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Case Study of Port of Ísafjordur in Iceland

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Stakeholder's Value Identification for Adaptive Port Planning, Case Study of Port of Isafjordur in Iceland

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1. Abstract

Today, the dynamic nature of ports involves numerous port stakeholders with a wide range of objectives. The port planning process should be aimed at addressing the desired objectives of port stakeholders. However, diversity, ambivalent and sometimes divergent of the objectives, makes the port planning process challenging. Also, the port planning process is beset by many uncertainties, e.g., opportunities and vulnerabilities. To fulfill the heterogeneous port stakeholders' objectives, and deal with confronting uncertainties in the volatile world, Adaptive Port Planning (APP) has received attention in recent years. APP enhances flexibility of a port without losing functionality during its projected lifetime. An ongoing research project applies APP to the third busiest port of call for cruise ships in Iceland, the multipurpose port of Isafjordur, located in the Westfjords region. In this project, an extensive port stakeholders' identification is conducted. A structured approach is applied to discover values of the port master planning for a large group of stakeholders. Several meetings with port stakeholders and interviews are applied as tools to aggregate the values. The findings of this paper facilitate the first step of APP towards formulating a definition of success for the Port of Isafjordur. Value mapping discloses the importance of efficient and effective spatial planning of the port area in order to reduce conflict between port activities as well as increase current port capacity with optimal service in the port master planning.

Keywords: Adaptive Port Planning, Definition of Port Success, Stakeholder's Values, Spatial Planning, Isafjordur, Iceland

2. Methodology

1- Area of Study

Ports are located in the Westfjords region, North-West of Iceland (Figure 1).

- Port of Isafjordur
- Port of Sudureyri
- Port of Flateyri
- Port of Thingeyri

They are multi-purpose port with different activities, including:

- Cruise ships
- Fishing boats
- Sailing & recreational boats
- Cargo (dry & liquid bulk, container) ships

2- Stakeholder Identification

3- Stakeholder Engagement

4- Stakeholder Differentiation

- Internal stakeholders
- External stakeholders
- Legislation and public policy stakeholders
- Community stakeholders
- Academic stakeholders

5- Value Identification

- 51 semi-structured open-ended interviews with all possible direct stakeholders
- 61 specific values of port master planning

Figure 1- Location of the Ports

2. Methodology (Cont.)

Port Layers (service, operation and infrastructure) are being beset by global, technological, environmental, social, legal, political and economic changes in the volatile world.

6- Adaptive Port Planning (APP)

- Planning under uncertainties (opportunities & vulnerabilities)
- Dynamic planning
- Long-term planning
- Flexible planning
- Meet the objectives of port stakeholders at any time

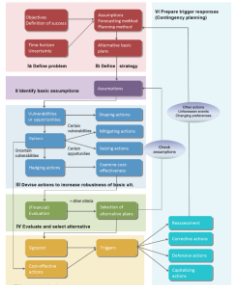

Figure 2- Steps of APP (Taneja, 2013)

3. Results

List of Important Values:

- Efficient and responsive operability system
- Constant and integrated port development to increase current port capacity aimed at supplying coming demand
- Increase optimal service and provide available area for different vessels (sailing, fishing, cruise, container) for (un)loading, maintenance, mooring, etc.
- Increase port facilities, infrastructure, technology and IT
- Offer new service such as enough (green) energy for vessels and port activities and water, etc.
- Keep (multi)functionality of port and create a balance between functions
- Provide financial benefits for customers and have good business prospects
- Financially autonomous
- Efficient income, cost and investments
- Efficient use of land for tourist passengers, processing and storing products, servicing, cargo handling, customers as well as business in the port area
- Cluster the activities in the port area
- Easy access to the activities in the port area
- Reduce conflict between activities
- Create effective co-operation between port stakeholders
- Increase tourism, leisure, recreational and urban activities in the port area
- Expanding hinterland
- Meet integrated and better connection to hinterland
- Increase regional, national and international sea trade and sea trade connection
- Assuring the remuneration to the society and improving positive societal impact
- Contribution to economic development and promote economic growth to support regional, national and international trade
- Support sustainable development
- Maximize Scenic/aesthetics and attractiveness of the port area
- Minimize negative impacts of nuisance in the port and surrounded areas
- Generate sustainable and environmentally friendly port operation
- Act consistently and precisely with the public's environmental consideration to wildlife ecosystems, fauna and flora and global impacts
- Comply and support international law, European directives and national policy programs and regulation in terms of safety standards of maritime navigation, port operation and installations
- Minimize detrimental health and safety impacts to the locals and port users in terms of mortality and morbidity (by distinct sidewalk, signs, marks, passage, etc.)
- Increase monitoring, controlling and security system
- Deal with future uncertainties specially for existed port activities
- Adaptive to (technological, environmental, social, legislation, etc.) changes
- Adaptive to any possible interchange of port function

3. Results (Cont.)

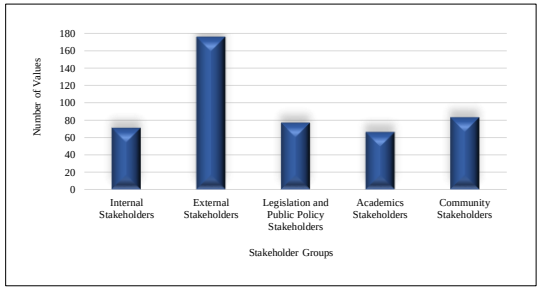

Figure 3- Steps of APP

4. Conclusion

- Stakeholder's value identification provides better insight on preferences of the stakeholders, and thus facilitates decision-making in the port planning process.
- This case study unfolds the high importance of 1- increasing current port capacity with optimal service, 2- providing enough space for different vessels, 3- increasing safety and security and 4- reducing conflict between port activities, by an efficient use of land and effective spatial planning.
- Stakeholder's value identification prior to port master planning is required in order to formulate definition of success in terms of specific desired outcome in the projected life time.
- To meet the port stakeholders' objectives and deal with the surrounding uncertainties, Adaptive Port Planning (APP) needs to be implemented.
- Criteria of port master planning can be established based on Stakeholder's value identification

5. Important References

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