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**SUSTAINABLE TOURISM MANAGEMENT PROGRAMS FOR CITY BREAKS AND
CASE STUDIES**

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I have prepared the Master's thesis independently.

All papers of other authors, major opinions, and data originating from bibliographical and other sources have been referred.

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5. Discussion of the results and proposals

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List of abbreviations

APA - (pt) *Agência Portuguesa do Ambiente* = Portuguese Environmental Agency

CH₄ - Methane

CO₂ - Carbon dioxide

CP - Cleaner Production

CPI - Consumer Price Index

ECM - European City Marketing

EMS - Environmental Management Systems

EPAL - (pt) *Empresa Pública das Águas Livres*

EU - European Union

GDP - Gross Domestic Product

GHG - Greenhouse gases

HELCOM - Baltic Marine Environment Protection Commission = Helsinki Commission

LA21 - Local Agenda 21

N₂O - Nitrous oxide

OECD - Organization for Economic Co-operation and Development

SGI - Sustainable Governance Indicators

UNWTO - World Tourism Organization of United Nation

WTTC - World Tourism & Travel Council

WWTP- Wastewater Treatment Plant

1 Introduction

1.1 Problem

"Tourism is not limited only to activities in the accommodation and hospitality sector, transportation sector and entertainment sector with visitor attractions, such as, theme parks, amusement parks, sports facilities, museums etc., but tourism and its management are closely connected to all major functions, processes and procedures that are practiced in various areas related to tourism as a system. Also, tourism industry involves the functions of planning, organizing, coordinating, training and monitoring-evaluating at all levels (international, national, regional, local). Therefore, tourism integrated into the functional unit of the economy" (Zaei, 2013).

Tourism is one of the largest and fastest growing industry. Over the last decades, tourism has become more available and popular all over the world. According to The World Tourism Organization (UNTWO) international tourism has grown from 25 million tourist in 1950 to 1.087 billion tourist in 2013 and UNWTO long term forecast predicts international tourist numbers to reach 1.800 billion by 2030 (Figure 1) (The World Tourism Organization, 2014a).

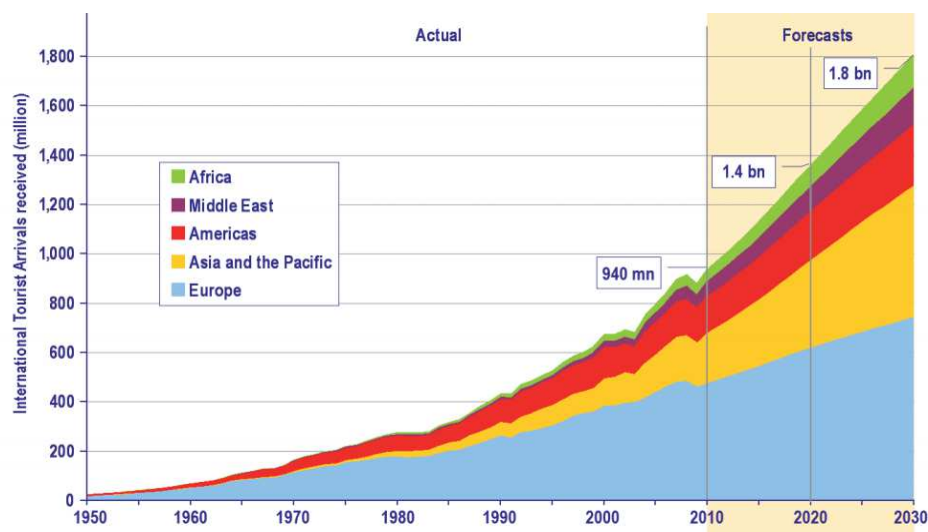


Figure 1 UNWTO Tourism Towards 2030: Actual trend and forecast 1950-2030 (The World Tourism Organization, 2014a)

Nowadays tourism industry influences almost all the sectors of the community and is a major income source for many countries, so it is important to develop a versatile, competitive and sustainable tourism sector.

Sustainable tourism is a growing issue

"Sustainable tourism is tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities" (The World Tourism Organization, 2015a)

Sustainable tourism is a part of sustainable development- development that meets our current needs without compromising future generation ability to meet theirs.

There are three main management guidelines for sustainable tourism: socio-culture, economy and environment. To achieve sustainability, balance between these three principles must be obtained. Achieving sustainability is a long lasting process that is always evolving. Constant supervision and monitoring is necessary as well as developing and implementing new preventive and corrective measures. Also, an important part of sustainable tourism development is meeting tourists' needs and expanding tourist knowledge about sustainability and promoting sustainable tourism (The World Tourism Organization, 2015a).

City breaks are important and less studied

City breaks are weekend trips or short holidays spent in a city. It is a newly defined in the tourism sector. The term was introduced due to the increasing interest of short term city vacations. Urban tourism became more popular during the 80s and has been growing ever since. Over half of the trips made in a year are 1-3 overnight trips. The increasing trend is most likely caused by the expansion of low cost airlines and cities' possibility to offer various attractions. There are more and more studies done about impacts of tourism but not so many on city breaks and sustainability (The World Tourism Organization, 2012).

1.2 Hypothesis, Objective and Methodology

Hypothesis of the thesis is to ascertain sustainable city tourism indicators and study if city breaks can become more sustainable.

The objective of the thesis is to analyze the impacts and to evaluate city's tourism sustainability.

Approach was to study already published and issued research papers and articles about sustainable tourism. Obtain an overview of sustainable tourism development challenges and impacts, and also a overview of sustainable tourism destination's policies and management programs.

Make a case study of two cities, for that use a LiderA analyze model to assess destination sustainable performance and identify destinations sustainable level. After compare and discuss the result. Give an evaluation if city breaks can become more sustainable.

1.3 Overview of earlier literature

There are lot of papers and articles published on the sustainable tourism challenges and impacts. Main published papers that are used:

In 2001 Lee, K. F. in his paper "*Sustainable tourism destinations: the importance of cleaner production*" already will discuss the conceptual definition of sustainable tourism destinations, and the need to integrate different approaches and tools for developing sustainable tourism destinations.

In 2001, Tosun, C. article "*Challenges of sustainable tourism development in the developing world*" focuses on the challenges of sustainable tourism development. The challenges to develop sustainable tourism are related to national economic policy, the structure of public administration, an emergence of environmental issues, over commercialization, and the structure of international tourism system. Although the principles of sustainable tourism development are beneficial, their implementation is an enormously difficult task.

Schofield, P. (2011) paper "*City resident attitudes to proposed tourism development and its impacts on the community*" focuses on a residents attitudes to tourism development

proposals and tourism impacts. The results show that the community is divided on the issue of support for tourism development based on the perceived benefits and costs of tourism, and on the negative environmental impacts that are significantly more influential than the positive economic and social impacts. Similar study on how the tourism affects the quality of life of community residents was published by Kim, K., Uysal, M., and Sirgy, M. J. in 2013. Also in 2013 Zaei, M. E. paper "*The Impacts of Tourism Industry on Host Community*" brings out the tourism sector impacts on economy, environment, politics and the socio-cultural on host community. The main aim of this research was to highlight the well-organized and managed economic impacts on the host community.

In 2014 Mihalic, T. published a paper about "*Sustainable-responsible tourism discourse – Towards “responsustable” tourism*". Due to difficulty of practicing sustainable tourism, the aim of this paper was to understand how a responsible destination actually implements a sustainability agenda.

In 2001 Lee, K. F. (2001) in his paper "*Sustainable tourism destinations: the importance of cleaner production*" will discuss the conceptual definition of sustainable tourism destinations; the need to integrate different approaches and tools for developing sustainable tourism destinations.

2 City Tourism, Environmental Impacts and Sustainable Challenges

2.1 City Tourism and Sustainability

Tourism is a comprehensive industry that offers various types of vacations to choose from: culinary, cultural, city, heritage, religious, sports, winter, wildlife or other kinds of possibilities. City tourism is certainly the most versatile and sophisticated traveling destination. Tourists are usually captivated by a city's excitement, liveliness, challenges as well as its historic factors, sights and attractions. City tourism can be for leisure, business, visiting friends or relatives or for cultural experience purposes. (The World Tourism Organization, 2012)

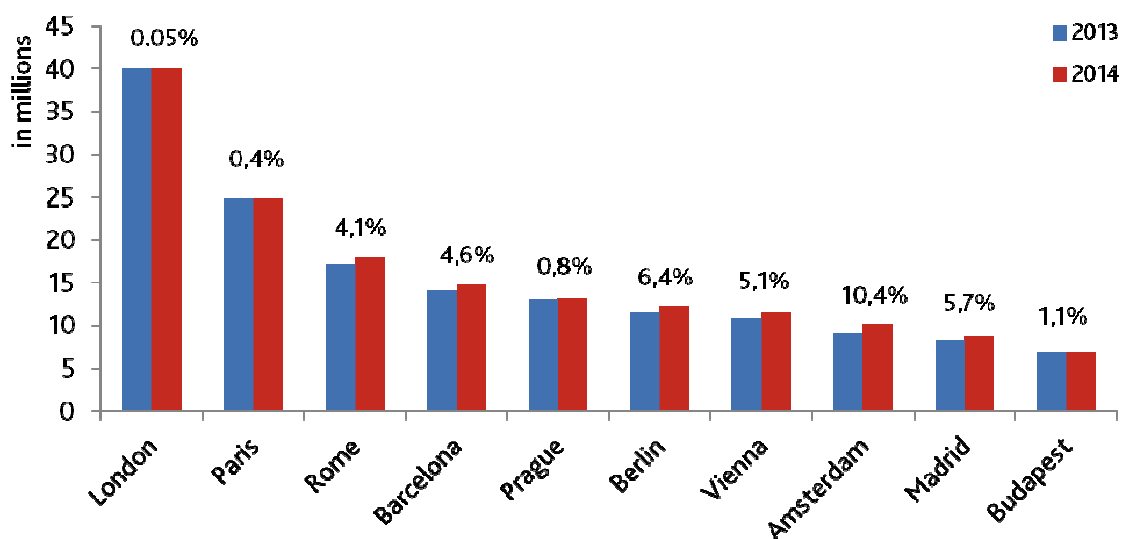


Figure 2 Total Number of Bednights By International Tourists in Top 10 European Cities (European Cities Marketing, 2015)

According to European Cities Marketing (ECM) organization, European City tourism showed a positive growth in 2014 (Figure 2). Data that ECM collected from 63 cities revealed that the average international bednights increased 4.3% since 2013. Although, London and Paris international bednights are the highest, the growth compared to the

previous year was not high, respectively 0.05% and 0.4%. These indicators were the lowest in the Top 10 European City destinations in 2014. The significant increase was notable in Amsterdam's international bednights, where the growth was 10.4%. (European Cities Marketing, 2015)

Furthermore, according to the European Union (EU) statistics office Eurostat, in 2013 EU residents (15 years old or older) made over 1.1 billion trips on business or leisure purposes (Table 1). More than half of those trips (57.5%) were short trips, spending 1 to 3 nights in the destination. In Estonia the short trips made 72.6% of all trips and in Portugal 65.7%.(Eurostat Statistic Explained, 2014)

Table 1 EU residents trips in 2013 (aged 15 years or more) (Eurostat Statistic Explained, 2014)

Number of trips (thousands)			
	All trips	Short trips (1–3 nights)	Long trips (4+ nights)
EU-28	<i>1 106 743</i>	<i>636 831</i>	<i>469 912</i>
Belgium	13 330	4 969	8 361
Bulgaria	3 966	2 179	1 787
Czech Republic	31 280	19 679	11 601
Denmark	29 164	20 947	8 217
Germany	248 582	132 711	115 871
Estonia	2 899	2 105	795
Ireland	11 669	6 585	5 083
Greece	7 087	2 926	4 161
Spain	132 351	91 134	41 217
France	225 025	120 875	104 149
Croatia	9 151	5 175	3 976
Italy	52 687	25 135	27 551
Cyprus	2 545	1 379	1 166
Latvia	4 402	3 361	1 041
Lithuania	4 353	2 680	1 673
Luxembourg	1 680	741	938

Table 1 continued

Number of trips (thousands)			
	All trips	Short trips (1–3 nights)	Long trips (4+ nights)
Hungary	16 050	10 561	5 489
Malta	526	256	270
Netherlands	43 247	22 646	20 601
Austria	22 401	12 365	10 037
Poland	:	:	:
Portugal	14 940	9 817	5 123
Romania	17 682	10 490	7 192
Slovenia	4 637	2 990	1 647
Slovakia	6 894	3 856	3 038
Finland	39 083	29 573	9 510
Sweden	:	:	:
United Kingdom	161 113	91 696	69 417
Switzerland	18 752	8 609	10 142

As the city tourism progresses, the impacts on the cities' economy, environment and socio-culture are becoming more noticeable and dealing with them more essential. The increased number of tourists and their expectations force the cities to change and expand. As the cities grow and develop new challenges and issues are emerging. Urban planning, water sewage, waste management, energy consumption and city's public transport are all important parts of city development and making city tourism more sustainable.

2.2 The Impacts of Tourism

Tourism is one of the fastest growing people-oriented industry that also provides necessary income and jobs for many people in several countries. Tourism also revives and promotes local economy and culture, helps to earn foreign currency, and reduces poverty. But like any other industry all the benefits cannot come without some negative impacts. Some of

the problems are: social dislocation, declension of the cultural heritage, economic reliance as well as damaging the environment.(Fien, Calder, & White, 2010)

Since the tourism industry is growing fast and the effects are becoming more and more influential and far reaching, a lot of studies have been made to learn about the impacts of tourism. Previous researches have shown that new alternative methods should be taken to use to further advance sustainable tourism and to provide long lasting and versatile tourism for all generations.

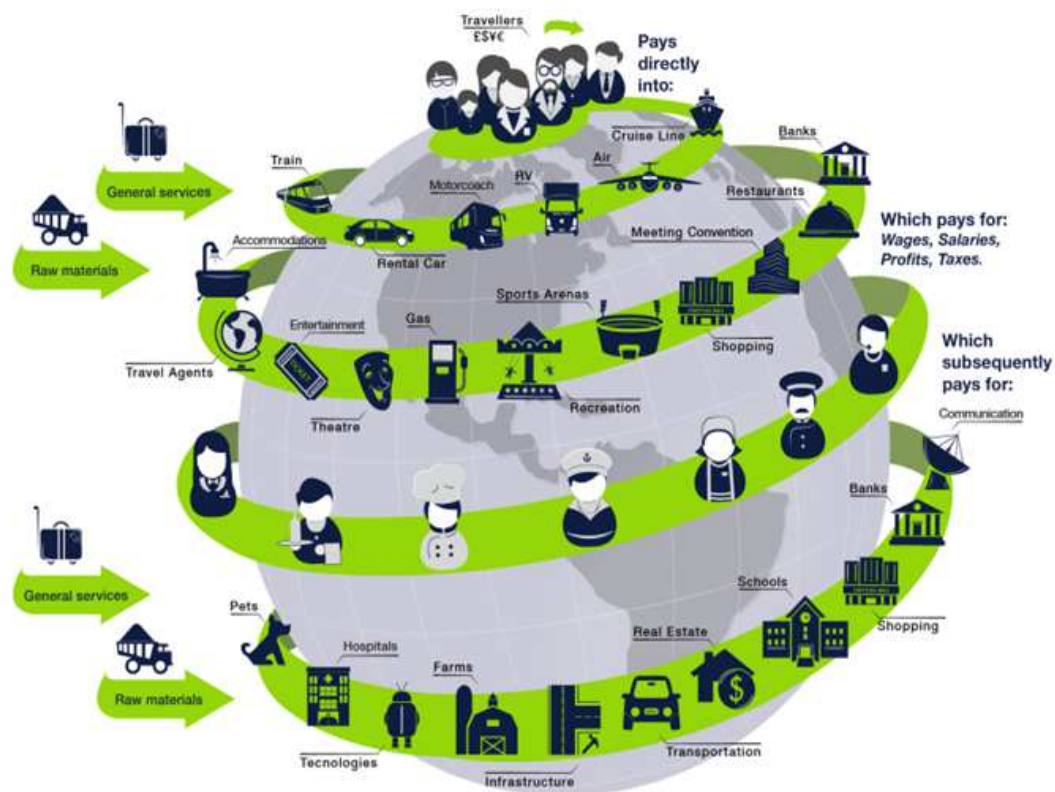


Figure 3 Direct and Indirect influence of Tourism on Local Level (World Travel & Tourism Council, 2015b)

Tourism industry is diversified and combines of several interrelated industries, sectors and elements ((Zaei, 2013; World Travel & Tourism Council, 2015b).

Table 2). It reaches from traveling to catering and accommodation sector, from city tours and attraction to retail services. In reality, tourism is much more comprehensive, influencing basically all aspects of local economy and life (Figure 3). Due to the broad range of compositions the impacts scope is also widespread (Zaei, 2013; World Travel & Tourism Council, 2015b).

Table 2 Elements of the Tourism Industry (Zaei, 2013)

TOURISM INDUSTRY	
ACCOMMODATION	
Hostels	Bed & Breakfast
Motels	Caravan Park
Serviced Apartments	Cabins
Camping Grounds	Houseboats
Farm Stays	Resorts
Guest Houses	Attraction
ATTRACTIONS	
Theme Parks	Educational
Natural Areas	Events
Cultural	Indigenous
TOUR OPERATORS	
Day Tours	Cultural Tours
Adventure Tours	Overnight Tours
General Sightseeing	Cruises
Special Interest Tours	
CARRIERS	
Airlines	Trains
Buses/Coaches	Hire Charter/Cars
Metros/Trams/Trolleys	Ferries
PROMOTIONS & DISTRIBUTION	
Travel Agents	Tour Wholesaler & Packaging Agents
Inbound Agents	
CO-ORDINATION AGENCIES	
Industry Associations	Local Tourism Associations
Local Government	Commonwealth Government
Tourism New South Wales	
RETAIL SERVICES SUPPORT	
Shop and Production: art/craft/souvenir	Food and Beverage Facilities
Visitor Services	

2.2.1 Social and Cultural Impact of Tourism

The socio-cultural impacts of tourism are described as direct and indirect effects of tourism on the host community. The impacts can affect host communities differently depending on the cultural and social nature of the region and cannot always be clearly assessed due to the different values and expectations of society. The impacts can lead host communities to change their patterns, behavior and traditions as well as educate the community by experiencing different cultures and exchanging ideas and information. The social-cultural impacts appear to be subjective, intangible and ambiguous. (Deery, Jago, & Fredline, 2012; Zaei, 2013; United Nations Environment Programme, 2014)

Main impacts to socio-cultural environment are (Deery et al., 2012; Zaei, 2013; United Nations Environment Programme, 2014):

- 1) Intercultural interaction - it is a life-enriching experience, locals can mingle with various people with different background and due to that they can improve their life style and knowledge;
- 2) Preservation and revival of the local culture and heritage - rebirth of its crafts, architectural traditions and ancestral heritage;
- 3) Improvement of local community by evolving municipal infrastructure and buildings, also higher standards for public facilities such as beaches, parks, roads, etc.;
- 4) Amplifying entertainment and recreational opportunities as well as sport and leisure activities, more cultural and social events are organized;
- 5) Higher demand of local businesses like shops, malls, restaurants, bars, nightclubs, etc., creates more opportunities for locals.
- 6) Wider choice of exchange and voluntary programs available;
- 7) Higher life quality - new and better opportunities and jobs increase the life standards
- 8) Cultivate social and moral values - increase in crime rates mainly through alcohol abuse, drugs and rowdy behavior;
- 9) Tourism can also expand gambling and prostitution in local region;
- 10) Public transport - it can improve the local situation if the transport is adjusted to demands or have a negative impact due to the overcrowding;

- 11) Large numbers of tourists and their transportation (vehicles, bikes, etc.) may create more than usual amount of traffic jams and also leave less available parking spaces;
- 12) Excessive integration with tourism may lead to social dislocation and extinction of local traditions and heritage.

2.2.2 Economic Impact of Tourism

Tourism is a key component for many countries' economy, especially to the service industry that largely depends on tourism. Tourism can be profitable by creating revenue at local, regional, national and international levels. Therefore, tourism is important to economic development and community planning (The World Tourism Organization, 2014b).

Over the last half century tourism has expanded a lot and become one of the biggest sectors of the economy, according to The World Travel & Tourism Council (WTTC) tourism generated 9.8% of world GDP (Gross Domestic Product) and supported 277 million jobs in 2014 (World Travel & Tourism Council, 2015b).

In 2013, Europe region received the most international visitors, 52% of all world travels. Europe tourists arrival reached up to 563 million visitors leaving a revenue of 356€ billion (Figure 4). Tourist arrivals and revenue have been steadily rising with the exception of 2009 when the financial crisis of 2007-2008 left its mark (The World Tourism Organization, 2014b).

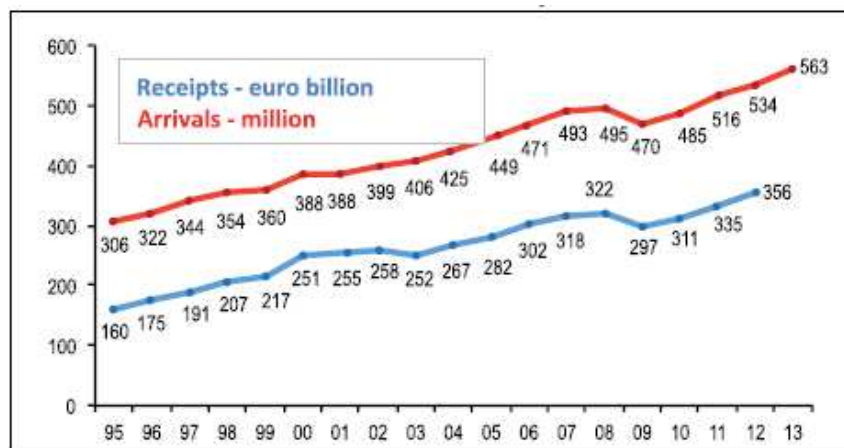


Figure 4 Tourist International Arrivals & Tourism Receipts in Europe in 2013(The World Tourism Organization, 2014b)

The main economic impacts are (Kim, Uysal, & Sirgy, 2013; Stynes, 2008; Zaei, 2013):

- 1) Employment opportunities - tourism industry employs large amount of people in a wide range of jobs: hotels, motels, restaurants, bars, shops, malls, transport, travel agencies, tour operators, souvenir and gift shops, etc.;
- 2) Balance of payment - tourism in many countries is a vital part of export industry that helps country to balance their payments;
- 3) Tourism, domestic and international, helps to subserve countries national income;
- 4) Enhance the foreign exchange
- 5) Wider range of investment choices - tourism covers various activities and opportunities to launch new products and services;
- 6) Tourism can also help to balance the regional development;
- 7) Reduce poverty - tourism can increase country's national income, create new job, promote local handicraft and improve regional development, etc.;
- 8) Tax earnings - many different type of taxes are collected on services and goods provided to tourists and this will supply additional money for local government;
- 9) Tourism benefit local businesses and government by earning extra revenue and developing variety of local businesses;
- 10) Cash outflow - tourism also needs extra money to provide primary services such as health, police, fire services, etc., necessary funds may be collected by raising taxes or other local fees;
- 11) Cost of living, tourism can also increase living costs in destination area, the prices of goods and services as well as the prices of real estate;
- 12) Economy may come to reliance on tourism industry.

As already mentioned, tourism offers lot of full and part time jobs in tourism industry. In Table 3 is stated how employment in tourism accommodation and food service industries in EU and its countries have changed over the last five years (2010-2014). Although there have been some decreases in the middle of this period, the employment numbers have increased in most of the Europe countries. In Estonia the growth was slow during the first three years but during the last two years the growth was intensive. Making the increase 26.7% in 2014 compared to the initial numbers in 2010. In Portugal the employment activity in the first three years of the comparable data dropped slightly, rose in 2013 little bit over the beginning activity, but decreased again in the last year, making the total change -3.8% (Eurostat Statistic Explained, 2014).

Table 3 Employed persons by full-time/part-time activities in tourism accommodation and food services (Eurostat Statistic Explained, 2014)

GEO /TIME	2010	2011	2012	2013	2014
EU	9,573.0	9,619.1	9,674.2	9,638.1	9,922.4
Belgium	143.0	149.5	154.0	145.3	154.5
Bulgaria	159.7	159.2	152.7	146.1	155.1
Czech Republic	190.1	185.0	177.5	178.5	195.2
Denmark	87.9	94.5	99.0	99.9	104.9
Germany	1,488.2	1,472.5	1,504.9	1,509.0	1,527.4
Estonia	18.9	18.4	18.8	23.4	25.8
Ireland	126.7	116.5	119.7	130.8	137.2
Greece	308.5	295.7	272.1	259.2	297.1
Spain	1,383.2	1,401.0	1,336.9	1,332.6	1,403.8
France	959.3	977.0	972.7	955.2	910.7
Croatia	99.4	89.7	89.3	94.0	95.5
Italy	1,166.4	1,189.1	1,247.2	1,227.6	1,269.4
Cyprus	28.7	27.6	29.7	29.3	28.6
Latvia	26.1	25.2	28.3	26.5	29.3
Lithuania	31.4	32.3	32.3	33.5	33.8
Luxembourg	5.5	7.5	8.1	7.0	7.7
Hungary	152.9	160.2	164.7	161.8	171.8
Malta	12.4	13.0	14.3	15.2	14.1
Netherlands	337.5	342.0	346.3	319.5	332.9
Austria	246.1	243.7	257.8	240.5	235.3
Poland	338.1	341.4	346.4	330.0	333.9
Portugal	287.0	286.5	276.8	289.0	276.4
Romania	161.9	169.2	172.1	175.0	180.6
Slovenia	46.5	42.7	39.8	37.9	40.5
Slovakia	103.5	99.1	97.2	112.6	119.2
Finland	82.7	82.8	86.3	86.4	85.6
Sweden	153.6	144.6	145.7	154.0	158.7
United Kingdom	1,428.0	1,453.2	1,483.7	1,518.0	1,597.6

Table 3 continued

GEO /TIME	2010	2011	2012	2013	2014
Iceland	7.9	8.7	8.1	10.0	10.5
Norway	68.9	66.9	68.1	68.7	75.1
Switzerland	171.0	174.2	169.6	171.3	177.3
Former Yugoslav Republic of Macedonia, the	-	23.6	23.5	24.0	24.7
Turkey	1,084.3	1,139.8	1,206.2	1,307.9	1,350.7

It can be said that tourism enhances economic strength and improves economic performance on a local and regional level.

2.2.3 Environmental Impacts of Tourism

The environmental impacts of tourism can be described as direct or indirect impacts caused to host environment by tourist. The word 'environment' refers to the physical setting where the tourism activities take place, it could be coastal resorts, historic cities, mountain ranges, pictures villages, sites of cultural interest including museums and national monuments. Environmental effects can be divided as biophysical or man-made impacts and they can be beneficial or harmful to the host environment. The quality of the environment and its preservation is important part of continuing to provide satisfying tourism service to tourists. It is important that the tourism development does not only consider tourist needs, but also takes the local community's and environmental needs into account (Kim et al., 2013; Schofield, 2011; Zaei, 2013).

Primary environmental impacts are (Kim et al., 2013; Schofield, 2011; Zaei, 2013):

- 1) Increased number of vehicles on the streets, will cause more air pollution (CO₂, heavy metals, atmospheric particulate matters);
- 2) Air quality is also reduced due to the emissions of smoke, sulfur dioxide, nitrogen oxide and other harmful gases;
- 3) Sewage, feces, garbage, and other sources can cause water pollution what can lead to water eutrophication and spread infectious diseases;

- 4) Boating, swimming, surfing and other water activities can also create water pollution;
- 5) Poorly developed tourism can damage or destroy landscapes;
- 6) Inadequate tourism development can result in erosion and desertification of soil;
- 7) Salinization and acidification can damage the soil as well as tourist trampling and deserting rubbish;
- 8) Disturbance of natural habitats and biodiversity - excessive tourism can cause biodiversity loss or even extinction of some species;
- 9) Noise pollution resulted from tourist activities and transport such as planes, vehicles, social events, nightclubs, etc.;
- 10) Tourism sector produces lot of waste;
- 11) Increased use of energy, water and material resources.

Although, tourism has many negative impacts on the environment, cautious and sustainable tourism development process can be beneficial and useful for local communities by providing necessary income to improve and maintain the local facilities and environment as well as protect and defend nature and wildlife.

2.3 Sustainable Tourism Development

Sustainable tourism means that environmental resources are used at the optimum level with a respectful and caring attitude toward the host community's social, cultural, heritage and traditional values as well as ensuring the economy's long-term duration. The aim is to help maintain the natural environment, culture, heritage and biodiversity of local environment (The World Tourism Organization, 2015a).

Sustainable tourism development is based on three factors: socio-culture, economy and environment (Figure 5). To assure long lasting and sustainable tourism, balance between these three aspects must be found. It is important to realize and consider all the impacts regardless of their magnitude and influence. Sustainable development is a continuous process that has to be monitored and examined at all times to prevent future shortcomings and redeem already made mistakes (The World Tourism Organization, 2015a; Tosun, 2001).

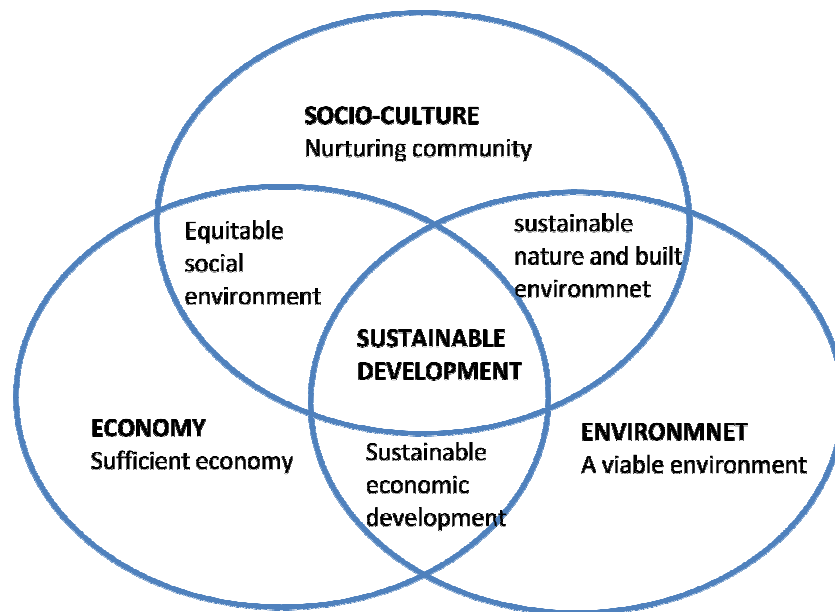


Figure 5 Concept of sustainable development (Julius, 2015)

To develop better and comprehensive sustainable tourism policy, all the parties' interests and concerns have to be taken into account. The government, stakeholders, tourists and local residents have to be educated and informed about tourism sustainability. Further, they have to work together to achieve the goals. To guarantee tourism' long duration and continuing growth, tourists' aspirations and expectations have to be taken into account already in the development stage (The World Tourism Organization, 2015a; Tosun, 2001).

In general, if sustainable tourism is developed reasonably, considering all the aspects, it will dissolve the negative aspects of tourism and can be beneficial to all parties. But there are still lot of studies and research to be made to define the limits and capacity of sustainable tourism (The World Tourism Organization, 2015a; Tosun, 2001).

2.4 Challenges in Sustainable Tourism Development

Sustainable tourism is based on sustainable development. The fundamental part of sustainable development is awareness and education of sustainability. A lot of times sustainable tourism is not promoted enough and people do not have adequate knowledge. The lack of knowledge may be a result of lack of investments and weak policies. But it is important that both sides, demand and supply, are educated on the possibilities and opportunities that sustainable tourism can offer (Dabour, 2003; Mihalic, 2014; Tosun, 2001).

Another problematic part of sustainable tourism development is stakeholders' willingness to participate and their receptiveness to alter their views and standards. For a long time, economy was a priority in the tourism sector and a very small amount of attention was paid to environmental performance. Usually the public sector is more open to change their priorities compared to the private sector. What is normally caused by the fact that private sector is more oriented in economic goals and making profit (Dabour, 2003; Mihalic, 2014; Tosun, 2001).

Suppliers have also stated that not all of the tourists are aware about sustainable tourism and there is not enough demand for sustainable tourism products in the market and a lot of times people are not willing to pay extra money for sustainability (Dabour, 2003; Mihalic, 2014; Tosun, 2001).

Furthermore, in a lot of cases sustainable policies and guidelines are not made to a priority. More attention is paid to grow tourism quickly in volumes to earn fast profit rather than developing long running and profitable service. Due to the lack of time and opportunities, short term problems and plans are prioritized and they are solved first. That brings up a main problem: absence of strong, long term and consistent sustainable tourism development strategies and policies. It is critical to understand that not all of parts of tourism can be 100% sustainable and it is necessary to realize where to draw a line -what is reasonable and what is not (Dabour, 2003; Mihalic, 2014; Tosun, 2001).

3 Sustainable Destination

Sustainable touristic destination is a place with a full set of touristic services (network) that is in a search for good environmental, social and economic performances and it is a part of sustainable development. To not over drain the destination and to keep it in good shape and condition, destination management is necessary. Developing sustainable destinations is an endless process. Balance between limits and usage must be found. Continuous development, planning, changing, monitoring and improving of host community's service, products and facilities to provide best experiences for tourists and local residents is necessary. (Sustainable Tourism, 2014)

Since all the destinations are unique in their own way they have different challenges to achieve sustainability. There is no single manual that can work in every situation. Different performance measures and indicators have to be specially altered to all the different cases. However, there are established awards, eco-labels and tools that help to highlight sustainable products and services from others.(Lee, 2001)

Some of the awards are:

- The UNWTO gives out awards in annual *Excellence and Innovation in Tourism* program. Awards are given in three main categories: The UNWTO Ulysses Prize, The UNWTO Award for Lifetime Achievement and The UNWTO Ulysses Awards for Innovation what is further more divided into four categories: Innovation in Public Policy and Governance, Innovation in Enterprises, Innovation in Non-Governmental Organizations and Innovation in Research and Technology. These awards are presented to someone who has contributed to promoting and advancing tourism by knowledge and innovation in compliance with the UNWTO Global Code of Ethics for Tourism and the United Nations Millennium Development Goals(The World Tourism Organization, 2015b).
- The WTTC organizes the *Tomorrow Awards*. Awards are given in six categories: Community Award, Destination Award, Environment Award, Innovation Award,

People Award and Sustainable Business Award. The aim is to recognize best practice in sustainable development, environmentally friendly operations, protection of the natural and cultural heritage, social and economic benefits and welfare of local residents in travel destinations.(World Travel & Tourism Council, 2015a)

Eco-label is an awarding logo that can be given to a product or service that is valued to have an acceptable level of impacts to the surrounding environment. The logo also informs the customers that the products meet the impacts criteria and are less harmful to the environment than the other similar products or services. Some of the international eco-labels are (Ecolabel Index, 2015):

- *EU Ecolabel* is presented to businesses that market products or services that are environmental friendly and healthy to European costumers;
- *Green Key* is an international eco-label for accommodation, presently the most widespread
- *Green Globe Certification* eco-label logo is given to tourism operations that has improved their social and environmental outcomes and adapt sustainable and responsible environmental and social activities;
- *Certified Green Restaurant* is given by Green Restaurant Association to a restaurant for committing to the sustainability and applying the standards;
- *Eco Hotels Certified* is awarded to sustainably operating tourism business that reasonably uses their resources;
- *Estonian Ecotourism Quality Label* is Estonian eco-label that is presented to tourism organization that promotes local economy development and protects natural and cultural heritage of Estonia.
- *The LiderA* is Portuguese certification for sustainable buildings and sustainable construction and destinations.

Outlined eco-label logos are given in Appendix 1. (Ecolabel Index, 2015)

Other tools that can be applied to gain sustainability are environmental management systems (EMS), the concept and framework of Local Agenda 21 (LA21) and cleaner production (CP).EMS ensures a management system to companies and destinations so they can achieve sustainability. LA21 ensure a necessary approach to achieve sustainable

development. CP supply's required strategy to achieve the goals. For example businesses can apply EMS and CP in their management to obtain eco-labels and local communities can embrace LA21 guidelines to achieve sustainability (Lee, 2001)



Figure 6 Tools and concepts for sustainable tourism destinations (Lee, 2001)

To reach sustainability in every level, all the different tools and approaches have to be implemented together in the best possible way (Figure 6).

3.1 Strategies

Sustainable tourism strategies are destination policies and practices that have been specified and accepted by the community and stakeholders for planning, developing, marketing and managing the destination. Sustainable strategy is an essential part of having an effective long-term destination management. The strategy's main goal is to find equal footing for communities, residents, visitors, businesses and environment expectations, needs and protection (Schianetz & Kavanagh, 2008).

Sustainable development strategies aim to use resources effectively: reduce dependency on fossil fuels; boost the deployment of renewable energies; reintroduce water to the hydrological cycle, and make sewage reprocessing and nutrient capture a central plank of urban waste management. A wide range of technical and management solutions towards

this end are already available, but overall the implementation has been slow and little (Schianetz & Kavanagh, 2008).

Three main key pillars for working out sustainable strategies are (Schianetz & Kavanagh, 2008):

- 1) Protection of the environment
- 2) Sustain natural and cultural heritage
- 3) Involvement of community and benefits.

UNWTO has promoted to use sustainable tourism indicators in policy-making, planning and management process. Some of the indicators for sustainable city tourism are (Schianetz & Kavanagh, 2008):

- Pollution - air, water, soil
- Water supply
- Wastewater treatment
- Waste management- reduce, reuse, recycle, treat
- Resource use -energy, water, and materials;
- Alternative energy
- Traffic - change in volumes
- Environmental awareness - tourist, stakeholders, community
- Cultural heritage - building, traditions
- Recreational quality - facilities, activities
- Healthy living - security, health, recreation
- Local businesses and employment
- Green design - implementation, application, use
- Affordability

Sustainable tourism strategy should give clear and understandable direction and framework to all parties, to plan, develop, and manage tourism in sustainable manner.

3.2 Management Program

Destinations management program can be divided into five phases (Figure 7) (Sustainable Tourism Online, 2010):

1) Analysis of local situation

Objective analyze of local social, economic and environmental conditions. Outlining the most critical areas. Assessment of the destination tourism capacity. Ascertain the limits that do not harm the environment and ensure sustainable development.

2) Coordination with local stakeholders

The aim of this phase is to collect subjective information to assure better suited sustainable tourism development for all parties. Focus groups, interviews, surveys are all possible actions to figure out main priorities and promote sustainable tourism development.

3) Destination Planning

First two steps are important parts of destination planning. The better is the understanding of the destination situation and needs, the better suitable are the proposed solutions and the greater is the chance of achieving sustainability. Sustainable planning is an iterative process that have to combine social, economic and environmental prospects.

4) Destination Implementation

As the planning process is a continuous process, so is the implementation process. All developed plans should be implemented by using the best available knowledge and equipment, and prioritizing the most critical parts. Also destinations willingness and ability to adapt the changes is important part for making destinations sustainable.

5) Destination Performance

Destination performance is measured and monitored in this phase. To obtain more precise results also the past results should be compared to current results. That will help to reach stated goals and visions. As well as to improve and innovate new plans for sustainable development.

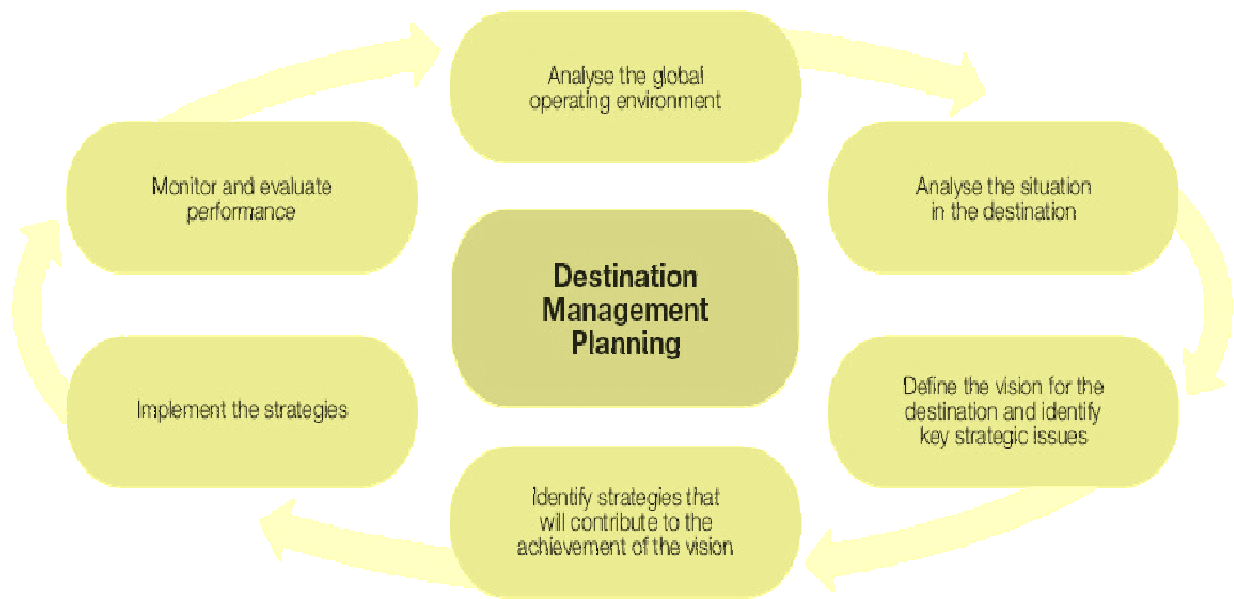


Figure 7 Destination Management Planning Model (Sustainable Tourism Online, 2010)

4 **LiderA Management Model for Sustainable City Breaks**

LiderA is a voluntary assessment system for the sustainability of built environments.

Tourism is one of the world's most important socio-economic activities, presenting a great capacity to generate growth and employment. However, this sector, due to its nature and to the diversity of its components (accommodation, transport and other services) has a significant impact to the environment, with high consumption of resources (energy, water, materials) and environmental emissions. So it is vital for the tourism sector to optimize and develop strategies, plans and projects that seek to improve the performance between environmental, social and economic components (Figure 8) (LiderA Destinations, 2015).

LiderA system goal is to promote environmental awareness in tourism destinations and create a network of sustainable destinations. Promoting an approach to create, train and certify sustainable tourist destination by applying LiderA standards to certain areas of tourism destinations such as tour operators, accommodation, restaurants, transport and other services (LiderA Destinations, 2015).

LiderA Destinations intend to(LiderA Destinations, 2015):

- Promote the development of a sustainable, responsible and quality tourism;
- Enhance a network of services and sites with optimized and proven performance;
- Improve environmental performance and reduce costs;
- Consolidate the image and visibility of Portugal as a set of quality sustainable destinations;
- Contribute to attract and retain customers with environmental concerns.

LiderA Destinations is based on two stages(LiderA Destinations, 2015):

1. When the area involved and tourist services adhere to the sustainable tourist destination, they take on a contribution to the search for sustainability (through an

environmental policy), demonstrating the practices they adopt and being receptive to implement improvements.

2. Depending on the implementation and performance status of each service it will be performed an analysis, assessment and classification according to LiderA classes (from G to A++). In order to integrate the network of sustainable destination the services need to obtain at least a class C, which represents a 25% improvement from the common practice of reference (class E).

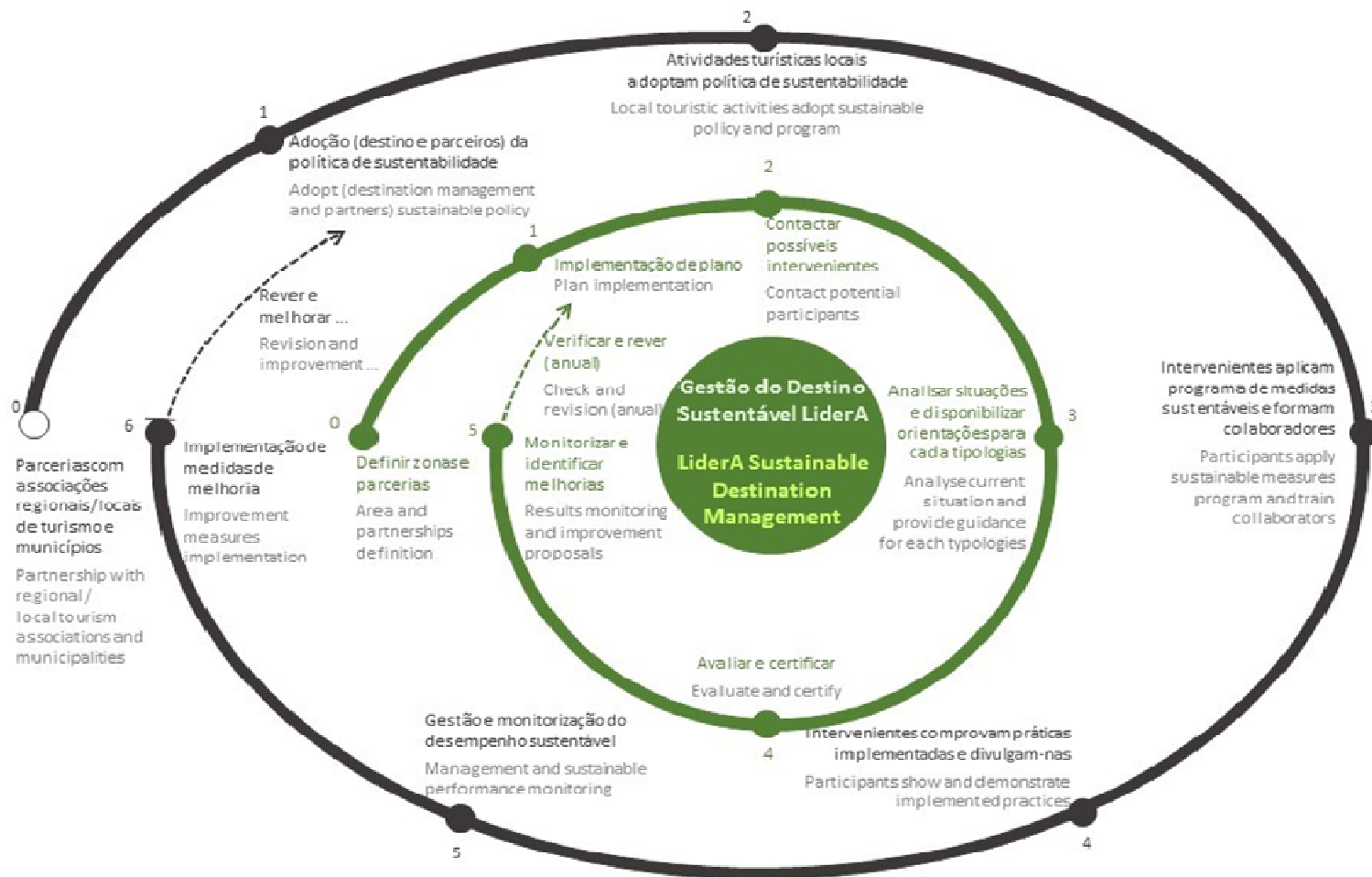


Figure 8 LiderA Sustainable Destination Management (LiderA Destinations, 2015)

4.1 Proposed Model

To grade city's sustainability modified LiderA table was used (Table 4). Evaluation would be given to city's Local Integration, Resources, Environmental Burden, Service and Products, Socio-Economic Dynamics, Sustainable Use. All together 20 criteria were rated.

Table 4 LiderA modified table for grading sustainable tourism

Type	Field	Area	No	Criteria
Ecological	Local Integration	Soil	C1	Compact City
		Ecosystems	C2	Ecology (local habitats)
		Landscape and Heritage	C3	Protect and promote Landscape and Heritage
	Resources	Energy	C4	Energy strategy
		Water	C5	Water strategy
		Materials	C6	Material strategy (local and low impacts)
	Environmental Burden	Wastewater	C7	Wastewater strategy
		Carbon footprint	C8	Carbon management
		Waste	C9	Waste strategy
Socio economic	Service and Products	Products	C10	Local products
		Sustainable values	C11	Promote sustainability
		Environmental friendly	C12	Sustainable options
		Costs	C13	Level of price
	Socio-Economic Dynamics	Employment	C14	Local employment
		Safety	C15	Safety conditions
		Accessibility	C16	Public transports, low impact mobility (cycling, walking), disable
		Local dynamic	C17	Promote local destinations (diversity)
	Sustainable Use	Policy	C18	Policy and management system (municipality, stakeholders,)
		Sustainable Reporting and Involvement	C19	Monitoring and report
		Marketing	C20	Green or sustainable Marketing

Source: compiled by the author

Collected information was graded in 10 point system, 0 being the lowest and 10 for the most sustainable and ecological solution.

Criteria's where assessed by:

- Soil (C1) - How much city soil is covered with built environment and how much with green areas.
- Ecosystems (C2) - How many ecosystems are natural and have local origin and how many are manmade and have decorative vegetation.
- Landscape and Heritage - How much of city's area is with heritage origin and how well it has preserved.
- Energy (C4) - How much energy is generated from renewable sources and how much from other sources.
- Water (C5) - How high is the water consumption (compare to Europe's average).
- Materials (C6) - How much local material resources are used and how much is recycled.
- Wastewater (C7) - How much wastewater is treated, on what level and how much of it reused.
- Carbon footprint (C8) - How big is carbon footprint (compared to Europe's average).
- Waste (C9) - How much waste is produced and how much of waste is reused, recycled and land filled.
- Products (C10) - How big percentage of products are produced locally.
- Sustainable values (C11) - How much is sustainability promoted and people's awareness.
- Environmental friendly (C12) - How many sustainable options people can choose from. How many hotels, hostels, restaurants, tour operators, museums, etc. have received sustainable recognition.
- Costs (C13) - How big is a cost of living (CPI- Consumer Price Index)
- Local Employment (C14) - How big is local employment rate and how big is employment of foreigners.
- Safety (C15) - How big is the crime rate.
- Accessibility (C16) - How big is the public transport usage and impact to the environment and how are light traffic roads conditions.

- Local dynamic (C17) - How good is local diversity and how well is it promoted.
- Policy (C18) - How well is local sustainability policy and management system worked out.
- Sustainable Reporting and Involvement (C19) - How well are monitoring and report systems working out.
- Marketing (C20) - How well is sustainability marketed.

After all the criterias are rated, received results are summarized and tourism destination sustainability is rated according to the grading classification (Table 5).

Table 5 Destination sustainability classification table

F	E	D	C	B	A	A+	A++
0	10%	20%	30%	40%	50%	75%	90%
0	2	40	60	80	100	150	180

Source: compiled by the author

5 Case study Lisbon

5.1 Tourism policy development in Portugal

Portugal's tourism policy development was studied by Fernando Almeida Garcia in 2014. In his study he divided development period into three major socio-economic phases (Table 6) (Almeida Garcia, 2014).

Table 6 Tourism policy phases in Portugal (Almeida Garcia, 2014)

1900-1950	1951-1975	1976-2012
Initiation	Development	Maturity
Pre-Fordist phase	Fordist phase	Post-Fordist phase

The pre-Fordist phase

In the 19th century tourism started to develop more, mainly because Portugal was becoming more popular thermal tourism destination. The main attraction were vacations in coastal areas and hiking. But the tourism was not entirely established before the beginning of 20th century, when the Iberian government also become involved in tourism development. At that time tourism was not seen as a means to boost economy but rather as a great way to improve and raise the country's image abroad. During this period Portugal still had trouble managing tourism due to the lack of communications, promotions and limited hotel infrastructure. Nevertheless it was understood that tourism is fast growing industry with a lot of perks (Almeida Garcia, 2014).

During that period a lot of tourism policies and procedures were established. In 1906 the Propaganda Society of Portugal (Sociedade de Propaganda de Portugal) were created, the mission of this organization was to stimulate and promote tourism, especially in Estoril, Lisbon and Madeira. This task was later proceeded by the Municipal Tourism Commissions (1936) and the Tourist Regions (1956) (Almeida Garcia, 2014).

In 1911, the Portuguese government decided to give a supportive hand to promote and develop Portuguese tourism industry and the National Propaganda and Tourism Department (The Secretariado de Propaganda Nacional e da Repartição de Turismo) was founded. The aim of the department was to improve propaganda and publicity abroad as well as to earn foreign currency, to protect cultural heritage and to develop new vacation resorts. Due to the difficult times not so many goals were achieved (Almeida Garcia, 2014).

To promote Portuguese tourism even more the Portuguese Commission for the Promotion of Tourism was created in 1930 and under their administration Portugal Houses were constructed in London and Paris (Almeida Garcia, 2014).

In the 1930s domestic tourism was still over exceeding the abroad visitors, but there was a slight growth occurring in international visitors, the numbers reached up to 36,000 vacationers. During the Second World War the tourist flow waned (Almeida Garcia, 2014).

The Fordist phase

The second stage occurred between 1950 and 1975 after World War II. This period brought a lot of important developments as mass tourism evolved in many countries, mainly due to the improvements made in aviation services. Expansion of mass tourism made the Portuguese government more eager to develop the tourism sector and eventually in 1956 Tourism Fund and Tourism Law was created. This led to a new Tourism Regions regulations that had larger influence on tourism management due to the independence that came from utilization of new tourism taxes. But still, it did not bring territorial harmonization and most of the tourists were bound to stay in the capital or its surroundings. Nevertheless, in 1956, 232,261 international tourist visited Portugal (Almeida Garcia, 2014).

Another tourism amplifier in this period was indicative planning. This approach gained ground in most parts of Southern Europe and was supported by World Bank that helped to manage foreign investments. This change gave favor to beach vacations and tourism was thriving in Madeira, Algarve and Lisbon (Almeida Garcia, 2014).

In general, tourism demand and supply was on moderate growth in the 60s and 70s. During that time three development plans were introduced. The 1st Development Plan's (1963–67) goal was to attract as many tourists as possible, just to earn foreign currency. No

environmental or social impacts were taken into consideration. The 2nd Development Plan (1968–71) aimed to attract 2.3 million visitors by 1971 by first creating 200,000 new hotel places and later adding other 300,000 accommodation places. During the 3rd Development Plan (1971-1975) the oil crisis endured in 1973 and Portugal lost over half of its tourism. All that lead to a political regime change in 1974 (Almeida Garcia, 2014).

The post-Fordist phase:

In the beginning of that period, after the 1970s crisis and transformation toward democracy, tourism development was affected by Portugal's unstable social, economic and political conditions, and more attention was directed to stabilize the situation than to make new progress in tourism development (Almeida Garcia, 2014).

The first major step forward was in 1986 when the National Tourism Plan was introduced. The Plan's intention was to make tourism a key part in economic development as well as to reduce territorial imbalance, to protect natural and cultural heritage and to develop cultural tourism (Almeida Garcia, 2014).

By the beginning of the 90s Portugal's tourism demand and supply had grown remarkably. Tourist numbers had risen 60.7% in 1990 compared to 1985. And problems that where unnoticeable until then were emerging. Problems like low revenue per tourist, small markets (United Kingdom, Germany and Spain), poor urban planning, damaging effects to environment, a small variation of products, excessive focusing on tourism in Lisbon, Algarve and Madeira region (Almeida Garcia, 2014).

In the 90s Portugal also understood that promotional showcases are important factors to ensure country's tourism and image abroad. Also lot of events and campaigns started during that period: Lisbon was European Capital of Culture (1994), the Lisbon International Exhibition was organized (1998), Porto was European Capital of Culture (2001) and the UEFA European Football Championship was held in Portugal (2004) (Almeida Garcia, 2014).

After the 2008 finical crisis the tourism management went under a major renovation. The Portuguese Institute of Tourism took charge of tourism. Tourism development and promotion took place at the national level, not at the local and regional level, like it was done during the last 80 years (Almeida Garcia, 2014).

In 2007, the most recent tourism policy management plan The National Strategic Plan for Tourism in Portugal was introduced. The plan contains ideas and designs to make Portugal tourism more competitive. The target was to reach 20 million tourist by 2015 by diversifying markets and the quality of tourism. But not all of the goals have been reachable due to the country's last economic recession (Almeida Garcia, 2014).

5.2 Lisbon Main Characteristics

Lisbon is the capital of Portugal. It is located in the western part of Portugal and is the most western city in continental Europe. Lisbon is situated on right side of the Tagus River and Atlantic Ocean (Wikipedia, 2015a).

Last year the total population of Portugal was 10.741 billion people. 547,631 people of the population live in the Lisbon City area. The urban area of the city, the Lisbon Metropolitan Area, extends beyond Lisbon City area and its population is over 3 million habitants making it the 11th most populous urban area in EU (Wikipedia, 2015a).

Lisbon has a Subtropical- Mediterranean climate, with mild winters and hot summers. Generally, the summer lasts from May to October, December, January and February are considered winter months as they are the coldest. Summer daytime temperatures can reach up to 26 to 33 °C (79 to 91 °F) and winter day temperatures stay usually around 11 to 18 °C (52 to 64 °F). The average annual temperature is 21.5 °C (70.7 °F) during a day (Wikipedia, 2015a).

Lisbon is one of the oldest cities in the world and the oldest city in Western Europe, prior even to the European cities such as Paris, London and Rome. It's one of the world's great historical cities, with characteristic and surprising sights, cultural treasures, and a beautiful setting that make it a paradise for walkers and photographers. Lisbon is also known as a global city due to its importance in finance, commerce, media, entertainment, arts, international trade, education and tourism, it also has one of the largest ports in Europe's Atlantic coast (GoLisbon, 2015b; Wikipedia, 2015a)

Lisbon was the 7th most visited city in Southern Europe, with 1,740,000 tourists in 2009. In 2013, record number of visitors traveled to Portugal (14 million visitors) (Wikipedia, 2015a).

5.3 Main Points of City Tourism

The city of Lisbon is rich in architecture; Romanesque, Gothic, Manueline, Baroque, Modern and Postmodern constructions can be found all over Lisbon. The city is also crossed by historical boulevards, squares and monuments, most notable among them are the Avenida da Liberdade (Avenue of Liberty), Avenida Fontes Pereira de Melo, Avenida Almirante Reis and Avenida da República (Avenue of the Republic), Rua Augusta and squares like Praça do Comércio, Praça do Império, Restauradores Square, Rossio Square, Praça da Figueira, Marques de Pombal Square (Bernhardt, 2015; GoLisbon, 2015a).

Tourists can enjoy the good weather and view over the city on Lisbon's many *miradouros*-the Miradouro de São Pedro de Alcântara, the Miradouro das Portas do Sol, the Miradouro de Santa Luzia, the Miradouro da Graça, the Miradouro da Nossa Senhora do Monte, the Miradouro do Parque Eduardo VII, the Miradouro do Monte Agudo (Bernhardt, 2015; GoLisbon, 2015a).

Tourists should also visit landmarks like the Castelo de São Jorge, the Elevador de Santa Justa, the Arco da Rua Augusta, the Padrão dos Descobrimentos, the Torre de Belém, the Padrão dos Descobrimentos, the Basílica da Estrela, the cathedral Sé (Bernhardt, 2015; GoLisbon, 2015a).

There are several museums in Lisbon. The best known are the Museu Nacional de Arte Antiga (National Museum of Ancient Art), the National Azulejo Museum, the Museu Calouste Gulbenkian (Calouste Gulbenkian Museum), the Museu Nacional do Traje e da Moda (National Museum of Costume and Fashion), the Berardo Collection Museum (Modern Art) at the Belém Cultural Center, the Museu da Electricidade (Electricity Museum), the Museu Nacional dos Coches (National Coach Museum), the Museum of Pharmacy, the National Museum of Natural History and Science, Museum of the Orient, the Museu do Teatro Romano (The Roman Theatre Museum), and the Lisbon City Museum (Bernhardt, 2015; GoLisbon, 2015a).

Tourists can also just walk around the city and visit the most remarkable neighborhoods like Bairro Alto, where tourists can enjoy Bairro streets wild night life; Alfama, where visitors can walk around and get a glimpse of the older and traditional side of Lisbon; or Avenida, where tourist can see more modern part of the city with the widest street in Lisbon and most expensive boutiques.

5.4 Sustainable Perspective and Assessment

5.4.1 Local Integration

Lisbon's soil is on a large scale sealed 60.7% (Figure 9). Lisbon City center area is mainly covered with building but in the peripheral area are a lot of green areas. Also on the outskirts of the city is Parque Florestal de Monsanto that occupies 600 hectares of the city's landscape. Green areas and parks are mainly coated with local vegetation. Beside the parks in Lisbon, the city is also full of a cultural mosaic of history, architecture and traditions. Lisbon downtown is full with ancient heritage and historic buildings (European Environment Agency, 2012; Wikipedia, 2015a).

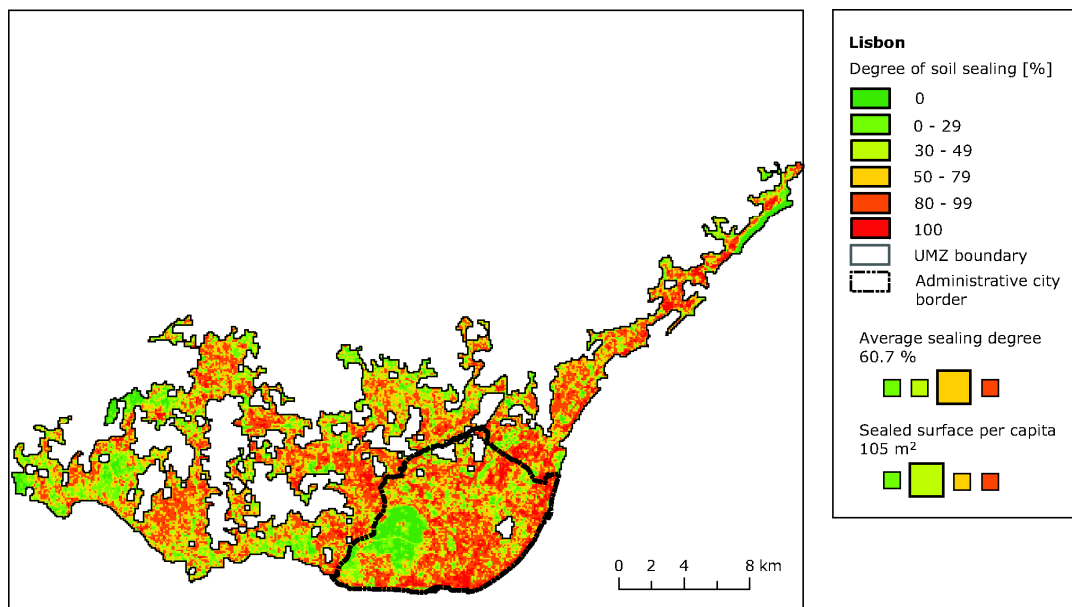


Figure 9 Lisbon land sealing (European Environment Agency, 2012)

5.4.2 Resources

Portuguese national energy policy is based on two main pillars: economic and sustainable energy efficiency, and the use of renewable energy sources. Portugal's general goal for 2020 is to reduce primary energy consumption by 25%; to increase the energy production from renewable sources and to reduce country's energy dependence. Over the last years, primary energy consumption has decreased noticeably, from 2009 to 2012 the consumption decreased 10.2% (Figure 10) and the installation of the new renewable energy sources

increased prospectively (Figure 11). It was reported that, in 2014, 63% of energy consumption was covered by renewable energy sources. The main energy source for generating electricity in 2014 were large dams (29.4%), followed by wind (23.7%) and coal (22.2%). Other renewable sources were biomass (5.4%) and solar power (1.2%) (Relatório do Estado do Ambiente, 2013; Statistics Portugal, 2014; The Life Cycle in Practice, 2015).

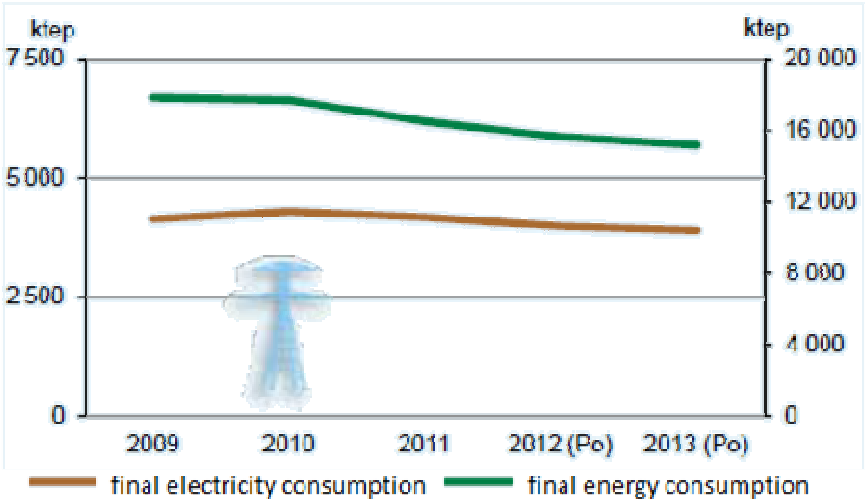


Figure 10 Final electricity and energy consumption (Statistics Portugal, 2014)

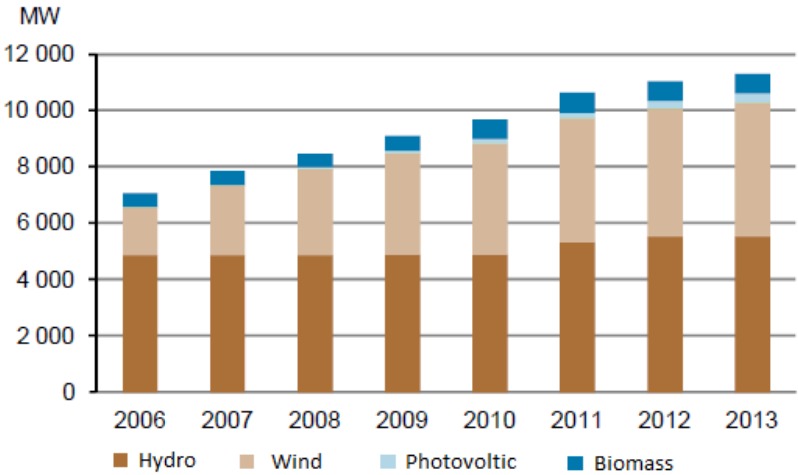


Figure 11 Installed capacity of renewable energy (Statistics Portugal, 2014)

Empresa Portuguesa das Águas Livres, SA is a water company serving Lisbon and surrounding municipalities. Portugal's water consumption is one of the top five Europe

countries with highest water consumptions per capita (Appendix 2). The sources of drinking water include rivers, lakes, ponds and wells. To ensure tap water safety, Environmental Protection Agency prescribes regulations for public water systems. In 2008, the Lisbon Municipality approved the Energy-Environmental Strategy for the City of Lisbon, that set a target to reduce water consumption 7.8%. The new strategy for the urban water sector for the water-supply and wastewater treatment for the period 2014-2020, called PensaAR 2020 will be published soon (Agência Municipal de Energia e Ambiente, 2009; Empresa Portuguesa de Águas Livres, 2002).

In material use Energy-Environmental Strategy for Lisbon set a goal to reduce material consumption in Lisbon 10% and increase material recycling 29% (Agência Municipal de Energia e Ambiente, 2009). Sustainable Governance Indicators (SGI) Project graded Portugal's material recycling on 30th position in EU (Sustainable Governance Indicators, 2014).

5.4.3 Environmental Burden

Wastewater Treatment Plant of Chelas and Alcantara treats the wastewater of the catchment of Lisbon, Oeiras and Amadora. The Energy-Environmental Strategy for Lisbon aim is to reuse the treated wastewater in Lisbon. Right now treated wastewater is not used for drinking purposes, it is mainly used for irrigation, street and waste container cleaning, etc (Agência Municipal de Energia e Ambiente, 2010).

The greenhouse gas (GHG) emissions review of 2013, showed that Portugal has one of the lowest GHG emissions per-capita in the EU. Ranking sixth, with a value of 6,5 tons of CO₂ equivalent per inhabitant, the average in Europe was 9 tons of CO₂ equivalent per inhabitant. Over the last years GHG emissions have decreased (Figure 12) and preliminary simulation results suggest that Portugal can comply with its 2020 carbon emission targets without significant compliance costs (European Environment Agency, 2015; Relatório do Estado do Ambiente, 2013).

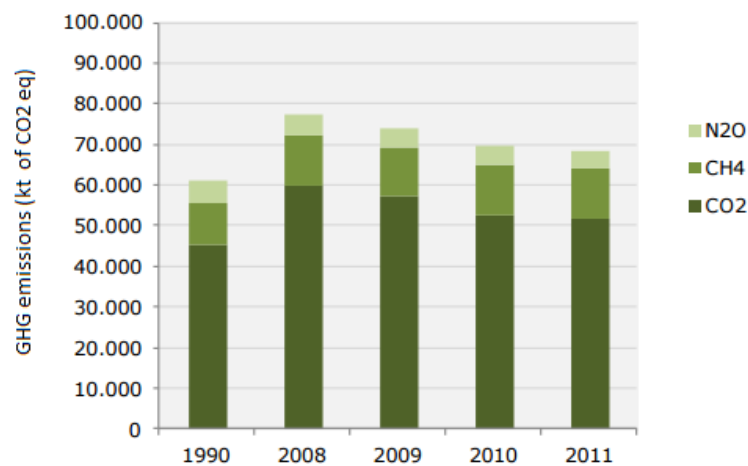


Figure 12 Changes in GHG emissions (CO₂, CH₄ & N₂O) (Relatório do Estado do Ambiente, 2013)

Regarding to the waste sector, lot of changes and consolidation have been made in waste management framework over last years. New Municipal Plan for Waste Management in Lisbon has set a goals to reuse and recycle at least 50% of urban waste and to reduce waste dumping to the landfill. In 2013 the total production of municipal waste in mainland Portugal decreased about 4% compared to the previous year and really high percentage of municipal waste was dumped to landfill (43%), 22% of the waste went to energy recovery, 17% to mechanical and biological treatment, 9% to material recovery, 7% to mechanical treatment and 2% to organic recovery (European Environment Agency, 2015; Lisbon City Council, 2015).

5.4.4 Service and Products

Lisbon Sustainable Tourism organization is the main sustainable tourism operator offering sustainable tours in Lisbon. Their homepage offers a number of sustainable accommodation, restaurant and tour options. Also on the Tripadvisor, what is popular trip advise page among tourist, can tourists choose Green Leader accommodation companies in Lisbon and Portugal. Other page that also features sustainable tourism solutions in Portugal is EcoTours Portugal (Lisbon Sustainable Tourism, 2014).

Cost of living is calculated with a consumer price index (CPI). CPI measures changes in the price level of the market basket of consumer goods and services purchased by households. Lisbon CPI is 49.75, groceries index is 38.76 and restaurant price index 46.65. CPI in Euro area in the end of 2014 was 117.87 Index Points (Numbeo, 2015a; Trading Economics, 2015)

5.4.5 Socio-Economic Dynamics

In the last quarter of 2014 Lisbon employment increased 3,9% and unemployment decreased 19,7% what made Lisbon's unemployment rate growth fastest in the country. Approximately 5% of the Portuguese population are immigrants and they make up 10% of labor market and around 5% of unemployed workforce (Statistics Portugal, 2015).

The number of crimes recorded in the EU has been steadily decreasing since 2003. In 2012 12 % less crimes were recorded in the EU than nine years earlier. However, the crime rate in Portugal has increased last years by 3% and Lisbon crime index is 35.65 (Eurostat Statistic Explained, 2015; Numbeo, 2015b)

Lisbon has 4 main public means of transport: bus, tram, metro and train. Bus and metro are the most used means of public transport in Lisbon. Still the most popular transport vehicles in Lisbon are cars that make up 38% of Lisbon's means of movement (Figure 13 Lisbon transport modal split (Cerdeira et al., 2012)Figure 13). Cars' annual energy consumption (Figure 14) and GHG emissions (Figure 15) in Lisbon are higher than all the other public transports' consumption and emissions put together. Remarkable number of people also move around on foot or by bicycle, even though Lisbon's light traffic roads are not so well developed (Cerdeira, Laborinho, & Lobato, 2012).

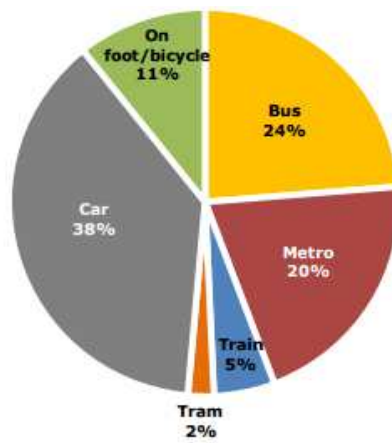


Figure 13 Lisbon transport modal split (Cerdeira et al., 2012)

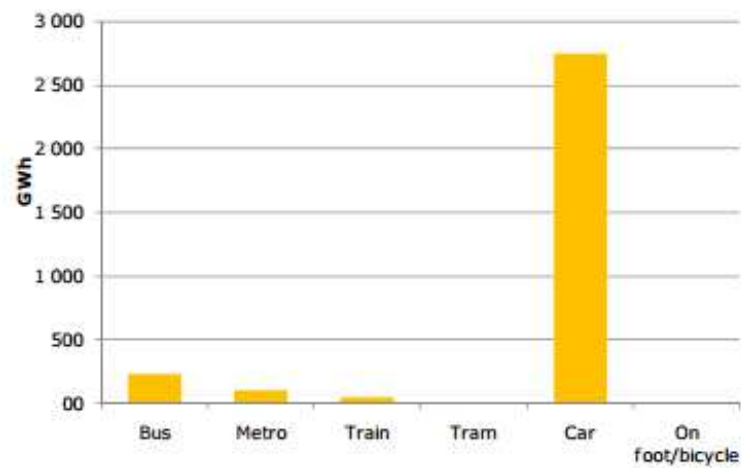


Figure 14 Lisbon transport annual energy consumption (Cerdeira et al., 2012)

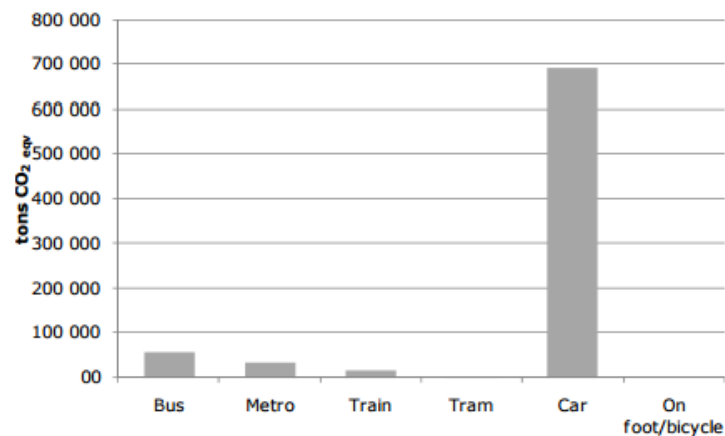


Figure 15 Lisbon transport annual GHG emissions (Cerdeira et al., 2012)

5.4.6 Sustainable Use

Portuguese sustainable environmental development is organized by the Portuguese Environment Agency (APA). The mission is to propose, develop and monitor public policies for the environment and sustainable development, in close cooperation with other sector's policies and public and private entities. APA purpose is to preserve Portuguese natural resources and environmental quality (Agência Portuguesa do Ambiente, 2015).

APA is working out better legislations to protect the environment. But still Portuguese local government is more focused on economy, and environment is not considered a political priority. Government has not succeed to implement adequate policies to mitigate climate change, ensure renewable water sources, and protect forest areas and biodiversity. But production reduction after the financial crises have reduced the CO₂ emissions and environmental pressures (Sustainable Governance Indicators, 2014)

Sustainable Governance Indicators (SGI) Project rates 41 EU and OECD countries on their environmental, social and economic policies as well as the countries' democracy and governance. SGI brings together experts and practitioners who try to understand what is the best sustainable solution. SGI evaluated Portuguese environmental performance and rated it to 26th place (Figure 16) (Sustainable Governance Indicators, 2014).

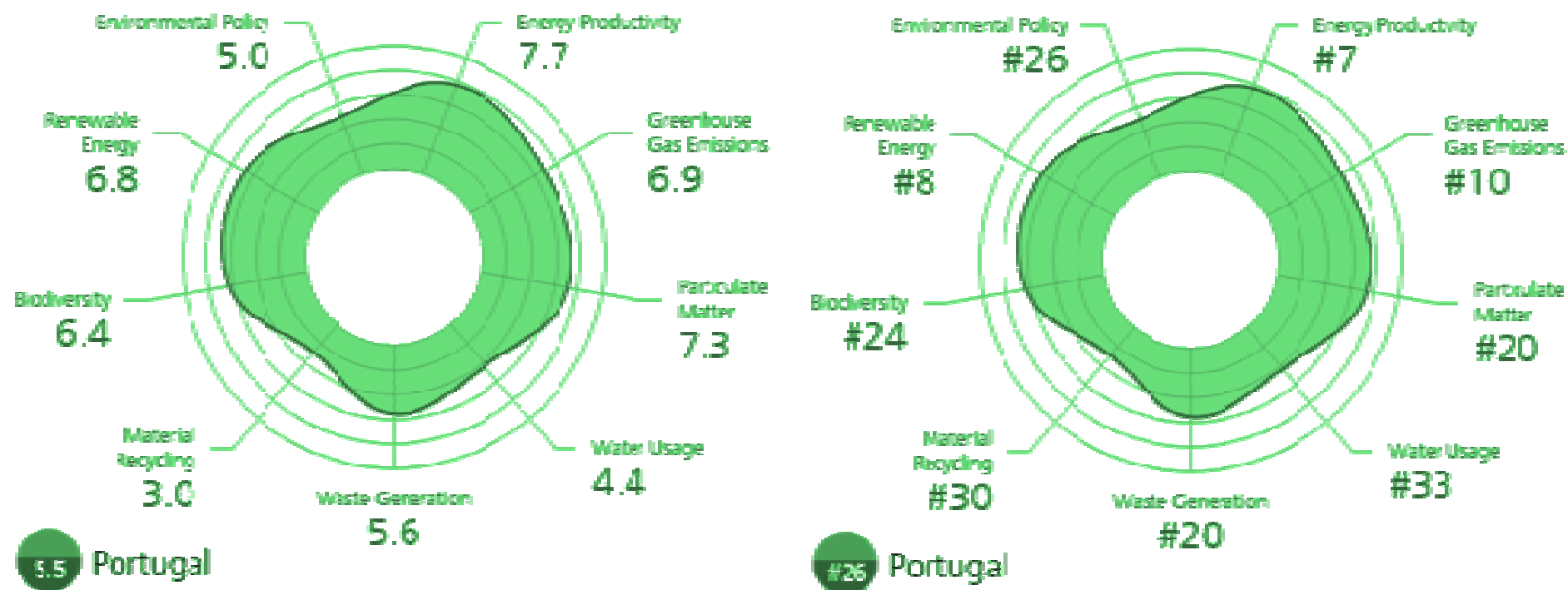


Figure 16 Portuguese environmental performance in 2014 (Sustainable Governance Indicators, 2014)

On the left side image: environmental indicators are valued from 1 (worst) to 10 (best).

On the right side image: previously gained values are compared to other countries' environmental indicators and ranked from best to worse.

5.4.7 LiderA assessment

After collecting and assessing received data, results were transferred to modified LiderA table (Table 7).

Table 7 LiderA assessment of Lisbon

Type	Field	Area	No	Criteria	Lisbon
Ecological	Local Integration	Soil	C1	Compact City	4
		Ecosystems	C2	Ecology (local habitats)	5
		Landscape and Heritage	C3	Landscape and Heritage	5
	Resources	Energy	C4	Energy strategy	6
		Water	C5	Water strategy	2
		Materials	C6	Material strategy (local and low impacts)	4
	Environmental Burden	Wastewater	C7	Wastewater strategy	5
		Carbon footprint	C8	Carbon management	4
		Waste	C9	Waste strategy	4
Socio economic	Service and Products	Products	C10	Local products	3
		Sustainable values	C11	Promote sustainability	4
		Environmental friendly	C12	Sustainable options	4
		Costs	C13	Level of price	7
	Socio-Economic Dynamics	Employment	C14	Employment rate and local employment	6
		Safety	C15	Safety conditions	4
		Accessibility	C16	Public transports, low impact mobility (cycling, walking), disable	5
		Local dynamic	C17	Promote local destinations (diversity)	4
	Sustainable Use	Policy	C18	Policy and management system (municipality, stakeholders,)	2
		Sustainable Reporting and Involvement	C19	Monitoring and report	2
		Marketing	C20	Green and Sustainable Marketing	2
				Total	82

Source: compiled by the author

Total credit points give Lisbon's sustainability a grade B (Table 5).

6 Case study Tallinn

6.1 Tourism policy development in Estonia

Tourism in the Soviet period

Estonian tourism has traditionally been based on its curative mud, coastal resorts, heritage and nature. During the first independence period, in the 1920s and 1930s, Estonia attracted a lot of visitors from many parts of Europe (Unwin, 1996).

During the II World War, 1939-1945, Estonia was forced to unite with Soviet Union and that did not affect Estonian tourism very well. International tourism declined significantly and the main vacationers became the Soviet elite (Unwin, 1996).

In the 60s the Soviet tourism organization opened an office in Tallinn. The numbers of the western travelers rose a little bit after that, but travel beyond the capital were still banned for non-Soviet tourists. Until the end of 60s only 15,000 international tourists visited Estonia yearly. By the end of the 70s the international tourist numbers were slightly elevated, reaching between 40,000 and 50,000 visitors per year (Unwin, 1996).

The next main event in Estonian tourism development in the Soviet period was the yachting event of the Moscow Olympic Games that were held in Tallinn in 1980. That event lead to open new hotels, to build a new marina at Pirita and to renovate many historical buildings in Tallinn. However, the tourism was still prohibited outside of the capital. Extensive coastal areas, islands and coppices became restricted military zones and even the access for local residents was forbidden. During that time military bases were major source of environmental pollution and destruction (Unwin, 1996).

One of the most important developments that Soviet Union established was the creation of the protected natural areas, what later played an important role in Estonian tourism development. In 1957 the State Nature Reserves at Matsalu, Viidumäe, Vilsandi and Nigula were created and in 1971 the Lahemaa National Park. Later on Vilsandi, Karula and Soomaa were reclassified as National Parks (Unwin, 1996).

Estonian tourism after regaining the independence

In 1990 a National Tourist Board was created, the board's goal was to develop tourism policies. In 1992 the government intensified the tourism and adopted the policies. Since then the international tourist numbers have been increasing but the dissolution of Soviet Union reduced the Soviet elite arrivals remarkably (Unwin, 1996).

Most of the visitors after the re-independence were from Finland (80%) and Sweden (8.5%), and less than 20% of the visitors spent the night in the country. High numbers of day visitors were caused by the Scandinavian tourists who were visiting Estonia mainly via cruise ships. These numbers are only reflecting the travels made through travel agencies. The estimated number of visitors in 1994 according to the boarder notes were around 1 million visitors (Unwin, 1996).

Many visitors are attracted of Estonia's low cost everyday shopping items like food, alcohol, clothes but also a cheap medical and ophthalmic services (Unwin, 1996).

To expand tourism even further, the Indicative Development Master Plan was established. It highlights the importance of tourism to economy and its potential to escalate. Report advice to seek a support from government to achieve maximum economic, social and environmental benefits and also points out the importance of marketing (Unwin, 1996).

Based on a survey done within this period the main attraction of Estonian tourism were cultural heritage, natural environment and friendly community. Therefore, during that time it was recommended that Estonian tourism image should be built around eco-tourism with cultural heritage, history and medieval antiquities impacts (Unwin, 1996).

During the last decade tourism has strongly developed in all levels. Record numbers of domestic and international tourists stayed in tourism accommodation companies last year, achieving 3.1 million travelers in a year that is 3.6 % more than the previous year (Ettevõtluse Arendamise Sihtasutus (EAS), 2015; Unwin, 1996).

6.2 Main Characteristics

Tallinn is the capital of Estonia and is also the biggest city in the country 158.3 km². Tallinn is located on the northern coast of the country, on the shore of the Gulf of Finland. The population of Estonia is 1.3 million and according to the latest population census in 2014, 413,782 people of the population live in capital (Wikipedia, 2015b).

Tallinn has a humid continental climate with warm, mild summers and cold, snowy winters. Winters are cloudy and snowfall is common during the winter months. Temperature in winter can drop below -18°C (0°F) but normally the average temperature stays between -3.5°C and -7.6°C (18.3°F - 25.7°F). Summers are mild with daytime temperatures hovering around 19 to 21 $^{\circ}\text{C}$ (66 to 70 $^{\circ}\text{F}$). At the winter solstice daylight only lasts for about 6 hours and during the summer solstice the daylight lasts more than 18 hours and 30 minutes (Wikipedia, 2015b).

Tallinn is the financial and business capital of Estonia. The city benefits from the high level of economic freedom, liberal economic policy and has a highly diversified economy with particular strengths in information technology, tourism and logistics. Tallinn is also ranked as a global city and has been listed among the top 10 digital cities in the world (Wikipedia, 2015b).

6.3 Main Points of City Tourism

Tallinn is internationally renowned as a tourist destination, receiving more than 1.5 million visitors annually. The number of visitors has been growing steadily over the past decade. Tallinn Passenger Port is one of the busiest cruise destinations on the Baltic Sea, serving more than 520 000 cruise passengers in 2013 (Wikipedia, 2015b).

Tallinn Old Town, what is listed as a UNESCO World Heritage Site, is definitely one of the main attractions in the city. Also worth visiting are Seaplane Harbor of Estonian Maritime Museum, Tallinn Zoo and the Estonian Open Air Museum (Wikipedia, 2015b).

Tallinn Upper Town was once heavily fortified and almost formed a separate town. The main attractions in that area are medieval Toompea Castle (housing the Estonian Parliament, the Riigikogu), the Russian Orthodox Alexander Nevsky Cathedral and the Lutheran St Mary's Cathedral, also known as the Dome Church (Toomkirik) (Tallinn City Tourist Office & Convention Bureau, 2015; Wikipedia, 2015b).

Lower Town of Tallinn is one of the best preserved medieval town in Europe and its rehabilitation is a continuing process. The major sights in the area are Town Hall square (Raekoja plats), the city wall and towers (notably "Fat Margaret" and "Kiek in de K  k") as well as a number of medieval churches, including St Olaf's, St. Nicholas' and the Church of

the Holy Ghost (Tallinn City Tourist Office & Convention Bureau, 2015; Wikipedia, 2015b).

Kadriorg is also an attractive place to look up. Kadriorg Palace is the former palace of Peter the Great where now is the presidential residence, it is surrounded with formal gardens and woodland. Also the Art Museum of Estonia, Kumu, is located in Kadriorg (Tallinn City Tourist Office & Convention Bureau, 2015; Wikipedia, 2015b).

6.4 Sustainable Perspective and Assessment

6.4.1 Local Integration

Tallinn soil is sealed 50.3% with infrastructure (Figure 17). Within the scope of City Administration are dozens of parks, starting with small green squares and finishing with the biggest park Kadriorg with 85 he, and lakes Ülemiste and Harku. 65.2 he of green areas in the city are forest parks. Parks are mainly covered with local flora but there are also parks with decorative plants. City's heart is a Medieval Old Town with historical charm. Old Town was listed to the UNESCO World Heritage List in 1997. Preserving, protecting and promoting cities unique traditions, culture and heritage is main aim of Tallinn Culture and Heritage Department (Estonian Tourist Board, 2015; Tallinn, 2014a, 2014b).

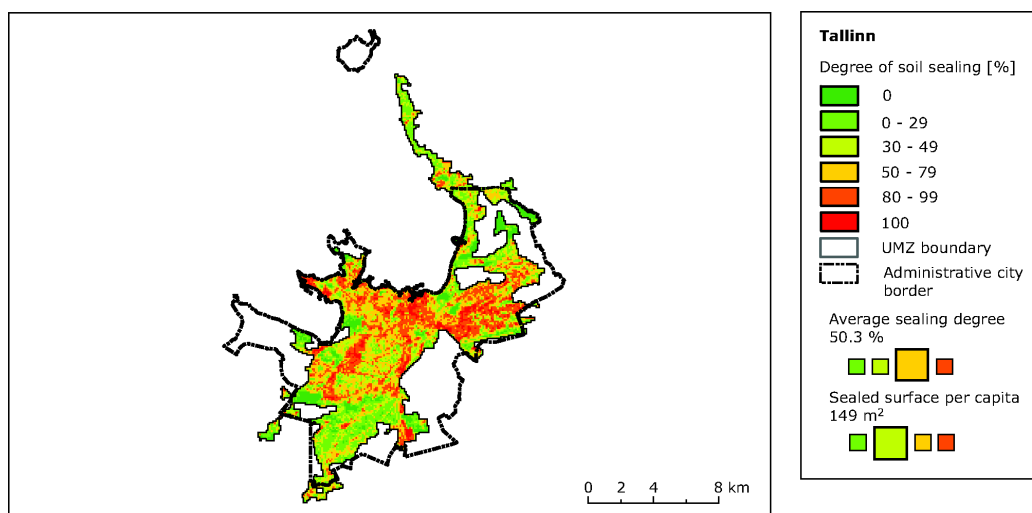


Figure 17 Tallinn land sealing (European Environment Agency, 2012)

6.4.2 Resources

Estonia has a large energy consumption. In recent years, there has been a continuing increase in using renewable energy sources for energy production. In 2012, 25.8% of Estonia's final energy consumption was produced from renewable sources. That means that Estonia has already exceeded their national target for 2020 to generate quarter of its energy from renewable sources. Main renewable energy sources are bio-energy and wind energy. Also hydropower is recently become more attractive solution (Statistics Estonia, 2014).

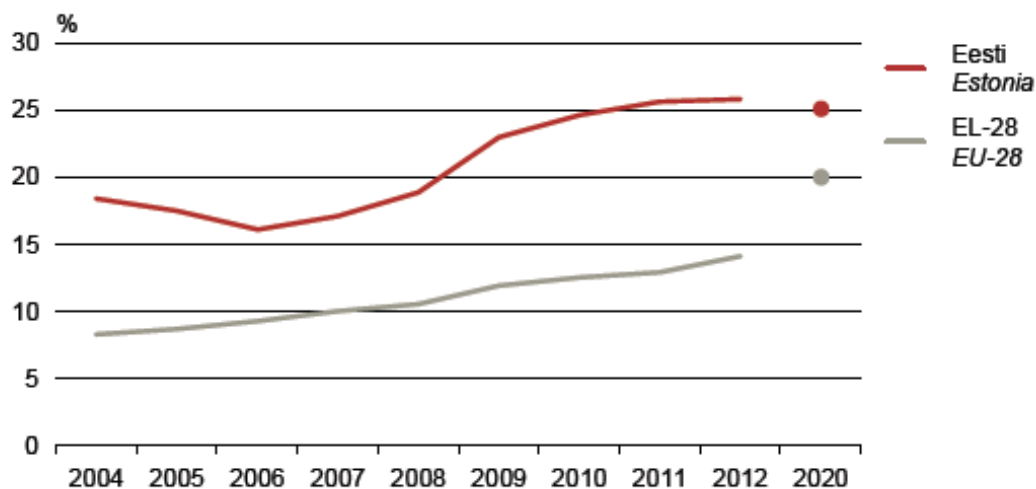


Figure 18 Renewable energy consumption 2006-2012 and target for 2020 (Statistics Estonia, 2015a)

Tallinn's water protection strategy goals are (Tallinn, 2011):

- to improve and preserve surface, coastal and groundwater;
- to improve the legislation of water protection;
- to develop a incentive system for improving water preservation;
- to improve water pollution monitoring programs;
- to evolve regional and international cooperation programs for water protection;
- to improve storm water management plan and
- to promote sustainable water usage.

Tallinn wants to achieve at least acceptably good ecological and physical-chemical condition for major water bodies in Tallinn; more efficient protection program for Lake

Ülemiste contamination; and high-quality drinking water supply. Tallinn's drinking water main resource is surface water from Lake Ülemiste (90%), the rest comes from groundwater. Estonia's water consumption is one of the highest in Europe, domestic water consumption is 90 liters per capita per day (Appendix 2) (Ministry of The Environment, 2007; Tallinn, 2011).

Sustainable Governance Indicators (SGI) Project scores Estonian material recycling with 3.9 points what leaves it on 15th place in EU (Sustainable Governance Indicators, 2014).

6.4.3 Environmental Burden

Wastewater treatment in Estonia has increased over the years, even two times over the last decade. Tallinn's rain, snow fall and wastewater are processed in Paljasaare Wastewater Treatment Plant (WWTP). Cleaned water is later released to the Baltic Sea. By the end of 2014, the released treated wastewater was within the HELCOM and legal requirements. AS Tallinna Vesi is responsible for Paljasaare WWTP performance and company's targets for WWTP are minimizing the untreated wastewater release to the sea, improve a long-term WWTP process, ensure treated water quality and modernizing WWTP mechanical processes. New upcoming project in WWTP are nitrogen project; and reuse of WWTP settings and biogas released from WWTP cleaning process (AS Tallinna Vesi, 2015; Statistics Estonia, 2014).

Estonia's GHG emissions are one of the smallest in EU (0.5% of EU GHG emissions) but at the same time GHG emissions per capita are one of the highest in EU. In 2011 Estonia was on EU top five GHG emitter per capita (Appendix 3). GHG emission decreased about million ton in 2012 compare 2011, after being increased for last couple of years (Figure 19). In Estonia, 89% of the GHG is made up of CO₂, CH₄ and N₂O both make up 5% and the rest 1% is accounted as F-gases. Tallinn aims to reduce carbon emission by 40% by the 2030, compare to the 2007 level. In 2011, the GHG emission was 12.9 tons per capita, that was still higher than EU average (Statistics Estonia, 2014, 2015a; Tallinn, 2011).

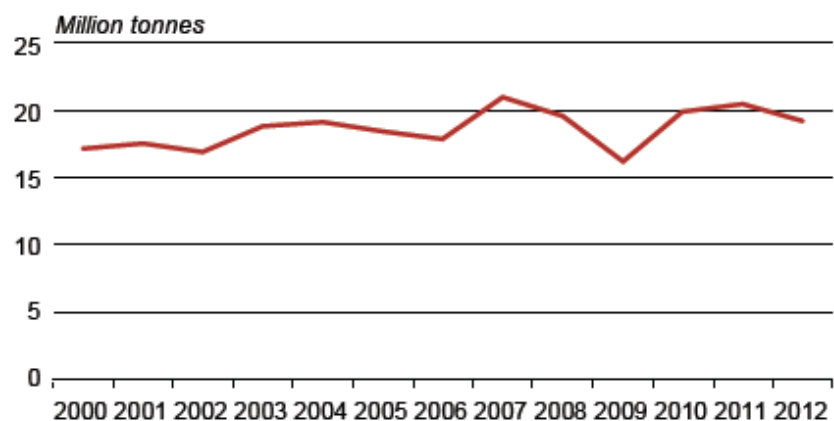


Figure 19 Estonian GHG emissions 2000-2012 (Statistics Estonia, 2015a)

During the last five years waste generation has increased steadily (Figure 20). Nonetheless, the waste treatment has also grown positively. In 2000 only 13% of waste was recovered and in 2012 it was already 59%. In 2013, 22.5 million tons of waste was generated (Statistics Estonia, 2014, 2015a). Waste management goal in Estonia is to minimize waste production as much as possible and to maximize waste sorting by recycling and reusing. Also educate and promote locals on waste management (Tallinn, 2011).

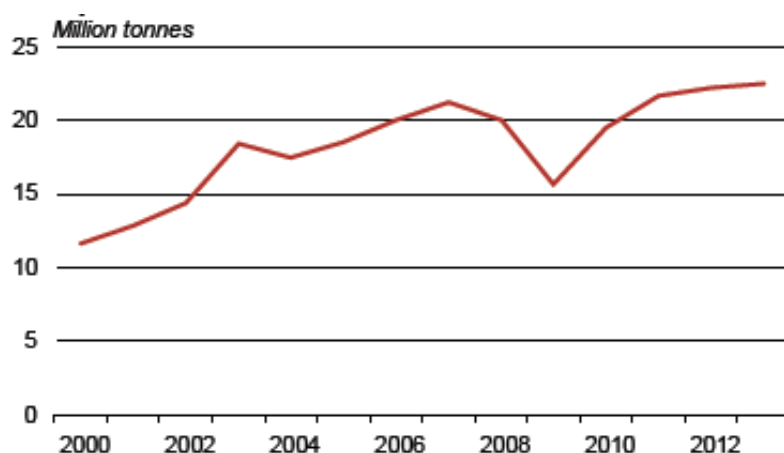


Figure 20 Estonia's waste generation 2000-2013 (Statistics Estonia, 2014)

6.4.4 Service and Products

Tallinn's sustainable tourism is not promoted as much as is Lisbon's. You can find ecotourism in Estonia (organic farms, green events and sustainable activities) but nothing really in the capital. The exception is Green Key eco-label that is assigned to seventeen

Estonian accommodation institutes of which almost half are located in Tallinn (The Green Key, 2015).

Tallinn's CPI is 54.23, groceries index is 39.19 and restaurant price index is 50.55. CPI in Euro area in the end of 2014 was 117.87 Index Points (Numbeo, 2015a; Trading Economics, 2015)

6.4.5 Socio-Economic Dynamics

Since 2011 the employment has been increasing and unemployment decreasing. The labor force (employed and unemployed persons) has been diminishing due to the population decline. In first quarter of 2015 the estimated number of unemployed people decreased from 57,000 to 44,000 and the unemployment rate from 8.5% to 6.6%. In 2014 about 30% employed persons were non-Estonians. Estonia is promoting and inviting foreign workers to come to work in Estonia (Statistics Estonia, 2015b, 2015c)

The crime in EU decreased 12% over the last decade and the decrease in Estonia was almost double 23%, leaving the crime index in Tallinn 27.15 (Eurostat Statistic Explained, 2015; Numbeo, 2015b)

Tallinn has 3 main public transport means: busses, trams and trolleybuses. In 2013, 43% of the population commuted to work by public transport, 17% on foot, 3% by bicycle (Figure 21) and the rest 37% used car to commute to work. The public transport usage has strongly decreased over the last decade, from 58% in 2004 to 43% in 2013. To promote walking and biking even more Tallinn is developing more light traffic roads (Statistics Estonia, 2015a).

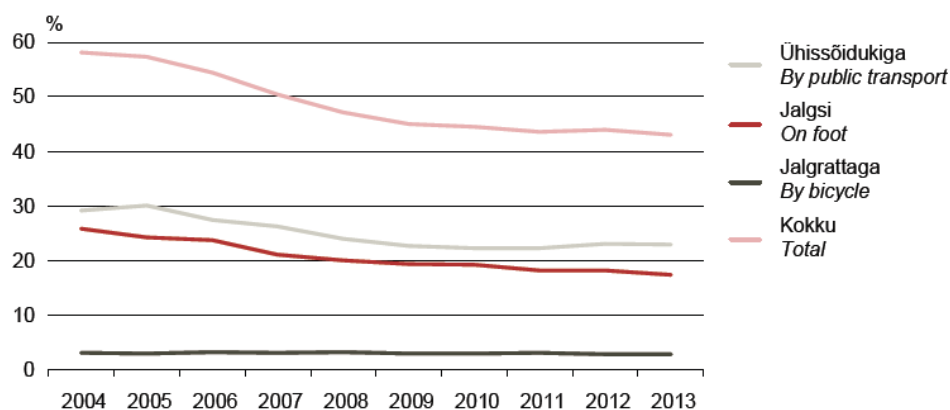


Figure 21 Tallinn population commuting to work by public transport, by bicycle or on foot 2004-2013 (Statistics Estonia, 2015a)

6.4.6 Sustainable Use

Estonian Ministry of the Environment is responsible of improving sustainable development and developing and monitoring policies and regulations. The ministry include also The Environmental Board, The Environmental Inspectorate, Estonian Land Board, State Forest Management Centre, the Foundation Private Forest Centre, OÜ Estonian Environmental Research Centre, Geological Survey of Estonia, AS Estonian Map Centre, AS Ökosil, Estonian Environment Agency, Estonian Museum of Natural History and Information Technology Centre of the Ministry of the Environment (Ministry of the Environment, 2015) The Environmental Investment Center supports various activities aimed to increase the awareness and to educate people (Environmental Investment Centre, 2015).

Estonia's environmental awareness have risen rapidly after regaining the independence and that due to the regiment to comply with EU standards. The challenge for Estonia is the economy dependence on energy-heavy technologies. Nevertheless, with policies and practices steadily improving Sustainable Governance Indicators (SGI) Project rates Estonian environmental performance to be 4th best one among the comparable countries (Figure 22) (Appendix 2) (Sustainable Governance Indicators, 2014).

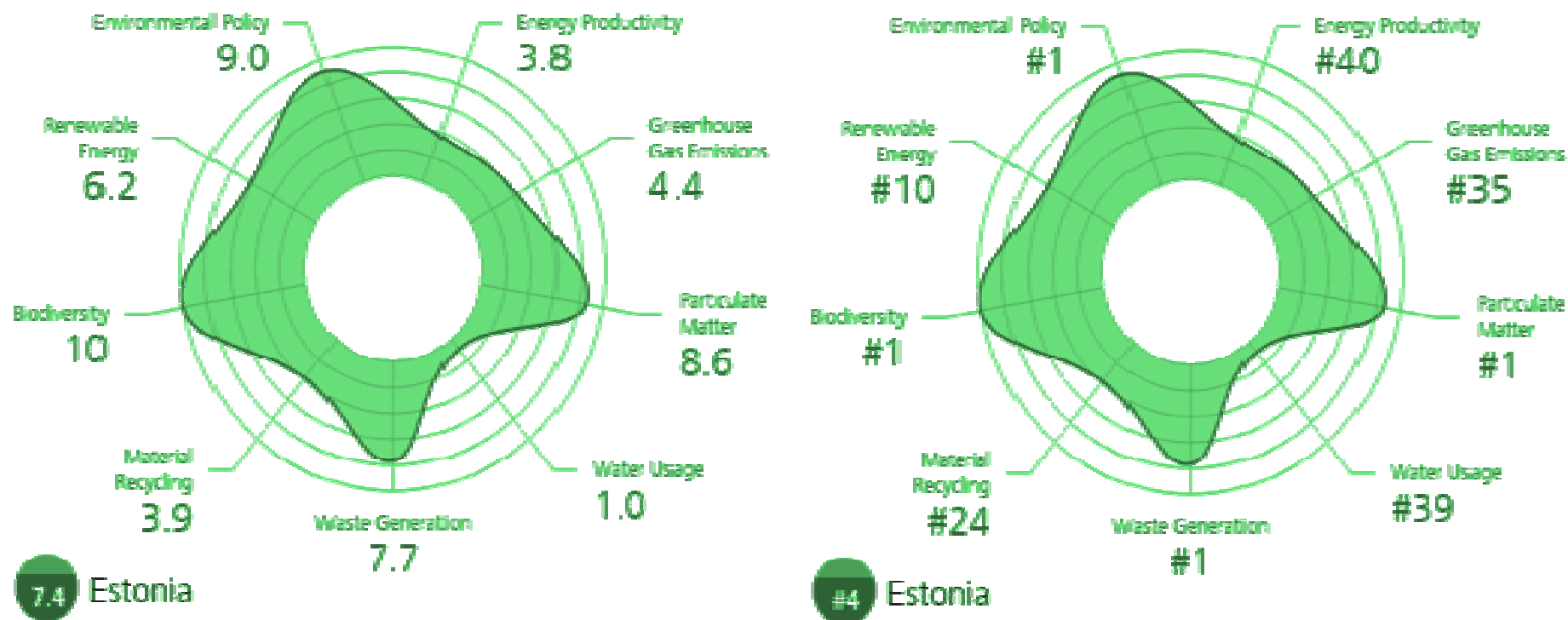


Figure 22 Estonian environmental performance in 2014 (Sustainable Governance Indicators, 2014)

On the left side image: environmental indicators are valued from 1 (worst) to 10 (best).

On the right side image: previously gained values are compared to other countries' environmental indicators and ranked from best to worse.

6.4.7 LiderA assessment

After collecting and assessing received data, results were transferred to modified LiderA table (Table 8).

Table 8 LiderA assessment of Tallinn

Type	Field	Area	No	Criteria	Tallinn
Ecological	Local Integration	Soil	C1	Compact City	5
		Ecosystems	C2	Ecology (local habitats)	5
		Landscape and Heritage	C3	Landscape and Heritage	5
	Resources	Energy	C4	Energy strategy	3
		Water	C5	Water strategy	1
		Materials	C6	Material strategy (local and low impacts)	4
	Environmental Burden	Wastewater	C7	Wastewater strategy	4
		Carbon footprint	C8	Carbon management	2
		Waste	C9	Waste strategy	5
Socio economic	Service and Products	Products	C10	Local products	3
		Sustainable values	C11	Promote sustainability	3
		Environmental friendly	C12	Sustainable options	3
		Costs	C13	Level of price	7
	Socio-Economic Dynamics	Employment	C14	Employment rate and local employment	5
		Safety	C15	Safety conditions	5
		Accessibility	C16	Public transports, low impact mobility (cycling, walking), disable	5
		Local dynamic	C17	Promote local destinations (diversity)	4
	Sustainable Use	Policy	C18	Policy and management system (municipality, stakeholders,)	7
		Sustainable Reporting and Involvement	C19	Monitoring and report	7
		Marketing	C20	Green and Sustainable Marketing	2
Total				85	

Source: compiled by the author

Total credit points give Tallinn's sustainability a grade B (Table 5).

7 Discussion of Results

The aim of the thesis was to ascertain sustainable city tourism indicators. Do to that LiderA sustainable assessment system was modified to assess city breaks. Adjusted LiderA Assessment Table made it possible to evaluate tourism destinations sustainability, classify received values and compare the results obtained in case studies.

The results

Evaluation was given to city's Local Integration, Resources, Environmental Burdens, Service and Products, Socio-Economic Dynamics and Sustainable Use. All together 20 criteria were rated.

In both case studies the results were quite similar with few exceptions. Both cities total credit points rated the city tourism destination to be on level B (Table 4).

Out of 20 criteria more than three-quarters were rated to be on a same level or with a slight one/two point difference. The biggest difference occur on Sustainable Use category when environmental policies, management, involvement and innovation was rated (Table 9).

Tallinn received the best score on its Environmental Policies, Management and implementation. Estonia's Environmental Policy is also rated to 4th place by SGI Project, whose experts and practitioners rated 41 EU and OECD countries on their environmental performances. Estonia's environmental policies and management are improving steadily with improving environmental performances. In contrast, Lisbon collected its lowest scores in these categories. Portugal's environmental issues have taken a back seat in political progress and economic development has been a priority for long time. SGI also rated Portuguese environmental performance and ranked it to be average, 23 out of 41.

Lisbon achieved a really good score on energy resources. Portugal has successfully developed it renewable energy resources and past year 63% of energy consumption was provided from renewable sources. Estonia is also expanding its energy production from

renewable sources but right now it only 25.8% of energy demand but on a positive note that result has already exceeded Estonia's renewable energy usage target for 2020.

Both cities also gained high scores in cost of living. Both cities' CPI being more than half time lower than euro area average CPI, making the living cost really low.

Table 9 LiderA assessment of Lisbon and Tallinn

Type	Field	Area	No	Criteria	Lisbon	Tallinn
Ecological	Local Integration	Soil	C1	Compact City	4	5
		Ecosystems	C2	Ecology (local habitats)	5	5
		Landscape and Heritage	C3	Landscape and Heritage	5	5
	Resources	Energy	C4	Energy strategy	6	3
		Water	C5	Water strategy	2	1
		Materials	C6	Material strategy (local and low impacts)	4	4
	Environmental Burden	Wastewater	C7	Wastewater strategy	5	4
		Carbon footprint	C8	Carbon management	4	2
		Waste	C9	Waste strategy	4	5
Socio economic	Service and Products	Products	C10	Local products	3	3
		Sustainable values	C11	Promote sustainability	4	3
		Environmental friendly	C12	Sustainable options	4	3
		Costs	C13	Level of price	7	7
	Socio-Economic Dynamics	Employment	C14	Employment rate and local employment	6	5
		Safety	C15	Safety conditions	4	5
		Accessibility	C16	Public transports, low impact mobility (cycling, walking), disable	5	5
		Local dynamic	C17	Promote local destinations (diversity)	4	4
	Sustainable Use	Policy	C18	Policy and management system (municipality, stakeholders,)	2	7
		Sustainable Reporting and Involvement	C19	Monitoring and report	2	7
		Marketing	C20	Green and Sustainable Marketing	2	2
				Total	82	85

Source: compiled by the author

Both city's got really low scores on water resources usage. Estonia being one of the largest water consumer in Europe and Portugal is not far behind.

Estonia got also really bad grade on GHG emissions. The GHG emissions are mainly generated when producing, processing or combusting fossil fuels. And currently Estonia's main energy source is oil shale, that in 2012 produced almost 90% of Estonia's GHG emissions. To decrease the GHG emissions energy sources should be diversified, energy consumption reduced and energy efficiency improved.

Even though, in Tallinn the sustainable awareness is little bit higher than in Lisbon, both cities' are lacking a sustainable tourism options. There are some options to choose from but they are very badly promoted and not easy to be found, both cities definitely need further sustainable tourism development and most definitely better marketing and promotions.

Recommendations

The main improvement field, to make Lisbon and it's tourism more sustainable, is to develop and establish better long-term policies and management programs. Try to reduce city's water consumption and improve waste management. Also develop more sustainable tourism destinations and promote them more.

Tallinn's sustainability can be improved by reducing water consumption and GHG emissions mainly by installing new renewable energy sources. More improvements on tourism sector can be made by diversifying sustainable tourism offers and also promoting sustainable tourism more.

Even though, a lot of improvements can be made, the case studies result were surprisingly good. Overall, more sustainable service and products should be developed in tourism sector and they should be better marketed and more promoted.

8 Summary

Tourism industry is one of the biggest and fastest growing industries, that covers several other interrelated industries, sectors and elements. Tourism is influencing all aspects of community - socio-culture, economy and environment. And as the tourism sector evolves and grows the impacts are becoming more notable and new challenges are emerging

To achieve sustainable tourism balance between socio-culture, economy and environment have to be found. Achieving sustainability is a long lasting process that is always evolving. Constant supervision and monitoring is necessary as well as developing and implementing new preventive and corrective measures. Also important part of tourism development is meeting tourist need and promoting sustainable tourism solutions.

In order to achieve and maintain tourism destinations sustainability long-term policies and management plans have to be implemented. Since all tourism destinations are unique and peculiar they have different challenges and sustainable policies and management programs have to be specially altered to all the different cases. But there are common tourism sustainability awards and eco-labels that help to highlight the best practices from the others.

To grade city's sustainability LiderA Logic and modified grating system was used. Evaluation was given to city's Local Integration, Resources, Environmental Burden, Service and Products, Socio-Economic Dynamics, Sustainable Use. All together 20 criterias were rated.

Case study was made in two Europe cities - Lisbon and Tallinn. The result was surprisingly good. Both of the cities received class B sustainability. A lot of improvements can be made to make tourism destinations more sustainable and we can start be developing more sustainable tourism activities and services and creating a better market for them by promotions.

9 Summary in Estonian

Turismitööstus on üks suuremaid ja kiiremini arenevaid tööstusharusid, mis hõlmab enda alla mitmeid teisi erinevaid tööstusharusid, -sektoreid ja elemente. Turism mõjutab kogukonna kõiki aspekte - sotsiaal-kultuuri, majandust ja keskkonda. Mida rohkem turismisektor areneb ja laieneb, seda enam suurenevad mõjud ka keskkonnale

Jätkusuutlikku turismi saavutamiseks tuleb leida tasakaal sotsiaal-kultuuri, majanduse ja keskkonna arengu vahel. Selle saavutamine on pikaajaline protsess, mis pidevalt vajab täiendavaid uuringuid ja arendusi. Regulaarne järelvalve ja kontroll on samuti vajalik nagu ka uute ja paremate ennetus ja parandus meetmete arendamine ja kasutusele võtmine. Kõige selle juures ei tohi unustada, et ka turistide soovid ja ootused peavad olema rahuldatud parimal võimalusel. Ning et jätkusuutliku arengu edendamisel mängib tähtsat rolli ka jätkusuutliku turismi turundus.

Selleks, et säilitada turismi sihtpunktide jätkusuutlikkus, peab väljatöötama pikaajalised juhtimise strateegiad ja programmid. Kuna kõik turismi sihtkohad on erinevad, on vaja igale sihtkohale läheneda talle sobival viisil. Samuti andtakse välja nii kohalike kui ka rahvusvahelisi jätkusuutliku turismi tunnustamise auhindasid ja ökomärgiseid, mis aitavad eristada jätkusuutlike tooteid ja teenuseid teiste seast.

Linna jätkusuutlikkuse hindamiseks kasutati LiderA hindamise loogikat ja süsteemi. Hinnati linna integratsiooni, ressursse, keskkonna koormust, tooteid ja teenuseid, sotsiaal-majandusliku dünaamikat ja rakendatavaid poliitikaid ja strateegiaid. Kokku hinnati linna 20 kriteeriumi alusel.

Juhtumi uuring viidi läbi kahes Euroopa linnas - Lissabon ja Tallinn. Tulemused olid ootamatult head ja mõlemad linnad teenisid jätkusuutlikkuse klassi B. Turismi jätkusuutlikkuse arendamisel on palju võimalusi, kuid kindlasti tuleks arendada sihtkohtade jätkusuutlike toodete ja teenuseid pakkumist, ning kujundama ja edendama jätkusuutliku turismi turundamist.

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Appendix 1



Figure 23 EU Ecolabel



Figure 24 Green Key



Figure 25 Green Globe Certification



Figure 26 Certified Green Restaurant



Figure 27 Eco Hotels Certified



Figure 28 Estonian Ecotourism Quality Label



Figure 29 The LiderA Certification

Figures 23-29 (Ecolabel Index, 2015)

Appendix 2

Rank		Envtl. Policy	Energy Produc.	GGE	Particulate Matter	Water Usage	Waste Generat.	Material Recycl.	Biodiversity	Renewa. Energy
EU 1	Latvia	8.3	EST 1	IRL	LVA	EST 1	LUX	EST 1	EST 1	
2	Switzerland	8.1	LVA		SWE	SWE	MLT	POL	DEU	
EU 3	Sweden	7.6		MLT			SVK	CZE	LUX	SWE
EU 4	Estonia	7.4	DNK	GBR	LTU	ROU	DNK	SVK	BEL	GBR
EU 4	Lithuania	7.4	DEU	DNK	ROU	FRA	GBR	LVA	POL	FIN
	Norway	7.4	LTU	ESP	HRV	IRL	IRL		IRL	
EU 4	UK	7.4		ITA	SVN	LVA	LVA		SVN	LVA
EU 8	Germany	7.3	SWE	PRT 7		LUX	CZE	ROU	DNK	ITA
EU 9	Denmark	7.2	GBR	GRC		SVK		BGR	SVN	
EU 10	Slovenia	6.7	CZE	AUT	PRT 10	GBR	LTU	HRV	AUT	LTU
EU 11	Czech Rep.	6.5	FIN	DEU			HRV		LUX	NLD
EU 11	Ireland	6.5	IRL		HUN		CYP	HUN	NLD	CZE
13	Israel	6.3		CYP		DNK	SWE		SVK	DNK
EU 14	Finland	6.2	SVN		FRA	FIN			FRA	
EU 15	Austria	6.1	AUT		ESP	HUN	POL	SVN	GBR	GRC
EU 16	France	6.0	BEL	LUX	MLT	DEU	ROU		FIN	BEL
EU 17	Belgium	5.9	BGR	HRV	SVK		DEU	LTU		SVN
EU 17	Luxembourg	5.9	FRA		ITA	CZE	SVN	SWE	ITA	HRV
EU 17	Poland	5.9	HUN	NLD	BGR	LTU	AUT	BEL		ESP
20	Japan	5.8			FIN		FRA		FRA	ESP
EU 21	Hungary	5.7			GBR	PRT 20	HUN	PRT 20		FRA
	Iceland	5.7	LUX	FRA	AUT			GRC	LTU	DEU
	New Zealand	5.7		LTU	DNK		BEL	FIN		GRC
EU 24	Croatia	5.6	POL	SVN		ITA		ESP	EST 24	PRT 24
EU 24	Slovakia	5.6		HUN		MLT		GBR	HUN	ITA
EU 26	Portugal	5.5		LVA	POL	BEL		FRA	ESP	
EU 26	Romania	5.5			GRC		NLD	ITA	CZE	CZE
EU 28	Bulgaria	5.3	HRV	POL	BEL	HRV		AUT	GRC	CYP
	South Korea	5.3	NLD	SWE	CYP				DNK	HUN
30	Australia	5.2	PRT 26	ROU		ESP	ESP		PRT 30	
EU 30	Netherlands	5.2	ROU	SVK	DEU	SVN		MLT	CYP	AUT
32	USA	5.1	SVK	BEL	CZE	CYP	GRC	DEU	LVA	BGR
EU 33	Italy	4.9			IRL	AUT	BGR	NLD	POL	CYP
EU 33	Spain	4.9			NLD	GRC	PRT 33		HRV	BEL
35	Canada	4.8	CYP	CZE	EST 35		ITA	IRL	MLT	FIN
EU 36	Greece	4.7	GRC			NLD				SWE
EU 36	Malta	4.7	ITA	FIN				CYP	SVK	ROU
EU 38	Cyprus	4.6	MLT			POL	FIN	LUX	BGR	MLT
	Mexico	4.6		BGR					ROU	IRL
40	Chile	4.4	ESP	EST 40		BGR	EST 39	DNK		HUN
	Turkey	4.4			LUX					MLT

Figure 30 SGI environmental performance ratings (Sustainable Governance Indicators, 2014)

Appendix 3

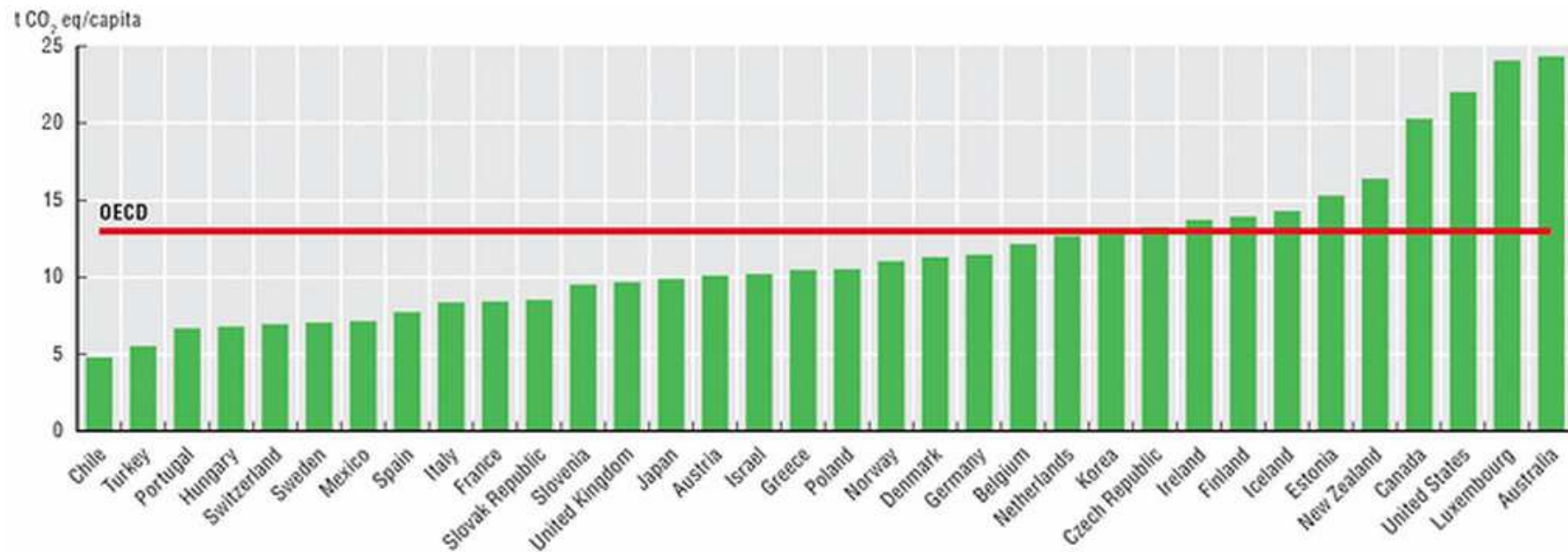


Figure 31 GHG emission intensities per capita, 2010 (Organisation for Economic Co-operation and Development, 2015)

