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# Integrated sustainable development on a local level – the Island of Krk as an example

#### Abstrtact

Due to the awareness of the ever growing importance of sustainability for achieving a better future, the concept of sustainable development has been cited in most strategic documents at the international, national, regional, and local level. However, the very implementation of sustainable development often faces obstacles that slow down the entire process of introduction, implementation and control of sustainable development. Therefore this paper has the aim to analyze strategic development documents developed at all levels of local self-government units on the island of Krk in order to link all the strategic goals and to unite all the strategic objectives of sustainable development. The authors have applied the inductive method and the method of analysis and synthesis to connect all strategic documents of the seven units of local self-government and have proposed a complete integrated sustainable development for the area of the island of Krk. This paper is meant to contribute to the finding of an integrated model of sustainable development. This example can also be useful for other cities and municipalities both in the Republic of Croatia and outside its borders, demonstrating that it is possible to work with the aim to improve the quality of living for present as well as for future generations of both residents and visitors.

Keywords: integrated sustainable development, development strategy, local economic growth, the island of Krk

## 1. Introduction

In times of turbulent changes in the world, when economic, ecological, social and technological systems are intertwined, much effort is made to direct the overall development towards sustainability [2]. Sustainable development is an integrated manner of action that can be applied in all areas of life in order to timely prevent negative changes that can cause irreversible environmental consequences [6]. Different international, national, regional, and local strategic documents promote the principles of sustainable development [1]. However, decisions that are made do not include only the fields of environmental protection but other areas as well, such as economy, politics, science, education and culture, and often encounter obstacles that slow down the entire process of introduction, implementation and control of sustainable development in a particular area.

For this paper the example of the island of Krk has been chosen that wishes to become an energetically independent island [4]. The island is known for its green industry based on advanced technologies and an environmentally conscious population.

The balanced development in all areas on the island of Krk, based on sustainable development, natural, cultural and historical heritage, traditional values, human and economic potential, has created conditions for quality living, population growth and town and village expansion. Aside from providing a high quality of life for its population, the island of Krk offers an unforgettable experience to its visitors, thus confirming the status of the leading island tourist destination in the Mediterranean [24]. The vision of the development of the island of Krk is a set of all established visions of the municipalities and the Town of Krk in line with the development strategies analyzed in this paper, i.e.: "Overall Development Programme for the Town of Krk 2014 – 2020" [15], "Development Strategy of Malinska-Dubašnica Municipality 2015 - 2020" [22], "Overall Development Project of Omišalj Municipality 2016 -2020" [18], "Development Strategy of Dobrinj Municipality for the Period from 2016 to 2020" [21], "Strategy - Overall Development Plan for Vrbnik Municipality from 2015 to 2020" [17], "Development Strategy of Punat Municipality" [23], "Overall Development Programme for Baška Municipality 2015 – 2020" [16], and "Tourism Development Strategy for the Island of Krk until 2020" [24], that presents the strategic development plan for tourism on the island of Krk until 2020.

The aim of this research is to analyze the strategic documents, and in particular the objectives of the local self-government units on the island of Krk set out in the strategic development documents, with the objectives of the "Interdisciplinary Strategy of Zero GHG Emissions for Integrated Sustainable Development of the Island of Krk until 2030" [8] established for the entire island area. The purpose is to develop the overall strategic development plan for the island of Krk by 2020 with the proposed title Developmental Strategy of the Island of Krk until 2020, and to consolidate all the strategic aspects of sustainable development that represent the integrated sustainable development of the island of Krk. The paper contributes to the ability to link all the strategic objectives of individual units into one general set and the possibility for such a set to be implemented.

The foundation of this paper is the research on development strategies of all self-government units on the island of Krk and the "Interdisciplinary Strategy of Zero

GHG Emissions for Integrated Sustainable Development of the Island of Krk until 2030". All established conclusions defined in this research are connected with current strategies. The proposed strategic plan "Tourism Development Strategy of the island of Krk until 2020" is oriented towards the period until 2020 and represents a type of strategic plan for sustainable development of the island of Krk.

The authors wish to offer a positive example that proves it is possible to have a successfully integrated policy in the Republic of Croatia led in line with the principles of sustainable development and implementation [26, 14, 13]. The island of Krk is a pioneer in the field of introducing and implementing all the features that enable the island's quality development in the sustainable direction. The main reason behind the successful implementation of the sustainability principle in all areas of activity is the integration of the policies of the seven local self-government units on the island of Krk. Six established municipalities (Malinska-Dubašnica, Omišalj, Dobrinj, Vrbnik, Punat, and Baška), and the Town of Krk as the only town community have developed a close and successful cooperation in areas of common interest that contribute to the overall development of the island, with the aim to provide good quality living for the local population, as well as for travellers visiting them. Such a political approach enables an easier and faster realization of established strategic programmes because there are no barriers at the local level that are the most common cause of the given strategic development programmes falling through. Furthermore, a facilitating factor in the implementation of the strategic development goals, priorities and measures of the local self-government units on the island of Krk is their close relationship in the content that governs local policy makers in the adoption and implementation of such programmes. An analysis of all the established strategies for the development of local self-government units on the island of Krk by 2020, presented further in the paper, reaches the conclusion that all strategies are based on the principles of sustainable development. All established objectives, priorities and measures have been set in such a manner as to be sustainable in all aspects of work and life of the inhabitants of the island of Krk in order to preserve the value of natural resources the island abounds in. Following the introduction, the paper tackles the issue of indicators of sustainable development of the island of Krk. The third section proposes a SWOT matrix, while in the fourth section the authors analyze strategic development documents of the island in the area of sustainable development. The conclusion summarizes all main ideas presented in the paper.

#### 2. Indicators of sustainable development of the island of Krk

Integrated sustainable development implies the integration of all systems that function in an area, such as economic, social, ecological, cultural, technological and political systems, with sustainable development. Črnjar [2] notes that "sustainable development is a framework for forming policies and strategies of continuous economic and sociological progress without harm for the environment and natural resources essential to human activity in the future". Fundamental strategic development documents: "Development Strategies" or "Overall Development Projects", of seven local self-government units on the island of Krk, are based precisely on sustainable development as a framework for policy and strategy formulation until 2020, and so is the framework for future activities on the level of the entire island - "Interdisciplinary Strategy of Zero GHG Emissions for Integrated Sustainable Development of the Island of Krk".

The most important item of each development document is its implementation, i.e. the realization of strategic projects in reality. Since the above development documents of the island of Krk are based on sustainable development, the best criteria for their realization are various indicators of sustainable development. According to Farrell and Hart [5], "an indicator is something that provides useful information about the physical, social or economic system, usually in numbers. Indicators can be used to describe system states, to detect changes in it, and to show a causal relationship." [7]

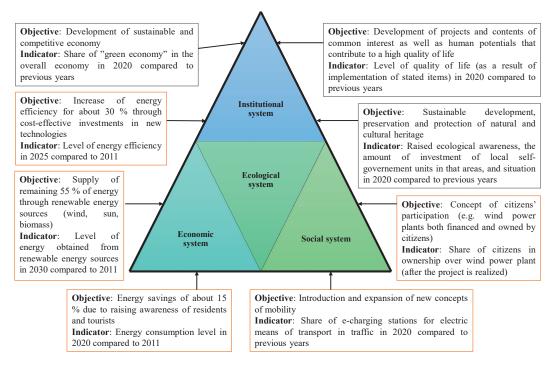


Figure 1 – Indicators of sustainability based on established strategic objectives for the development of the island of Krk Source: Authors according to [17]

The concept of sustainable development itself is often identified solely with environmental protection, i.e. with the principle of ecological sustainability. However, analyses of the complexity of the concept of sustainable development show that it is not enough to limit it only to its ecological dimension [3]. Figure 1 presents the ecological dimension as an ecological system that represents the connection between economic, social, and institutional systems, bringing them all together. Indicators of sustainability and the strategic objectives of a specific destination – in this case, the island of Krk – cannot be analyzed and singled out without adding the impact of an ecological system to economic, social and institutional systems since the other systems in the environment inevitably affect the activity of the ecological system [20].

The overview of strategic development goals of the island of Krk includes four main dimensions - institutional, economic, social and ecological, that permeates the other dimensions mentioned, along with the corresponding objectives. Five objectives have been taken from the "Interdisciplinary Strategy of Zero GHG Emissions for Integrated Sustainable Development of the Island of Krk until 2030" where they are stated as key objectives for the realization of various projects, but also for the most important objective of the island of Krk: becoming an energy-independent island. Key objectives for achieving this target are energy savings of around 15% by raising awareness of the local population and tourists, an increase in energy efficiency by about 30% through cost-effective investments in new technologies, supply of the remaining 55% of energy through renewable energy resources (wind, sun, biomass), the concept of citizen participation and the introduction and expansion of new concepts of mobility [8]. Other objectives, sustainable development, preservation and protection of natural and cultural heritage, the development of a sustainable and competitive economy and the development of projects and contents of common interest as well as human potentials that contribute to a high quality of living have been taken from the Development Strategy of the Island of Krk until 2020, that was proposed by the authors of this paper based on the analysis of seven strategic development documents until 2020 in local self-government units on the island of Krk.

Each stated objective planned to be implemented on the island of Krk is presented along with the associated sustainability indicator. In this case indicators represent a developmental shift or the difference between the prior state of a particular area and its situation once the project has been realized or after the timeframe has passed of the development strategy in which the indicators were supposed to be realized. Development strategies of local self-government units as well as the ""Interdisciplinary Strategy of Zero GHG Emissions for Integrated Sustainable Development of the Island of Krk" " have been designed for the period until 2020. However, they also include projects planned for years in the distant future that do not belong to the timeframe of these strategies.

This type of development is threatened by numerous possible adverse impacts on it, such as insufficient funding for the realization of projects in line with

development objectives, unresolved issues of systems for drainage and treatment of urban and industrial wastewaters, problems caused by non-compliance with the highest ecological standards, major ecological threats (e.g. DINA Petrokemija plant, Omišalj), industrial orientation of the Rijeka ring and risk of pollution, traffic issues (especially during the summer months), inability to irrigate and uncontrolled construction leading to devastation. Some of the issues that local inhabitants of the island of Krk are already facing are inefficient use of energy, inadequate utilization of different sources of funding (EU funds, ministries), lack of autochthonous supply, dependency on tourism and seasonality, neglect of agriculture (lack of production facilities) and lack of unity among farmers, strain on the narrow coastline, and a neglected central rural area. All of the above issues can be successfully eliminated by all interested parties in the destination, from private and public companies and local self-government to local population, by reaching an agreement on the need to implement sustainable development and responsible administration in order to preserve the local community's lifestyle, landscape biodiversity, richness of cultural and historical heritage and economic sustainability [11].

# 3. Development strategy of the island of Krk – the Town of Krk and six municipalities

A development strategy or an overall development programme is a fundamental strategic document that governs the development of all areas of local community's activities. It serves as a framework for proper actions and guidelines to be followed in order to ensure better development of a specific area. The document is written by a verified research team in cooperation with an expert team formed by the local self-government (town, municipalities) and other relevant and referential subjects of different interest groups of the local self-government and other participants [22].

Development strategies of the Town of Krk and six municipalities on the island of Krk (Malinska-Dubašnica, Omišalj, Dobrinj, Vrbnik, Punat, and Baška) represent individual development strategies of local self-governement units until 2020. All of the above strategies are based on the principles of sustainable development as the basis for the creation of a better future and living on the island of Krk. Sustainable development in the areas of local self-governement of the island of Krk is connected to all areas of activity because it aims at achieving exactly what is stated in the definition of sustainable development that describes sustainable development as the "development that meets the needs of the present generation, not reducing the ability of future generations to meet their own needs" [9].

Based on individual development strategies or the overall development programmes of local self-government units on the island of Krk, their vision for the development of particular areas and certain strategic goals, priorities and measures, as well as the analysis of current conditions, the final guidelines are defined at the level of the entire island of Krk, all local self-government units as one single unit. The final guidelines of all strategic plans of local self-governments on the island of Krk, defined for the period until 2020, represent an integrated strategic document for the development, i.e. "Development Strategy of the Island of Krk until 2020" that is based on the integrated sustainable development, as well as on tourism [24].

The vision, as well as strategic goals, priorities and measures, have been set based on the analysis of the current state of the area for which development strategies have been developed. For the purpose of setting up a strategic plan, each municipality and the Town of Krk on the island of Krk have carried out different workshops, meetings and surveys of the target area in order to determine the specific factors affecting it. Workshops and meetings were organized with heads of the local self-government, as well as citizens and stakeholders involved in the operation and development of the area. Upon detailed data collection on the area and the factors affecting it, a SWOT matrix has been developed.

Table 1 presents a SWOT matrix of the sustainable development of the entire island of Krk.

The SWOT matrix has been constructed based on SWOT analyses of each individual municipality on the island of Krk as well as the Town of Krk, i.e. seven units of local self-government. SWOT matrices for individual municipalities and the town were constructed in each development strategy or the overall development programme; in line with those matrices strategic objectives and visions were defined. The objectives defined until 2020 for all units of local self-government of the island of Krk are based on the principles of sustainable development, so the emphasis in this table is given to the factors that positively and negatively affect sustainable development, as well as the objectives set in the strategies. All the factors mentioned in the SWOT matrix were collected through the analysis of all SWOT matrices of the development of local self-government units on the island of Krk and are aggregated in the above table. The isolated factors presented in the table are exclusively those related to the development through principles of sustainability that are applicable on the level of the entire island, i.e. all units of local self-government as a whole.

STRENGTHS	WEAKNESSES
<ul> <li>Rich and preserved natural, cultural and historical heritage</li> <li>Good geographical position and transport connections (by land, sea and air)</li> <li>Favourable Mediterranean climate</li> <li>High quality and recognizable agricultural products (Žlahtina wine, cheese from Krk, olive oil)</li> <li>Low pollution and harmony of the ecosystem</li> <li>Favourable educational structure of the population</li> <li>Energy potential</li> <li>Safety</li> <li>Sea and air quality</li> <li>Waste management system</li> <li>Ecological sensitivity and orientation</li> </ul>	<ul> <li>Inadequately used potentials</li> <li>Inefficient energy consumption</li> <li>Unbalanced population density among settlements</li> <li>Inadequate utilization of different sources of funding (EU funds, ministries)</li> <li>Low level of citizen participation</li> <li>Lack of indigenous offer</li> <li>Dependency on tourism and seasonality</li> <li>Neglect of agriculture (lack of production facilities) and lack of unity among farmers</li> <li>Drainage and water supply system</li> <li>Strain on the narrow coastline Neglected central rural area</li> </ul>
OPPORTUNITIES	THREATS
<ul> <li>Encouraging the population to use renewable energy sources - an energy-independent island</li> <li>Developing a long-term strategic plan for environmental management and renewable energy sources management</li> <li>Possibility of investment through future EU funds</li> <li>Branding autochtonous agriculture products</li> <li>Great potential to develop agriculture, livestock breeding, rural tourism and ecological agriculture</li> <li>Growing trend of returning to naturem rural areas, healthy lifestyle and healthy food</li> <li>Creating a unique tourist offer by including all resources, cultural, natural, and traditional heritage, as well as its combinations with outdoor activities and health and hunting tourism</li> <li>Prolongation of tourist season by developing new tourist products (indoor and outdoor programmes, new segmentation of tourism)</li> </ul>	<ul> <li>Insufficient funding for the realization of projects in line with development objectives</li> <li>Unresolved issues of systems for drainage and treatment of urban and industrial wastewaters</li> <li>Lack of facilities and programmes of cultural, entertaining and recreational content</li> <li>Problems caused by non-compliance with the highest ecological standards</li> <li>Depopulation, high living costs and aging of population</li> <li>Legal uncertainty</li> <li>Major ecological threats (e.g. DINA Petrokemija plant, Omišalj),</li> <li>Industrial orientation of the Rijeka and the risk of area pollution</li> <li>Traffic issues, especially during summer months</li> <li>Inability to irrigate</li> <li>Lack of encouragement for local production</li> <li>Excess traffic in Puntarska Draga (accidents, ecological catastrophes)</li> <li>Uncontrolled construction leading to devastation</li> </ul>

Table 1 – SWOT matrix for the sustainable development of the island of Krk

Source: Authors according to [15-18; 21-24]

An example of factors with a positive effect on sustainable development as a concept of action on the island of Krk includes rich and preserved natural, cultural and historical heritage, low pollution and harmony of the ecosystem, energy potential, waste management system and ecological sensitivity and orientation. Furthermore, the island of Krk has a variety of opportunities to realize additional benefits such as encouraging the population to use renewable energy sources - an energy-independent island, developing a long-term strategic plan for environmental management and renewable energy sources [10], investing through future EU funds and creating a unique tourist offer by including all resources, cultural, natural, and traditional heritage, as well as its combinations with outdoor activities and health and hunting tourism. This type of development is threatened by numerous possible adverse impacts on development, such as insufficient funding for the realization of projects in line with development objectives, unresolved issues of systems for drainage and treatment of urban and industrial wastewaters, problems caused by non-compliance with the highest ecological standards, major ecological threats (e.g. DINA Petrokemija plant, Omišalj), industrial orientation of Rijeka and risk of area pollution, traffic issues (especially during summer months), inability to irrigate and uncontrolled construction leading to devastation. Some of the issues that local inhabitants of the island of Krk are already facing include the inefficient use of energy, inadequate utilization of different sources of funding (EU funds, ministries), lack of indigenous supply, dependency on tourism and seasonality, neglect of agriculture (lack of production facilities) and lack of unity among farmers, strain on the narrow coastline and the neglected central rural area.

The purpose of the SWOT analysis is to examine all possible factors of the development of the area so that they could be timely classified according to their manner of influence on the environment, and to initiate activities to improve the present situation. Only when the research team is aware of different influences that threaten or contribute to the development will they be able to use such information to set strategic objectives, priorities, and measures that the local community has to follow in order to successfully accomplish activities and projects, thus ensuring a better life for themselves, as well as for the generations to follow.

Table 2: Overview of strategic objectives, priorities and development measures on the
island of Krk

SO 1. SUSTAINABLE DEVELOPMENT, PRESERVATION AND PROTECTION OF NATURAL AND CULTURAL HERITAGE	SO 2. DEVELOPMENT OF SUSTAINABLE AND COMPETITIVE ECONOMY	SO 3. DEVELOPMENT OF PROJECTS & CONTENTS OF COMMON INTEREST AND HUMAN POTENTIALS CONTRIBUTING TO HIGH QUALITY LIVING
<ul> <li>P1. Follow principles of sustainable development</li> <li>Measure 1. To place emphasize in all development projects and programmes on the implementation of sustainable development principles</li> <li>Measure 2. To continuously adjust spatial documentation, and monitor and evaluate spatial plans</li> </ul>	<ul> <li>P1. Follow principles of sustainable development</li> <li>Measure 1. To develop action plan for the development of tourism and destination marketing plan</li> <li>Measure 2. Use of renewable sources of energy in all branches of economy</li> </ul>	<ul> <li>P1. Encourage the realization of capital infrastructure projects</li> <li>Measure 1. To create conditions for the realization of capital facilities of business or social infrastructure</li> <li>Measure 2. Availability of broadband Internet</li> <li>Measure 3. Construction of priority communal, social, technological and port infrastructure and coastal zone planning</li> <li>Measure 4. Construction and organization of local roads</li> </ul>
<ul> <li>P2. Efficient use of natural and cultural-historical resources</li> <li>an integrated resource management system</li> <li>Measure 1. Integrated approach to valorisation and interpretation of natural and cultural-historical heritage</li> <li>Measure 2. Promotion of cultural manifestations</li> <li>Measure 3. Preservation of traditional values</li> <li>Measure 4. Reconstruction and protection of cultural heritage: mills, stone construction merger, stone lip <i>lavoir</i> and other objects, archaeological sites and maritime and fishery tradition</li> <li>Measure 5. As affore stated with autochthonous varieties</li> </ul>	<ul> <li>P2. Develop eco-agriculture, tourism, livestock breeding, small entrepreneurship, trade and other service activities</li> <li>Measure 1. Promotion of the cultivation of indigenous crops and medicinal herbs as well as the ecological agricultural production</li> <li>Measure 2. Construction of an irrigation system for agriculturally valuable land</li> <li>Measure 3. Encourage networking of tourism with agriculture, fishing and cattle breeding in accordance with the principles of rural development</li> <li>Measure 4. Encouraging livestock development</li> <li>Measure 5. Introduction of incentive measures for beginner entrepreneurs</li> </ul>	<ul> <li>P2. Ensure the implementation of high standards of social responsibility and social sensitivity</li> <li>Measure 1. Offer quality programmes to children and young people for the development and inclusion in the community</li> <li>Measure 2. Promote the work of associations and bodies and their inclusion in the community, as well as the development of a civil society system</li> <li>Measure 3. Ensure the right to decent living to socially vulnerable groups</li> <li>Measure 4. Improvement of health and social infrastructure</li> <li>Measure 5. Development of sports and recreation</li> </ul>

<ul> <li>P3. Environmental protection, renewable energy and energy efficiency development and related infrastructure</li> <li>Measure 1. Organize permanent monitoring of the quality of the sea, water, air, and soil protection and state</li> <li>Measure 2. Encourage the use of renewable energy sources and raise energy efficiency</li> <li>Measure 3. Education and raising the local population's awareness of the need to preserve the environment and renewable energy sources</li> <li>Measure 4. Establishment of an integrated water supply, drainage and purification and waste management system</li> </ul>	<ul> <li>P3. Increase the productivity of the economy</li> <li>Measure 1. Implementation of new knowledge and skills</li> <li>Measure 2. Raising of public's awareness of energy efficiency and the introduction of renewable energy sources</li> <li>Measure 3. Improvement of existing and development of new entrepreneurial infrastructure</li> <li>Measure 4. Creation of better work conditions and access to finances for the economy</li> <li>Measure 5. Developing knowledge and skills, promotion of alliances and quality system</li> </ul>	<ul> <li>P3. Development of entrepreneurial activities, new products and services</li> <li>Measure 1. Promote social innovations as innovative solutions in all segments of social and economic development</li> <li>Measure 2. Introduction of quality management system in line with ISO standards</li> <li>Measure 3. Diversification of economic activities in rural areas</li> <li>Measure 4. Finding of new functions for unused existing facilities</li> <li>Measure 5. Implementation of innovative and ICT solutions in new products and services</li> </ul>
<ul> <li>P4. Align human resource development with economic development</li> <li>Measure 1. Promotion of life-long learning</li> <li>Measure 2. Harmonization of the scholarship system for all levels of education</li> <li>Measure 3. Harmonization of education with the market needs</li> <li>Measure 4. Strengthening institutional and human capacity in the field of environmental protection</li> </ul>	<ul> <li>P4. Promote energy efficiency</li> <li>Measure 1. Efficient energy management</li> </ul>	<ul> <li>P4. Promote high standard of living</li> <li>Measure 1. Realization of synergy effects of social and economic activities</li> <li>Measure 2. Improvement of the quality of living of elder people</li> <li>Measure 3. Improvement of public services</li> </ul>

#### Source: Authors according to [16-18; 21-23]

The strategic development objectives, priorities and measures presented in Table 2 represent the "Development Strategy of the Island of Krk until 2020" and are taken from all the strategic development documents of the units of local self-government on the island of Krk. The data from development strategies, their analysis and defining of "new" objectives, based on the previous paragraphs, represent the new strategic plan on a higher level, the area of the island of Krk, as it is based on all its lower-level constituent parts or separate areas, i.e. seven units of local self-government.

Strategic objectives of the comprehensive "Development Strategy of the Island of Krk until 2020" include sustainable development, preservation and protection of natural and cultural heritage, the development of a sustainable and competitive economy and the development of projects and contents of common interest and of human potentials that contribute to high quality of living. All strategic objectives and related priorities and measures include the principles of sustainable development that the overall development of the island is designed in line with. Only those objectives, priorities and measures that can be applied to the entire area of the island of Krk, regardless of territorial units, have been used in order to be relevant and consistent in their implementation. In addition, all the above strategic guidelines set out in the aforementioned strategic plan are intended to enhance living on the island of Krk through sustainable development.

Priority areas of the strategic objective "Sustainable development, conservation and protection of natural and cultural heritage" include the principles of sustainable development, efficient use of natural and cultural-historical resources - an integrated resource management system, environmental protection, renewable energy and energy efficiency development and related infrastructure, and aligning human resource development with economic development.

This strategic objective actually includes the most relevant measures related to the environmental component of environmental protection and conservation, such as the need to emphasize the application of the principles of sustainable development in all development projects and programmes, to encourage the use of renewable energy sources, to raise energy efficiency and to educate and raise the local population's awareness of the need to preserve the environment and renewable energy sources.

Priority areas of the strategic goal of "Developing a sustainable and competitive economy" include: following the principles of sustainable development, developing eco-agriculture, tourism, livestock breeding, small entrepreneurship, trade and other service activities, increase the productivity of the economy and promote energy efficiency. Some of the proposed measures serve to achieve a "green" economy, such as the use of renewable energy sources in all branches of the economy, promote the cultivation of indigenous crops and medicinal herbs as well as ecological agricultural production, encourage networking of tourism with agriculture, fishing and cattle breeding in accordance with the principles of rural development, and to improve existing and develop new entrepreneurial infrastructure. The use of sustainable energy sources in the long run can lead to the decrease of negative impacts on the environment, but also to the increase of new jobs and investments in spatial and comprehensive development of the island of Krk. [13]

In the strategic objective "Developing projects and content of common interest and human potentials that contribute to high quality of living" there are many different priority areas, such as encouraging the realization of capital infrastructure projects, ensuring the implementation of high standards of social responsibility and social sensitivity, developing entrepreneurial activities, new products and services, and promoting a high standard of living. Measures that are of major importance for achieving those goals include the construction of priority communal, social, technological and port infrastructure and coastal zone planning, promotion of social innovations as innovative solutions in all segments of social and economic development, and the realization of synergic effects of social and economic activities.

Strategic documents of local self-government units on the island of Krk along with related priorities and measures are the foundation for designing the "Development Strategy of the Island of Krk". Such a strategic plan represents the integration of sustainable development in all areas of human activity, as well as the importance of mutual interaction between local self-government units in a limited area, in this case on the island.

# 4. Analysis of development documents of the island of Krk in the area of sustainable development

The analysis of the development strategies until 2020, based on individually set strategic objectives and the respective priorities of all units of local self-government on the island of Krk, has led to a general conclusion regarding strategic goals and priorities by 2020 on the whole island of Krk.

The existing strategic objectives set until 2020 by the units of local selfgovernment on the island of Krk follow the principles of sustainable development. Consequently, the final objectives and priorities at the overall level are guided by the same principles.

Table 3 presents the strategic goals set and corresponding priorities for the units of local self-government on the island of Krk for the period until 2020. All established objectives that are classified in this table refer to "Sustainable development, preservation and protection of natural and cultural heritage". Accordingly, the first strategic objective that refers to the entire island of Krk has been established. Priorities that are connected to certain established strategic objectives of local self-government units on the island Krk are grouped into four priority areas: following principles of sustainable development, efficient use of natural and cultural-historical resources - an integrated resource management system, environmental protection, development of renewable energy sources and energy efficiency and related infrastructure, and aligning human resource development with economic development.

Table 3: Overview of strategic objectives and priorities of units of local self-government on the island of Krk on the basis of which the first strategic objective "Sustainable development, preservation and protection of natural and cultural heritage" and its priorities have been established for the island of Krk as a whole.

TSGU	The Town of Krk	Malinska- Dubašnica Municipality	Omišalj Municipality	Dobrinj Municipality	Vrbnik Municipality	Punat Municipality	Baška Municipality
Strate gic objectives of LSGU	SO3. Environmental protection, valorisation and preservation of natural and cultural- historical heritage	SO1. Sustainable development and care for the preservation of resources and their traditional values	SO1.         SO1.           Sustainable         Sustainable           Sustainable         Sustainable           development         development           and care for the         and efficient           preservation of         management of           resources and their         natural and cultural           traditional values         resources	<b>SO3.</b> Sustainable management of natural and cultural heritage	SO3. Sustainable management of natural and cultural heritage	<b>SO4.</b> Nature and environmental protection	<b>S03.</b> Resources providing for a greener and more competitive municipality
The island of Krk	SO1. Sustainable de	svelopment, preservat	SO1. Sustainable development, preservation and protection of natural and cultural heritage	ttural and cultural he	rritage		
Priori ties of the LSGUs	<ul> <li>P1. Preservation and improvement of the environment and biodiversity</li> <li>P2. Preservation and valorisation of cultural and natural resources</li> </ul>	<ul> <li>P1. Adhere to the principles of sustainable development</li> <li>P2. Align human resources development with economic develop ment</li> </ul>	<ul> <li>P1. Human resources development development</li> <li>P2. Efficient use of natural and cultural-historical resources</li> <li>P3. Environmental protection and sustainable development</li> </ul>	P1. Valorisation and protection of cultural and natural heritage P2. Environmental protection, renewable energy sources and energy efficiency	P1. ValorisationP1. Preservatioand protection ofof biodiversity acultural and naturalprevention of risheritageP2. EstablishmP2. Environmentalof an integratedprotection,environmentprotection,management sysources and energyP3. Developmentefficiencyof municipalinfrastructure	<ul> <li>P1. Preservation</li> <li>of biodiversity and</li> <li>prevention of risks</li> <li>P2. Establishment</li> <li>of an integrated</li> <li>environment</li> <li>management system</li> <li>P3. Development</li> <li>of municipal</li> <li>infrastructure</li> </ul>	<ul> <li>P1. Infrastructure development</li> <li>P2. Preservation, protection and valorisetion of natural, cultural and traditional heritage</li> <li>P3. Development of agricultural activities</li> <li>P4. Development of social infrastructure</li> <li>P5. Energetics and communication links</li> </ul>
The island of Krk	The island of P1. Follow principles of sustainable development         Krk         P2. Efficient use of natural and cultural-historical         P3. Environmental protection, renewable energy (10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	s of sustainable develc atural and cultural-his rotection, renewable e ource development wi	Follow principles of sustainable development Efficient use of natural and cultural-historical resources – an integrated resource management system Environmental protection, renewable energy and energy efficiency development and related infrastructure Align human resource development with economic development.	ntegrated resource m ency development a	anagement system 1d related infrastructu	2	

Source: Authors

Table 4: Overview of strategic objectives and priorities of local self-government units on the island of Krk on the basis of
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Marinela Krstinić Nižić, Nikolina Fugošić

tablished	for the island o	established for the island of Krk as a whole			-	-	
LSGU	The Town of Krk	Malinska-Dubašnica Municipality	Omišalj Municipality	Dobrinj Municipality	Vrbnik Municipality	Punat Municipality	Baška Municipality
Strate gic objectives of LSGU	SOI. Develoment of green economy	<b>SO2.</b> Successful economy – tourism in line with population's needs and their complementary values	SO2. Development of competetive economy	S02. Development of sustainable and competitive economy, tourism, agriculture, and livestock breeding	<b>SO2</b> . Development of competitive economy	<b>SO1.</b> Development of a dynamic economic environment	<b>S02.</b> Development of recognizable Baška tourism
The island of Krk	SO2. Developm	<b>SO2.</b> Development of sustainable and competitive economy	npetitive economy				
Priorities of the LSGUs	<ul> <li>P1. Development of agriculture</li> <li>P2. Promotion of energy efficiency</li> <li>P3. Development of tourism</li> <li>P4. Development of small and medium</li> </ul>	<ul> <li>P1. Follow principles of sustainable development</li> <li>P2. Development of eco-agriculture, tourism, livestock breeding, small entrepre neurship, trade and other service activities</li> </ul>	<ul> <li>P1.</li> <li>Development</li> <li>and promotion</li> <li>of innovations</li> <li>in tourism</li> <li>P2. Increase</li> <li>productivity of</li> <li>economy</li> </ul>	<ul> <li>P1. Strengthening of entrepreneurship</li> <li>P2. Development of tourism</li> <li>P3. Improvement and development of agriculture and livestock breeding</li> </ul>	<ul> <li>P1. Strengthening of entrepreneurship</li> <li>P2. Development of tourism</li> <li>P3. Improvement and development of agriculture</li> </ul>	<ul> <li>P1. Development of economy sector</li> <li>P2. Increase competitiveness of economy</li> <li>P3. Development of small and medium</li> </ul>	<ul> <li>P1. Development of tourist accommodation capacity</li> <li>P2. Development of cultural and religious tourism</li> <li>P3. Adrenaline and nature tourism</li> <li>P4. Health tourism</li> <li>P5. Hunting tourism</li> <li>P6. Prolongation of tourist season</li> </ul>
The island of Krk	<ul> <li>P1. Follow principles of susta</li> <li>P2. Develop eco-agriculture, t</li> <li>P3. Increase the productivity of</li> <li>P4. Promote energy efficiency</li> </ul>	<ul> <li>P1. Follow principles of sustainable development</li> <li>P2. Develop eco-agriculture, tourism, livestock breeding, small entrepreneurship, trade and other service activities</li> <li>P3. Increase the productivity of the economy</li> <li>P4. Promote energy efficiency</li> </ul>	ment ck breeding, small	entrepreneurship, trade	and other service activ	ities	

Table 5: Overview of strategic objectives and priorities of local self-government units on the island of Krk on the basis of	which the third strategic objective "Development of projects and contents of common interest, as well as human potentials	that contribute to a high quality of living." and its priorities have been established for the island of $Krk$ as a whole.
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			t al	
Baška Municipality	SO1. Development of entrepreneurship based on knowledge, innovation and tradition		<ul> <li>P1. Development of entrepreneurial activities</li> <li>P2. Strengthening of human potential capacities</li> <li>P3. Development of new products and services</li> </ul>	
Punat Municipality	<ul> <li>SO2. Balanced regional development</li> <li>SO3. Development of human potentials</li> </ul>	Development of projects and contents of common interest, as well as human potentials that contribute to a high quality of life	<ul> <li>P1. Improvement of county networks</li> <li>P2. Development of rural areas</li> <li>P3. Improvement of sport and recreation areas</li> <li>P4. Development of cultural activities</li> <li>P1. Development of all levels and forms of education</li> <li>P2. Improvement of health and health care</li> <li>P3. Improvement of social security and social inclusion</li> </ul>	
Vrbnik Municipality	SO1. Improvement of the quality of living and development of common interest projects	ootentials that contril	<ul> <li>P1. Construction and improvement of municipal and traffic infrastructure</li> <li>P2. Development and improvement of social infrastructure</li> </ul>	ensitivity
Dobrinj Municipality	SOL Improvement of the quality of living and development of common interest projects	st, as well as human J	<ul> <li>P1. Construction and</li> <li>improvement</li> <li>of municipial</li> <li>and traffic</li> <li>and traffic</li> <li>infrastructure</li> <li>P2. Development</li> <li>and improvement</li> <li>of social</li> <li>infrastructure</li> </ul>	onsibility and social s d services
Omišalj Municipality	SO3. Improve the quality of living	of common intere	P1. Realize construction of infrastructure projects P2. Encourage high living standard	ttructure projects rds of social resp , new products an
Malinska- Dubašnica Municipality	<b>SO3</b> . High quality of population's living	jects and contents	<ul> <li>P1. Encourage the realization of capital infrastructure projects</li> <li>P2. Ensure the implementation of high standards of social responsibility and social sensitivity sensitivity</li> </ul>	on of capital infras tion of high standa reneurial activities of living
The Town of Krk	<ul> <li>SO2. Develop ment of infrastructure and receptive contents</li> <li>SO4. Efficient local self- government and support for vulnerable groups of population</li> </ul>	SO3. Development of pro	<ul> <li>P1. Development of traffic, port and municipal infrastructure and improvement of public services</li> <li>P2. Development of social infrastructure and receptive contents for target groups</li> <li>P1. Efficient local self-government</li> <li>P2. Support for vulnerable groups of population</li> </ul>	<ul> <li>P1. Encourage the realization of capital infrastructure projects</li> <li>P2. Ensure the implementation of high standards of social responsibility and social sensitivity</li> <li>P3. Development of entrepreneurial activities, new products and services</li> <li>P4. Promote high standard of living</li> </ul>
TSGU	Strate gic objecti ves of LSGU	The island of Krk	Priorities of the LSGUs	The island of Krk

Source: Authors

Table 5 presents remaining strategic development goals of local self-government units on the island of Krk envisaged for the period until 2020. The synthesis of objectives established for the development of local self-government units resulted in the third strategic objective, "Development of projects and contents of common interest, as well as human potentials that contribute to a high quality of living", that connects several areas of activities in one strategic determinant. Diversity of activities is clear in established priority areas for the island of Krk: encouragement to realize capital infrastructure projects, ensuring the implementation of high standards of social responsibility and social sensitivity, development of entrepreneurial activities, new products and services, and promotion of high living standard.

### 5. Conclusion

A change is inevitable and it brings about a number of consequences that are sometimes outside the human influence. The biggest changes, that are believed to have been caused by man, are related to climate. When faced with various changes, whether related to climate, economy or society, a state of instability is created in which one feels insecure. Thus, man turns to things that could be stopped or changes that could prevent them. Sustainable development is a perfect example. We should all start to act in line with sustainable development, use renewable energy sources, boost energy efficiency, take care of the environment and the world we live in, make people safe from the changes that will indeed be inevitable unless we change our behaviour and the way we treat our surroundings.

The island of Krk in Croatia is a shining example of actions taken in accordance with sustainable development. Different development strategies that include the island of Krk, listed in this paper, show similarities in objectives and their contents, thus indicating that local self-government units on the island of Krk share similar views on the direction the island should follow in its further development and on improvements to be introduced in the offer to the local population and visitors who stay there.

This paper shows that it is possible to incorporate development strategies of lower levels into a level covering a wider area, thus encouraging the development of all parts of the island of Krk, not just the developed ones. This should serve as an example to other units of local self-government in the Republic of Croatia, as well as in the world, to show that it is possible to act in harmony and in line with the same objective by improving the quality of living for the present generation, but also for the generations to follow.

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