

City Energy And Climate Action: Impact of climate change and energy plans at Vinh Long City



Ha Chi Tam

Committee Division of Natural resources and Environment
in Vinh Long City, Vinh Long province, Viet Nam

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1. Introduce about Vinh Long City

Introduce about Vinh Long City



Introduce about Vinh Long City



Introduce about Vinh Long City

Administrative units

Vinh Long City

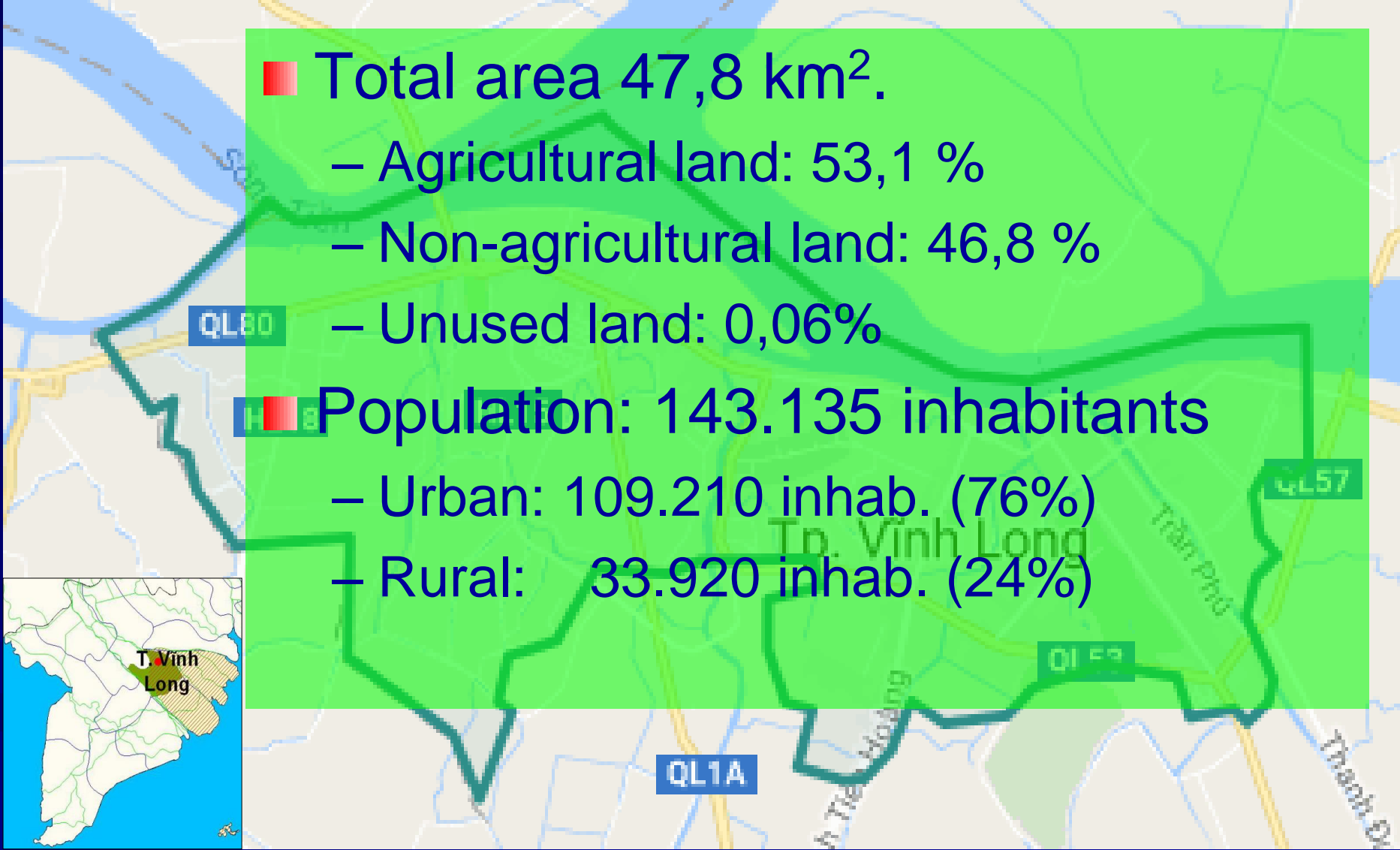
7 Ward

4 commune

Tp. Vĩnh Long



Introduce about Vinh Long City

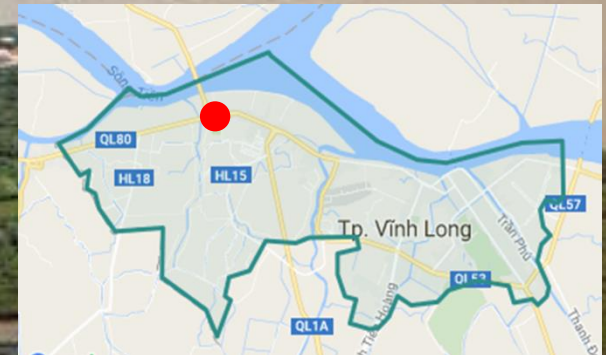
- 
- Total area 47,8 km².
 - Agricultural land: 53,1 %
 - Non-agricultural land: 46,8 %
 - Unused land: 0,06%
 - Population: 143.135 inhabitants
 - Urban: 109.210 inhab. (76%)
 - Rural: 33.920 inhab. (24%)

Introduce about Vinh Long City



Mekong river

My Thuan Bridge



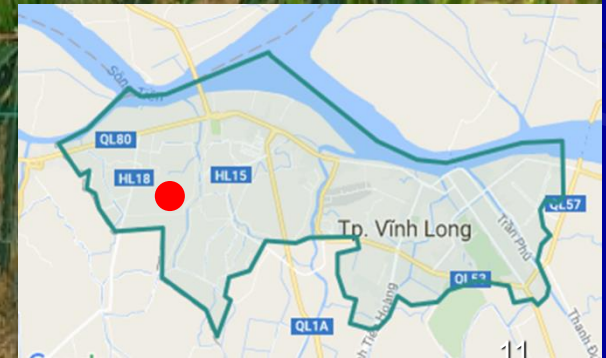
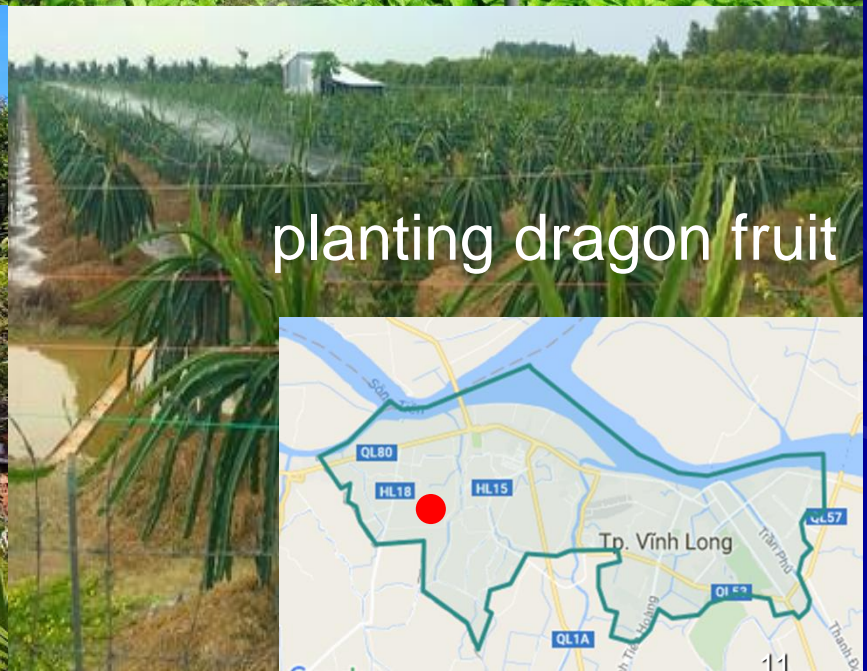
Introduce about Vinh Long City



Introduce about Vinh Long City



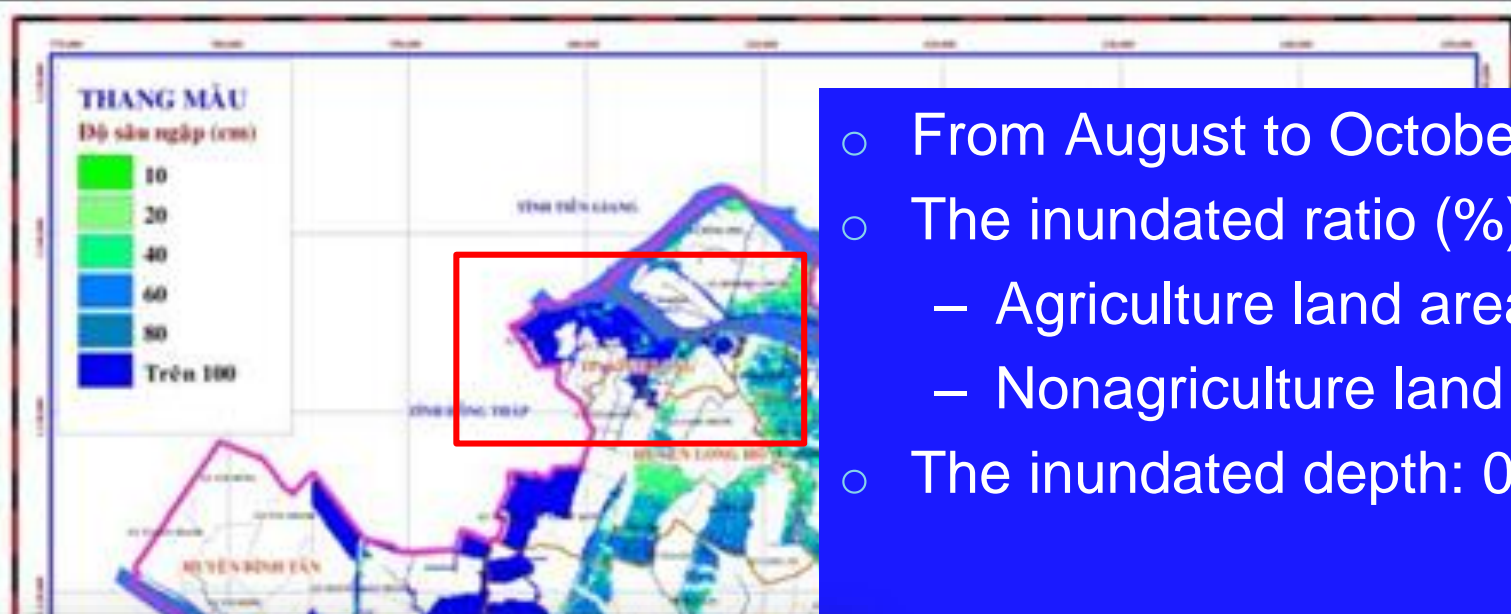
Introduce about Vinh Long City



2. Natural disasters have occurred in Vinh Long City

- Flood and inundated
- Thunderstorms, storms and cyclone
- Drought
- Salinization

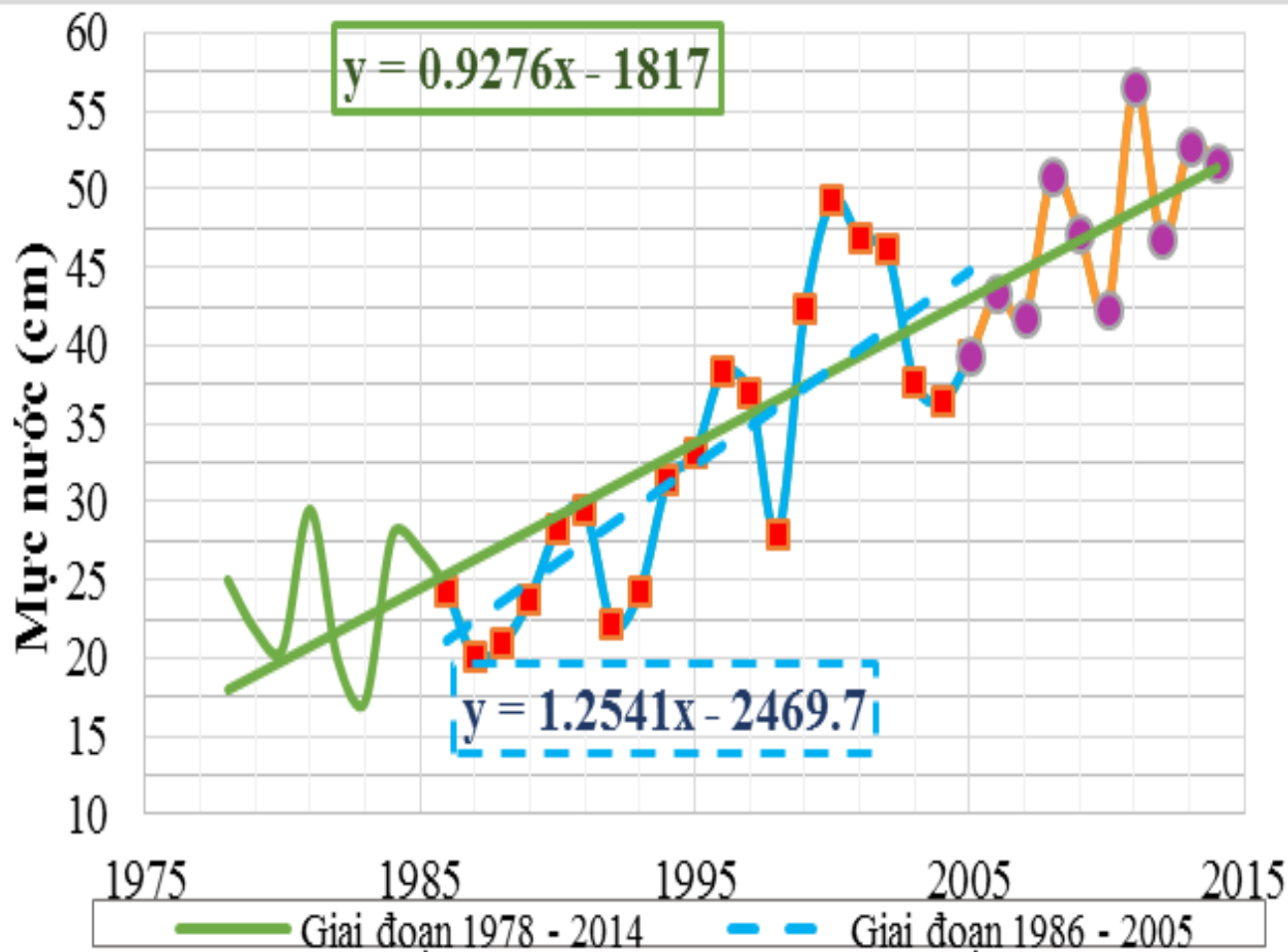
Flood and inundated



- From August to October every year
- The inundated ratio (%) in 2017
 - Agriculture land area 40,31%
 - Nonagriculture land area 55,50%
- The inundated depth: 0,5 – 1,0 m

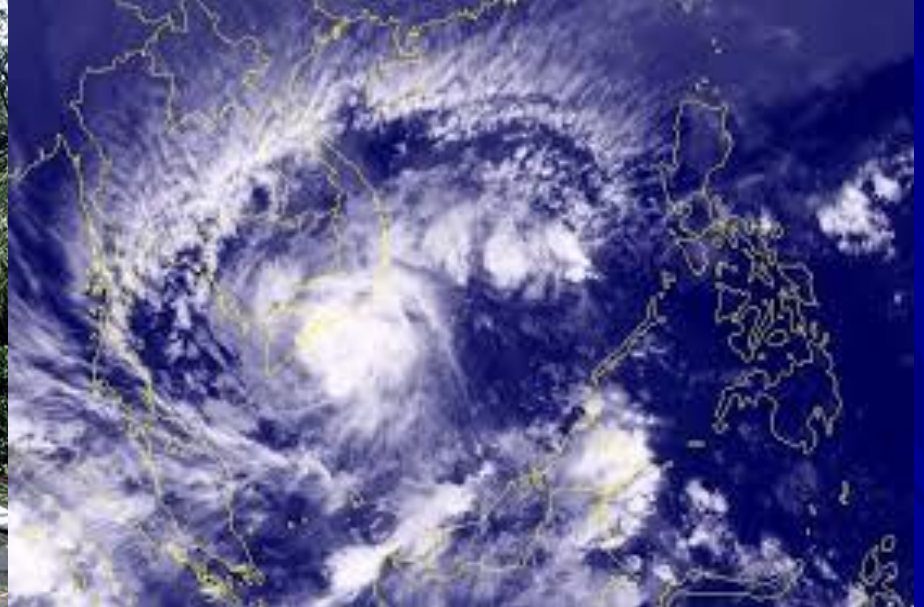


Flood and inundated



The average water level at stations increased to 0.93 cm per year

Thunderstorms, storms and cyclone



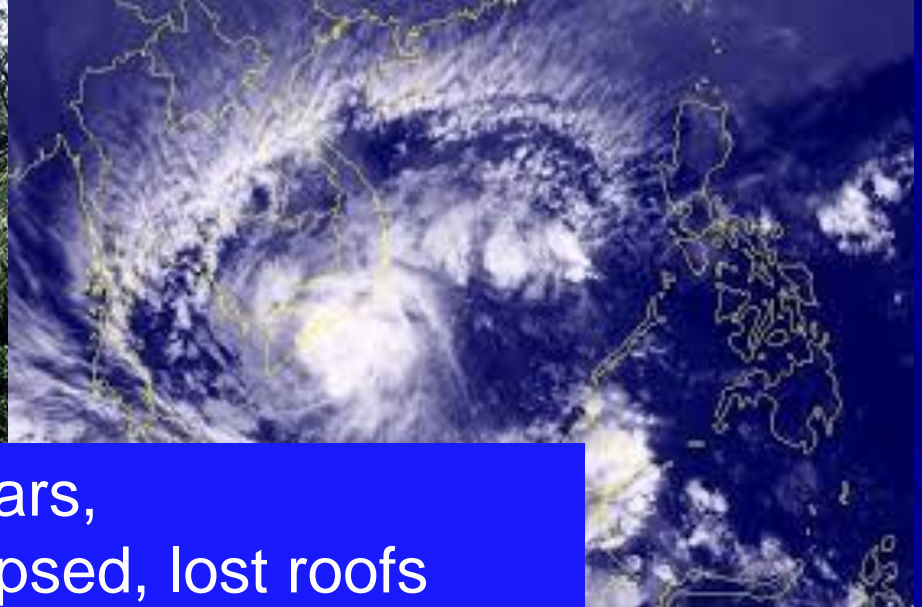
Thunderstorms, storms and cyclone



The occurred frequency (counts)	
Years	Thunderstorms, storms and cyclone
2007	7
2008	10
2009	4
2010	6
2011	10
2012	10
2013	15
2014	5
2015	5
2016	10
2017	16
Total	98



Thunderstorms, storms and cyclone



From 2007 to 2017 years,

- > 200 houses collapsed, lost roofs
- Injured 14 people;
- The total damage: > 31 billion VND



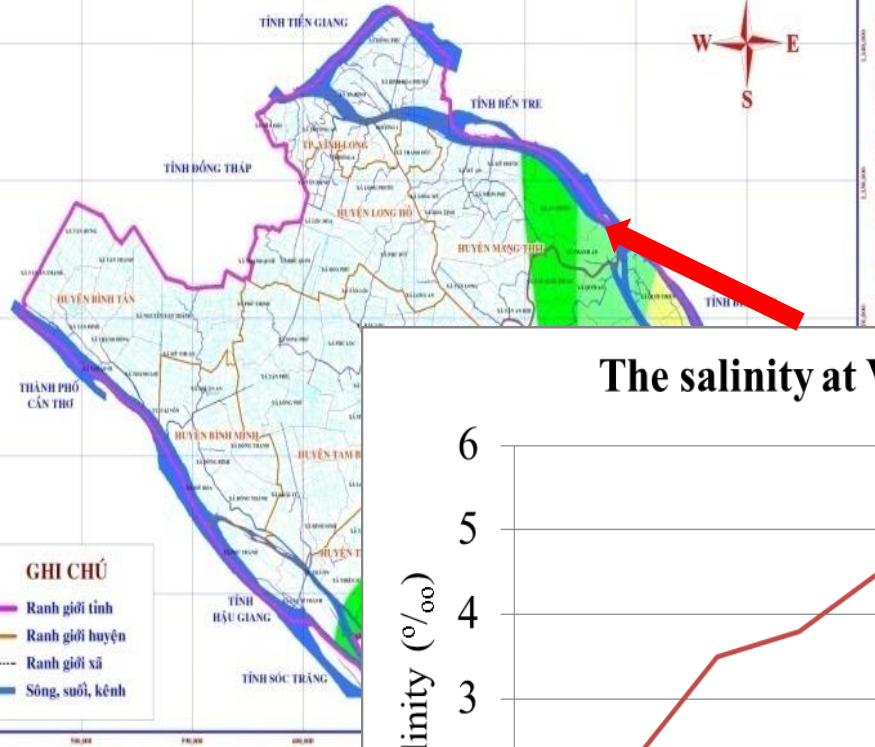
Drought



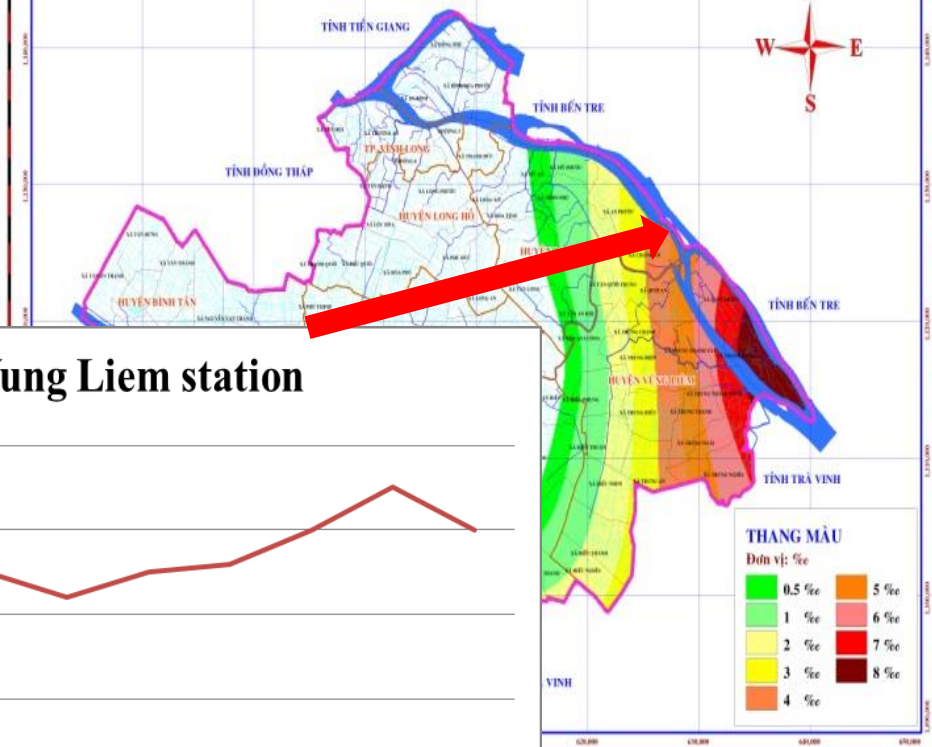
The period occurred: From January to April every year
In 2016, there are 1,8 hectares of plants died due to lack of water, the estimated damage nearly 3 billion VND

Salinization

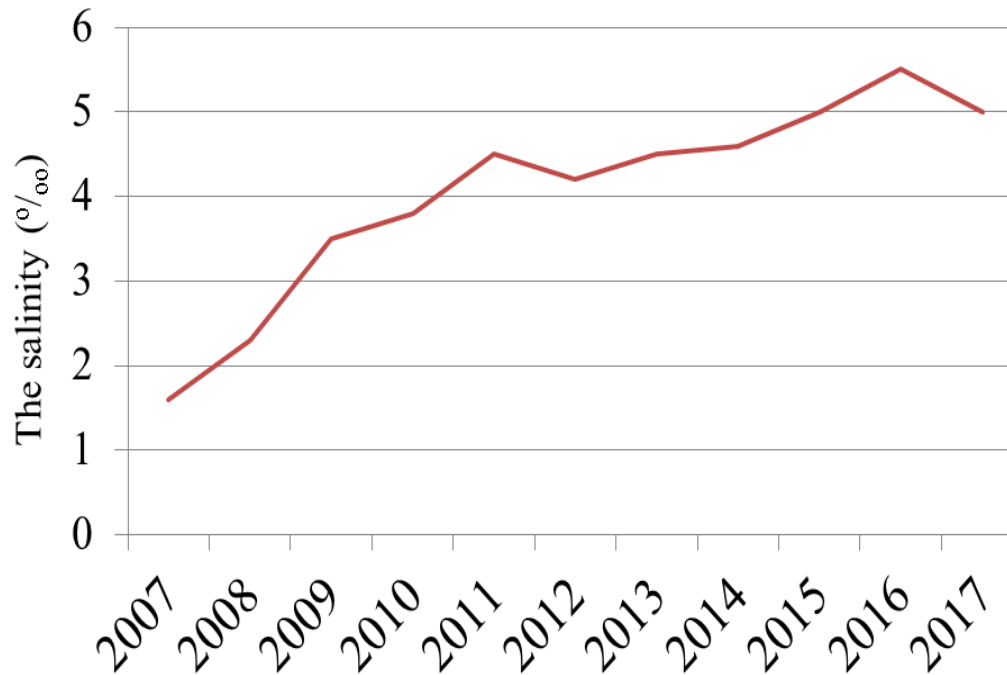
2007



2017



The salinity at Vung Liem station



Salinization occurs during the low tide, the sea water infiltrates the soil

in combination with

3. The status of energy use in Vinh Long City

The used energy types

– Fossil fuel (gasoline, oil, coal)



The used energy types

- **Fossil fuel** (gasoline, oil, coal)
- **Agricultural fuels** (biogas in livestock, rice husks, firewood and charcoal)



The used energy types

- **Fossil fuel** (gasoline, oil, coal)
- **Agricultural fuels** (biogas in livestock, rice husks, firewood, coal)
- **Electricity energy** (from gas, hydropower, thermal power) - Using from the national power

Energy use activities

Using fossil fuel in traffic, construction and household activity



Energy use activities

Using coal to burn

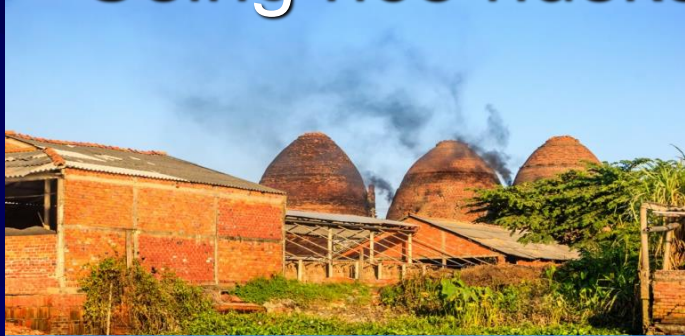


- 90% coal
- 10% mud



Energy use activities

Using rice husks for burning bricks, ceramics



Previously, > 100 rice husk furnaces.

In 2018, the number of rice husk furnaces has decreased to 3 units



The rice husk furnaces

Energy use activities

Using electronic power



Air monitoring situation

- Current air monitoring indicators include: Dust, CO, SO₂, NO₂ and Noise
 - The number of monitoring positions : 31 points
 - Monitoring positions: on roads, urban areas
 - Implementing agencies: Department of Natural Resources and Environment of Vinh Long Province
- GHG emission indicators (CO₂, CH₄, NO, N₂O,...), have not been measured.

4. Energy plans in the future

(Several models of energy use have been applied)

The targeted program of Vinh Long province for climate change response

1. Strengthening monitoring and forecasting capacity
2. To ensure food security, water and living conditions
3. To actively respond to natural disasters, particularly vulnerable areas
4. Raising awareness and capacity of the community
5. Improve the capacity of management staff
6. Increase investment and diversify financial support
7. Reduce GreenHouse Gas emissions during the process of socio-economic development

Suggested solutions related to energy plan

Groups	Solutions
Monitoring	Construction of warning systems, monitoring
Comunications	<ul style="list-style-type: none">- Saving electricity, water- Environment protection- New techniques in production
Policies	The trend is towards reducing the industries that using much energy; Encourage low-energy industries and use renewable energy.
Engineering and technology	<ul style="list-style-type: none">- Research and apply new materials, new technology with less greenhouse gas emissions.- Application of cleaner production process.- Research and application of waste treatment in the direction of recycling and reuse.
Finance	Call for investors and financial support from various sources

Suggested solutions related to energy plan

- Classify and prioritize options for suggested solutions.
- Design projects and assign specific tasks to agencies and departments for monitoring and implementation

Several models of energy use have been applied

Hot water system solar



Several models of energy use have been applied

Pilot installation of public lighting by solar energy

Switch to Led lights and using solar energy

Total installed length is 6.23km.



Several models of energy use have been applied

- Power supply company has used solar energy in 2017
- Supply for > 60 KWP
- About 3,2 billion VND



Household use of solar energy



Several models of energy use have been applied



Trend



Greenhouse drying oven



Greenhouse for soy sauce production

Several models of energy use have been applied



Using unbaked brick in construction



Several models of energy use have been applied

Conversion of some activities in agricultural production



Burning straw

Trend
→



Growing mushrooms



Rice husk

Trend
→



**wood products
pressed wood**



Some limitations

- Lack of funding and experienced people.
- New technologies are still limited.
- Some investment projects have stopped at the pilot level and its have not been widely implemented.



**Thank you for
watching and listening**

Contact: hachitam78@gmail.com