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## **Stakeholder Analysis and Coastal Zone Management within Local Communities**

### **Summary**

The problem of the common use of goods defines the problem researched in this paper as joint management of coastal zone and its development in local communities. Previous researches demonstrated how coastal zone resources belong to the category of commons, wherefrom a potential problem of excessive and uncontrolled exploitation, usurpation and general devastation arises. The paper analyses stakeholders and their activities and interests connected with coastal zone development within local communities. The research was conducted based on an analysis of stakeholder groups that could influence the implementation of maritime projects to contribute to the development of the coastal zone, thus contributing also to the regional development and economic growth. This approach can be used by local communities as well as higher level public authorities for future development of their coastal zone, with the purpose of making efficient and sustainable key management decisions for addressing coastal zone issues.

**Keywords:** stakeholder analysis, coastal zone management, local community, commons.

### **1. Introduction**

The “tragedy of the commons” is an economic term related to the unsustainable consumption of the common good by an individual and/or group [7]. Hardin pointed to the problem of the individual, where the group using common goods appears in

each individual's own interest, whose goal is their own profit, without thinking on the consequences, which represent a negative externality – leadership for their own interest is result of scarcity of the goods [7]. He suggested that the scarcity of the goods can be reduced by the joint management of goods, using precise management, hoping it can preserve and nurture what is not in their possession.

In fishing, for example, oceans are huge areas where it is difficult to imagine a central authority that can efficiently prevent overfishing. Ships and new technologies bring greater catch potential and profits in the short term, while fish stocks are limited, so level of sustainable exploitation is also very limited. Different states have tried to solve the problem of overfishing, using certain sanctions during storage/catch periods, but results were not always successful. There is high level of individual profit in the game and everyone selfishly fights to get the largest fish quantity, not worrying about consequences.

One of the greatest contributions in improving governance of the commons was provided by Ostrom [12, 13], who devoted almost her entire professional life to those researches addressing governance of the common pool resources. Among others, she also addressed the question if shared management of the commons is possible in huge extent and is it possible for people to work against their short-term interest looking on the wider and longer perspective. There is the well-known problem related to the tragedy of the commons, that those who make for the benefit of common goods will be less successful than those who don't and will never last because people who don't care for common goods will be more successful and will achieve higher values, regardless of the negative impact on the common good they may have.

Ostrom [12] applied the methodology of institutional rational choice, an approach between two widely applicable methodological orientations of contemporary political science in order to point out the complexity of situations where people come to exploit common resources.

## **2. Theoretical background**

Commons are characterized by non-excludability and subtractability of use and differ materially from other types of goods owing to the existence of fundamental differences that affect, in terms of management, the encouragement of specific initiatives faced by individuals in exploiting such goods [4].

The categorization of goods against two classification criteria has been generally accepted: the ability to exclude potential users – exclusivity, and the reduction of their use - subtraction. According to these two criteria, goods can be categorized into four categories: private, toll, common and public goods [4].

Table 1: Types of goods

Excludability	High	Toll goods	Private goods
	Low	Public goods	Common goods
		Low	High
		Subtractability	

Source: [5, 12, 13]

Common goods have the character of private and public goods. Consumption characteristics are shared by private goods, while public goods share the characteristic of potential exclusion of potential users.

Where common resources are used, there emerges the problem of inability to control access, i.e., there is a limited possibility of excluding potential users of those goods. As an example, it is possible to point out the situation attaching to many common resources where difficulties in controlling their use by humans obstruct their transformation into a private good [4, 5].

The problem of excessive exploitation of common goods is the consequence of the simultaneous presence of features of inability to exclude potential corridors, of a reduction in the amount of goods and the use of the same.

Concerning a common good, there were two primary ways of solving the problem proposed in the mid-20th century economics; as the first option, privatization was offered as a solution, and the other option was to have the property right in the resource placed with the central government who will also collect fiscal benefits from the buyer [5, 4].

How to solve the excessive exploitation of common goods is a problem that has drawn attention of many scientists. Hardin [7] implies the necessity of devastating consequences in terms of excessive exploitation by users of common goods in the circumstances lacking clearly defined property rights or forced by public authorities. For example, he explains a situation on the pasture used by cattle shepherds. Shepherds want to keep the maximum number of livestock on the lawn for as long as possible.

Every shepherd as a rational individual tries to maximize his own benefit. This can result in a positive as well as negative externality. The positive result is reflected in an additional animal the shepherd will sell to earn a certain profit, while the negative exterior refers to an additional excessive burden contributed by an additional animal on the pasture. The positive externality for the shepherd is his personal gain, while simultaneously the negative externality is distributed among all shepherds. It is also important to note that in this way each shepherd could add another animal and another and so on to infinity.

Given all the presented facts and characteristics describing common goods, it can be concluded that they cannot be successfully governed in the long run either as fully privatized or fully regulated by public authorities. There is a possibility for the “third way” based on the valuable approach by Ostrom [12] who has contributed to the new theory of commons, which implies that common goods can be managed successfully based on stakeholders’ inclusion into the process, which often brings better results than could be anticipated considering classical theories.

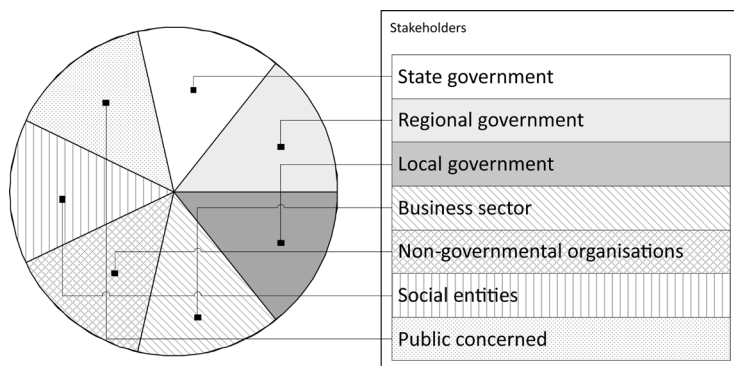
A good example may be the way in which the problem of overfishing can be potentially improved, partly regulated by an international agreement on individually transferable quotas [11]. The state allows each company engaged in fishing a specific proportion of predetermined annual quantities of fish. This part may be sold or used by fishermen, but in both cases, it is in their interest to preserve the hunting ground and to avoid excessive fishing. In this way there is the possibility that the sailing fishermen get the chance to save the hunting ground and to be allowed (in the future) fishing larger quantities of fish, which will bring them more money. Besides, they fish for themselves and in order to preserve the hunting lodge of an illegal hunt, they have organized an informal group whose goal will be preserving their own hunting ground.

### **3. Development of coastal zones and local community**

Maritime common good [5] represents an economically important and scarce resource necessary for the general functioning of the whole coastal area as well as the maritime transport and traffic within and around the area.[4] Nevertheless, legislative solutions [1, 10, 8] and the governing system in Croatia [4, 5] are lagging behind modern scientific approaches and achievements in the field of economics and social sciences [17, 2, 6, 16, 15, 14, 3, 9, 12, 13, 18, 4].

This paper proposes an approach that can be used by local communities in decision-making and project implementation in relation to the coastal zone development. The approach is a result of a research conducted in the local community where stakeholders were surveyed and data were analysed. It refers to the development of local communities, which can be used as a general model for implementation of coastal development of the local community. This research is based on the previously developed framework by

Debelić [4] expressing 7 main groups of stakeholders in the coastal zone management and governance, as illustrated in the following figure.



*Figure 1 - Possible stakeholder groups in the coastal zone development decision-making system*

*Source: [4]*

The presented framework can be applied to the stakeholder analysis in the coastal zone development decision-making system within the local community where each of the stakeholders has the right to participate in making important decisions and implementing projects that are of great importance to the local community. Through the joint action of all stakeholders, local development contributes to regional development and thus affects the development of the overall economy of the country. In order to improve joint management it is important for each of the stakeholders to have the right to vote on certain decisions and implementation of various projects for the local community development, so that the resulting decisions could be acceptable for all. Apart from the local community development, each of the stakeholder groups could be satisfied, what would contribute to the well-being of the entire community.

#### **4. Approach to the stakeholder analysis**

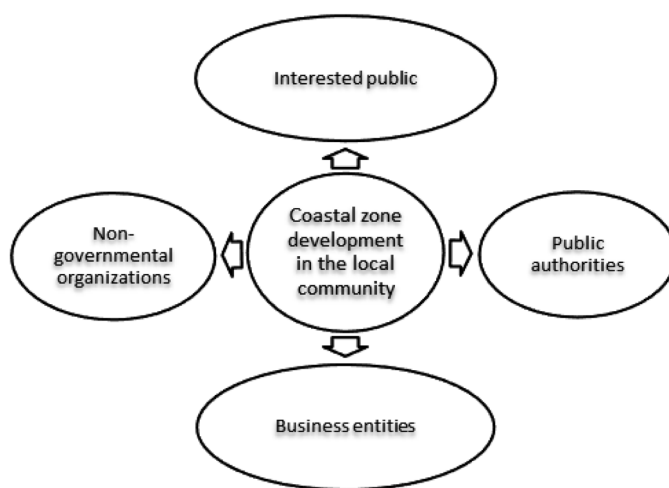
In this paper the stakeholders are categorized into 4 main groups and they can participate in a greater or lesser extent in affecting the local development of the community: Business entities (small and medium entrepreneurs, craftsmen, investors); non-governmental organizations; interested public (local population and other individuals); public authorities (state, regional and local self-government).

Their interests and requirements are addressed and analysed through 4 approaches. Strengths of individual stakeholders' influence and their possible impact have been highlighted.

Interests and requests of stakeholders have been analysed, which could influence their local community development. Each of them has identified certain interests and as

presented below. This shows the equitable participation of stakeholders in the coastal development decision-making system in the local community, where stakeholder groups are deployed according to certain criteria.

Before the implementation of the analysis, the key stakeholders were identified who could influence their local development through their actions. The approach shows that the development of the local community is equally affected by each of the stakeholders by their basic intentions. It describes the participation of interested parties in decision-making on the coastal area development at the local level and their appropriate inclusion in phases of formulation and implementation of strategies, plans, programmes and projects as well as the process of issuing various permits (e.g. concessions).



*Figure 2 - Main stakeholder groups for the coastal zone development within local communities*

As the key stakeholders in the coastal development of the local area, the following have been identified: public authorities, non-governmental organizations, economic entities and interested public. When it is about the local development, the community, local reliance has an interest in developing their community, but they can also affect the development of the whole community and region. Since they are individuals and they do not have cohesive powers of action, their impact on the local development is significant.

The local population is categorized as interested public. They have their own interests and demands in respect of the local community coastal development. By developing the coastline in their local community they show that its devastation and overreaching is not in their interest, and least of all its privatization. They are interested in developing such a policy that will enable coastal development to facilitate the

concession obtaining process in the coastal zone and to make it possible for domestic population to reclaim more land, as well as to preserve the existing cultural heritage and nature in an appropriate way. Moreover, coastal development of the community can create opportunities for new jobs, better traffic connections with the rest of the coast and the hinterland.

The local community comprises various societies and associations that are part of non-governmental organizations, which have the interest and potential to influence the local community coastal development, such as: the athletic-fishing society, divers, sailors, mountaineering and other societies that show interest in coastal development. Each of them has different interests and demands with regard to the local community coastal development. Yet, their goal is the same: coastal development of the local community to the extent to cover the needs of each stakeholder, to conserve it consistently and to prevent the coastline from ecological endangering or devastation, to create better traffic connections with the rest of the coast and the hinterland.

Business entities and stakeholders mentioned in this paper have an interest in job spreading and development of competitiveness. Small and medium-sized entrepreneurs, craftsmen and other investors will engage in the local community coastal development. They have an interest in the development, and within the coastal development they are most interested in the development of the local community profit and competitiveness. There would be new and better traffic connections, both with the hinterland and with the rest of the coast, which would benefit their interests. On the other hand, they are aware that any destruction of resources is not in their interest, as well as any destruction of the environment by concrete sprawling, asset destroying, and environment devastation because their job will collapse by working that way. It is important to note that the cultural heritage of local communities is disturbed, whereby their work is also affected. Traffic connectivity with the rest of the coast and the hinterland creates better connections for future users of their products and services.

The last category represents public authorities. Regional and national self-governments, who are interested in the development of coastal and local community to the extent of nature preserving in order to protect and maintain the natural benefits of the state, to enable the local development to facilitate the regional development and thereby to stimulate the development of the national economy, of traffic, and to create better connections between the coast and the hinterland.

## **5. Coastal zone development within the local community – a stakeholder analysis**

The local community coastal development can contribute not only to the local community but also to the entire region as well as to the state development and economic growth. Based on the conducted research, each of the stakeholders is involved in four groups and their subgroups that have specific interests and demands. The research results show that each of them has interests that can be viewed through 4 approaches



addressing the following: ecology, social and cultural aspect, competitiveness and traffic.

The analysis conducted by examining each of the stakeholders show that each of them is interested in developing the coast of the local community and in developing the general welfare, while preserving nature, cultural heritage and creating in a certain way a connection line to enable the local community to be better connected with the rest of the coast and hinterland. The Sustainable Development Policy (“*with less do more and better*”) driven by public authorities should initiate sustainable forms of behaviour and business in all economic sectors. The aim is to reduce the consumption of natural resources, reduce the occurrence of dangerous and toxic substances, reduce emissions in the air, water and soil and prevent the generation of waste. The development of the coast of the local community, using this sustainable development policy, encourages sustainable development, eases poverty and establishes a better quality of living. Economic entities should strive for the development of competitiveness, not only by working on their quality while looking for profits, their business process, but by observing the long-term use of resources in the case of coastal development inside the local community. In addition, the local population should wisely spend what they get as the result of coastal development in the local community.

Based on the presented facts and arguments, interests and demands of all stakeholders can be analysed through the following 4 approaches based on: ecology, social and cultural aspects, competitiveness (entrepreneurship), and transport and traffic.

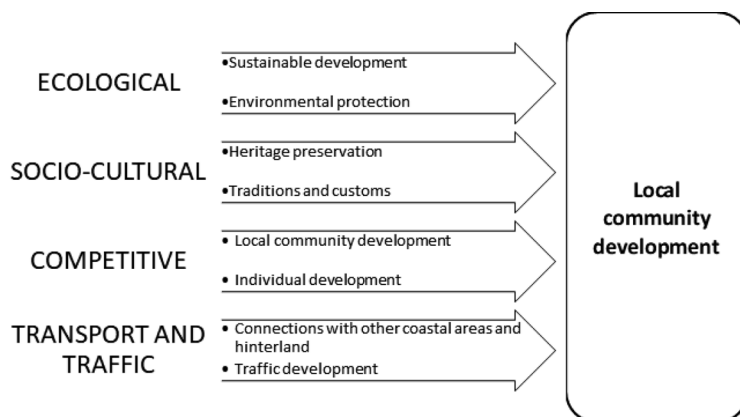


Figure 3 – Stakeholder' approach to the local community development

The analysis of stakeholder groups is the key to success for any project that can significantly influence the realization of the goals of an organization. The purpose of this analysis is to identify interest groups and their interests and requirements.

The stakeholder analysis is carried out in order to objectively observe and evaluate possible sources of resistance or support for a particular project (development). The

analysis enables possible conflicting points to be identified and provides assistance in the assessment of feasibility of the project itself where at some point the project holder becomes aware of the strength of the resistance or conflicts that any of the stakeholder groups may exercise. The result of the analysis also points to potential connections between some key actors, what results in a complete view of the essential development of the winning philosophy in relation to a particular project.

An analysis of stakeholder groups, which would enable coastal development of the local community through an equitable action, relates to a joint participation in the coastal development of the local community. In Table 2 there are listed strengths, interests and requirements and the importance of implementing certain projects for stakeholder groups.

Table 2 - The stakeholder analysis

Stakeholder group	Approach	Interest	Requirement	Power / Influence
Interested public	Ecological	----> Natur preservation	Sustainable development of coastal zone and local community	Individuals are not so strong: Attention of the media
	Socio-cultural	----> Cultural tradition and heritage preservation	Tradition and customs	
	Competitive	----> Local community development	New jobs opportunity and economic potential	
	Transport and traffic	----> Connections with other coastal areas and hinterland	Traffic development	
Non-governmental organisations	Ecological	----> Natur preservation	Sustainable development of coastal zone and local community	Conflict of interests; influence of a future situation in relation to existing one
	Socio-cultural	----> Cultural tradition and heritage preservation	Tradition and customs; Social events	
	Competitive	----> Local community development	NGOs creation potential	
	Transport and traffic	----> Connections with other coastal areas and hinterland	Traffic development	

Stakeholder group	Approach	Interest	Requirement	Power / Influence
Business entities	Ecological	-----> Natural resources preservation	Sustainable development of coastal zone and local businesses	Influence on local (government) decision making
	Socio-cultural	-----> Cultural tradition and heritage preservation	Tradition and customs; Social events	
	Competitive	-----> Business development	Business opportunities	
	Transport and traffic	-----> Connections with other coastal areas and hinterland	Market expansion	
Public authorities	Ecological	-----> Sustainable development of local community	Efficient sustainable development public policy	Impact through regulatory mechanisms; Depends on economic development
	Socio-cultural	-----> Cultural tradition and heritage preservation	Tradition and customs; Social events	
	Competitive	-----> Economic development	Economic growth and development	
	Transport and traffic	-----> Local traffic development	Traffic development and connections with other coastal areas and hinterland	

The table shows an analysed interests and requirements of stakeholder groups through four approaches based on: ecology, social and cultural aspects, competitiveness and transportation. The last column explains to what extent and in what way (the power of influence) each of the stakeholders can influence the realization of future projects that are of key importance for the local community coastal development.

The interested public (local population and others) point to the following as their main interests: preservation of nature and cultural heritage, local community development, better transport connection with the rest of the coast and the development of traffic connections with the hinterland. They point to the demand for the development of the coast in a sustainable way, however, for preservation of cultural heritage, including the demand for the cultivation of tradition and customs, for increasing the quality of tourism offers, for creating new jobs and for developing passenger traffic to enable better mobility of passengers. The influence of this group of stakeholders is not very strong, because they are individuals for the most part. Their influence is manifested through the media.

The next group of stakeholders consists of non-governmental organizations whose interests are identical to the previously mentioned stakeholder group (interested public). Notwithstanding their identical interests, their requirements are different, yet not to a large extent. Demands emphasized by this group address the development of the local community in a sustainable way, protection of the environment and nature from devastating, preservation of tradition and customs, the possibility of establishing new associations, organizing various social events and manifestations, and providing a new space to be used for organization of events. Through the transportation approach, they show interest in creating a better traffic connection with the rest of the coast and the hinterland, and in developing passenger traffic. As a force of influence, there is a conflict of interest to be mentioned, i.e. the influence of the future situation in relation to the existing one.

Business entities or entrepreneurs, as stakeholders, have a strong influence on the local government decision making. By analyzing the four approaches, it appears that their interests and requirements do not differ much from those of previously mentioned stakeholder groups. Looking at the ecological approach, it is about the conservation of natural resources along with the demand for the development of their defence by applying sustainable development policies in order to preserve existing resources, without which they would have no opportunity to develop their businesses. If the coast natural landscape and shape are devastated, they will not be able to enjoy their benefits and will have no opportunity to build and develop their work. It is in their interest to preserve cultural heritage, tradition and customs, while among their demands they emphasize organization of various social events and manifestations. Looking at the competitive approach, they show interest for their business, competition development, and new business venture opportunities. They see their great interest in the development of transport, better connection with the hinterland, which represents a new access for future users of their products and services.

The last recognized stakeholder group concerns public authorities. Their influence is achieved through regulatory mechanisms, which depend on the position of the society and the economy of the community. Their interest is directed toward the sustainable development of local communities, the preservation of cultural heritage and preservation of tradition, the economic development of the region, development of local traffic, development of the passenger transport and transportation in general. Local community offers the possibility for the growth in the economy of the region through the growth and development of manufacturing and service activities of the local community.

## **6. Conclusion and discussion**

The tragedy of the commons is reanalysed and aspects connecting local communities are analysed through stakeholders' participation in decision making processes concerning the coastal zone development within local communities. Common

goods are characterized by non-exclusivity and rivalry in consumption. They differ significantly from other goods in fundamental differences which affect (in management terms) stimulation of specific initiatives that individuals face in the exploitation of these goods.

Where the use of common resources is concerned, there is a problem of inability of access control. There is a limited possibility of excluding potential users of the goods. Theoretically, common goods can be defined as the good which may be accessed by more than one individual, but whose consumption by each individual reduces the availability of the same good to others.

The problem that is addressed in the paper is the problem of common management of the coastal zone development in local communities. Regarding the examined stakeholders, their interests and requirements were categorized based on a study through four approaches: ecological, socio - cultural, competitive and transport approach as well as on their personal interests and requirements. This approach can be used by each local community to make important decisions regarding the development of coastal zones. By stakeholders' joint action including: the interested public, non-governmental organizations, economic entities and public authorities, the coastal zone development could be improved through the involvement of all interested parties.

The conducted research can be the base for further exploration and improvements in detected constraints in coastal zones, concession regimes, as well as in the sustainable development of the entire Adriatic coast, both locally and regionally, with the participation of all stakeholders in a decision-making system.

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