social relations. He suggests to shift from perceiving the concept of global and local as separate, rather, the global is conceived as one aspect of a localized site, to the extent that people in any given zone of interaction act within the parameters of policies, authorities, and material conditions that have sources outside the reach of immediate local networks. This understanding of global-local relationships points to the importance of studying the local not only through rural or marginal spaces but also through spaces in which powerful decisions are made.

3.2. Environmental protection vs. economic growth

The World Bank argues that economic growth, in spite of the environmental damage, has lifted 660 million people out of poverty over the last 20 years, therefore, *the links between the economic and social pillars of sustainable development are generally self-reinforcing* (WB, 2012). The relevant

questions here are *Can we have it all?* (Dryzek, 2012) and *Does sustainability imply limits and to what extent?* (Greenwood, 2007 quoted in Gezon, 2005).

3.2.1. What we have seen

Prometheans believe that an *invisible hand* will guarantee good collective consequences, giving examples from history but there is no guarantee that this will always occur (e.g. global warming). They also deny that there is a problem of loss of biodiversity. According similar line, they claim that supply of natural resources is infinite and *carrying capacity* of ecosystems do not exist[9]. On the other hand, they did not include any role for either prices or technology. Economists are in the front position of this discourse where economy and environment are put into different boxes (Dryzek, 2012).

Constrain imposed by the capitalist market context is relevant to all *problem-solving* discourses especially the fact that to reach more and more environmental achievements becomes increasingly costly. Nevertheless, they take political-economic status quo of liberal capitalism as given but seek for some kind of resolution to conflicts between ecological and economic values (Dryzek, 2012).

Economic rationalism prefer markets but, unlike Prometheans, it does recognize natural resources and the existence of *limited* resources. However, environmental resources are treated as inputs to the social machine. It stigmatizes regulation as *command and control* while in reality is much more informal cooperative between government and polluters but it is still a good and often used rhetorical tactic[10] (Dryzek, 2012).

Sustainability recognizes that all countries can probably not follow the growth path taken by the industrialized countries. It considers nature in a very economistic way - as natural capital substitutable by man-made capital. It is, therefore, sustainability of human´s well-being which is at issue, rather than the nature. Sometimes also called environmentally benign growth, it suggests no painful changes are necessary (Holliday, 2002 quoted in Dryzek, 2012). According to Willers the concept itself[11] is in fact used as *a code for perpetual growth* (Willers, 1994). According similar lines, many business groups

[9] Specifically they say: not a single natural resource has ever been created by *nature*. In fact, they are created by humans transforming matter. If you want a better environment, in particular, reasonable access to clean drinking water, adequate sanitation and an acceptable urban air quality, you have to become rich because the ultimate resource is *people* (Dryzek, 2012).

[10] Dryzek goes even further when asking why market even need *free* adjective if, according to its advocates, it supposed to be free in definition (Dryzek, 2012).

[11] Especially its call for improved economic well-being of people today while not reducing the well-being of those in the future (Dryzek, 2012).

associate development with economic growth as the discourse itself confirms the status of business as a major participant and not a source of problems. Actually, the notion that sustainable growth is possible is opposed to theories of limits to growth (Meadows, 1992 quoted in Dryzek, 2012).

Ecological modernizers pointing to the potential of designing a capitalist system that is compatible with ecological values. In fact, Dryzek argues that sustainable prospects are poor unless it can be demonstrated that environmental conservation is good for business profitability and economic growth which is also exactly what *ecological modernization* claims as there is money to be made in selling green goods, services and pollution prevention and abatement products. Nature is here also treated as a source of resources while denying any notion that nature might spring surprises on us. It ignores limits to growth referring to the countries like Norway, Denmark or Netherlands (Dryzek, 2012).

3.2.2. Green economy and limits to growth

As stated by Cai (2011), the principles that make GE increasingly popular are:

1) *No nation, regardless how wealthy it is, cannot deliver prosperity without economic growth: modern economic and financial systems should generate economic growth in order to create jobs and maintain social services; economic growth is the only solution to overcome social gaps too*

2) *Continuing economic growth with the current patterns will destroy the global ecologic system. Consequently, it should find a possibility for economic growth that is different from the present one in a way that avoids the destruction of ecological system*

The central theory of GE is that environmental progress cannot be separated from economic growth and development. Limiting growth or ignoring the economy will not lead to environmental improvement. Appropriate economic policy is the core of any strategy for green growth (OECD, 2011)[12]. GE thus does not contain a debate about the ecological limits of growth in the context of a planetary ecosystem (Brockington, 2012). In short, GE discourse responses to Dryzek´s (2012) question *we can have it all*.

However, if the demonstration would be interdisciplinary and not economic, limits to consumption should be recognized as a strategic goal (Bran, 2013). Indeed, opponents of GE conclude that some limitation of economic growth is required if a significant reduction in carbon dioxide emissions is to be achieved (Borel-Saladin, 2013). For instance, in case of carbon market, it could be discussed if making

[12] It can be also seen in Section II of Agenda 21 named Conservation and Management of Resources for Development (UN, 2006).

a market out of the atmosphere is not simply another example of capitalism´s drive to find new ways of generating possibilities for profit. A far more effective but less popular and less profitable strategy would be to place a tax on every ton of greenhouse emitted (Solomon and Heiman, 2010).

OECD (2011) refers to the degradation of 60% of *ecosystem goods and services* at the expense of quadrupled world economic growth in the last 50 years. Damage to the environment has serious negative consequences for the economy and people's quality of life too. For example, poor solid waste disposal systems in Haiti and India are responsible for outbreaks of disease and flood damage (OECD, 2011). There is also a strong critique of the argument for *cleaning-up later* (which would probably fit the most easily within Administrative rationalism) as it could be impossible or expensive (Borel-Saladin, 2013). Because growth drives poverty reduction, green growth is seen as the means to help repair the damaged environment as well as alleviate poverty through job creation (Hallegatte, 2011). At the same time, it suggests that the basic needs of the world´s poor can be met while protecting the ecosystems on which they depend (Brechin, 2003 quoted in Dryzek, 2012).This generalization deny the complexity of social and spatial distribution and structural divisions in many economies.

In case of perfectly functioning market resource allocation would be optimized and social welfare maximized. However, market often fails to achieve this and it is the case when government action is required. Environmental goods is an example of such failure (Arriagada, 2012). According to Stern (2006) climate change is the greatest market failure ever. Major structural change are expected by capturing external effects in monetary values (quoted in Bran, 2013). Prices are powerful signals which can signal scarcity or abundance and affect economic behavior (OECD, 2014). The argument is that if the true value of ecosystem services was reflected in the market, economy would be more resource efficient and environmentally sound. Pricing mechanisms also provide incentives innovation or adoption of resource-efficient technologies (OECD, 2011). In short, the key idea is to integrate the natural asset base into everyday market decisions (Depret, 2012). However, advocates of *Green radicalism* may not like the idea of putting a price on nature, but it too has to compete with other things for scarce economic resources (Borel-Saladin, 2013).

Quite notably, Bartolini (quoted in Basili, 2006) suggests the negative externalities[13] to be an engine of growth. The growth process generates negative externalities but, at the same time, supply costly substitutes for the diminishing free goods. Therefore, it forces individuals to rely on private goods in order to prevent a decline in their well-being or productive capacity. In short, an increase in income is not improving people´s well-being because the process of substitution. The idea is to create

[13] The major categories of market failures include: externalities; monopolies; information asymmetries; transaction costs; absence of markets; and under-provision of public goods. In addition, the following market failures occur internationally: currency exchange disequilibrium; labor and capital immobility; tariffs; quotas and subsidies (Palgrave, 2008).

a society in which increasingly less can be obtained for free and in which well-being can therefore only be purchased. Urbanization is widely associated with phenomena of this kind. Silence, clear air and water become the privilege of uncontaminated places since the unlivable environment has been constructed[14]. In fact, the growth process is described as a process of substitution of environmental and social goods with produced goods (Bartolini quoted in Basili, 2006).

3.2.3. Corporate responsibility and green labeling

An increasing number of companies are now adopting a *corporate social responsibility* and sustainable strategic orientations (Depret, 2012), especially in the clean-tech such as fuel cells and renewable energies sectors (UNEP, 2011). Following the Kyoto Protocol, the number of patents and innovations in the environmental field have increased significantly (OECD, 2008; Johnstone, 2010). However, very important in this regard are institutional and policy reforms associated with effective remedy for victims of corporate *bad practice*, the redistribution of value within value chains (e.g. fair trade), corporate taxation, executive pay and mandatory regulation of corporations (Cook, 2012).

The *Fairtrade International standard* demand the use of low environmental impact technologies and organic cropping. Partnerships include more than 1.3 million farmers from 70 countries. Most of the producers are from Latin America, followed by Africa and Asia. The total volume of *fairtrade* sells was of almost 5 billion EUR in 2012. The most important selling areas are in Europe, especially in the UK (Britez, 2010). However, some claim that these schemes often lock small producers into the role of suppliers of low value-added commodities and into value chains where other market actors appropriate the bulk of the benefits. Also, local producers may have greater scope for adding value when producing for the local or domestic market (Smith, 2012 quoted in Depret, 2012).

In general, critics of green consumerism point out that it does not affect the total quantity of goods consumed by individuals and that it is an easy symbolic alternative to confronting the structural causes of ecological destruction (Maniates, 2001). On the other hand, significant change of consumption behavior could have a substantial power as it drives most economic activity (Fuchs, 2004). Although governments often intervene on the supply side by subsidies for green activities, the demand side represented by environmental standards is also important. However, the later will probably need much more social, cultural and political experiences (Depret, 2012). That is what UNEP (2011) called

[14] For instance, the fact that tourism from the rich countries has become an important resource for many poor ones, may not be indicative of higher living standards but rather a response to a deterioration in the quality of life (Bartolini quoted in Basili, 2006).

behavior-based policies. In this context, GE corresponds to *Lifestyle greens* discourse while the more structural change would be brought about with approach corresponding more to *Ecological citizenship*.

3.3. Hierarchy vs. network

The most successful environmentally sound practices have been seen where the public authorities adopt an active approach in partnership with institutions and private stakeholders (Depret, 2012). Moreover, Weber said that bureaucracy is the supremely rational form of social organization, increasing complexity in social and economic problems could not be confronted by individuals acting in isolation – the best way to cope with a large, complex problem is to break it down into smaller sets (quoted in Dryzek, 2012).

3.3.1. What we have seen

Problem solving, in general, make policies centrally thus are rarely sensitive to micro-/street level. Moreover, the structure typically prevents learning to go up the hierarchy.

Administrative rationalism implies hierarchy based on expertise with centralized both power and knowledge. Those at the top, designing tasks and managing operations, are expected to know better than those at lower levels. The role of experts is more important than citizen or producer/consumer and hierarchy more than equality or competition (Dryzek, 2012).

In *Economic rationalism* specification and enforcement of green taxes or property rights is the main task of government. In this light, it is strongly related to *Administrative rationalism* otherwise so abhorred (Dryzek, 2012).

Democratic pragmatism distinguishes between *government* as a top-down approach and *governance* - the informal network representing citizens, for example consumer boycott. Activists as well as states have facilitated a global governance web that regulates business beyond the level of the nation-state and conventional administration (Dryzek, 2012).

Sustainability document Agenda 21 claims in Section III to strengthen the role of NGOs, local authorities, business and industry (UN, 1992). However, Luke criticizes it as serving the interests of

eco-crats but with the decentered role played by global civil society could come to be more democratic and less managerial (Luke, 1887 quoted in Dryzek, 2005).

Ecological modernization emphasizes a role for government in setting standards and providing incentives to industry. It has flourished in countries with corporatist systems such as Norway and have not been pursued in the English-speaking industrialized nations (with exceptions for pollution control and recycling) where it is issue for industry rather than government. *Reflexive modernization* is presented to be an ideal form thanks to critical self-awareness with institutions and authority in general which would rebuilt in networks that would go beyond boundaries of the state, economy and society. Experts and elites would have to justify their policies in front of the citizens (Dryzek, 2012).

Within *Green radicalism* every person is to be an agent while collective actors are largely ignored except elites who might have the power to impose their will on others (Dryzek, 2012).

Environmental Justice Movement, in line with *ecological modernization*, demanding cure in the form of production planning. While ecological modernization believes capitalist enterprises themselves can seek efficiency and profit through waste minimization, the EJM believes that such changes can only be forced upon corporations through political action.

Social ecology believe hierarchy to be unnatural as well as the cause of everything immoral in society. It is associated with the eco-anarchist Bookchin´s whose answer are small-scale, self-sufficient communities living in harmony with their local environment. He developed ideas about *radical municipalism* which involves the renewal of political institutions from the ground up, starting at the local level (Dryzek, 2012).

Eco-socialist are often proponents, in line with *Administrative rationalism*, of the need for government plans to cure the ecological devastation of capitalism (Dryzek, 2012).

As Karl Popper (1966) and F.A. von Hayek (1979) have argued the human knowledge is too fragmentary that the hierarchical style has no way to put these pieces together in intelligent manner. Popper´s critique is rooted in the model of science as the exemplary problem-solving activity –the scientific community is not authority based on expertise, but free, open and equal criticism (both quoted in Dryzek, 2005). Hayek´s solution, in line with GE, is the market.

3.3.2. Green economy and the role of stakeholders

According to Bran (2013) GE proposes a solution that is authoritarian by its conditions and by its proponents. The concept justifies the *there is no alternative* approach, while the proponents are considered neutral experts who represent the best offered knowledge.

A joint effort between public and private is needed in order to separate economic growth from excessive use of resources and to improve quality of life along with reducing the environmental and social deficit (Babonea, 2012). In case of carbon market, the overall level of pollution should be set by the government on the basis on ecological considerations. Market would react to this artificial scarcity and allocate emission permits efficiently. Pigou (1920) suggested state intervention to make polluters pay for their external costs, while Coase (1960) proposed bargaining between proprietors to ensure that the level of pollution being the optimal one (both quoted in Dryzek, 2005).

Above all, GE emphasize the importance of government in creating the conditions for investment to be redirected from environmentally harmful activities to greener businesses (Borel-Saladin, 2013). The growing territorial dispersion of productive processes has made it more difficult to ensure active participation and control of the stakeholders. However, the more companies achieve success in the area of GE, the more competitive pressure at market will shift business strategy, public policy as well as civil society.

Countries which have succeed in adopting GE, in general, demonstrated a strong political commitment including countries with liberal economic traditions. They understand that they are committed to a process calling for a broad involvement over long periods with diverse stakeholders. Such a commitment is often focused on assisting the networking of actors, especially when high public or private investments are not required. Not so often are pursued policies in favor of green entrepreneurship (Depret, 2012).

However, for Bigg (2011) the essential point in this transformation is to avoid formation of huge bureaucracy but rather to enable funds, know- how and innovations through a diversity of channels. On the other hand, Mitchell and Simmons (1994) argue that environmental issues must be understood more as failures by government to specify property rights than as spin-off of private profit-seeking (quoted in Basili, 2006). Bartolini further argues that the problem of sustainability is not one of ethics but of efficiency - it is an institutional problem. The problem, therefore, is not in human nature but in economic system. In fact, the search for the most cost-effective forms of state interventions to correct environmental failures was itself largely conditioned by the efficiency

requirement, in order to make the cost of the required corrections as low as possible (quoted in Basili, 2006).

In fact, the range of issues require decentralization that allows the decision to be made close to the field of the action, encouraging local innovation and adaptation (Ioan, 2011). Therefore, GE should rather pursue democratic and participatory processes (Britez, 2010). For instance, the *ecosystem approach* has been defined as based on broad stakeholder engagement and consideration of the impacts of environmental degradation on the most vulnerable sectors of society (Morgera, 2013).

3.3.3. REDD: community-based or top-down approach?

Reducing Emissions from Deforestation and Forest Degradation (REDD) is a UN program. It is an effort to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to sustainable development (UN-REDD, 2015). UNRISR (2011) suggests that research on how social issues such as poverty reduction, equity and social justice are integrated into the REDD structure shows the importance of national regulations and an institutional infrastructure that local knowledge. These need wider recognition and institutional support from policy makers. Therefore, social science research is essential to complement the natural science emphasis (that dominates climate change debates) and mainstream economics (that dominates GE policy response).

These projects often take place in tropical forest areas where communities depend on the forest for their livelihood. It claims that the project will benefit the community, for example, by providing jobs, money and/or social projects. It also entails a set of restrictions for communities, their way of life and traditional use of the forest. For example, cutting down a tree to build a canoer or a house can be prohibited. Critics suggest that it is proposal put forward from the outside and not by local communities. In fact, for communities to truly benefit these proposals must come from their members themselves. They also argue that restrictions to clear of forest to plant crops, which is fundamental for many communities, threaten their food sovereignty. In other words, that REDD is not about recognizing the rights of communities but about taking over control of their territories (WRM, 2012).

3.4. Homo economicus vs. public interest

More radical free-market advocates argue that the real cause of pollution, as well as other environmental issues, is in fact exactly the inappropriate specification of private property rights (Dryzek, 2012). Apparently, people tend to care more for what they hold privately than for what they hold in common with others. Yet regulatory agencies are far from being replaced by regimes of property rights or by economistic calculations, markets can still *only* operate if government supplies a supportive legal context (Dryzek, 2012).

3.4.1. What we have seen

Promethean believes it is through competition that innovative means for overcoming emerging scarcities can best be generated, see little need for government to do anything much (Dryzek, 2012).

Problem solving discourses show experts and managers motivated by public interest, defined in unitary terms. *Administrative rationalism* introduces *Environmental Impact Assessment* when governments (in some cases even private actors) have to prepare an assessment of the damage likely to be caused by a project. Most used are cost-benefit analysis and risk analysis. Discovery and application of the public interest is itself a technical procedure e.g. through CBA (Dryzek, 2012).

Democratic pragmatism introduce agents who find eco-duties as a part of their basic social responsibilities and can be motivated by the public interest. It is also aware of community interests that surpass individual ones and thus emphasize the plural nature of public interest. Gundersen (1995) and Sagoff (1988) pointed out that everyone has two kinds of preferences: as a consumer and as a citizen which are not necessarily consistent with each other. Political rationality here means that all actors are viewed according to their ability to create difficulties for government, irrespective of whether they are motivated by conceptions of the public interest or as *homo economicus* (both quoted in Dryzek, 2005).

It further includes practices such as public consultation, *alternative dispute resolution* (bring the parties together with a professional mediator), *policy dialogue, lay citizen deliberation, public inquiries, right-to-know legislation*. The participants might be community representatives, environmental groups, corporate developers, government departments, and local governments. Also introduce voluntary agreements between regulators and corporations or audit system under which corporations voluntarily set targets for their environmental impacts (Dryzek, 2012).

Dryzek (2012) points out that despite the fact, according to *Economical rationalism*, that some must design and implement tools like green taxes they cannot be economic actors otherwise they would devise schemes in their own personal interest, not public one. On the other hand, once appropriate private property rights and incentives are in place, individual actors have no problem in deploying expertise to produce good results for society as a whole. Nevertheless, it considers the basic entity to be self-interested *homo economicus*. The notion of active citizenship is missing as well as the idea of complex ecological and social systems interacting in variable and uncertain ways which may even violate the private property rights (Dryzek, 2012).

As for *Ecological modernization* partnership towards innovation requires widespread commitment and agents are, therefore, motivated by public good. However, Dryzek (2012) argues that if capitalist society is to be guided in an *environmentally enlightened era* it must involve commitments on the part of the entire society, not just industry.

The *Green consciousness* discourses want people to change and when they are everything else is to be delivered. In fact, Dryzek emphasizes that the fact people began to think about their behavior is a substantial part of the impact of the recent wave of environmentalism. Moreover, they can also influence the understanding of key decision-makers so that they eventually work for good of society and planet (Dryzek, 2012).

3.4.2. Green economy perspective and the tragedy of common

Karl Marx referred to separation of people from the means of production (and conversion into waged laborers) as to the process how capitalism emerged from feudal system. This happened by enclosing common property where anyone could hunt or cultivate crops, and turning it into private property. This is process that was fundamental to the early development of capitalism in Europe (Bromley, 1992). Harvey (2003) calls this *a process of privatizing the commons that is causing a loss to many and rich benefits for just a few* and as *accumulation by dispossession*.

According to Bromley (1992), property relations represent a relation among three parties: the owner/s, an object of value (to the owners and to others) and all others in the polity. The essence is the ability to exclude others. However, imposing the concept of land ownership is often inconsistent with the way rural people actually use natural resources as to produce food for subsistence rather than for market. Natural assets that were collective used are therefore made available to individuals or firms for market-oriented production and profit-making (Coe, 2013). In countries with minority indigenous

populations, their claims to territory based on very different legal traditions, have usually been neglected by majority or dominant populations (Cook, 2012).

Within GE seeks natural elements to become resources on that property right were defined (Bran, 2013). Increasing the earning-capacity of assets, capitalization bring about cumulative enrichment of proprietors. This new income add up to the income generated by the direct exploitation of resources (Coe, 2013). The result is an expansion of property-based economies, as long as resources can be owned and capitalized. In this regard, social consequences are secondary unless they are well-suited in capitalist expansion. In this context, we can talk about negative social externalities within GE in the same way *eco-Marxist* talk about ecological ones.

Contention over property relations arises with the possibility to avoid costly processing of industrial wastes by discharging them directly into a nearby river. Polluter is free to act without regard for the interests of others – a regime of no law (Basili, 2006). In fact, even if the individuals share an interest they do not necessarily act accordingly. Everyone has an incentive to take a *free ride* on the efforts of others (Dryzek, 2012).

In parallel with the logic of free ride is also what G. Hardin (1968) calls *The Tragedy of Commons*: individual decisions and freedom in the commons lead to collectively bad outcomes thus brings ruin to all and abuse the commons (quoted in Dryzek, 2012). In fact, each economic actor decide whether or not to catch an additional fish, or dump an additional ton of sewage into a lake, facing still the same decision between private benefit and the public interest, always being in conflict. However, it is tragedy only if commons is finite, in other words, if there are limits which is basically denied by GE discourse.

Bromley also argues that the word *common* is misuse, especially in economics. G. Hardins - the author of the term *Tragedy of commons* himself, has expressed the wish that he had used the term *unmanaged commons*, but even then the essence of property is not *management* but *legal relations*. Thus, the key is for governments to assure the same level of legitimacy for all property regimes not just private ones (Bromley, 1992). Such point of view is completely missing within GE discourse as it emphasizes the role of private property rights and individual economic actors.

Especially fisheries have been given as an example of worldwide tragedy of common. Tradable quotas can be established in resources such as fish as well, but other forms of regulation are more widely use such as restrictions on numbers of boats, fishing seasons, equipment and total allowable catch for the fishery as a whole. The quota would refer to an allowable catch for a particular fishery for a specified time. Government agency is needed to establish the quotas but once done they can be sold on the market. Australia pioneered this system for its southern Bluefin tuna fishery. Nevertheless, tradable

quotas inevitably treat species in isolation even though rational management of a single species is impossible (Dryzek, 2012).

In Western US, water rights to stream flows generally went to the first person to claim them thus the *use it or lose it* doctrine applies. Therefore, it would be more efficient to buy and sell rights. Public policy there is also blamed for its subsidy for projects with massive ecological costs to supply agribusiness corporations and a few other interests. None of which would happen if actors had to pay market prices for the water (Dryzek, 2012). Air can have private property rights, typically with a parcel of land, violated by emitting pollutants into the atmosphere. The problem here is to identify polluters and to prove the effects on human health, especially when there are multiple polluters (Dryzek, 2012).

Dryzek (2012) concludes, when it comes to environmental issues, if everyone is a rational egoist, then the commons will always be abused, polluters will continue to generate externalities, and government will do nothing to fix the situation. On the other hand, North (1990) argues that instead of institutional approach, hypotheses must be based on a theory of human behavior. However, the constraints that institutions impose on individual choices are pervasive (quoted in Basili, 2006). In line with *Economic rationalism*, GE eventually goes for rather *Administrative rationalism* features: government-managed markets and quasi-market incentives e.g. pollution auctions or green taxes. However, governments should set the charge at a level sufficient to induce the required degree of abatement.

Nevertheless, it is problematic to look at environmental changes as a pure public good to which everybody have the same access. In this context, there are no distributional differences in the benefits but in terms of willingness to pay which may differ across individuals or social group. Therefore, enjoyment of these public goods may differ significantly among individuals, which is related not only to income but also to other characteristics such as geographical location, age, ethnicity etc. (Basili, 2006). As stated by Boyce (2003), power and wealth are significant determinants in distribution of environmental costs, therefore, rich people may protect themselves, more effectively against environmental degradation.

3.4.3. Protection of world heritage: Market incentives or institutional trusteeship?

Payment for Ecosystem Services (PES) are market dis/incentives to conserve global environmental commons. The purpose of these measures is to develop payoffs that more accurately reflect the value of natural resources (OECD, 2011).

Value can be defined as use value - the benefit from having or consuming something or exchange value- the monetary worth of a good or service traded in the market economy. In fact, uneven development is a matter of relatively adverse conditions to create value or to hold that value. However, value is always created by people and might take on following forms of services (Coe, 2013):

- Provisioning: the material goods provided by an ecosystem such as food, feed, fuel, and fiber.
- Regulating: the role of an environment in maintaining larger ecological system
- Cultural: recreational, spiritual, and aesthetic
- Supporting: support to other environmental systems e.g. a sink for pollutants

The calculation to estimate a *monetary* value:

- Revealed preference: establishes a monetary value through observed economic behavior for example fishing licenses plus travel costs
- Stated preference: ask survey respondents to place value
- Cost-based methods: the cost of restoring an environment after it has been damaged or the replacement cost of providing an alternative
- Cost-benefit analysis: either forward-looking or backward-looking , the former one identify policy options, attach monetary values to all cost and benefits using shadow pricing when the item in question has no market price, convert all costs and benefits occurring in future to the present using a discount rate, add up the cost and benefits associated with each alternative to give the net benefit, choose the option with the greatest net benefit

However, if the resource is essential then it has an infinite value. Therefore, evaluation is only possible if the resource is non-essential. There is also difference between value in consumption- direct use of environmental resources and value in non-consumption. There are as well indirect non-consumption use for people just knowing the unspoiled valley is there (Coe, 2013). In fact, there is much uncertainty around the size and timing of the benefits humans derive from maintaining ecosystem services due to

the complexity of the interactions between ecosystem services, climate change and biodiversity (OECD, 2011).

Such pricing mechanisms can incentivize efficiency and innovation, as well as generate funds for poverty alleviation and development. PES can be described as voluntary transactions where an ecosystem service is bought by at least one ecosystem service buyer from at least one ecosystem service provider, if the provider secures ecosystem service provision (Wunder, 2005). On the other hand, it can also shift the conservation to the global South and thus make Green economy policies in conflict with agricultural production, livelihoods, food security and stewardship (Cook, 2012). However, conservation of forests sinks and other natural habitats has long been recognized to involve unnecessary and unjust trade-offs with the well-being of indigenous or other peoples in developing countries who are either dependent on forest resources or are part of cultures that have developed livelihood systems that respect nature. It poses a major constraint on the development of PES schemes and the participation of indigenous peoples.

Therefore, according to some, the governance of common goods should be based on nonmarket criteria. They reject market-centered approaches for those categories of common goods which by their nature defy commodification, for which no evidence exists that their integrity can be protected through these instruments. They argue that many cultures and societies see the protection of Earth as *sacred*. Universal heritage value have been recognized by the World Heritage Convention which stated: *The cultural and natural heritage is among the priceless and irreplaceable assets, not only of each nation, but of humanity as a whole*. The loss of any of such heritage represents a loss for all the peoples of the world (UNESCO, 2001). Furthermore, other propose that the global scope of the challenges, together with the special requirements of common goods, will require a new world organization which they called World Environment Organization (WEO) with trusteeship function over global public goals and common goods which lie beyond the claims of any nation. The WEO mandate would require the means to stop individuals or states from degrading common goods with the power to act with dispute resolution mechanisms similar to those of the WTO (Bosselmann, 2012). According similar lines, Bran (2013) argues that a society based on solidarity depends more on democratic decisions than on the rationale of values and prices and that the problem of natural resources use should be one of public debate instead of market equilibrium.

3.5. Efficiency vs. equity

The ability of people to respond to challenges and policies as well as their relation to the environment, are shaped by social structures, institutions and relations. These include hierarchies and identities linked to class, gender and ethnicity (Cook, 2012), social capital linked to networks, voluntarism, trust, solidarity and participatory governance (Woolcock, 2000), and behavior change associated with social learning and community live (Britez, 2010).

3.5.1. What we have seen

Environmental problems tackled by *Problem solving* instruments carry the risk that countries will allocate their issues such as polluting industries into countries with less developed administration. Business can also influence the terms of debate as long as the structural status quo of the capitalist market economy is taken as given, business is privileged in policy making as government relies on business to provide employment (Dryzek, 2012).

Democratic pragmatism recognize citizens and equality across them as a basic feature, however, distorted in practice by exercise of power and strategy and the need of government to maintain business confidence (Dryzek, 2012). It is emphasized that various views on policy proposals can be found. Indeed, in the interests of someone is economic efficiency, to others it is distributional equity, to some others ecological integrity and harmony (Dryzek, 2012).

It is in interest of corporations and industry to maximize profit and avoiding environmental control on their operations. To labor unions it can be of interest to maintain unsustainable practices because of employment. The pluralist aspect of democratic pragmatism treats all such interest and concerns as equally legitimate. However, liberal democratic settings does not necessarily lead actors to pursuit of their economic interests should be confined to the market place rather than allowed to enter politics.

Sustainability believes economic growth is necessary to satisfy the legitimate needs of the world´s poor. The alleviation of poverty will ameliorate what is one of the basic causes of degradation, for poor people are forced to abuse their local environment to survive. Econ growth should therefore be promoted, but guided in ways that are both environmentally benign and social justice (distribution within the present generation but also across future ones). Sustainable development is defined to include economic prosperity, reduced poverty and social inequality within each generation, and environmental progress (Borel-Saladin, 2013). However, more radical environmentalist argue that in

an age of market liberalism, this promise is rather hollow as inequality between rich and poor expanded in the 1990s within and across nations (Carruthers, 2001 in Dryzek, 2005). In fact, according to Dryzek (2012) the reorientation from problem solving to sustainable development may require shifts in power between different levels to meet more effective. World Bank´s Environmental Department Report in 2002 was organized around the idea of sustainability, however, this was the document where the global equity aspect of the discourse disappeared, replaced by recommendation that the rich countries could best help the poor by becoming still richer and providing bigger markets for poor countries products (Dryzek, 2012).

Ecological modernization is based on following premises: less pollution means more efficient production and if a problem is not solved in the present, solving it in the future may be vastly more expensive for both business and government. Moreover, an unpolluted environment means healthier, happier, and more productive workers, who may even willingly sacrifice wages for these rewards. Nevertheless, it does not claim social justice, in fact, it says little about human interactions with ecosystem in general (Dryzek, 2012).

In spite of the core idea that there is money to be made in this restructuring, search for green production also can open the door for wider transformation, including political change as well as technological change.

Beck (1992) has argued that issues of environmental risk call into question the very foundations of industrial society as to be only semi-modern in term of not fulfilling social development and reinforcing the conflict between social classes (capitalists and workers) and redistributive issues reflecting this conflict between (quoted in Dryzek, 2005). However, he concludes with statement that *smog is democratic* which has been denied by empirical research focused on *environmental justice*.

Ecofeminism argue that as long as it remains under liberalism, democracy can never extend itself in a truly ecological direction. They perceive status quo as leading to inequality in both material wealth and the capacity to exercise power and reason and proposing ecofeminist democracy which is socially just and environmentally sound.

Social ecology concerns itself with the institutions and structural injustice especially associated with state and capitalism (Dryzek, 2012).

Red and green look at the ecological crisis as crisis of capitalism, creating class of workers and others poisoned by pollution which is in line with *Environmental Justice Movement* which seeks to transformed political economy, so that negative environment impacts are no longer conceptualized as byproducts to be dealt with as an afterwards, but as an evidence of malfunction of the system (Dryzek, 2012).

Environmentalism of the poor takes action against resource reallocation to the wealthy such as timber companies operating in tropical forests, biopiracy by corporations that steal local ecological knowledge about valuable plant products (and sometimes even try to sell it back), the privatization of common land, and the creation of debt (Dryzek, 2012).

3.5.2. Green economy and patterns of inequality

Quite notably, Bartolini (in Basili, 2006) talks about *positional negative externalities*. In his opinion, an economy is also positional which means that individuals are interested in their relative positions rather than their absolute ones, in relative not absolute income or wealth. In an economy of this kind, an increase in one person´s income generates a positional negative externalities in the sense that it reduces the well-being of someone else. A general increase in income which leaves the relative positions unchanged, therefore, cannot improve general well-being.

Talking about *beneficiaries of ecological degradation and those that bear its costs* (Goodman,2009 quoted in Bullard, 2012), in line with the *Environmental Justice Movement*, it become clear that ecological questions were always also questions of social power, and that therefore the former could never be solved without addressing the inequalities in power that produced them (Bullard, 2012). To identify so-called *winners* and *losers* in the shift towards GE is essential point within its social dimension. In other words, it is necessary to recognize social groups that would be worse off from industrial rearrangement and green taxes (UNRISD, 2011). The WB (2012) suggests allocating resources to compensate losers, but the question is if welfare is substitute for employment. Bullard (2012) suggest the costs of adaptation and mitigation to be paid for from military budgets, innovative taxes and debt cancellation.

In line with *Ecofeminism*, Commission on the Status of Women claim that unpaid rural women grow most of the world's food (UN Women, 2012 quoted in Salleh, 2010). Women also still carry out more regenerative-ecological activities than men do. This fact should be of interest within GE, but the private

sector comes with *technology transfer* for water infrastructure or renewables for climate mitigation (Salleh, 2010).

Salleh (2010) goes even further and claim that *what unfolds here is the next phase in a history of Eurocentric expansion – a system of accumulation for the few that functions on an economic surplus provided by the many* as GE does not speak explicitly about *a social debt to exploited workers, an embodied debt to unpaid women for their reproductive labors, a neocolonial debt to peasants and indigenes for taking their land and livelihood away and an ecological debt transferred to living nature at large* nor it is *inhabiting the domestic and geographic peripheries of capitalism*.

As Dryzek (2012) puts it, *Green radicalism´*s *sense of urgency, interest in social institutions, oppositional politics in the public sphere and social movements can play a key role in social learning which does not have to be tied to conventional politics as well as can bring to bear plenty of ideas about how political and economic institutions might look in an ecological future beyond industrial society*. He adds that environmental affairs feature high degrees of uncertainty and complexity, which are magnified as ecological systems interact with social, economic, and political systems. Thus we need institutions and discourses which are capable of learning their own shortcomings with the best example of *reflexive Ecological modernization* (Dryzek, 2012). GE reflection of this complexity is market and price signals, however, it seeks for new institutions as well. That is especially important in regards to its promises of poverty alleviation and social justice.

Instead of *Sustainable development´*s emphasis on *inter-generational* equality for future generations, GE is more about *intra-generational* equality which depends on the magnitude of income inequality and the incidence of poverty (Basili, 2006).

However, equity for all of the inhabitants of the planet remains a moral value (Bran, 2013) as we can find it mainly within *Green radicalism* discourses and most notably promoted by *Environmental Justice*, *Anti-globalism movements*, and *Ecofeminism*.

Most importantly, as stated by Vercelli (in Basili, 2006), equal access to economic opportunities is a fundamental condition of efficiency. It is the only way reasonably to guarantee that the *winners* of the economic competition are actually the best ones, adding the maximum value to society. In this context, there is no basic conflict between ethics and economics as far as long-term period for economic decisions is under consideration.

OECD (2014) claims that income inequality is increasing and have to be taken into account when policies are designed and implemented, especially if an environmental fiscal reform influence low-income households who already spend more for water and energy than those who are better off.

Income inequality is driven by changes in the distribution of wages and salaries, the average level of educational and skills. Population ageing or the trend towards smaller household also play a role but changes in the labor market are crucial (OECD, 2014).

According to researches by UNRISD (2011), monetary pricing and market-based allocation of environmental assets redistribute those assets upward, favoring people and places with the greatest purchasing power. Therefore, with inappropriate policies to address social costs, green growth may even lead to situation when the poor pay the price for sustaining growth while greening the planet. Thus policies for Green economy may in fact reinforce processes that are at odds with the win-win assumptions that underpin those (Barbier, 2012). Furthermore, the question is whether the market-based instruments might reinforce rather than eliminate lasting patterns of poverty and vulnerability (Borel-Saladin, 2013).

In any case, poverty eradication is closely linked to the sustainable management of natural resources since poor population depend on natural resources for their existence. Natural capital is related to the current problems of humanity, such as poverty, food security, sanitation, health, education (Babonea, 2012). Although improved *green* farming can increase crops, thus giving small-scale farmers extra income, the primary ways to eliminate poverty rest on services for the poor. The poor are the most vulnerable to ecological scarcity, energy and water poverty as well as they cannot afford to pay for these resources (Barbier, 2012; UNEP, 2011). In fact, income and structural inequalities very often unable to reduce poverty and start up growth (Barbier, 2012). There is also undeniable correlation between poverty and vulnerability to climate change, no exception for rich countries, as we have seen in case of Hurricane Katrina (Cook, 2012).

According to UNRISD (2011), inequality is relevant for following reasons:

- structural inequalities of power, and access to or control over resources, determine exposure to risk, levels of vulnerability and resilience
- people's capacity to take advantage of employment and other opportunities associated with green economy, and to change their consumption patterns, is correlated with inequality
- large income inequalities erode the social solidarity required for an active public policy and social pacts to deal with major challenges such as climate change and poverty reduction

The interest in inequality also reinforces the view of Green economy as technological approach, limited institutional reforms and social protection, and highlight the importance of comprehensive social policy, regulation and effective participation (Cook, 2012).

Important point is if economic inequality leads to better or worse environmental quality plus which individuals or social structures, besides income and other economic characteristics, determinate the impact of changes in the environment. In addition, given the indispensable role of collective action in environmental affairs, if economic inequality and social segmentation alleviate collective action or not. Of particular interest here is the typical consumption habits of rich and poor people. In fact, if wealth is redistributed from the rich to the poor, the resulting change depends on the consumption of the poor. The *Environmental Kuznets curve hypothesis* is that pollution rises with per capita income and then falls as abatement increase in response to the demand for environmental quality. However, the notion if the supply of environmental quality will depend on the distribution of power is missing. Nevertheless, more democratic countries will abate more as per capita income and democracy are correlated. Scruggs (1998) stated that increased inequality in incomes may lead to less pollution as there is a greater demand for environmental quality at higher income levels In addition, consumption is more oriented towards services and thus cause less pollution (quoted in Basili, 2006). According to Boyce (2003), when inequality increases the poor tend to overexploit natural capital since they perceive it as an immediate source of income. In contrary, inequality is associated with political instability which can lead rich people to prefer a policy of exploiting the environment and investing abroad where political situation is better rather than investing in the local natural resources thus, an increase in inequality lead both rich and poor to more degrade their environment.

3.5.3. Biofuels Policies

Biofuel´s production has increased over the last years. Countries have shifted energy systems in more environmentally, politically and economically favorable ways, as well as to insert the rural poor into such new systems. However, large agribusiness has remained the largest beneficiary of those policies. When included, the rural poor are most often bound to remain mere raw material suppliers without any perspective of ascension in the value chain. Worse, many of the contract-farming schemes being promoted offer disadvantageous terms and could be seen as adverse incorporation.

Many countries have started pursuing biofuel programmes partly as a way to escape trade relations seen as unfavorable, such as those of net oil importers with the handful of petroleum exporting countries (Farrell, 2006). This comes along with the possibility of creating jobs domestically and providing the agricultural sector with a new market – one of large elastic demand. Developing countries, in particular, have identified in biofuel production a major opportunity to promote rural

development, social inclusion and poverty reduction (Garcez, 2009). Power generation from indigenous biomass sources can overcome many of the obstacles impairing access to modern energy for two billion of the world's poorest, such as the costs and other practical difficulties of extending a centralized grid (Lima, 2012). Moreover, feedstock cultivation and biofuel production can create jobs in agriculture, provide smallholders with an income, and foster new "green" industries, eventually helping those countries leapfrog carbon-intensive energy development (FAO, 2008 and ODI, 2009 quoted in Lima, 2012).

On the other hand, biofuels been strongly criticized for their weak social and environmental dimension. There is a risks of forest clearing for feedstock cultivation and consensus on their actual climate benefits is missing (Fargione, 2008). Moreover, negative social impacts such as land-grabbing and competition with food production (Eide, 2008) as countries have converted significant share of their fertile soil to biofuel production. Furthermore, companies producing biofuels were given or grab lands used in traditional farming systems significant for local food security (Eide, 2008). As those companies are often from developed countries searching for *green* fuel whereas the impacts take place in the developing world, it could be perceived as a North-South disproportion that can even worsen inequalities instead of mitigate them (Lima, 2012).

Conclusion

As we have seen in the chapter on environmental discourses, we as humankind have been dealing with our relationship towards nature over the past 40 years. Apparently, we have already had plenty information, projections into the future, arguments, and the practical tools for action needed to achieve effective and fair development with better care of natural resources (Bigg, 2011).

We have also seen that a new discourse on Green economy takes status quo in terms of liberal capitalism as given while searching for change in behavior of consumers and governments towards more sustainable and justice future.

In fact, capitalism is a system in which relatively small group of people own the tangible or intangible assets that are necessary for production and value creation (Coe, 2013). However, history is full of examples of societies whose fall has been caused by collective decisions serving the interests of the few at the expense of the interests of the many. The key role, therefore, plays the creation of democratic institutions for the maintenance and expansion of social and environmental resources (Bartolini in Basili, 2006).

The problem is whether GE is possible to correct environmental degradation and social inequality through the current economic system, the very system that gave rise to these problems. Therefore, as critics of green growth indicated, orthodox economics approach to the social dimension of sustainability is also inadequate and will not lead to meaningful social progress. Indeed, many believe that unless the underlying inequality of the current economic growth model and power structures is transform, the greater equality and benefits to the poor predicted in GE are not likely to become reality (Cook, 2012).

At the same time, GE promotes more sustainable ways of global consumption and production. It also goes in line with the definition of economic grow which requires new opportunities for profit to be created, otherwise existing profits will be weaken. The possibilities for accumulating more and more profit mean that incentives exist to create new products, new markets, new ways of organizing the production process and new ways of saving on the cost (Coe, 2013).

It also stresses renewable energy and green innovation. However, infinite energy resources are not solution to the loss of biodiversity and the ecological and social consequences. In fact, it only solve the energy crisis of the economic system, rather than bring about ecological sustainability of the economy

or to cope with social consequences that the loss has caused (Britez, 2010). In market competition it is the entrepreneurs and innovators that the system will reward, while those who fail to innovate will be outcompeted. Thus it is essential to create new growth by destroying old products, processes and markets and establish new ones (Coe, 2013).

Property rights are also critical precondition for growth. Indeed, surplus value extraction is only possible because the capitalists owns the means of production: machinery, land, raw materials, intellectual property. Therefore, capitalism is about a structural relationship between different social classes: class that owns the means of production and a working class that owns labor it sells. However, commodifying of nature do not reflect how values vary across places as regards to significance, identity and use of environmental amenities. Besides, market prices do not reflect the whole social costs of production plus often cause situations where the natural resource management practices of rural or indigenous peoples may, in fact, be subsidizing more affluent groups. Research by OECD (2014) shows that for many developing countries, land redistribution and secure land rights for disadvantaged, groups may be an essential prerequisite for participating in Green economy initiatives.

Against the social inequity, Green economy proposes the so called green jobs. However, products need resource consumption, even the green ones. The social conditions for resource exploitation and for cropping of biofuel raw materials are very poor in most of developing countries (Bran, 2013). In the first case major environmental degradations occur, while in the second one the land for food production is lessened by the energy crops. Thus, Green economy strategies often have an effect that is in opposition with the expected effect for social equity (Bran, 2013). According to UNRISD (2011), varying paths to Green economy occur and each implies different costs and benefits for different social groups, countries and regions, as well as different roles and responsibilities for state, market and community actors and institutions.

For some, GE can even become *world deception* as capitalist growth itself *long ago became the enemy of the natural world* (Willers, 1994) or as Ikerd (2005) puts it: *capitalistic economies inherently are extractive, with respect to the natural and social resources upon which they must depend for productivity* (quoted in Britez, 2010). According to others, the decoupling of economic growth from environmental degradation is not possible within the capitalist model because the eco-efficiency improvement could be cancelled by the growth of demand and the need to increase productivity for cost reduction[15] (Bran, 2013). According to Barbier (2012) the faith in unfettered markets in the last 20 years has been causing a weakening in the social protection net and re-distribution policies. Others

[15] For instance, in agriculture and food industry the increase of productivity was made by continuous raise of production volume since profitability is falling continuously (ibid).

blame Green economy to be an effort to *neuter critiques of global capitalism and corporate control* (Morgera, 2013) or to be used as *rhetoric device* to justify the primacy of certain countries and geographic locations within the global capitalist political economic system (Britez, 2010).

References:

ABOUT REDD+. 2015. UN-REDD Programme [online]. [cit. 2015-05-11]. Available from: http://www.un-redd.org/aboutredd

ANDREICA, A., BĂLU P. E., and BĂLU, F. 2014. Green Economy - from theory to practice. *Quality – Access to Success* (15: pg. 523-530).

ARRIAGADA, R., PERRINGS, Ch. 2012. Paying for International Environmental Public Goods. *UNEP*. (October). Available from: http://www.unep.org/ecosystemmanagement/Portals/7/Documents/WP17_Paying%20for%20International%20Environmental_UNEP.pdf

BABONEA, A. M., JOIA, R. M. 2012. Transition to a green economy – a challenge and a solution for the world economy in multiple crisis context. *Theoretical and Applied Economics*. (Volume XIX).

BARBIER, E. B. 2012. Natural Capital, Ecological Scarcity and Rural Poverty. *The World Bank Development Research Group Environment and Energy Team & Sustainable Development Network Office of the Chief Economist.* (October). Available from: http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-6232

BASILI, M., FRANZINI M., and VERCELLI, A. (eds). 2006. *Environment, Inequality and Collective Action*. Abingdon: Rotledge. ISBN 0415342341.

BIGG, T. 2011. Development Governance and the Green Economy: A Matter of Life and Death? *Review of Policy Research* (Volume 28).

BOREL-SALADIN, J. M., TUROK, I. N. 2013. The Green Economy: Incremental Change or Transformation? *Environmental Policy*. (23). DOI: 10.1002/eet.1614. Available from: http://onlinelibrary.wiley.com/doi/10.1002/eet.1614/abstract

BOSSELMANN, K., BROWN, P. G., and MACKEY B. 2012. Enabling a Flourishing Earth: Challenges for the Green Economy - Opportunities for Global Governance. *RECIEL*. (21). ISSN 0962 8797.2012

BOYCE, J. K. 2003. Inequality and environmental protection. *Political economy research institute*. (Number 52). Available from: http://scholarworks.umass.edu/cgi/viewcontent.cgi?article=1039&context=peri_workingpapers

BRAN, F. 2013. Green Economy – component of sustainable development. *Quality – Access to Success.* (Vol.14). Available from: http://connection.ebscohost.com/c/articles/90606253/green-economy-component-sustainable-development

BRITEZ, R., PETERS M. A. 2010. Ecopolitics of 'green economy', environmentalism and education. *Journal of Academic Research in Economics*. (1). Available from: http://www.ceeol.com/aspx/issuedetails.aspx?issueid=aafcb389-8008-4acc-9de9-c070a299c3b3&articleId=a886b484-d383-49b5-9c0b-6fb4863b0179

BROCKINGTON D. 2012. Radically conservative vision? The challenge of UNEP's 'Towards a Green Economy'. *Development and Change* (43:1).

BROMLEY, D. W. 1992. Making the Commons Work. *Institute for Contemporary Studies Press*. San Francisco.

BUCKINGHAM, S., TURNER M. (eds). 2008. *Understanding Environmental Issues*. London: Sage Publications. ISBN 978-0761942368

BULLARD, N., MÜLLER T. 2012. Beyond the 'Green Economy': System change, not climate change? *Society for International Development*. (55:1). Available from: http://www.palgrave-journals.com/development/journal/v55/n1/full/dev2011100a.html

BUTLER, T., WATT P. 2007. *Understanding Social Inequality*. London: SAGE Publications Ltd. ISBN 9780761963707.

CAI, W., WANG, C., CHEN, J., and WANG, S. 2011. Green economy and green jobs: myth or reality? The China s power generation sector. *Energy* (10).

CARR, CH., ROSEMBUJ, F. 2008. Flexible Mechanisms for Climate Change Compliance: Emission Offset Purchases Under the Clean Development Mechanism. *Environmental Law Journal* (44).

COE, N., KELLY, P., and YEUNG, H. (eds). 2013. *Economic Geography: A Contemporary Introduction*. Second Edition. USA: Wiley. ISBN 9780470943380.

COOK, S., SMITH, P., and UTTING, K. 2012. Green Economy or Green Society? Contestation and Policies for a Fair Transition. United Nations Research Institute for Social Development: *Occasional Paper Ten Social Dimensions of Green Economy and Sustainable Development.* (November).

DEPRET, M., HAMDOUCH, A. 2012. Sustainable development policies and geographical landscape of the green economy - actors, scales and strategies. *Finisterra.* (XLVii).

DRYZEK, J. 2012. *The Politics of the Earth: Environmental Discourses*. Oxford: Oxford University Press. ISBN 978-0199696000

DUGAROVA, E., LAVERS, T. 2014. Social Inclusion and the Post-2015 Sustainable Development Agenda. *UNRISD*. (UNITAR Briefing for UN Delegates). Available from: http://www.unrisd.org/unitar-social-inclusion

EIDE, A. 2008. The Right to Food and the Impact of Liquid Biofuels (Agrofuels). *FAO*. Rome.

EUROPEAN COMMISSION. 2010. Communication from the commission: A strategy for smart, sustainable and inclusive growth. *EUROPE 2020*. (3). Available from: http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf

FARGIONE, J., HILL, J., TILMAN, D. 2008. Land clearing and the biofuel carbon debt. *Science* (Vol. 319, No. 5867, pp. 1235–1238).

FARRELL, A. E., PLEVIN, R. J. 2006. Ethanol can contribute to energy and environmental goals. *Science* (Vol.311, No. 5760, pp. 506–508).

FERGUSON, J. 1994. *The anti-politics machine*. University of Minnesota Press. ISBN 978-0816624379

FOXON, T. J., KOHLER, T. J., and OUGHTON, C. (eds.) .2008. Innovation for a low carbon economy: economic, institutional and management approaches. *Edward Elgar*. London.

FUCHS, D. A., LOREK, S. 2004. Sustainable consumption. *Sustainable Europe Research Institute (SERI)*. (Nr. 4). Available from: http://web205.vbox01.inode.at/teaching/eoi/pdf/SERI_Background_Paper_4.pdf

GARCEZ, A.G., VIANNA, J. S. 2009. Brazilian biodiesel policy: Social and environmental considerations of sustainability. *Energy* (Vol. 34, No. 5, pp. 645–654).

GEZON, L., PAULSON, S. 2005. *Political ecology across spaces, scales, and social groups*. New Jersey: Rutgers.

GIAMPIETRO, M., MAYUMI, K. 2009. The Biofuel Delusion: the fallacy behind large-scale agro-biofuels production. *Earthscan Research Edition*. London. (320 pp.)

GRUBB, M., JAMASB, T. and POLLITT, M. G. (eds.) 2008. Delivering a low-carbon electricity system: technologies, economics and policy. Cambridge University Press, Cambridge.

HALLEGATTE, S., HEAL, G., and FAY, M., and TREGUER D. 2011. From Growth to Green Growth - The World Bank Policy Research Working Paper No. 5872. *Sustainable Development Network*. Office of the Chief Economist. Available from: http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2011/12/07/000158349_20111207171314/Rendered/PDF/WPS5872.pdf

HARVEY, D. 2003: The new imperialism. Oxford: Oxford University Press

HAWKEN, P., LOVINS, A. B. 2010. *Natural capitalism: the next industrial revolution*. New ed. London: Earthscan. ISBN 978-184-4071-708.

IISD. 2012. G20 Finance Ministers and Chancellors Discuss Green Growth. *Climate Change Policy & Practice*. (February). Available from: http://climate-l.iisd.org/news/g20-finance-ministers-and-chancellors-discuss-green-growth/

IOAN, I., RĂDULESCU, C.V. 2011. Interplays between environmentalism and polluting industries. *Journal of Knowledge Management, Economics and Information Technology* (3).

JOHNSTONE, N., HAŠCIC, I., and KALAMOVA, M. 2010. Environmental policy design characteristics and technological innovation: evidence from patent data. *OECD Environment Working Papers*. OECD Publishing, Paris.

KHOR, M. 2011. Risks and uses of the green economy concept in the context of sustainable development, poverty and equity. *South Centre*. (July). Available from: http://www.southcentre.int/wp-content/uploads/2013/05/RP40_Green-Economy-Concept-Sustainable-Development-Poverty-and-Equity_EN.pdf

KOROTAYEV, A. V., TSIREL, S. V. 2010. A Spectral Analysis of World GDP Dynamics: Kondratiev Waves, Kuznets Swings, Juglar and Kitchin Cycles in Global Economic Development, and the 2008–2009 Economic Crisis. *Structure and Dynamics* (1: p. 3–57). Available from: http://escholarship.org/uc/item/9jv108xp

LIMA, M. G. B. 2012. An Institutional Analysis of Biofuel Policies and their Social Implications. *Social Dimensions of Green Economy and Sustainable Development*. (May). Available from: http://www.fes-globalization.org/geneva/documents/9%20%20UNRISD%20Bastos%20Lima.pdf

LOHMANN, L. 2006. Offsets: The Fossil Economy's New Era of Conflict. *Development Dialogue*. (Vol. 48, pp. 219-328).

MANIATES, M. F. 2001. Individualization: Plant a Tree, Buy a Bike, Save the World? *MIT Press Journals*. (Vol. 1). Available from: http://www.mitpressjournals.org/doi/abs/10.1162/152638001316881395#.VVBVvvntmko

MARTÍNEZ-ALIER, J. 2002. *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation*. Cheltenham: Edward Elgar. Available from: http://web.boun.edu.tr/ali.saysel/ESc307/Alier-Currents%20of%20Environmentalism.pdf

MIETTINEN, R. 2013. *Innovation, Human Capabilities, and Democracy*. Oxford: Oxford press. ISBN 978-0-19-969261-3.

MORGERA, E., SAVARESI, A. 2013. A Conceptual and Legal Perspective on the Green Economy. *RECIEL* 22. (1).

NAKICENOVIC, N. 1997. Freeing energy from carbon. *Technological Trajectories and the Human Environment*. (p. 74- 88). Available from: http://www.nap.edu/openbook.php?record_id=4767&page=74

OECD. 2008. Environmental innovation and global markets. *Working Party on Global and structural Policies*. OECD Publishing, Paris. Available from:

http://www.oecd.org/env/consumption-innovation/oecdglobalforumonenvironmentoneco-innovation.htm

OECD. 2009. Sustainable manufacturing and ecoinnovation: towards a green economy. *OECD Policy Brief – Observer*. OECD Publishing, Paris (June).

OECD. 2010. Interim Report of the Green Growth Strategy: Implementing our Commitment for a Sustainable Future. *Meeting of the OECD Ministerial Council at Ministerial Level*, Paris, 27–28 May 2010. OECD, Paris.

OECD. 2011. Towards green growth: A summary for policy makers. *Green Growth*. (May). Available from: http://www.oecd.org/greengrowth/48012345.pdf

OECD. 2014. The socio-economic context and characteristics of growth. *Green Growth Indicators 2014*. (37–52). Available from: http://www.oecd-ilibrary.org/environment/green-growth-indicators-2013_9789264202030-en

SALLEH, A. 2012. Green Economy or Green Utopia? Rio+20 and the Reproductive Labor Class. *American Sociological Association*. (Volume 18).

SAVAGE, M., BAGNALL, G. and LONGHURST, B. 2005. Globalization and belonging. *Theory, Culture & Society*. London: SAGE Publications. Available from: http://dx.doi.org/10.4135/9781446216880

SOLOMON, B., HEIMAN, M. 2010. Climate policy. *Encyclopedia of geography*. (pp. 463-466). SAGE Publications. Available from: http://dx.doi.org/10.4135/9781412939591.n177

SPASH, C. 2010. The Brave New World of Carbon Trading. *New Political Economy* (Vol. 15, No. 2, pp. 169-95).

STEPPACHER, R. 2008. Property, Mineral Resources and 'Sustainable Development. *Property Rights, Creditor's Money and the Foundation of the Economy*. Marburg: Metropolis.

THE WORLD BANK. 2012. Inclusive Green Growth. ISBN 978-0-8213-9551-6. Available from: http://siteresources.worldbank.org/EXTSDNET/Resources/Inclusive_Green_Growth_May_2012.pdf

UN (United Nations). 2010. Objective and themes of the United Nations Conference on Sustainable Development: Report of the Secretary-General. *Preparatory Committee for the*

United Nations Conference on Sustainable Development. (December). Available from: https://ggim.un.org/docs/meetings/Forum2011/A-Conf_216-PC-7.pdf

UN (United Nations). 1992. AGENDA 21. *United Nations Conference on Environment & Development Rio de Janerio, Brazil*. (June). Available from: https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf

UN (United Nations). 2006. Report of the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol. *Conference of the parties serving as the meeting of the parties to the Kyoto Protocol*. (March). Available from: http://unfccc.int/resource/docs/2005/cmp1/eng/08a01.pdf

UNEP. 2011. Towards a green economy: pathways to sustainable development and poverty eradication. 2011. Nairobi, Kenya: UNEP, 630 p. ISBN 978-928-0731-439. Available from: http://www.unep.org/greeneconomy/Portals/88/documents/ger/ger_final_dec_2011/Green%20EconomyReport_Final_Dec2011.pdf

UNEP. 2012. Indicators at different stages of green economy policies. *Measuring progress towards a green economy.* (May). Available from: http://www.unep.org/greeneconomy/Portals/88/documents/research_products/Measuring%20Progress%20report.pdf

UNESCO. 2001. Operational Guidelines for the Implementation of the World Heritage Convention. *Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage*. Available from: http://whc.unesco.org/en/guidelines

UNRISD. 2011. Social Dimensions of Green Economy and Sustainable Development [online]. [cit. 2015-05-11]. Available from: http://www.unrisd.org/unrisd/website/projects.nsf/(httpProjects)/6901343F6EC7DEDEC12578C6004A56DA?OpenDocument

VAN GRIETHUYSEN, P. 2011. The Social Dimensions of Carbon Trading: Contrasting Economic Perspectives. *Green Economy and Sustainable Development: Bringing Back the Social Dimension*. (October). Available from: http://www.unrisd.org/greeneconomy/vangriethuysen

VICTOR, P. A., JACKSON, T. 2012. Commentary: A commentary on UNEP's green economy scenarios. *Ecological Economics.* (77: 11 –15).

WAPNER, P. 2011. Civil Society and the Emergent Green Economy. *Review of Policy Research: The Policy Studies Organization*. (Volume 28).

WILLERS, B. 1994. Sustainable Development: A New World Deception. *Conservation Biology*. (Vol. 8).

WOERDMAN, E. 2014. Emissions Trading. Encyclopedia of Law and Economics: *Springer Science+Business*. Available from: https://www.rug.nl/research/portal/publications/emissions-trading(8f815033-f70c-4c83-9834-dfb92181f0e2).html

WOLF, M. 2008. The rescue of Bear Stearns marks liberalisation's limit. *Financial Times*. (March 25). Available from: http://www.ft.com/cms/s/0/8ced5202-fa94-11dc-aa46-000077b07658.html#axzz3Zk2G1rhi

WOOLCOCK, M. and NARAYAN, D. 2000. Social capital: Implications for development theory, research and policy. *World Bank Research* (Vol. 15. No. 2, pp. 225-249).

WRM. 2012. 10 things communities shoud know about REDD. *Heinrich Boll Stiftung*. Available from: http://wrm.org.uy

WUNDER, S. 2005. Payments for Environmental Services: Some Nuts and Bolts. *Center for International Forestry Research* (No. 42). Available from: http://www.cifor.org/publications/pdf_files/OccPapers/OP-42.pdf