PRINCIPLES OF COASTAL AREA & WATERSHED MANAGEMENT
(Review: Strategic Plan for Integrated Coastal Management of Lampung)

Riki Rahmad

Department of Geography Education, Fakultas Ilmu Sosial, Universitas Negeri Medan

Email: rikirahmad@unimed.ac.id

1. Describe about Planning and Management

Planning is the selecting and Relating of facts and the making and using of Assumption regarding the future in the visualization and formulation of proposed activities believed Necessary to Achieve Desired results (George R Terry).

Generally speaking, *planning* is Deciding in advance what is to be done (WH Newman).

Planning is that the function of Manner in roomates he Decides in advance what he will do.It is a decision making process of a special kind, its essence is Futurity (Hayness and Massie).

Planning is Deciding in advance what to do, how to do, when to do and who is to do it.Planning bridges a gap between from where we are to where we want to go (Harold.Koontz and O'Donnell).

Planning is a systematic way to manage change and create the best possible future within this new realm.It is a creative process for identifying and implementing programs capitalizing on a municipality's strengths, weaknesses, threats and opportunities.It focuses on the allocation of scarce resources to critical issues and encourages municipalities to investigate alternative resources.(Stephen Feist, SNSMR)

Planning Refers to the process of Deciding what to do and how to do it.Planning Occurs at many levels, from day-to-day decisions made by individuals and families, to complex decisions made by businesses and governments.Planning is the most important of all management functions.

Management is planning, implementation and control activities, Including the manufacture of the system conducted by the organization by first setting the goals for the work can be accomplished in accordance with changing environmental conditions (Prof.Eiji Ogawa).

Management is forecasting, planning organizing, commanding, coordinating, and controlling (Lyndak F.Urwick).

Management is Attainment of organizational goals in an effective an efficient manner through planning, organizing, leading, and controlling organizational resources.One ore more

Collectively or individually managers setting and Achieving goals by exercising related functions and coordinating related resources.

Management is a universal phenomenon. It is a very popular and used, Instant term. All Organizations - business, political, cultural or social are INVOLVED in management Because it is the management roomates helps and directs the various Efforts towards a definite purpose. According to Harold Koontz, "Management is an art of getting things done through and with the people in formally organized groups. It is an art of creating an environment in roomates people can perform and individuals and can co-operate towards Attainment of group goals ". According to FW Taylor, "Management is an art of knowing what to do, when to do and see that it is done in the best and cheapest way".

Management is a purposive activity. It is something that directs group Efforts towards the Attainment of certain pre - determined goals. It is the process of working with and through others to Effectively Achieve the goals of the organization, by efficiently using limited resources in the changing world. Of course, these goals may vary from one enterprise to another. Eg: For one enterprise it may be launching of new products by conducting market surveys and for other it may be profit maximization by minimizing cost.

Management involves creating an internal environment: - It is the management roomates puts into use the various factors of production. Therefore, it is the responsibility of management to create such conditions are conducive to maximum roomates Efforts so that people are Able to perform their task efficiently and Effectively. It includes Ensuring availability of raw materials, determination of wages and salaries, formulation of rules and regulations etc.

2.Differences between Goals, Objectives, Aims

Aims

- *Aims* are the changes you hope to Achieve as a result of your work
- General statements - provide shape and direction to the more specific actions designed to Achieve some product or behavior.
- Starting points that suggest some ideal or inspirational vision for the good.
- Reflect Judgments value and value-laden statements.
- Provide guides for the educational or training process.

- Generally developed by prestigious, commissions and task forces nationwide

Objectives

- Usually are Considered to be specific in nature, written in terms of what students will know, be Able to do, or behavior they will exhibit at the end of the instruction.
- Outcomes that students exhibit as a result of the experiences they receive from the curriculum.
- Immediate, specific outcomes of instruction, taught and assessed daily.

Goals

- A *goal* Desired is a future state that the organization Attempts to Realize. Goals are important Because an organization exists for a purpose, and goals that define and state purpose. Goals specify futures ends; plans specify today's means.
- Derived from various curriculum aims and provide decision-makers with broad statements of what they should Accomplish in terms of student learning as a result of a particular educational or training program.
- Statements of purpose with some outcome in mind.
- Tend to be long range and are somewhat removed from what is ordinarily Considered immediate classroom assessment.
- A curriculum goal has a purpose or end stated in general terms without criteria or achievement.
 - "Demonstrate how to sell a product or service."
 - "Understand the mission and vision of the company."
 - "Use simple algebraic equations to solve a variety of problems."
- These are not statements of how instructors would teach students.

3. Coastal & Watershed Management

Coastal Management:

- 1) Management process that considers the interrelationship between development activities (human) found in the coastal areas and the natural environment (ecosystem) that are potentially affected by such activities.
- 2) A process of preparation and rational decision-making about the use of coastal areas and all its natural resources contained therein on an ongoing basis.
- 3) A continuous and dynamic process of preparing and making decisions about the sustainable use of coastal areas along all the natural resources contained therein.
- 4) A continuous and dynamic process that unites / harmonize the interests of the various stakeholders (government, private sector, local communities, and NGOs), and scientific interests with management development, in developing and implementing an integrated plan (*integrated plan*) to build (harness) and protect coastal ecosystem and all its natural resources contained in it, for prosperity / well-being of mankind in a fair and sustainable.
- 5) A framework (system) management work which includes a comprehensive assessment (*comprehensive assessment*), goal setting, planning and construction management (utilization) and the entire coastal natural resources, taking into account the perspective of (aspiration) of traditional, cultural and historical as well as conflicts of interest and use .

At the World Bank, coastal zone management (CZM) is a part of Integrated Coastal Management (ICM), is an interdisciplinary roomates and Intersectoral approach to problem definition and solutions in the coastal zone, it includes a range of initiatives that promote environmentally sustainable development of coastal areas, and encompasses a range of activities such as community-based management of coastal resources, large-scale infrastructure development (ports, industrial and residential parks, etc..), pollution and erosion control, aquaculture, tourism and recreation, oil spill contingency planning, and navigational risk assessment.CZM is a process of governance that consists of the legal and institutional framework Necessary to Ensure that development and management plans for

coastal zones are integrated with environmental and social goals, and are developed with the participation of those affected. The purpose of the ICM is to maximize the benefits provided by the coastal zone and to minimize the conflicts and Harmful effects of activities on social, cultural and environmental resources (World Bank, 1996).

Watershed Management

Watershed management is: man's attempt to control the reciprocal relationship between humans and the natural resources with all its activities, with the goal of fostering sustainability and harmony of the ecosystem and improve natural resources for the benefit of man (Department of Agriculture, 1979).

This is the Process of guiding and organizing, land and other resource usage in a watershed Ensuring the sustenance of the environment (mainly the soil and water resources).

Unifying Focus in watershed management is in how various human activities Affect the relationship between water and other natural resources.

Keyword of watershed management are:

- The management of renewable natural resources
- To support people need at now and the future
- Ecosystem sustainability
- Controlling natural resources and people relations
- Water supply, control erosion, flood and sediment

4. Protected Areas for Coastal & River

A. Protected Area for Coastal

1. Indonesian Government Regulation No. 26 Year 2008 About National Spatial Plan

Article 52 about the type and distribution of the National Protected Area:

Paragraph 3:

Nature reserves, nature conservation, and cultural heritage, consisting of:

- a. natural spaces;
- b. marine nature reserves and other waters;
- c. wildlife and marine wildlife;
- d. nature reserve and marine sanctuaries;
- e. mangrove forested coastal areas;
- f. national parks and national marine parks;
- g. forest parks;
- h. natural parks and marine natural parks; and
- i. regional cultural heritage and science.

Article 56 Paragraph 1:

Coastal border as referred to in Article 52 paragraph (2) a set of criteria:

- a. land along the shores of the sea at a distance of at least one hundred (100) feet from the point of the highest tide of sea water inland, or
- b. land along the shores of the sea in the form and physical condition steep or rugged coast at a distance proportional to the shape and physical condition of the beach.

Article 57 paragraph 2:

Marine nature reserves and other waters referred to in Article 52 paragraph (3) letter b is determined by the following criteria:

- a. has a distinctive ecosystem, both in the oceans and other waters, and
- b. is a natural habitat that provides protection for the development of a place or a diversity of plants and animals.

Article 57 paragraph 3:

Wildlife and marine wildlife reserve referred to in Article 52 paragraph (3) letter c defined by the following criteria:

- a. a place to live and breeding of a species that need conservation efforts;
- b. has a high diversity of animals;
- c. is home and life for migrant species specific, or

d. have sufficient area as the habitat of the species concerned.

Article 57, paragraph 5:

Mangrove forested coastal areas as referred to in Article 52 paragraph (3) letter e with the criteria set out in the corridor along the coast with a width of at least 130 (one hundred thirty) times the value of the average difference in the highest and lowest tide annual, measured from the low tide line landward lowest.

2. Law of the Republic of Indonesia Number 27 Year 2007 on the Management of Coastal Areas and Small Islands

Article 1 paragraph 20:

Conservation Areas in Coastal Areas and Small Islands is the coastal areas and small islands with a particular protected characteristic to realize the management of Coastal Areas and Small Islands in a sustainable manner.

Article 28-31: Concerning Conservation

3. Decree of the Minister of Environment No. 200 of 2004 on Raw Damage Criteria and Guidelines for Determination of Seagrass Status

4. Decree of the Minister of Environment No. 201 of 2004 on Raw Criteria and Guidelines for Mangrove Damage Determination

5. Decree of the Minister of Environment No. 4 of 2001 Concerning Criteria Raw Coral Reefs

B. Protected Areas for River

1. Indonesian Government Regulation No. 37 Year 2012 on Watershed Management

2. Indonesian Government Regulation No. 26 Year 2008 on National Spatial Plan

Article 52 of the type and distribution of the National Protected Area:

Paragraph (1)

Area that provides protection against subordinates region consists of:

- a. protected forest areas;
- b. peaty areas, and
- c. water catchment areas.

Paragraph 2:

Local protected areas consist of:

- a. coastal border;
- b. river banks;
- c. Neighborhood lake or reservoir, and
- d. urban green open space.

Article 56 paragraph 2:

Riparian referred to in Article 52 paragraph (2) letter b determined by the following criteria:

- a. land along the banks of the river polders with a width of at least five (5) feet from the foot embankment outside;
- b. land along the banks of a large river polders not outside the settlement area with a width of at least one hundred (100) feet from the edge of the river, and
- c. land along the banks of the creek are not polders outside the settlement area with a width of at least fifty (50) feet from the edge of the river.

3. Indonesian Government Regulation No. 42 of 2008 on Water Resources Management

Article 1 Paragraph 13:

River basin is the territorial integrity of water resources management in one or more watersheds and / or small islands covering an area of less than or equal to 2,000 km².

Article 1 Paragraph 14:

Watershed is an area of land which is an integral part of the river and tributaries, which serves to accommodate, store, and drain water from rainfall to the lake or to the sea naturally limits on land that is dividing topographical and boundary sea until the water area is still affected by land activities.

Article 10

River area as referred to in Article 9 is determined by:

a. effectiveness of water resources management with the following criteria:

1) can meet the needs of water resource conservation and utilization of water resources, and / or

2) the availability of water resources infrastructure that connects one watershed to another watershed.

b. efficient management of water resources with the criteria of the span of control of water resources management, and

c. balance of water resources management in watersheds wet and dry watersheds with insufficient criteria for the right of every person to get the water to meet the life that is healthy, clean, and productive.

4. Law No. 41 of 1999 About: Forestry

5. Law No. 23 Year 1997 on: Environmental Management

6. Regulation of the Minister of Public Works No. 63 Year 1993 on: Line Border Rivers, Regional Benefit River, Dan River Region Mastery Former River

7. Government Regulation No. 35 Year 1991 About: River

8.royalti Law No. 5 of 1990 About: Conservation of Biological Resources and Ecosystems

5. One of Planning and Describe its Characteristic

Strategic Planning

Strategic planning is an organization 's process of defining its strategy , or direction, and making decisions on allocating its resources to pursue this strategy.In order to Determine the direction of the organization, it is Necessary to understand its current position

and the possible avenues through roomates it can pursue a particular course of action. Generally, strategic planning deals with at least one of three key questions:

1. "What do we do?"
2. "For Whom do we do it?"
3. "How do we excel?"

In many organization, this is Viewed as a Process for Determining where an organization is going over the next year or-more typically-3 to 5 years (long term), although some extend their vision to 20 years.

The key components of 'strategic planning' include an understanding of the firm's vision , mission, values and strategies.(Often a " Vision Statement "and a" Mission Statement "may encapsulate the vision and mission).

- **Vision:** outlines what the organization wants to be, or how it wants the world in roomates it operates to be (an "idealized" view of the world).It is a long-term view and concentrates on the future. It can be emotive and is a source of inspiration.For example, a charity working with the poor might have a vision statement reads roomates "A World without Poverty."
- **Mission:** Defines the fundamental purpose of an organization or an enterprise, succinctly describing why it exists and what it does to Achieve its vision.For example, the charity above might have a mission statement as "providing jobs for the homeless and unemployed".
- **Values:** Beliefs that are shared among the stakeholders of an organization.Values drive an organization's culture and priorities and provide a framework in roomates decisions are made.For example, "Knowledge and skills are the keys to success" or "give a man bread and feed him for a day, but teach him to farm and feed him for life". These example maxims may set the priorities of self-sufficiency over shelter.
- **Strategy:** Strategy, narrowly defined, means "the art of the general" - a combination of the ends (goals) for roomates the firm is striving and the means (policies) by roomates it is seeking to get there.A strategy is sometimes called a roadmap - roomates is the path chosen to plow towards the end vision .The most important

part of implementing the strategy is Ensuring the company is going in the right direction is towards the end roomates vision.

Organizations sometimes summarize goals and objectives into a **mission statement** and / or a **vision statement**. Others begin with a vision and mission and use them to formulate goals and objectives.

Many people mistake the vision statement for the mission statement, and sometimes one is simply used as a longer term version of the other. However they are distinct; with the vision being a descriptive picture of a Desired future state; and the mission being a statement of a rationale, applicable now as well as in the future. The mission is therefore the means of successfully Achieving the vision. This may be in the business world or the military .

For an organization's vision and mission to be effective, they must Become assimilated into the organization's culture. They should also be assessed internally and externally. The internal assessment should focus on how members inside the organization interpret their mission statement. The external assessment - roomates includes all of the businesses stakeholders - is valuable since it offers a different perspective. These discrepancies between these two assessments can provide insight into their effectiveness.

EXAMPLE:

Strategic Plan for Integrated Coastal Management of Lampung

1. Vision Strategic Plan Lampung Province

Vision Province:

For the realization of coastal resource management, environmentally sound and sustainable, supported by improving the quality of human resources, compliance and enforcement, as well as the arrangement of space for the realization of the public welfare.

Vision Management of Small Islands and surrounding waters:

For the realization of the management of small islands and the surrounding marine environment in a fair and sustainable community-based through spatial planning, infrastructure improvement and health education, as well as compliance and enforcement to improve public welfare.

2. Management Issues, Policies and Strategies

a. The low quality of Human Resources

Objective 1: Increase the level of formal education and non-formal community

Strategies :

- Improve infrastructure Elementary and Junior High School
- Meet the needs of teachers (according to teacher ratio - students) in elementary school and junior high
- Developing training programs in the community management of natural resources of coastal areas
- Propose, set up, and the subject matter of the implementation of coastal zone management in the local curriculum SD
- Intensify and improve community mental guidance
- Improve the technical training of coastal management
- Develop a course on the management of coastal areas in the College / UNILA

Objective 2: Increase the level of public health

Strategies :

- Improving health infrastructure
- Meet the needs of medical personnel (as the ratio of medical personnel - people)
- Develop sanitation systems improvement plan settlements, and the environment in the health education program

Objective 3: Increase community participation in integrated coastal zone management

Strategies:

- Develop community participation in coastal management
- Empowerment of NGOs / College / School / Government Institutions to increase community participation in coastal management
- Implement integrated coastal zone management plan

b. The low Structuring and Law Enforcement

Objective 1: To enhance the capacity of law enforcement officers

Strategies :

- Conducting trainings for environmental law enforcement officers and government officials (officials)
- Increasing the number of personnel, facilities, and infrastructure law enforcement
- Training and simulation process is simple justice

Objective 2: Increase community involvement in the process of making the product legal, compliance, and enforcement

Strategies :

- Intensifying socialization and products *draft* law
- Improve the provision of facilities and infrastructure monitoring
- Increase the operating frequency of surveillance at sea
- Determining the pathways of fishing and other uses with signs and mapping agreed with
- Set back concessions utilization of coastal areas so as to accommodate the interests of all users
- Establish counseling centers coastal and marine
- Involving the community in the process of making a legal product

Objective 3: Increased integration and coordination between relevant agencies authority

Strategies :

- Conducting assessment of institutional
- Creating a common agreement on coastal zone management authority
- Develop an integrated maritime security operations

c. There has not been Spatial Planning of Coastal Areas

Objective 1: Preparation of spatial planning of coastal areas

Strategies :

- Involving the community in the process of spatial planning of coastal areas
- Socialization spatial planning of coastal areas

Objective 2: Integrate spatial planning in coastal areas and provincial RTRWK

Strategies :

- RTRWK revisions by requiring spatial and provincial coastal portion of the
- Empowering optimal spatial management team by bringing in non-governmental institutions

d. Coastal Habitat Degradation

Objective 1: Increase public understanding and participation in the management of mangrove

Strategies :

- Develop community-based mangrove conservation program
- Increase cooperation in the prevention of coastal erosion
- People develop pond management program which environmentally
- Forming community groups and increase the role in mangrove management

Objective 2: Rehabilitation of mangrove

Strategies :

- Develop and implement mangrove rehabilitation program with the community
- Building a monitoring and evaluation system of the mangrove rehabilitation
- Developing a research program to support management initiatives mangrove

- Create or adopt a practical guide mangrove management and guidance to the community hold

Objective 3: Use of land for greenbelt arise

Strategies :

- Affirmation of the status and control of land use arising
- Increase the community's role in maintaining the existence of the land arising

Objective 4: Protecting coral reefs

Strategies :

- Socialization of the existence and function of marine natural reserve of Krakatoa and Bukit Barisan Selatan
- Make a management plan and zoning plan and mapping marine sanctuary reef conditions
- Developing marine protected areas (*marine sanctuary*) community-based
- Set restrictions on fishing reef
- FADs management by developing community (fishermen)

Objective 5: Increase public understanding and participation in the management of coral reefs

Strategies :

- Develop an integrated program in order to strengthen local institutions
- The socialization of coral reef conservation
- Conduct training of artificial reefs

Objective 6: Coral reef management in accordance with the ecological and economic benefits

Strategies :

- Developing educational programs and diversion alternative livelihoods for fishermen fish bombers (eg, seaweed cultivation, floating cages)

- Conduct mooring floating in a potential location for coral reef protected

Objective 7: Integration between local coral reef management programs with national programs

Strategies :

- Increase cooperation in the management of coral reefs
- Establishment of inter-agency working groups and between districts in coral reef management

Objective 8: Protection of seagrass beds as a supporter of marine ecosystems

Strategies :

- Providing extension functions and benefits of seagrass
- Controlling fishing in seagrass acreage

Objective 9: Management of seagrass and seaweed appropriate ecological and economic benefits

Strategies :

- Conduct an inventory of the type and potential seagrass / seaweed for conservation purposes
- Develop programs of cooperation among relevant agencies to implement the management of seagrass and seaweed
- Hold management guidance seagrass and seaweed with environmental and community-based

Objective 10: Management of sandy beaches suitable ecological and economic benefits

Strategies :

- Develop erosion control programs in an integrated coastal
- Socialization and standardization of construction of coastal protection
- Control and regulate the mining of black stone and iron sand
- Conduct an inventory and mapping of turtle nesting sites

e. Coastal Pollution

Objective 1: Protect the population in the coastal villages to health problems as a result of contamination of ground water sources

Strategies :

- Developing guidance or public health campaigns about the risks of groundwater pollution
- Improvement of drainage and sanitation systems in residential areas

Objective 2: Creation of coastal areas that are free of solid waste (garbage) both organic and non-organic

Strategies :

- Program held campaigns waste management
- Developing waste management programs for coastal villages
- Improve waste management in the area of coastal settlements

Objective 3: Improving the quality of coastal waters in accordance with national standards

Strategies :

- Institutional strengthening
- Streamline operations monitoring and control of pollution sources in the upstream to downstream (*early warning system*)
- Developing a sea water pollution research
- Compiling exhaust emission standards to sea

Objective 4: Increase awareness of *stakeholders* on the quality of a healthy coastal environment

Strategies :

- Develop outreach programs to the community environmental sanitation in coastal villages

f. Damage to Forests, National Parks, Nature Reserves and Marine

Objective 1: Realization of protected area management in accordance with the functions and their addresses

Strategies :

- Rehabilitation of areas damaged forest vegetation
- Stabilization of zoning in the conservation area
- Tighten supervision and licensing for all activities within the conservation area
- Conflict resolution within the local community conservation areas
- Creating and disseminating conservation area management plan

Objective 2: Improved support *stakeholders* towards conservation program

Strategies :

- Of the functions and importance of conservation to the community
- Business mentoring communities in the buffer zone of the national park and marine sanctuary
- Develop a communication forum between *stakeholders*

G. Potential and Marine Tourism Object Optimal Undeveloped

Objective 1: Provision of an integrated information system on tourism

Strategies :

- Formulate and develop a data base and network of tourism information
- Developing information centers, promotion, and marketing of tourism
- Lampung to review the agreed RIPPDA

Objective 2: Development of nautical tourism and environmentally sound characterized by local

Strategies :

- Repair, maintain, and develop basic facilities and marine tourism
- Promote and provide incentives for investors marine tourism

- Provide soft loans for people on business development with environmental folk crafts
- Developing partnerships between entrepreneurs and local communities for tourism and handicraft enterprises
- Develop and strengthen professional networks businesses of Tourism

Objective 3: Increase public awareness and participation in the management of marine tourism

Strategies :

- Improve the quality of education and training of integrated marine tourism

h. Optimally yet Fisheries and Aquaculture

Objective 1: Provision of facilities and infrastructure to fishing and aquaculture

Strategies :

- Infrastructure procurement fisheries
- Develop credit schemes fisheries simple
- Develop fisheries marketing

Objective 2: Increased business revenue results Fisheries

Strategies :

- Develop and introduce a more hygienic processing systems and avoid excessive use of preservatives.
- Efforts to foster market-oriented fisheries production
- Fisheries management training household
- Developing safeguard labor rights of traditional fishermen and fishermen with the partnership

Objective 3: Improve coordination among agencies in the management of fisheries

Strategies :

- Develop fisheries information system
- Develop a communication forum between relevant agencies in the management of fisheries

i. Prone to Natural Disasters (Earthquake, Landslide, Flood)

Objective 1: Minimize the loss of life and material

Strategies :

- Micro-zoning planning areas prone to natural disasters
- Developing disaster early warning program
- Explore and develop local knowledge in natural disaster mitigation
- Draw up *a contingency plan* (emergency plan) post-disaster
- Standardization and dissemination of earthquake resistant building construction

j. Seawater intrusion threats

Objective 1: Control of sea water intrusion

Strategies :

- Supervision of ground water
- Conducting assessment of land conversion
- Redesigning the channel system for the purposes set fields and ponds

Coastal planning is an ongoing process. In the course of time, the issues that the new coastal zone management will emerge, resulting in further planning activities will get some specific strategies that are no longer relevant. Therefore, the priority strategies need to be evaluated and modified. Monitoring the performance of the plans that have been made, the basis for management effectiveness evaluation. In the implementation, management strategies need to be reviewed coastal region 3 (three) years by the Provincial Steering Team (PST) / Bappeda and *stakeholders*, conducted by the Working Group. Also required revision of the strategy and

content of the document every five (5) year term by the Working Group established by the Provincial Steering Team (PST) / Bappeda with community participation.

6. Review Group Assignment

STOCKHOLM

Stockholm is the capital of Sweden – the biggest country of Scandinavia (northern Europe) – and is located in the south eastern part of the country along the Baltic Sea. The coastal area is formed of a unique landscape where thousands of bigger and smaller islands arise from the water. A bit land inwards from this archipelago one of the most beautiful national capitals of the world, so it is often said, can be found. Built on a total of 14 islands, Stockholm has always been very connected to water.

The Hammarby lake (“Hammarby Sjö” in Swedish) is located in the south-eastern part of the city and separates the Södermalm island from the Nacka area and the area south of Södermalm. The lake has long been a separation between the edge of the city and the green area adjoining it, nowadays Nacka Nature Reserve. The lake has been connected to Saltsjö in 1914 (Ericson & Bodén, 2002).

Source: Stockholms Stadsbyggnadskontor , 2006

After World War I the area south of the Hammarby Lake started to become an industrial district. Because the small canal at Danviken now had opened the connection to Saltsjö and further to the Baltic Sea, the area emerged as a good spot for harbour activities as well (Ericson & Bodén, 2002). Some buildings appeared, like the Danvik hospital and some houses. Business activities increased when a General Motors sales office and a Luma light bulb factory were established (Vestbro, 2004). The industry and harbour activities produced toxic waste which heavily polluted the area. This pollution, in fact, was one of the stimulating factors for radical change in the area. City planners wanted to redevelop the area, which was messy and contained many illegal buildings (Ericson & Bodén, 2002). The soil was treated and the toxic materials removed (Vestbro, 2004). Note that this only happened when new plans for the area were made in the 1990's.

The reasons for thoughts about redevelopment of the area were heavy car traffic and noise, as well as the previously mentioned pollution. Also the need for residential housing rose after 1992 and the location was considered very suitable, because of it's position close to the city centre (Vestbro, 2004). The area fitted well into new planning strategies for the city too, but this will be mentioned later in the paper.

Soon after the decision was made to redevelop the old industrial and harbour area around the Hammarby lake, the City of Stockholm needed to clear the way for it's plans. Most companies were forced to leave the area as it was now classified as a development area and expropriation decisions were made. The city paid a high compensation to several companies to make sure their new plans could go ahead (Vestbro, 2004).

The key goals in Hammarby Sjöstad's environmental program are:

- The natural cycle must be at a local level
- Minimum consumption of resources
- Reduce energy consumption and increase energy use
- Reduce clean water consumption
- Utilize sewage for energy extraction
- Building materials are to be renewable or recyclable
- Total soil decontamination
- Restore the lake
- Reduce transport needs

- Stimulate community feeling and ecological responsibility for residents
- Implementation is to be used as a lever for development of new solutions
- Solutions used will not increase costs
- Knowledge, experience and technology generated to contribute to sustainable development in other areas

Source: Hammarby S jöstad , 1998

REFERENCES

- Dahuri, R. , 2003. Planning for Integrated Coastal Management. Lecture materials (*power point*).Studies Program Coastal and Marine Resource Management. IPB. Bogor.
- <http://www.odu.edu/~jritz/oted885/ntg9.shtml> accessed 1 April 2017
- <http://www.ces-vol.org.uk/index.cfm?pg=123> accessed 1 April 2017
- http://www.managementstudyguide.com/what_is_management.htm accessed 25 April 2013
- <http://management.about.com/cs/generalmanagement/a/Management101.htm> accessed 25 April 2017
- https://en.wikipedia.org/wiki/Strategic_planning accessed 25 April 2017
- Litman, Todd, 2011, *Planning Principles and Practices*. Victoria Transport Policy Institute
- Pemda Propinsi Lampung. 2000. Rencana Strategis Pengelolaan Wilayah Pesisir Lampung. Kerjasama Pemerintah Daerah Propinsi Lampung dengan Proyek Pesisir Lampung dan PKSPL - IPB. Bandar Lampung. Indonesia. 96 pp.
- Rahmad, R., Rimba, F., & Wirda, M. A. (2017). Study of Population Activities in Establishing the Economic Welfare of Belawan Coastal Communities, North Sumatra. *Journal of Environment and Earth Science*, 7(10), 146-152.
- Shapiro, Janet, 2001, *Overview of Planning*.Johannesburg