

# EVALUATION OF ARTIFICIAL REEFS IN PHANG NGA BAY

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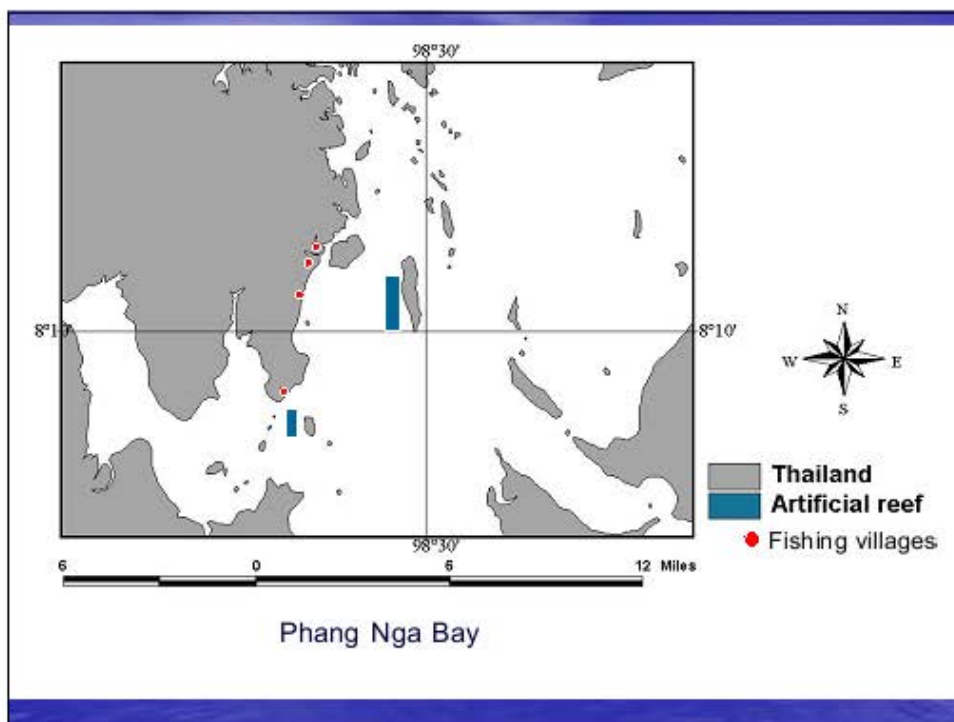
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## Objectives

- To Study on species diversity in Artificial Reefs area, of the Phang nga Bay
- To study on fisheries status in Artificial Reefs area.

## Methodology

- **Species diversity**
  - Collected by 20 trips of Trammel net
- **Fisheries status**
  - Collected from 3 main small scale fishing gears, Bamboo stake trap, Trammel net, Modified mackerel gill net.
  - Interview on fisheries situation
- **Duration of Data collecting**
  - January 1999-December 2002



## Species diversity

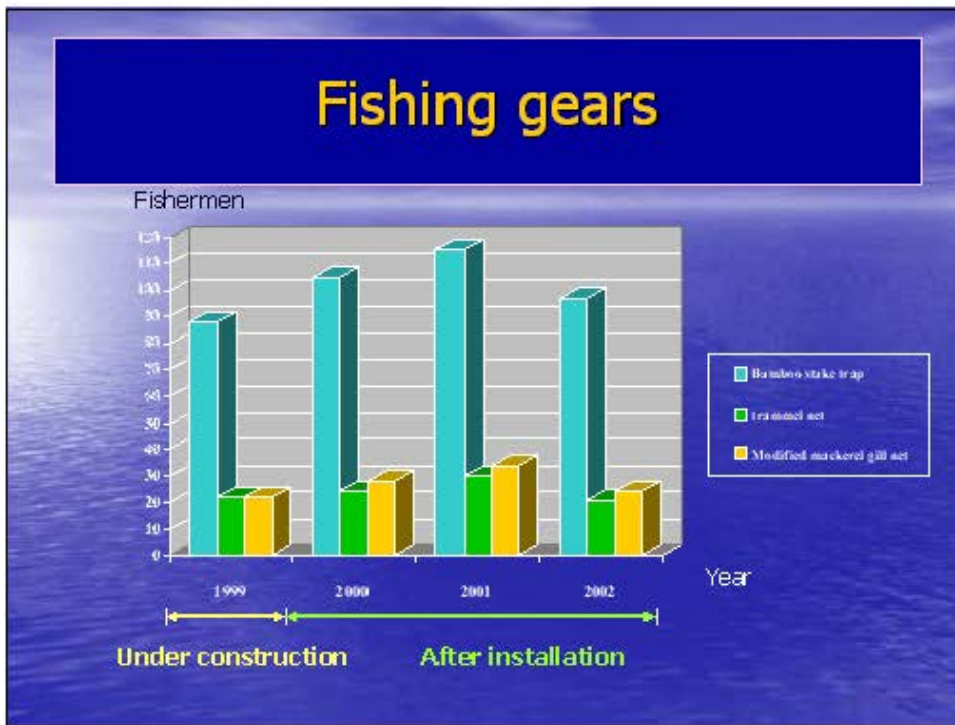
### - Groups of marine fauna

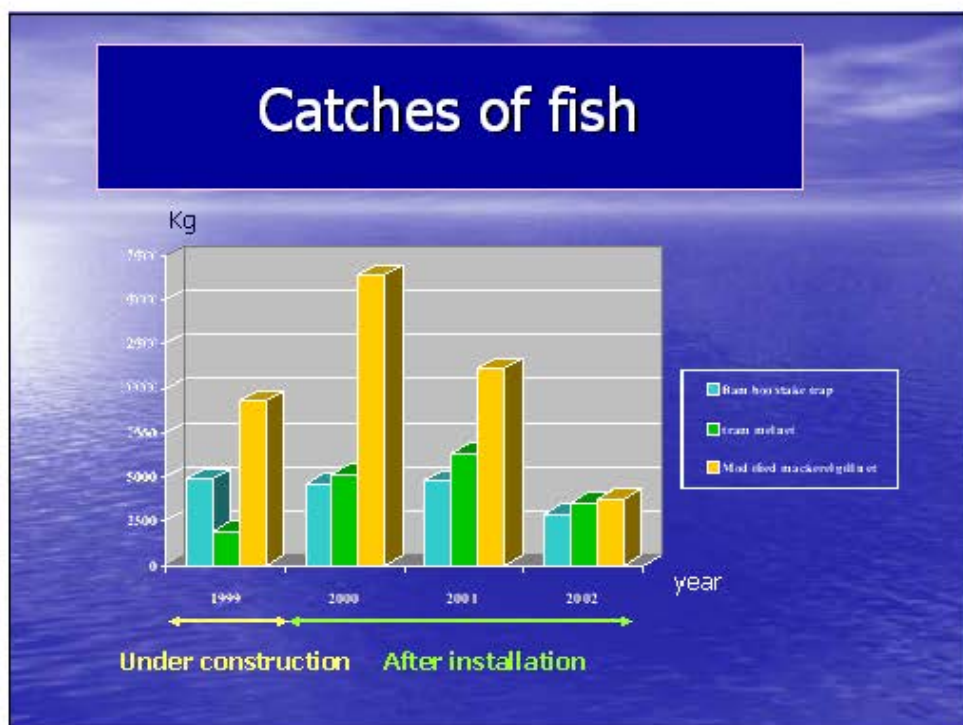
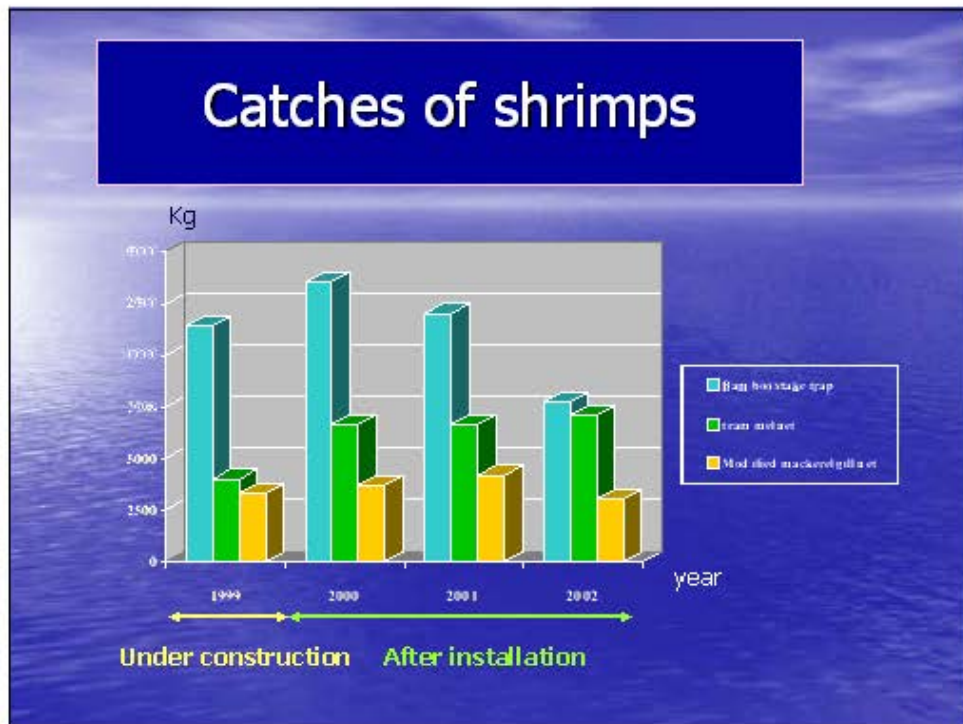
<b>Shrimps</b>	<b>11</b>
<b>Fishes</b>	<b>64</b>
<b>Crabs</b>	<b>4</b>
<b>Squids</b>	<b>5</b>
<b>Mantis shrimps</b>	<b>3</b>
<b>Molluscs</b>	<b>4</b>
<b>Others</b>	<b>2</b>

## Species diversity



Weight Percentage of aquatic animals



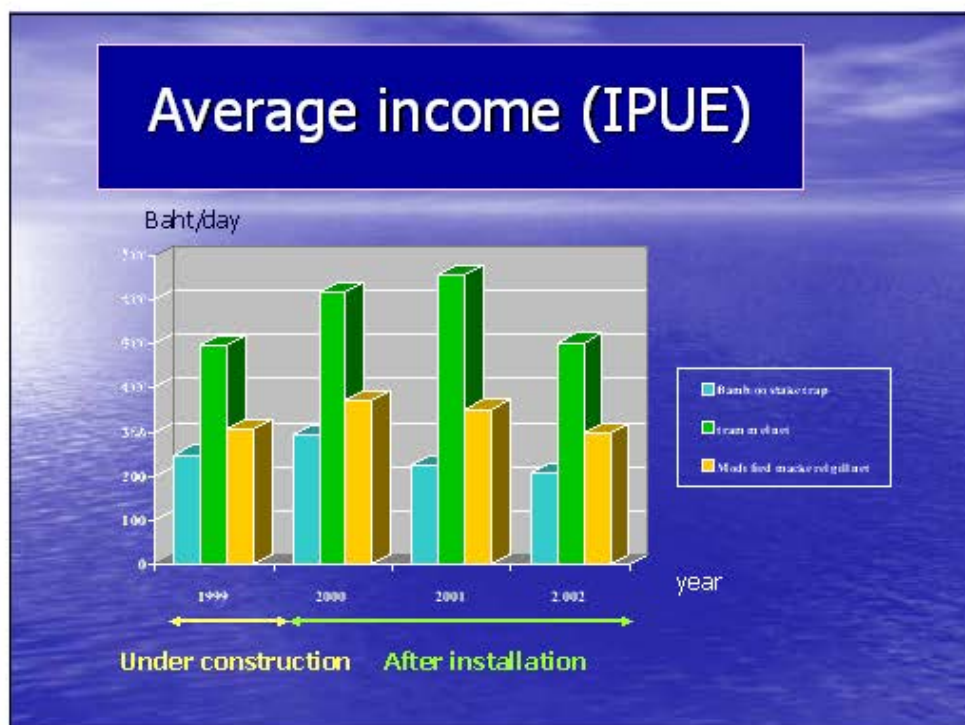
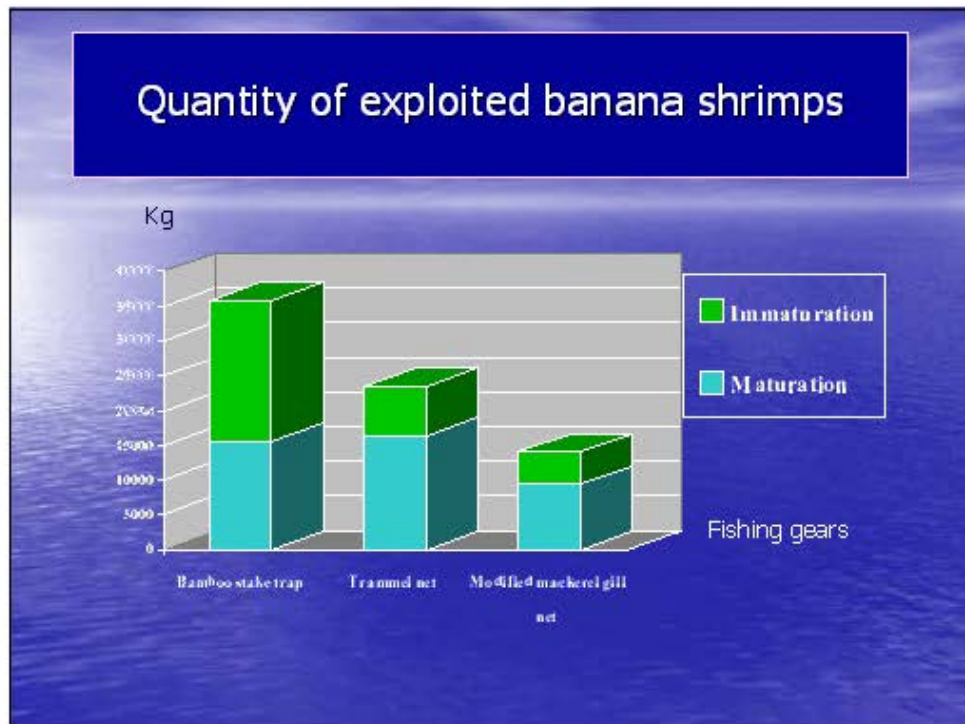


## Catches of squids



## Catches of crabs





## Aquatic animal value and return on investment

	Under construction	After installation		
	1999	2000	2001	2002
<b>Cost</b>	4,973,700			
<b>Lost of investment</b>	3.75%	3.75%		
<b>Total cost</b>	5,160,214	5,353,722		
<b>Value of exploited</b>	3,901,317	7,266,755	6,284,402	4,082,653
<b>Additional value compare with installation year</b>		3,365,438	2,383,085	181,336
<b>Accumulation to fishing community</b>		3,365,438	5,748,523	5,929,859
<b>Beneficial</b>		-1,608,262	774,823	956,159
<b>Return on investment period</b>			22	

## Conclusion

- Found 93 species of marine animals in ARs area of Phang Nga Bay.
- After installation about 2 year, fishing effort increase (fishing gears and fishing days). After that decrease trend.
- After installation about 2 year, Catches of aquatic animals and income increase. After that trend decrease but higher than under construction.