

# Design of I-YES (Indonesian Youth Education Ship) as a Creative Solution to Empower Equalization of Education's Quality in Coastal Areas and Small Islands of Indonesia

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**Abstract—** The quality of education must be felt by all the people of Indonesia without exception, both children and youth who live in coastal areas and small islands in Indonesia. Through proper education in coastal areas and small islands it will help to realize the equitable distribution the quality of human resources. Facilities and Infrastructure of education in coastal areas and small islands can be easily reached by all elements of the community who mostly live in the outskirts of the island. The Indonesian Youth Education Ship (I-YES) program is an innovative community empowerment program of coastal and small islands in the education sector, technology utilization, and marine tourism in coastal areas and small islands in Indonesia. The educational process is carried out using ship media as a teaching ground that can move from one small island to another small island making it easier for children in coastal areas and small islands to get access to a proper education with complete facilities. Besides that, I-YES use national curriculum about non-formal education, which is equal with formal education level. This I-YES program can be a government solution to solve the problems of education, especially access of education in coastal and small islands. It needs to be a solid cooperation between government agencies, private parties, and the public to succeed the Indonesian youth education ship program as a solution to solve the problems of education in coastal areas and small islands in Indonesia, therefore encouraging the creation of qualified human resources.

**Keywords—** Education, Indonesia, Island, Ship, Youth.

## I. INTRODUCTION

“Education is the most powerful weapon to change the world.” -- Nelson Mandela

Indonesia is located between two continents and two oceans whose islands extend from Sabang to Merauke. Along the expanse there is a cluster of islands. The Republic of Indonesia has 17.504 islands, 95.181 km of coastline, beautiful beaches and seas, the world's highest marine biodiversity 10.000 among the islands are the least-visited islands (Andi, 2007). The large tourism potential in the coastal areas and small islands is not balanced with the quality of human resources so that the results of tourism cannot be optimally processed.

Indonesia's education quality is ranked 57th out of a total of

65 countries for Organization for Economic Cooperation and Development (OECD) Publishing, 2016). Less equitably distributed education causes Indonesia to almost be in the final sequence. This is due to the condition of education improvement in Indonesia that has not spread evenly, especially in coastal areas and small islands. Therefore, the quality of human resources in the coastal areas and small islands is very low. The main cause is the difficulty of access to education for people who live in coastal areas and small islands (Rosliana et al, 2015)

This statement related to the research from Gadjah Mada University that there are basic Principles of Human Right's Obligation under the Model of Law on Right to Education for the citizens in Border Area, such as the obligation for determining minimum standard of education, including language instruction, material, method of learning and ensuring the applicability on all educational institution. Besides that, there are obligation for planning and implementing education for children those who do not have formal education (Zein, 2018).

In essence the 1945 constitution article 31 states that every citizen is entitled to an education. Education is not only in terms of formal, but also can be in terms of non-formal. However, in fact the facilities and educational infrastructure of coastal areas and small islands in Indonesia is still minimal. For example, Pulau Laut which is located in Natuna Regency. The location of the distant islands plus the limited transportation means that the development of the education sector is slow. The distance of school buildings and distant community homes also caused be the problem of the children in Pulau Laut to go to school. It takes 1 to 2 hours to go to school.

On the other side, progressing of education can be determined by how many schools and students on that area. The total of school in Natuna regency in 2013 consist 14 units of kindergarten, 78 units of elementary school, 20 units of junior high school and 14 units of senior high school. However, in 2014 the number of kindergarten students only reach 700 in total, 9.400 elementary school' students, 3.004 junior high school' students 2.760 students of senior high school in Natuna Regency (Central Bureau of Statistics of Natuna Regency, 2015). According to the data, the number of every education grade is decrease. The chart for this data can be seen in Figure 1.

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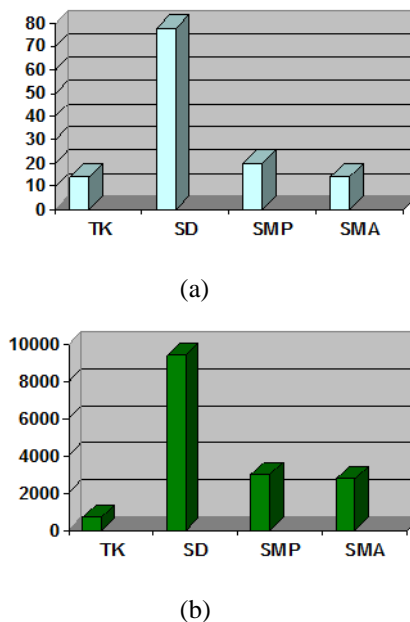


Fig. 1: (a) Number of School in Natuna Island in 2013 (b) Number of Student in Natuna Island in 2013 (BPJS, 2015)

Quality education will generate the quality human resources as well and be able to create innovations. Coastal communities and small islands that are continuously dissolving in its simplicity will surely be left behind by technology created by foreign investors. Mentioned that 63.47% of the poor in Indonesia are people living in coastal areas and small islands (Central Bureau of Statistics, 2015).

Education should be the main capital to eradicate poverty and improve the quality of human resources so as to create prosperity in the field of economy, tourism and others. Of course the location of the school should be close to the community so that it can be easily reached. Schools should also have facilities and infrastructure, including adequate facilities and professional teachers.

Those aspects that need to be considered not only the location of schools that can reach by students, but also need to be considered also the use of technology as a supporter of the quality of education in Indonesia. The ideal school needs as described above should immediately be realized by creating programs that match the conditions of coastal areas and small islands.

## II. DESIGN OF I-YES (INDONESIAN YOUTH EDUCATION SHIP)

### A. Brief Description

Based on the data presented, Indonesia's education situation is still uneven. The government has indeed set a policy aimed at getting children in small islands to get educated. However, reflecting on the urban areas, small islands are still on low education level due to the location of schools that are not strategic, making it difficult for students to reach the school.

Departing from the complex problems, I-YES is a creative solution to solve the problems of education in Indonesia. Indonesian Youth Education Ship is a school program that is

easy to reach by students because it uses the ship as a teaching place that comes to coastal areas and small islands. The education system in this program is based on technology to facilitate and attract students' learning interest. Not only that, this program also focuses on how to get legal certificate for those who can't continue their study on formal field. In addition, the students will be able to introduce, maintain and utilize local wisdom contained in their respective regions since coastal areas and small islands in Indonesia has been renowned for the beauty of the sea and the uniqueness of local wisdom.

### B. Establishment of I-YES Program

By using the principles of schools that reach students, I-YES can facilitate access to education by using the ship as a place of teaching and learning activities. The ship will use a Yacht Ship type with the following specifications:

Length: 27 meters

Width: 9 meters

Total Height: 9.92 meters

Materials: Fiber Carbon

The design of the vessel used for the steering program can be seen in the drawings. The vessel is depicted in figure 2

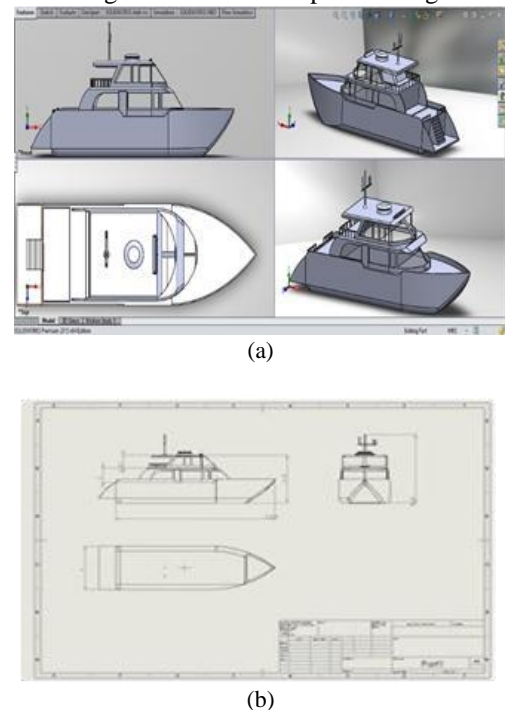


Fig. 2: (a) 3D Ship Design for I-YES Program (b) 2D Ship Design for I-YES Program

The facilities are complete and in accordance with school standards and lessons full of creativity will be taught the I-YES program. Facilities that will be provided among others are classrooms, mini library room, computer room, small workshop, and space creations. The rooms are equipped with good support facilities such as books, tables, chairs, computers, projectors, and other support facilities. The allocation of funds needed to implement the I-YES program is derived from the payment of tourists, donation, cooperation with the government and private parties.

### Curriculum Program of I-YES

Preparation of curriculum program of I-YES refers to national education curriculum about non-formal education. Curriculum divided into 3 that are for Paket A equivalent of elementary school, Paket B equal to

junior high school and Paket C equivalent senior high school. Students of I-YES are children from coastal areas and small islands located in Natuna District who are not attending school or dropping out of school (as the first place to implement this program). The children aged from 6 to 18 years are divided into several levels equivalent to elementary, junior and senior high school children. Each level will certainly get a different lesson.

The concept of education is the main lesson such as math and sciences, skills, and utilization of technology to support local wisdom coastal areas, in additions.

In general, the materials in the youth program include: The cultivation of character education, Indonesian and foreign languages, basic of technology, and the understanding of the potential of local wisdom. Activities in the steering program are designed in several forms of activities, namely: Basic and linguistic learning activities, practicum activities and technology utilization, and intimacy and creative game activity. The complete sharing of education curriculum I-YES on each level can be seen in Table 1.

TABLE I: The Arrangement of Level

Level	Ages	Learning Lesson	Purposes
Elementary School / Paket A	6-12 years old	Basic lesson such as reading writing, calculating, knowing the diversity of culture art, and making reading as a habit. (as the main lesson in formal elementary school and preparation to join an examination to get legal certificate equivalent as formal elementary school).	Build the character of students, the student able to read, to write, to calculate, to know about the diversity of culture, art and to create the culture of reading.
Junior High School / Paket B	13-15 years old	Main lesson such as math, natural sciences and Social sciences, basic of computer, internet basic, basic conversation of English materials and also basic management of and etc. (as preparation to get a legal certificate equivalent as formal junior high school).	To creates the innovations, to create the language skill, basic computer, and starting the awareness on local and tourism potential in their filed as coastal areas.
Senior High School / Paket C	15-18 years old	Continue the main lesson which is involved as the main lesson for that equivalent examination. Not only that, they will focus also on Bahasa and English speaking and AMDAL principles as the main considerations to manage the tourism sector.	Actively join in develop the quality of human resources in their area and pass the equivalent examination to get the formal certificate of education.

Implementation of the program I-YES will conduct 5 days in a week (for 2 semesters, 1 year) is Monday to Friday. Monday to Friday the students learn with permanent teachers and on Saturday students learn with volunteers. The expected outcome of the learning process is to make children of coastal areas and small islands able to attend school, mastering science and technology, and get the legal certificate of education base on each grade after pass the equivalent examinations.

#### Stakeholders Involved

To run the I-YES program required the existence of stakeholders such as technicians, teachers and government. The workforce is occupied by a professional ship worker team consisting of skipper, boat technician, and support team, while the teacher of the I-YES is divided into two, consisting of permanent teachers (who run this project until the last program for 1 year) and volunteer who has willingness to join as a teacher for a month. But to make it clearly, please look at on the list down below:

1. Regent of local area obligated as mentioned in Law No.10 Year 2014 on Tourism Article 30.
2. The education office shall be obliged to carry out the affairs of the regional government in the field of education of the Department of Culture and Tourism shall be obliged.

3. Law enforcement serves to protect the environment and society through legal products, to prevent any damage made by humans and to make deterrent effects for environmentalists.
4. Ministry of culture and tourism shall have the obligation as referred to in Law no. 10 Year 2014 Tourism Chapter X.
5. The ship company helps provide vessels for the I-YES program.
6. The community is obliged to control government policy and take part in preserving the environment and legal supervision.
7. Students as social agents, who must play an active role in contributing ideas and ideas that can be combined with the program I-YES

#### C. Strategic Methods

Before the program is fully implemented, strategic steps are needed to make the program work as planned. Strategic flow in the implementation of the program can be seen on Figure 3.

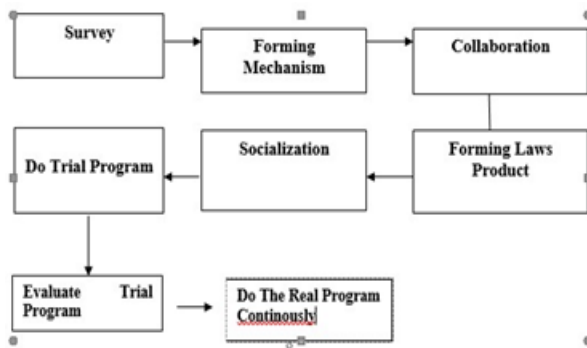


Fig. 3: Flow Chart for Strategic Methods to implement I-YES program

#### D. Conclusion and Recommendation

Based on the previous explanation, the result of this research will help to know about mechanism and solution to tackle one of education problem on coastal areas and small island in Indonesia. This program comes with clear proposes. Not only focus on how to brings the school to student, but also this I-YES program will probably be the way for those who want to get a legal certificate of education, although they never get or finish formal education previously. Within the quality of facilities and credible teachers, this program will give a high quality standard of education as good as other get from formal side. Besides that, it will be a guide method to implement this program easily because clear and deep explanation on every part of the ideas. As a conclusion, the authors expect that this program needs fully support from every single stakeholder, not only government as the main actor but also fully support from private sector and civil society from any concern who has willingness to take a part on this kind of project.

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