

Chapter 3

Economic Dimensions of Environmental Citizenship



Vladislav Kaputa, Katharina Lapin, Florian Leregger, and Haris Gekic

3.1 Introduction

The concept of Environmental Citizenship requires a critical discussion on economic development. Generally, economics ‘enjoys’ a negative attitude among citizens around the globe in relation to its impact on the state of the environment. Simply put, business is in a role of ‘bad guy’ responsible for the degradation of (not only human) environment. The term ‘economics’ is derived from the Greek word *oikonomia* composed of the words *oikos* (house, household) and ‘*nomos*’ (rule, law). First mentioned in ancient Greece, Aristotle termed economics as a science of ‘household management’. Over the centuries (and especially after the Industrial Revolution), economic relations rose to the extent which cross national borders causing interdependence and influence the quality of life of citizens across the

V. Kaputa (✉)

Department of Marketing, Trade and World Forestry, Technical University in Zvolen,
Zvolen, Slovakia
e-mail: kaputa@tuzvo.sk

K. Lapin

Austrian Federal Research Centre for Forests, Natural Hazards and Landscape,
Vienna, Austria
e-mail: katharina.lapin@bfw.gv.at

F. Leregger

Institute for Environment, Peace and Development (IUFES), Vienna, Austria
e-mail: florian.leregger@iufes.at

H. Gekic

Faculty of Science, Department of Geography, University of Sarajevo,
Sarajevo, Bosnia and Herzegovina
e-mail: hgekic@gmail.com

© The Author(s) 2020

A. Ch. Hadjichambis et al. (eds.), *Conceptualizing Environmental Citizenship for 21st Century Education*, Environmental Discourses in Science Education 4, https://doi.org/10.1007/978-3-030-20249-1_3

globe. In fact, mankind's dramatic role and economically driven activity influence its own environment and the state of nature in the both negative and positive ways.

The study of economics begins with the clarification of basic relations between the supply and demand on both a micro and a macro level. Education on micro- and macroeconomic principles is usually based on mainstream economic thinking. It is naturally founded on the growth (national and transnational level) and on the profit (individual and corporate level). Thus, the tools, mechanisms and concepts used are adjusted to achieve these goals. Solutions to the disparities between a desirable state of the environment and its real state as a result of human economic activity are therefore based on a change of approach as to how or whether to achieve economic growth.

3.2 Conceptual Approaches

Economy, as a science, deals with the utilisation of limited resources for the production of useful assets and services and their subsequent distribution to different groups in society. Economics study how and why people (as consumers, corporates, NGOs, public sectors or government agencies) make decisions about the use of valuable resources. The area of knowledge specialised in the study of environmental problems with the perspective and analytical ideas of economics is called environmental economics. The study of nature in its role as a provider of raw materials is called natural resource economics (Field 1994). The field of economics, which is contrary to the mainstream economics (and environmental economics as a part of the mainstream economy), is ecological economics focused primarily on economic-environmental relations. Ecological economics studies the relations of the human being with its organic and inorganic environment (Common and Stagl 2005). Ecological economists consider their field more interdisciplinary and argue that environmental economics adopted neoclassical economic paradigm to the extent to which it caused researchers to be blinded to other disciplinary views (Beder 2011). Daly and Farley (2004) defined the objective of ecological economics as the searching of ways towards 'steady-state economics' and simultaneously towards a fair distribution of resources not only for recent but also for future generations. Steady-state economics is the economy that does not grow or fall and remains at a level that allows the restoration of natural ecosystems and the long-term dignity of mankind. It could refer to a national economy, but also to a local, regional or global economy.

Beder (2011) introduces ecological economics as a more interdisciplinary approach, incorporating the research of economists, ecologists, philosophers and social scientists. The influence of ecological economics seems to be limited to areas where it retains the standard economic view of environmental problems (e.g. ecosystem services). Interdisciplinarity has been unable to overcome political and social barriers. Beder claims that whilst many academics seek interdisciplinarity in their research, the same cannot be said of government ministries, departments and agencies, which are generally divided into specialised domains dealing with stakeholders from particular sectors of the economy.

3.2.1 *The Ethics and Values*

Economists use preferences as the normative criteria in studies dealing with an individual's choice between alternatives. In that way, a decision is determined by individual preferences. In analysing policy choices, we assess the normative criteria from some ethical position. The ethical basis for economics is *utilitarianism*, which is the principle of assessing the values (moral correctness of an action) where utility refers to the balance of pleasure and pain of an individual. Pleasure increases the utility of an individual and, vice versa, pain reduces it. The entire utility of individuals is known as welfare. Normative economics does take account only of the utilities of human beings.

Common and Stagl (2005) stated that there is no difference at all between ecological economics and neoclassical economics – both are anthropocentric, as well as utilitarian. For many environmentalists, especially deep ecologists, this is unacceptable and arrogant because it denies other living things any intrinsic value, namely, any value outside of their value to humans (Beder 2011). Beside of purely ecocentric or biocentric aimed academics dealing with consequences of human economic activity, there are world authorities that strongly emphasise not only environmental (crisis of climate change) but also social (poverty) issues caused by modern culture's anthropocentrism (Francis and Bartholomew 2017). Explained simply by Pope Benedict (2009) – when 'human ecology' is respected within society – environmental ecology also benefits.

There are some differences between ecological economics and neoclassical economics in the way that human pleasure/pain is to be measured. Neoclassical economics considers each human individual to be the sole judge where the change of its utility is measured only in terms of the preferences. These preferences are taken as a given, bearing in mind consumer sovereignty is not subject to any moral evaluation. Ecological economics does not treat individual preferences as sovereign or as the only source of normative criteria (Common and Stagl 2005).

Carroll (2016) claims that the environment and environmental issues are *both* moral and spiritual issues. He argues that defining environmental questions in this way is not new but dates back at least to the philosophical writings of Aldo Leopold in the United States and his famous 'land ethic' essay, published in 1948. Leopold (1949) worked out a new approach towards the value of nature which could be called (for now) neo-anthropocentrism, where nature not only has value for man but also for its own value (Androvičová and Rácz 2017).

Mainstream economists take a very specific view of the term 'value', which relates to the exchange value of a commodity rather than any broader concept that might include aesthetic, spiritual and ethical dimensions. When environmental economists speak of valuing the environment, they mean giving it a market price based on supply and demand and individual preferences (Beder 2011). Neoclassical economists do not concern themselves with moral, political and ethical concerns because they assume that the market is an ethical system and that political decisions should be made separately. They dismiss the idea that aggregating costs and benefits

cloud distributional and equity issues of who gets the benefits and who suffers the losses, by arguing that in theory those benefiting could compensate the losers ensuring that no one is worse off (Pareto criterion) (Pearce 2002).

According to neoclassical economics, the environment can be priced because the option and existence of values can be translated into the preferences of individuals and those preferences in turn can be measured. However, individual preferences are shaped to a large extent by the information available to people about the consequences of their choices (Beder 2011). Economic logic is that individuals act to optimise their own interests, and Daly and Cobb (1989) marked ‘the intelligent pursuit of private gain’ as the essence of rationality. If this is the principle behind the market system, then altruistic behaviour is rational. The assumption that there is no common good outside of individual wants and preferences leads to the idea that markets satisfy needs of people more efficiently than governments. It is contrary to interdisciplinary knowledge about people’s motivations and political behaviour. When people act politically and vote, they often see themselves as part of a group. They are not only concerned about their self-interest, but they also consider the ‘good of society’ (Self 1990, p. 9). Cao’s definition of Environmental Citizenship includes not only membership in a group (humanity and earthlings) but also rights (clean air and water), responsibilities (not to pollute) and means of learning (education and awareness campaigns) (Cao 2018, p. 14). Individuals could effectively reveal their Environmental Citizenship in local communities’ actions. The encyclical *Laudato si’* introduces an example where local cooperatives are being developed to exploit renewable sources of energy, which ensure local self-sufficiency and even the sale of surplus energy. The encyclical explains that if the existing world order proves powerless to assume its responsibilities, local individuals and groups can make a real difference. Corruption causes inadequate law enforcement, and therefore public pressure has to be exerted in order to bring about decisive political action. Unless citizens control political power – national, regional and municipal – it will be impossible to control damage to the environment (Francis 2015, p. 131). People as consumers seek to maximise their own materialistic wants, whilst as citizens they are concerned with what constitutes a ‘good society’ (Cooper and Hart 1992, p. 22).

Dealing with the state of environment in relation to human economic activity, the environmental economist Field (1994) evolved the answers on the request – Why do people behave in an environmentally inappropriate way? Is it a question of unethical or immoral human behaviour that causes environmental degradation? If people lack the moral and ethical strength to refrain such type of behaviour, we need to increase the general level of environmental morality in the society – the role of education. Furthermore, if the approach is strictly based on the moral argument, it means that people pollute because they are morally underdeveloped in some way. Field states that this is the way the economic system is arranged, and it is the precondition for human behaviour. Another approach is the setting of economic system and its institutions and the decision-making processes that result in environmental degradation. If people pollute because it is the most economical (cheapest) way to manage their households or businesses, it is also an issue of certain institutional setting (whether

economic or social institutions). In that way, institutions need to be set up to structure the incentives that lead people to make decisions in a more desirable direction.

Interestingly, Field (1994) argues that it is a simplistic incentive-type statement that pollution is a result of the profit motive, which is seen in market-driven economies of industrialized western nations. He gives an example of environmental degradation and heavily polluted air and water resources in the former USSR and other former communist regime countries. Here, economics had been centralised and the profit motive entirely lacking. He argues that the profit motive is not the main cause of environmental destruction.

3.2.2 *Environment and Mainstream Economics*

In his book *Environmental and Resource Economics* (1988), Michael Common describes how mainstream economics perceive three functions that the natural environment serves in relation to economic activity: S stands for sink (waste products), R for resources and A for amenity (recently recognised as ecosystem services). He outlines that production and consumption generate waste products (residuals), for which the natural environment is the ultimate dumping place or sink. It is also the source of inputs to production – natural resources (mineral deposits, forests, animal populations). Amenity relates to services flowing from the environment (living space, natural beauty, recreational space, etc.). These three economic functions of the natural environment are not necessarily mutually exclusive but may be, at a certain level, of use to the economic system. High levels of pollution will reduce the production of inputs (supply of natural resources) and/or the flow of amenity services even to zero. Going deeper, indefinitely prolonged economic growth may be impossible due to the finite nature of resource stock. Common pointed out that pollution and resource extraction are reducing the natural environment's contribution to the quality of life. Also, the process of economic growth gives rise to — and is affected by — environmental problems. Mainstream economists (since the period of the 1970s when an attack on the growth objective appeared by a number of non-economists) took position that a growing economic system need not run out of natural resources and that economic growth need not reduce the quality of life. The argument was that a properly functioning price system will accommodate higher levels of production and consumption to preserve the natural environment in a satisfactory state. This price mechanism operates on scarcity – if anything, i.e. natural resources, become scarce, then less of it is used. This argument could be applied to the environmental functions. In the case where economic growth has impaired these functions, waste disposal would become a costlier activity; hence, the price of amenity services would increase. In this way, an economic system reduces the demand for the mentioned environmental functions. An obvious solution to the increasing number of residuals was/is recycling, in which case, residuals return to production as inputs instead of disposal into environment, with the amount of resources used

being reduced as well. Also, to the extent that virgin resources become more expensive, recycling will be encouraged by the price mechanism.

Such an oversimplification is taken on by mainstream economists. This kind of argument needs one condition to be fulfilled: the price mechanism must work properly. If private property rights exist in those things where the mechanism has control, then only things that people own can be exchanged under the described price mechanism. Mainstream economists state that environmental problems are not the consequence of economic growth. They argue that such problems are the consequence of inappropriate patterns of economic activity. This would not arise if relationships between the economy and environment were determined by a properly functioning price mechanism. So, the problem is not in the economic growth but in achieving the pattern of economic growth that assigns a properly functioning price mechanism (Common 1988). The consequences of such thinking are not fair to people at different points in time; growth, however, remains the ‘mantra’ for mainstream economics.

The Limits to Growth (Meadows et al. 1972) belongs among the influential pioneers’ publications that contradict the mainstream economics view. The study forecasts the collapse of the system resulting from exponential growth until it hits its environmental limits. The authors recommend leaving economic growth as a policy objective. The study was met with strong criticism from economists arguing that the computer model of the world economic system operated with a static price mechanism. It meant that the mechanism could not accommodate growth to environmental constraints. Nevertheless, the publication contributed to widespread interest about environmental problems in the early 1970s.

The study of Environmental Citizenship has a lot to do with the term sustainability, since it is understood to maintain the capacity of the joint economy-environment system to continue to satisfy the needs and desires of humans for a long time into the future (Common and Stagl 2005). Considering the word ‘maintaining’ (as defined in the above-mentioned study), one could suppose that the capacity is enough. However, in case of a shortage, scholars could argue that the capacity needs to be increased rather than maintained.

A purely environmental point of view would be difficult to maintain since social issues are at least as (if not more so) crucial as that environmental. Except for a relatively sufficient level of prosperity in some nations, mass poverty can be found around the globe. Again, mainstream economic thinking sees economic growth as the proper tool to fight poverty.

Here, another influential publication should be mentioned – *Our Common Future* (also known as the ‘Brundtland Report’) reported by the World Commissions on Environment and Development (WCED) in 1987. The report described the extent of poverty as well as the various threats to sustainability. According to Panayioti (2012), the report recognised that the environmental limits to economic growth in industrialised and industrialising societies existed and claimed that poverty reduces sustainability and accelerates environmental pressures – creating a need for balance between economy and ecology. It argued that sustainable development is needed as a new kind of economic growth with much less environmental impact which

increased the joint economic-environmental system's capacity to deliver human satisfactions (Common and Stagl 2005).

3.2.3 *Market Externalities, Tragedy of the Commons and Neoliberal Environmentalism*

Externality is the economic activity of an economic entity that has positive or negative effects on other entities without the emergence of market relations between them. This means that costs and revenues are passed on to others free of charge (Šálka et al. 2008). There is a standing scientific/economic dispute over internalising external cost and benefits. Simply put, prices should be adjusted with a tax or charge so that the buyer of said goods or services causing the external cost is obliged to pay for it (Beder 1996; Nadeau 2008).

Arthur Pigou, student of Alfred Marshall, dealt with externalities and published *The Economics of Welfare* in 1920. The book outlined his vision of economics as a toolkit for improving the lives of the poor. Pigou was open to different ways of tackling externalities. He introduced 'bounties and taxes' as the forms of intervention. This type of intervention is known as a Pigouvian tax and became the favourite idea of policymakers especially in the debate over global warming. The criticism of this approach is that the impact of a Pigouvian tax depends on the level of competition in the market it is affecting (e.g. case of monopoly).

In *The Problem of Social Cost* (1960), Ronald Coase considered externalities as a problem of ill-defined property rights. He was interested in how property rights are (or should be) allocated and exchanged. The Coase theorem states that 'if trade in an externality is possible and there are no transaction costs, bargaining will lead to an efficient outcome regardless of the initial allocation of property rights'. It is another approach on how to solve the problem of externalities compared to the Pigouvian tax. It means that if it were feasible to assign such rights properly, people could be left to bargain their way to a good solution without the need for a heavy-handed tax.

Beder (2011) states that the rhetoric of internalisation reinforces the premise that the central environmental problem is the failure to 'value' the environment and that markets can adequately deal with this problem when environmental costs are incorporated into market prices through mechanisms such as fees, charges and taxes. Here, the optimal level of pollution is the level at which the costs to the company of cleaning up the pollution equal the cost of environmental damage caused by that pollution. If polluters are paying to eliminate the problem, the community is no worse off because it is being compensated by the firm for the damage through the payments of the tax or charge to the government. So, the payments can be used to correct the environmental damage they cause. Beder clarifies that this is where theory and reality diverge and where economists' lack of interdisciplinary knowledge becomes evident because there is considerable doubt about whether monetary payments can correct environmental damage in many circumstances.

Garrett Hardin is well-known for his concept as introduced in *Tragedy of Commons* (1968). He explains the overconsumption of resources on the specific example of common pasture land and behaviour of herdsmen. One herdsman considers the overgrazing of one animal on the common pasture of little consequence, since the overgrazing will be shared by all the herdsmen, thus minimising any impact. In this way, all the herdsmen will add additional animals to the common rationally considering the negative impact as minor compared to the positive effect he gains. Hardin (1968) states: 'Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit – in the world that is limited. Ruin is the destination towards which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons. Freedom in commons brings ruin to all'.

A change of behaviour is probably the most critical issue to overcome in recent global trends. Stewart Barr (2008) calls for 'critical approach to the links between sustainability, policy and citizen engagement and argues that sustainability policy needs to undergo a major conceptual shift, moving away from a negative approach to behaviour change towards a positive perspective, utilising the well-known techniques of segmentation and social marketing'. Marked as the 'mainstreaming' of sustainable lifestyles, Barr considers it an 'effective means of engaging most citizens in the environmental debate, given the major influence of the consumer society on individual aspiration and belief'. He emphasises 'the importance of bottom-up approaches to resolving environmental dilemmas, while politically, there has been recognition that individual citizens hold the key to meeting critical environmental targets through changes in their life-styles' (Barr 2008).

Cao (2017) deals with the neoliberalisation of Environmental Citizenship and explores the idea that economic rationality reduces Environmental Citizenship to the act of sustainable consumption. This recasts green citizenship as green consumerism. He examines three pedagogical instruments used to promote Environmental Citizenship: government campaigns, ecological footprint calculators and media text. He reveals in what way they 'enable the governing of environment through citizens (as consumers) and making neoliberal green citizens both subject and agents of neoliberal environmentality'.

'Environmental governmentality' has been defined by Darier (1996) as a form of governing the environment which involves 'the use of social-engineering techniques to get attention of the population to focus on specific environmental issues and to instil – in a subtle, coercive manner – the new environmental conduct'. It is argued that the adoption of such techniques comes from the neoliberal mentality with its aversion to government regulation. Cao (2017) further criticises neoliberal citizenship for giving the rights and duties to its new members, corporations. He argues that traditionally, corporations, as economic entities, have enjoyed commercial rights. In the United States at least, they have recently been able to claim and exercise civil and political rights (the right of free speech and the right to participate in political campaigns).

The impact of neoliberalism is perceived here as redefinition of the traditional citizen. Neoliberal theorists shift the focus from the citizen to the consumer and

from the state to the corporation (as agents of citizenship) and from politics to markets (as the sphere of citizenship). These shifts promote consumer and corporate citizenship and transform the citizen from a political being (*zoon politikon*) into an economic being (*homo economicus*) (Cao 2015). The extent of how market rules are incorporated into social and political relations is leading some authors to argue that we are moving from being societies with market economy to becoming market societies (Sandel 2012). Cao (2017) states that neoliberalism shifts rapidly ‘towards the language of individual and corporate responsibility through self-regulation, and a shift towards economics in general (e.g. market rules and values) and consumption in particular (e.g. sustainable consumption) in the dominant articulations of environmental citizenship’. As the author adds, ‘Citizenship is being consumed by market values, and active citizenship is often synonymous with shopping’. In the position of the academic who does not know whether to ‘cry or shout’ in the surroundings where Environmental Citizenship is understood as sustainable consumption, Cao acts as a citizen and votes for the use of the term ‘Environmental Citizenship’.

3.3 Levels of the Economic Dimension of Environmental Citizenship

The characteristics and intensity of the economic dimension of Environmental Citizenship change at the global, national and local level. Each level presents a variety of different criteria to consider for analysis ranging from global with the Kyoto Protocol, OECD framework, the Paris Agreement and the UN Environment Programme to more regional agreements on all continents. National governments tend to base their local policies and initiatives to fit within a larger regional and global framework. Local initiatives will also vary depending on a country’s social, political and economic situation. Also, economic dimension of Environmental Citizenship could be perceived ambiguously, distinguishing between personal and communal (local, regional, national and global) levels (Berglund and Gericke 2016). Aiming for a comprehensive analysis of economic challenges and opportunities regarding Environmental Citizenship, key stakeholders were identified as examples for existing green economy trends.

3.3.1 Global Level

Understanding the structures, impact and trends of global economic markets is a key element for Environmental Citizenship. Economic globalisation has created a rapidly growing market – independent of national economies and driven by the international movement of goods, services and capital. Trade openness, foreign direct

investment inflows and portfolio investment inflows are the key characteristics of economic globalisation, which impact the social and environmental development at a global level (Li and Reuveny 2003; O'Brien and Leichenko 2000). As global key players, the relevant stakeholders at this level (international corporates, asset managers, insurances and hedge funds) have a high responsibility due to their volume of financial resources.

The global economic growth in 2017 reached 3.1%, the highest rate of global growth recorded since 2011 (World Bank Group 2018). This growth depended mostly on the unlimited exploitation of natural resources, which led to a supply risk and irreversible violation of ecosystems and the environment. The transformation of the global economic growth model depending on the resources exploitation towards a sustainable economy has led to a growing number of citizens and economists exploring different economic models (UN 2015; European Commission 2011). Many international and regional policies were implemented to support citizens and governments to develop green economies, to support for environmentally friendly innovation and to change consumption and production (Altenburg et al. 2017; Green Growth Knowledge Platform 2013; Fay 2012). The global report of the UNEP, for example, stresses the need for an inclusive global finance system, which ensures sustainability and opportunities for natural wealth and the circular and green economy (UNEP 2015).

So-called green investors focus on projects such as the conservation of natural resources, the discovery of alternative energy sources and the trading of reusable commodities. This increasing trend represents a socially responsible investing alternative following ethical criteria (Barnea et al. 2005). The financial performance of green funds in comparison to traditional mutual funds is mostly evaluated as underperforming on a risk-adjusted basis although the performances have improved during the last years (Tett 2018; Chang et al. 2012). One of the strongest trends in global investments is the transition towards sustainable energy. Given the situation that fossil fuels remain competitive, the current stage of the development and establishment of clean-energy technologies needs to be supported and accelerated. Government policies are needed to stimulate the transition towards affordable and sustainable energy supply and align the market forces (Chu and Majumdar 2012).

A green economy is perceived as a tool for achieving sustainability (Šimo-Svrček et al. 2017; Jones 2011) and is defined by UNEP (2018) as low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income is driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency and prevention of the loss of biodiversity and ecosystem services (UNEP 2018). Egorova et al. (2015) have shown that the green economy will influence the health level of nations and increase factors that promote the development of social and economic prospects and the welfare of society in general. However, the main challenge for the green investment is to show a profitable and stable long-term return and a low risk profile, in order to be a good alternative to ordinary investments. Most of these projects have low return and high risk and volatility; however, this can be avoided through tax and other governmental

incentives (Sterner 2017; Filipović and Golušin 2015). Eco investments are still seen as a marketing gag and not as a considerable alternative investment (Bostan et al. 2010). Opportunities therefore lie in eco-projects with a high return and a low uncertainty of failure; those investments either replace another more volatile market such as oil, gas and coal or comply with governmental policy and therefore subsidies (UNEP 2015). Another key element of safeguarding an economic environment for Environmental Citizenship is transparency. Maintaining full transparency is key to guaranteeing the eco-friendly investment approach, creating trustworthiness (Kanagaretnam et al. 2014). Environmental Citizens are interested in companies' social and environmental performances, which makes transparency an irreplaceable key for corporates and governments. Moreover, transparency and public perceptions are increasingly considered as a citizen's right to access to environmental information and participation in environmental decision-making (Marisi 2017). Furthermore, macroeconomists have shown that green economy leads to the monetary welfare and have introduced incitation methods for key players to invest. For example, notable projects against global warming would lead to cheaper insurance. Projects in reusable goods would lead to cheaper waste management, and the replacement of alternative energy would avoid a volatile price development for instable supply (Michel-Kerjan and Morlaye 2008; Paterson 2001; Berz 1999). In conclusion, policymakers need to carefully monitor companies with a high impact on the environment and encourage researchers to find alternative solutions. Many eco-projects serve as great ideas for economic changes but remain unprofitable for many investors.

3.3.2 *National Level*

Strategic priorities of government programmes incorporated into policies of competent ministries play a fundamental role at the national level. It is a case of countries where governments have the authority to make major policy on the matters of national economy and social security. Here, implementing innovative green policies and implanting the environmental agenda into overall economic planning are up to the decision of national economies or as the consequence of multilateral agreements.

Local governments are instrumental players. No matter how eager and ambitious the central government, the implementation of the various policies largely rests on provincial, city and county officials. Their influence is greater than their interests in realising the green agenda. The public – demanding environmental progress – matters. In particular, the urban population's discontent with air pollution and dirty industries has influenced policymakers (Weng et al. 2015). For example, China's environmental NGOs, a civil society stakeholder group, often assist government players and businesses in realising green economic objectives. Despite gaining influence, the most effective way for environmental NGOs to bring about the desired changes in policy and implementation is through partnering with government departments (Schwartz 2004).

However, other institutions are also influential (banks, insurance and trade companies, research institutions, think tanks, etc.). Financial institution could achieve an even bigger impact by mainstreaming the green agenda in the financial sector and providing the right financial incentives for the society's green development. Businesses (local-level stakeholders) are key operators of green economy policies. Rather than actively driving or demanding change, for the most part, they passively receive government instructions and directions, at least in the initial stage. Once incentives are in place, businesses often drive innovation in technology and implementation – for instance, in renewable energy, eco-city construction, green transportation and the environmental industry. Finally, research institutes provide technical inputs and policy advice to the government, businesses and civil society. Government-affiliated think tanks in particular inform their corresponding ministries (Weng et al. 2015).

According to the European Environment Agency (2011), an emphasis of national green economy assessments varies considerably, ranging from the agriculture to the business sector and from innovation and green jobs to energy efficiency. In general, those countries that have been badly affected by the global recession, for example, Greece, Ireland and Iceland, place a greater emphasis on green jobs and growth as a spur to a green economy. Countries that are highly dependent on primary and extractive sectors such as Ukraine and France tend to emphasise natural resource efficiency, whilst those that have not had the benefit of extensive fossil fuel reserves including Moldova and Austria tend to focus on the energy sector. A wide range of specific targets related to elements of the green economy are set out by countries and progress is reported against indicators (European Environment Agency 2011) (Table 3.1).

There is a strong economic case for improving social and environmental sustainability of trade, and there are clear instances where the opportunities to increase revenues through trade fully coincide with the objectives of a green economy. Developing countries, and particularly the least developed ones, are faced with an urgent need to diversify their economies. Trade-driven pressure on natural resources has escalated and resulted, with few exceptions, in detrimental environmental and social impacts, such as biodiversity loss, environmental degradation and inequitable income distribution. Opportunities to reverse these trends can be found in the growth of existing sustainable trade markets, relative to conventional markets, and in the opening of new markets for green goods and services. Developing countries with abundant natural capital, as well as competitive production costs and valuable human capital, may have an absolute advantage for capturing these opportunities (UNEP 2013).

Table 3.1 Examples of national-level green policies

Country	National-level green policy review
Mexico	The <i>Low-Carbon Development for Mexico</i> report by ESMAP (2010) provides an analysis of how Mexico is able to substantially reduce its carbon emissions whilst at the same time grow the economy. There are many entrenched barriers to achieving it which come in the form of information gaps, regulation and trade. The report evaluates interventions that promote low-carbon development in five key sectors: electric power, oil and gas, energy end use, transport and agriculture and forestry. Each sector is subject to a cost analysis to determine the most viable intervention mechanisms that can be implemented within 5–10 years. In addition, low-carbon initiatives are analysed for each sector, and forecasts are produced to determine potential carbon savings to 2030 (ESMAP 2010)
Rwanda	The country's drive towards green growth centres on Rwanda's Vision 2050, which envisages it as developing a climate-resilient, low-carbon economy by 2050, thanks to the slightly crowded Green Growth and Climate Resilience National Strategy for Climate Change and Low Carbon Development – Green Growth Strategy. The planned programmes include sustainable land use management; integrated water resource management; climate-compatible mining; sustainable forestry, agroforestry and biomass; a low-carbon energy grid and small-scale energy access in rural Rwanda; disaster risk reduction; green industries; a resilient transport system; and low-carbon urban systems. To achieve this, Vision 2050 draws on a readiness framework composed of institutional arrangements, finance, capacity building and knowledge management, technology, innovation and infrastructure and integrated planning and data management. Overall, Rwanda's transition to a green economy relies on 'big wins, quick wins and further work' (MINIRENA 2011)
South Africa	Nhamo (2013) states that South Africa has made significant progress in putting up the necessary pillars to enhance its transition to a green economy and address issues relating to sustainability and poverty eradication; however, more work needs to be done. This includes increased budget allocations for green economy projects, improving institutional and individual capacity, better horizontal and vertical coordination and mainstreaming of the green economy agenda, and increasing knowledge management capacity. Lastly, the bias towards climate change mitigation, compared to the climate change adaptation agenda, is evident across many South African policies
Bosnia and Herzegovina	Responsibilities for green economy in Bosnia and Herzegovina are concentrated at a subnational level. There is no comprehensive strategic framework for green economy, but there are various sectoral policies with some green growth principles. Sectors with the most prospects for green economic development include green energy (biofuels), organic agriculture and eco-tourism. However, progress towards green economy in Bosnia and Herzegovina is hampered by insufficient financing, weak governance and the coordination of sectoral policies as well as an information gap (El Bilali et al. 2016)

(continued)

Table 3.1 (continued)

Country	National-level green policy review
Kyrgyz Republic	<p>The Kyrgyz Republic is not only one of the poorest countries in the world (#10) but also one of the countries that is most vulnerable to the effects of climate change (#3). In February 2015, the government approved a set of 65 indicators to monitor and evaluate the country's progress towards a green transformation of the economy. The set of indicators is based on the OECD framework and includes both adaptation and mitigation targets and actions (EaP GREEN 2016). Due to the sensitivity of its agricultural systems to climatic change as well as the mountainous topography of the country (land area is 90% mountainous), it is increasingly important to build resilience to these climate changes to enable communities to thrive (Kabar 2018). According to an OECD study (2016), Kyrgyzstan has communicated mitigation targets to reduce GHG emissions by between 11.49% and 13.75% below business as usual (maintaining the status quo) levels in 2030. Kyrgyzstan has also pledged to reduce GHG emissions by between 29% and 30.89% by 2030</p>
Japan	<p>As climate change is a global issue, agreements and treaties such as the Paris Agreement and the OECD Framework allow countries to conduct internal programmes but also to assist other countries as well. Such is the case with Japan. Internally, a series of key challenges are identified that include climate change and ageing populations which, according to the Japan national strategy, can be turned into sources of green growth. The Japanese national strategy states that market-based initiatives such as an effective emissions trading system would promote private investment and green innovation (Jones and Yoo 2011). Externally, other policies that encourage further economic integration with Asia are discussed, such as reducing agricultural subsidies and bringing down barriers to trade and foreign workers. Japan's Assistance Initiatives to Address Climate Change 2017 (Initiatives 2017) aim to accelerate climate change measures and sustainability in developing countries through 'co-innovation' by collaborating with important state and non-state actors. Offering advanced technology and know-how to address challenges, Japan is working with the private and public sectors in various Asian countries to respond to the diverse needs of each country and implement adequate adaptation actions according to the local circumstances. By matching the needs of developing countries and offering its advanced technology and service by private companies – including disaster risk reduction infrastructure technology, early-warning technology and weather index insurance utilizing rainfall data estimated by satellites – Japan will promote adaptation actions of local governments in developing countries by supporting impact assessment and development of local adaptation plans whilst involving local researchers, local governments and communities (Ministry of Environment, Government of Japan 2018)</p>

3.3.3 Local Level

On the local-level environmentally driven citizens, understanding their different roles as entrepreneurs, consumers or employees can influence sustainability with various economic activities. Their positive impact to climate protection as well as environment and nature conservation with a distinctive awareness and knowledge about environmental issues can be enormous. Consumers and households, companies, municipalities and locally based stakeholders in the service sector, agriculture and industry can contribute to sustainability in their surroundings. Focusing on eco-

friendly start-up enterprises as well as green small and medium companies, we recognise positive efforts to achieve sustainability in several regions of the world. On the one hand, enterprises have business-based solutions, addressing structural causes of environmental degradation and problems to solve and prevent these, and, on the other hand, enterprises help achieve sustainability by the organisation of their internal and external management processes.

Existing Green Economy Trends on the Local Level

Dealing with the concept of Environmental Citizenship based on definition by ENEC (2018), several trends of green economy and sustainability entrepreneurship can be recognised in mainstream and alternative economics. The understanding of single business models and the borders of definitions of the following examples are often fluent. A broader discussion about the examples would enriched this topic. Nevertheless, we briefly list four examples:

1. The concept of eco-social enterprises: mainly driven in the social ecological economics, this means that both a mainstream and a radical perspective exist. The five key dimensions of such an enterprise are '(1) other-than-profit goals, (2) using profit to replenish nature and community, (3) democratic and localised ownership and governance pattern, (4) rootedness in place and time and (5) non-market production, exchange or provisioning patterns' (Johanisová and Franková 2013).
2. Environmentally motivated social enterprises: three main types can be differentiated. These are (1) small and locally embedded companies with local ownership and control as well as close contact to the local community, (2) expertise-oriented companies sharing and selling knowledge and (3) companies with labour-intensive services for the public sector (Vickers and Lyon 2012).
3. Eco-friendly start-up enterprises: one of the main characteristic of this type of business is facing challenges with a feasible business model in an innovative way. Nowadays, sustainability is one of the key drivers of economic innovation (Nidumolu et al. 2009), and a rising number of start-ups are focusing on ecological issues (e.g. renewable energy, sustainable consumption, eco-friendly mobility, sharing economy).
4. Companies with environmental management accounting (EMA): the engagement of small, medium and large companies regarding ecological issues is rising. More and more enterprises act in an environmentally friendly manner. The trend of greening industry processes can be already observed for 35 years within frameworks like EMAs or ISO (Freimann et al. 2016).

Sustainably driven entrepreneurship could realise both a gap-filling function and a catalytic function in a society. The first addresses the gaps left by commercial enterprises, industry companies and government bodies in provisioning critical social and environmental goods and services. These types of entrepreneurships have positive influences on disadvantaged populations and specific ecosystems (Parrish and Foxon 2006).

Concerning the economic value, we must note that eco-social entrepreneurs often do not want to build up a company where they create just economic profit and

quantitative growth. Several of their business goals like non-market production, gaining common welfare, fostering social innovation and establishing public ownership are even harder to measure than classical economic indicators such as growth, productivity and return on investment. Due to lack of measurements, the economic value on a local level is hard to identify. Nevertheless, we want to list some examples and estimates showing the economic dimension of Environmental Citizenship.

The marketplace for green business solutions is estimated at more than 200 billion US dollars (Koester 2011). In Germany, 36,400 new companies in the area of green economy were founded in 2015 and 2016, 40% of them with a business model focusing on energy efficiency, 17% on circular economy and 17% on sustainable food and agriculture (Borderstep Institute for Innovation and Sustainability 2018). In Lithuania and Ireland, a broad number of interviewed companies indicated that they are already a ‘green business’ and are striving to shift to ‘green business’ (Čekanavičius et al. 2014). Progressive steps in the framework of environmental management systems like EMAs or ISO have been realised within more than 40,000 companies worldwide in the last four decades (Freimann et al. 2016).

Opportunities and Challenges Regarding Environmental Citizenship

Based on the above-mentioned four economic trends, we must note the different economic opportunities and challenges regarding Environmental Citizenship on the local level. Some of them we want to list briefly from a company and citizen point of view.

Eco-control, as a part of EMA on operational level, indirectly influences economic performance in the context of (1) higher environmental exposure, (2) higher public visibility, (3) higher environmental concern and (4) larger size. EMA could be ‘a tool fostering transparency and accountability’ (Henri and Journeault 2010).

Citizens have several opportunities “to adjust” to the concept of Environmental Citizenship. Individual attitudes and values that make a change of the own consumer behaviour are crucial. The ‘moralization of the markets’ with the judgement of the consumers is rising (Stehr 2008). One of the positive effects of pro-environmental behaviour is the possibility of saving money by using energy in an efficient way (e.g. heating, electricity). Cutting down on unnecessary packaging material in the supermarket and reducing individual daily consumption by focusing on basic needs also have positive effects. Barry (2006) criticised firms and public bodies for adopting the language of Environmental Citizenship as motivated either by compliance with corporate environmental reporting or as evidence of a commitment to the concept of corporate social responsibility. Here, encouraging corporate employees to be Environmental Citizens is simply an integral part of either internal systems or conformity with EMSs, and such in-house Environmental Citizenship programmes will be focused on reducing costs and ensuring that the company is compliant with environmental regulations and standards. Barry describes such Environmental Citizenship as a part-time occupation – something one engages in during working hours. He calls for fostering a wider environmental awareness on the macro level political and economic dynamics of environmental problems and solutions or to connect the environmental behaviour of individuals at work with what they do outside of it (Barry 2006).

Companies are faced with economic challenges like the need for investments, the lack of equity capital and high operating costs. In addition, the often-required bondage of economic growth are a big challenge for eco-social companies with defined ‘other-than-profit goals’. The efficiency of sustainable entrepreneurs will vary based on market structures, norms, rights and legislation. A deep influence in social and ecological sustainable meaning sometimes does not exist because of the game theory-based phenomena called prisoner’s dilemma (Pacheco et al. 2010).

Sustainability is one of the most used buzzwords of our time. A big challenge regarding Environmental Citizenship is greenwashing. With labels like ‘green’, ‘clean’, ‘organic’, ‘eco’ and ‘emission neutral’, many companies are generating unjustified profit (Walther 2009). From a citizen point of view, the lack of information within certification and designation of origin and deceptive marketing of companies are big challenges.

Acknowledgement This chapter is based on work from Cost Action ENEC – European Network for Environmental Citizenship (CA16229) – supported by COST (European Cooperation in Science and Technology).

References

- Altenburg, T., Altenburg, T., Assmann, C., Rodrik, D., Padilla, E., Ambec, S., Esposito, M., & Cosbey, A. (2017). *Green industrial policy: Concept, policies, country experiences*.
- Androvičová, Z., & Rácz, A. (2017). *Hodnoty v živote človeka* [Values in the life of man]. Zvolen: Technical university on Zvolen.
- Barnea, A., Heinkel, R., & Kraus, A. (2005). Green investors and corporate investment. *Structural Change and Economic Dynamics*, 16(3), 332–346.
- Barr, S. (2008). *Environment and society: Sustainability, policy and the citizen*. Hampshire: Ashgate Publishing Limited.
- Barry, J. (2006). Resistance is fertile: From environmental to sustainability citizenship. In A. Dobson & D. Bell (Eds.), *Environmental citizenship* (pp. 21–48). Cambridge: MIT Press.
- Beder, S. (1996). Charging the earth: The promotion of price-based measures for pollution control. *Ecological Economics*, 16, 51–63.
- Beder, S. (2011). Environmental economics and ecological economics: The contribution of interdisciplinarity to understanding, influence and effectiveness. *Environmental Conservation*, 38(2), 140–150.
- Benedict, X. V. I. (2009). *Encyclical caritas in veritate*. Vatican: Libreria Editrice Vaticana.
- Berglund, T., & Gericke, N. (2016). Separated and integrated perspectives on environmental, economic, and social dimensions – An investigation of student views on sustainable development. *Environmental Education Research*, 22(8), 1115–1138. <https://doi.org/10.1080/13504622.2015.1063589>.
- Berz, G. A. (1999). Catastrophes and climate change: Concerns and possible countermeasures of the insurance industry. *Mitigation and Adaptation Strategies for Global Change*, 4(3–4), 283–293.
- Borderstep Institute for Innovation and Sustainability. (2018). *Green economy start-up monitor 2017*. Retrieved from https://www.borderstep.de/wp-content/uploads/2018/04/Borderstep_GEMO_Broschuere_EN_Online.pdf
- Bostan, I., Burciu, A., & Condrea, P. (2010). Trends of the communitarian cohesion policies and advertising for eco-investments. *Environmental Engineering & Management Journal (EEMJ)*, 9(6), 847–851.

- Cao, B. (2015). *Environment and citizenship*. London: Routledge.
- Cao, B. (2017). Consuming environmental citizenship, or production of neoliberal green citizens. In J. Louth & M. Potter (Eds.), *Edges of identity: The production of neoliberal subjectivities*. Chester: University of Chester Press.
- Cao, B. (2018). Keynote address, Defining Environmental Citizenship. *European Network for Environmental Citizenship, 14*, Cyprus.
- Carroll, J. E. (2016). The environment is a moral and spiritual issue. In: *Spirituality and sustainability* (pp. 49–71).
- Čekanavičius, L., Bazytė, R., & Dičmonaitė, A. (2014). Green business: Challenges and practices. *Ekonomika, 93*(1), 74–88.
- Chang, C. E., Nelson, W. A., & Doug Witte, H. (2012). Do green mutual funds perform well? *Management Research Review, 35*(8), 693–708.
- Chu, S., & Majumdar, A. (2012). Opportunities and challenges for a sustainable energy future. *Nature, 488*(7411), 294.
- Coase, R. H. (1960). The problem of social cost. *Journal of Law and Economics, 3*, 1–44.
- Common, M. (1988). *Environmental and resource economics*. New York: Longman Group.
- Common, M., & Stagl, S. (2005). *Ecological economics*. Cambridge: Cambridge University Press.
- Cooper, P., & Hart, A. (1992). The legitimacy of applying costbenefit analysis to environmental planning. *People and Physical Environment Research, 41–42*, 19–30.
- Daly, H. E., & Cobb, J. B. J. (1989). *For the Common good: Redirecting the economy toward community, the environment, and a sustainable future*. Boston: Beacon Press.
- Daly, H. E., & Farley, J. (2004). *Ecological economics: Principles and applications*. Washington, DC: Island Press.
- Darier, E. (1996). Environmental governmentality: The case of Canada's green plan. *Environmental Politics, 5*(4), 585–606.
- EaP GREEN. (2016). *Measuring the green transformation of the economy: Guide for EU eastern partnership countries*. Paris.
- Egorova, M., Pluzhnic, M., & Glik, P. (2015). Global trends of «green» economy development as a factor for improvement of economical and social prosperity. *Procedia-Social and Behavioral Sciences, 166*, 194–198.
- El Bilali, H., Berjan, S., & Capone, R. (2016). *Green economy: Opportunities for Bosnian agriculture and rural areas*. Proceedings of 3rd international conference of the faculty of economics Brčko. Brčko, Bosnia and Herzegovina.
- ENEC – European Network for Environmental Citizenship. (2018). *Defining “Environmental Citizenship”*. Retrieved from <http://enec-cost.eu/our-approach/enec-environmental-citizenship/>
- ESMAP. (2010). *Low-carbon development for Mexico*. Washington, DC: Energy Sector Management Assistance Program.
- European Commission. (2011). *A resource-efficient Europe-Flagship initiative under the Europe 2020 Strategy*. Communication (COM (2011) 21).
- European Environment Agency. (2011). *Europe's environment – An assessment of assessments*. Luxembourg: Publications Office of European Union.
- Fay, M. (2012). *Inclusive green growth: The pathway to sustainable development*. Washington, DC: World Bank Publications.
- Field, B. C. (1994). *Environmental economics: An introduction*. Boston: McGraw-Hill.
- Filipović, S., & Golušin, M. (2015). Environmental taxation policy in the EU—new methodology approach. *Journal of Cleaner Production, 88*, 308–317.
- Francis, P. (2015). *Laudato Si': On care for our common home*. Libreria Editrice Vaticana.
- Francis, P., & Bartholomew, P. (2017). *Joint message of Pope Francis and ecumenical patriarch Bartholomew on the World Day of prayer for creation*. Libreria Editrice Vaticana.
- Freimann, J., Marxen, S., & Schick, H. (2016). Sustainability in the start-up process. In M. Schaper (Ed.), *Making ecopreneurs – Developing sustainable entrepreneurship* (2nd ed., pp. 149–164). London/New York: Routledge.
- Green Growth Knowledge Platform. (2013). *Moving towards a common approach on green growth indicators*. A Green Growth Knowledge Platform Scoping Paper, 46.

- Hardin, G. (1968). The tragedy of commons. *Science*, 162, 1243–1248.
- Henri, J. F., & Journeault, M. (2010). Eco-control: The influence of management control systems on environmental and economic performance. *Elsevier*, 35(1), 63–80. <https://doi.org/10.1016/j.aos.2009.02.001>.
- Johanisová, N., & Franková, E. (2013). Eco-social enterprises in practice and theory – A radical versus mainstream view. In M. Anastasiadis (Ed.), *ECO-WISE. Social enterprises as sustainable actors* (1st ed., pp. 110–130). Bremen: EHV.
- Jones, V. (2011). *Zelená ekonomika/the green collar economy*. Vyšehrad: Česká republika, Praha.
- Jones, R. S., & Yoo, B. (2011). *Japan's new growth strategy to create demand and jobs*. Nagoya: OECD.
- Kabar. (2018). *Kyrgyzstan ranks third most vulnerable to climate change impacts in Central Asia*. Retrieved from: <http://kabar.kg/eng/news/kyrgyzstan-ranks-third-most-vulnerable-to-climate-change-impacts-in-central-asia/>
- Kanagaretnam, K., Mestelman, S., Nainar, S. M. K., & Shehata, M. (2014). Transparency and empowerment in an investment environment. *Journal of Business Research*, 67(9), 2030–2038.
- Koester, E. (2011). *Green entrepreneur handbook. The guide to building and growing a green and clean business*. Boca Raton: CRC Press.
- Leopold, A. (1949). *A Sand County almanac*. New York: Oxford University Press.
- Li, Q., & Reuveny, R. (2003). Economic globalization and democracy: An empirical analysis. *British Journal of Political Science*, 33(1), 29–54.
- Marisi, F. (2017). *Transparency and public participation: Balancing investors' rights and environmental interests*. Investment Claims. Retrieved from <http://oxia.ouplaw.com/page/transparency-fdi>
- Meadows, D. H., Meadows, D. L., Randers, J., & Behrens, W. W. (1972). *The limits to growth: A report for the Club of Rome's project on the predicament of mankind*. New York: Universe Books.
- Michel-Kerjan, E., & Morlaye, F. (2008). Extreme events, global warming, and insurance-linked securities: How to trigger the “tipping point”. *The Geneva Papers on Risk and Insurance-Issues and Practice*, 33(1), 153–176.
- MINIRENA – Ministry of natural resources of Republic of Rwanda. (2011). *National policy for water resources management*. Kigali.
- Ministry of Environment, Government of Japan. (2018). *Japan's assistance initiatives to address climate change 2017*. Retrieved from: <https://www.env.go.jp/en/headline/2345.html>
- Nadeau, R. (2008). Environmental and ecological economics. In: *Encyclopedia of Earth* [www document].
- Nhamo, G. (2013). Green economy readiness in South Africa: A focus on the national sphere of government. *International Journal of African Renaissance Studies*, 8, 115–142.
- Nidumolu, R., Prahalad, C. K., & Rangaswami, M. R. (2009). Why sustainability is now the key driver of innovation. *Harvard Business Review*, 87, 57–64.
- O'Brien, K. L., & Leichenko, R. M. (2000). Double exposure: Assessing the impacts of climate change within the context of economic globalization. *Global Environmental Change*, 10(3), 221–232.
- OECD. (2016). *Financing climate action in Kyrgyzstan*. Retrieved from: https://www.oecd.org/environment/outreach/Kyrgyzstan_Financing_Climate_Action.Nov2016.pdf
- Pacheco, D. F., Dean, T. J., & Payne, D. S. (2010). Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development. *Elsevier*, 25(5), 464–480. <https://doi.org/10.1016/j.jbusvent.2009.07.006>.
- Panayioti, P. (2012). Beyond smooth talk. *Design and Culture*, 4(3), 273–278.
- Parrish, B. D., & Foxon, T. J. (2006). Sustainability entrepreneurship and equitable transitions to a low-carbon economy. *Greener Management International*, 55, 47–62.
- Paterson, M. (2001). Risky business: Insurance companies in global warming politics. *Global Environmental Politics*, 1(4), 18–42.
- Pearce, D. (2002). An intellectual history of environmental economics. *Annual Review of Energy and the Environment*, 27, 57–81.

- Pigou, A. C. (1920). *The economics of welfare*. London: Macmillan.
- Šálka, J., Trenčiansky, M., Bahula, P., & Balážová, E. (2008). *Ekonomía životného prostredia/ environmental economics*. Zvolen: Technical University in Zvolen. ISBN 978-80-228-1708-0.
- Sandel, M. (2012). *What money can't buy: The moral limits of markets*. London: Allen Lane.
- Schwartz, J. (2004). Environmental NGOs in China: Roles and limits. *Pacific Affairs*, 77(1), 28–49.
- Self, P. (1990). Market ideology and good government. *Current Affairs Bulletin*, 67(4), 4–10.
- Šimo-Svrček, S., Paluš, H., Parobek, J., & Šupín, M. (2017). The importance of utilisation of wood as a renewable material in the context of the green economy. In *Globalization and its socio-economic consequences: 17th international scientific conference* (pp. 2377–2384). Rajecké Teplice: Slovak Republic. ISBN 978-80-8154-212-1.
- Stehr, N. (2008). The moralization of the Markets in Europe. *Society*, 45(1), 62–67. <https://doi.org/10.1007/s12115-007-9041-9>.
- Sterner, T. (2017). *Environmental taxation in practice*. New York: Routledge.
- Tett, G. (2018). *Green investing generates returns, not just a warm glow*. Sustainability is now seen as a way of looking at often ignored externalities. *Ft.com*. Retrieved from <https://www.ft.com/content/931b8c88-43aa-11e8-93cf-67ac3a6482fd>
- UN. (2015). *Transforming our world: The 2030 agenda for sustainable development*. Resolution Adopted by the General Assembly.
- UNEP. (2013). *Green economy and trade: Trends*. Nairobi: Challenges and Opportunities.
- UNEP. (2015). *The financial system we need*. Aligning the financial system with sustainable development. The UNEP Inquiry Report.
- UNEP. (2018). *Green economy*. Retrieved from <https://www.unenvironment.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-economy>
- Vickers, I., & Lyon, F. (2012). Beyond green niches? Growth strategies of environmentally-motivated social enterprises. *International Small Business Journal*. doi: <https://doi.org/10.1177/0266242612457700>.
- Walther, D. (2009). *Green business – das Milliardengeschäft: Nach den Dot.coms kommen jetzt die Dot-greens*. Wiesbaden: Gabler.
- Weng, X., Dong, Z., Wu, Q., & Qin, Y. (2015). *China's path to a green economy. Decoding China's green economy concepts and policies*. Country report. IEED, London.
- World Bank Group. (2018). *GDP growth (annual %)*. Retrieved from <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG>
- World Commission on Environment and Development. (1987). *Our common future*. Oxford: Oxford University Press.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

