

## CHAPTER 6 CONCLUSION

### 6.1 Conclusion

The analysis and discussion elaborated in the previous chapter provides findings from the research subsequently provides this chapter a summary and highlights the main conclusion. This chapter consists of concluding remarks of the findings of each research questions. Recommendations also presented in the latter chapter for improving the sustainable development planning and studies.

The following includes several discussions of the results of the study.

#### 1. Potentials of the Waterfront and Fishing Settlement

The study showed that the potentials identified differ from waterfront to fishing settlement. The potentials of the waterfront are areas of priority for improvement. Specific areas identified for improvement include:

- Physical conditions of the natural characteristics that shapes the area. These include soil structure and conditions, vegetative cover, and management of the catchment areas (DAS) in the coastal and river areas to prevent flooding and erosion, spatial planning for built environment especially infrastructure and services, road network, and water infrastructure for potential hazards such as to ward off strong currents etc.
- Improving the economic facilities such as traditional market and port area for potentials of economic growth.
- Role of public in the waterfront area is important. Hence, improvement of the public spaces, accessibility of in and towards the site, and preservation of the historical value of the area is important.

The potentials of the fishing settlement as area of priority for improvement identified include:

- Improvement of the natural and built environment such as spatial planning of the area as it impacts the density of buildings, street network, infrastructure and services, as well as land use. Public areas, public circulation, and water infrastructure such as storm drainage and sewage disposal. To ward off potentials of natural hazards, and improving basic living conditions.
- Specific gender role activities conclude to the functions of the area. Women as the base of for future improvement in potentials of social resiliency and inclusiveness of the community.
- Product innovation and support of the HBEs such as the works of processed fisheries to improve economic conditions, as poverty becomes a challenge and negative potentials of the area.

In comparison to the theories developed in the thesis, the potentials showed negative conditions that will affect the waterfront and fishing settlement. The support of theories towards developments in maintaining environmental, social and economic sustainability is identified in potentials that would become the base for future framework structure.

## 2. Identifying Sustainable Fishing Settlement

The sustainable fishing settlements that can be inferred from the assessment to improve the quality of life of the community and environment are identified in several stages:

- **The level of sustainability** in the area based on the framework constructed was poor. With two assessment made in two cases, the total sustainability indicated in the framework were less than 50%. This means that from the scale from Extremely Bad (EB) to Extremely Good (EG) the results grouped in More or Less Bad (MLB).
- **Two approaches**, the sustainable waterfront area and sustainable fishing settlement, resulted in findings of strengths and weaknesses in the case studies. The strengths and weaknesses shows the best

traits of the case studies and also shows what aspects in the case study was lacking,

The strengths consist of public transport use and how the area is fostered in the community. There are several aspects lacking from the framework, which includes lack of open space, management, and planning of spatial plan, passive design principles in the case study, as well as lack in economic areas to stimulate economic growth.

- **Sustainability framework and indicators** were structured throughout the study. The framework consists of several criteria and benchmark indicator.

- **Criteria of sustainable coastal settlement/fishing settlement** includes:

- Ensuring energy efficiency, water and resource efficiency
- Green design
- Affordable use of materials
- Governance in ensuring health and safety of the settlement, people empowerment in the coastal areas and participation.
- Supporting poverty alleviation especially in access to basic needs and economic development of the fisheries.

Therefore, a comprehensive set of indicators are needed to structure the framework. In comparison to the theories developed, criteria for indicators revolve on environmental and economic importance. Sustainability framework developed in the study indicates criteria from problems and potentials of the existing conditions. Theories supported the framework structuring, although method of selecting indicators were still arbitrary.

### 3. Integrated Sustainable Development Framework

The main framework structure, a combined structure two sustainable concepts showed several key point areas needed to be enhanced and became a priority in planning especially. Several indicators used as benchmarks were:

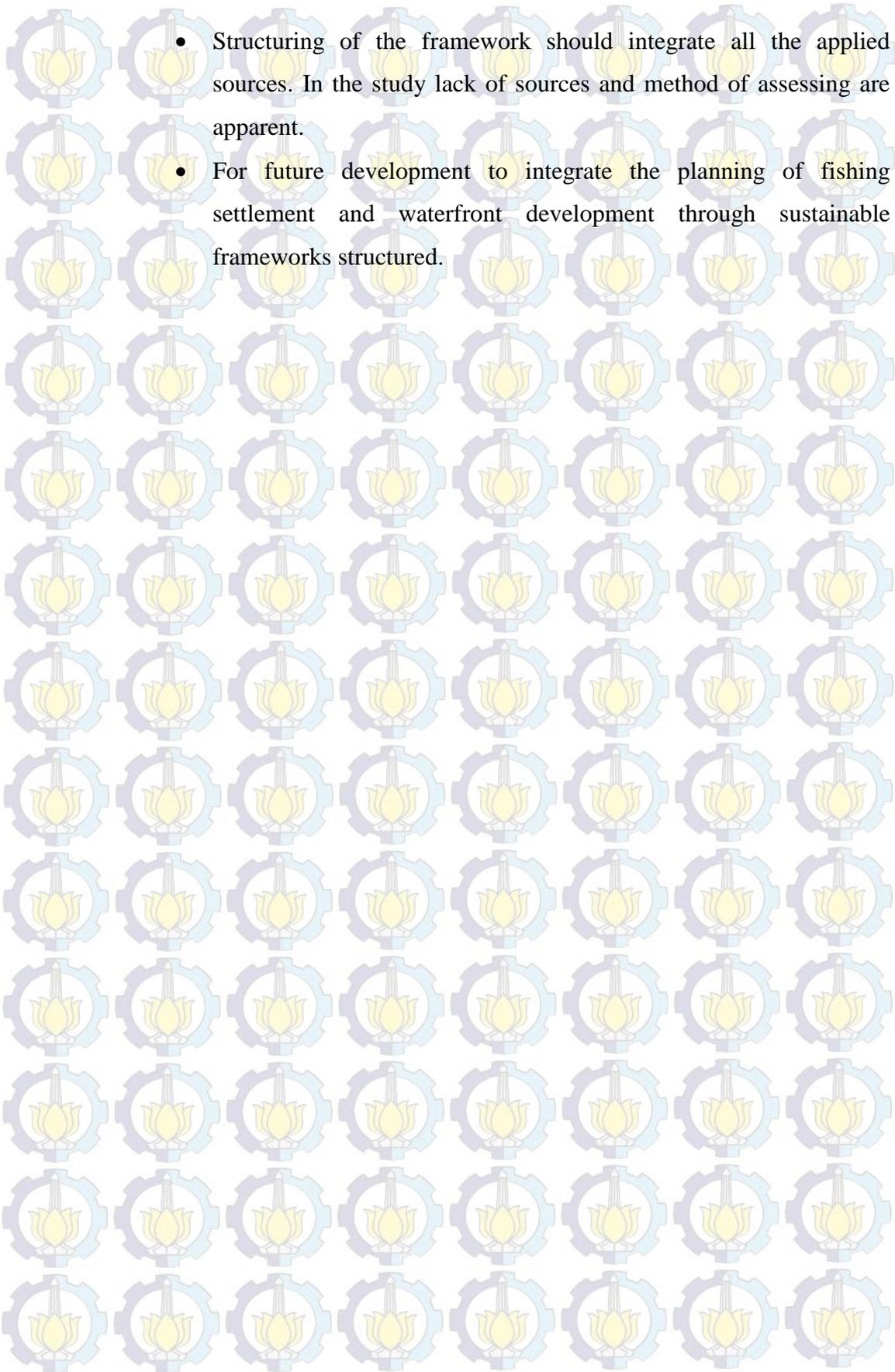
- Spatial development or planning especially site planning for more compact use of the area such as integrating housing and work facilities in planning (mixed-use areas).
- Open space was prioritised in ensuring a network of green spaces in the neighbourhood to ensure not only good environment settings but also good social enhancements. This can be encouraged with also infrastructure, proving street network and several basic infrastructures needed supervising and management.
- Several other indicators showed in the framework proven to ensure sustainable development in an area needed still many aspects to be fulfilled.

From the conclusions above, the results towards the theories indicate integrated planning of sustainability framework of the waterfront and fishing settlements were compiled from common indicators set in Chapter 5 section 5.3.7. Theories relatable to the framework structured indicate similarities in the three dimensions, although most theories only bases the framework to only focus on environmental and economic developments.

## **6.2 Recommendations**

The study was about structuring concepts of sustainable housing, especially fishing settlement, through the provision of basic facilities and also on the three main elements and a focus on the social, environmental, and economic aspects for achieving sustainable waterfront. Several recommendations from this study outcome to assessing the sustainability of fishing settlement, which includes:

- Poor sustainability levels should focus on the main aspects especially, environment, and social to be prioritised. Poor level of aspects sustained with the percentages below 50%. The sustainable concepts applied needed to be prioritised in planning especially in enhancing government mechanism to ensure the lowest rated indicators were handled.



- Structuring of the framework should integrate all the applied sources. In the study lack of sources and method of assessing are apparent.
- For future development to integrate the planning of fishing settlement and waterfront development through sustainable frameworks structured.

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