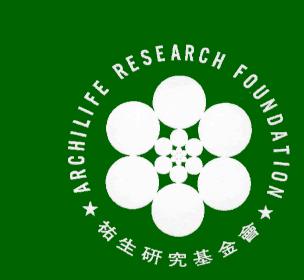
Speaker: Judy C.Y. Huang



- Secretary General, Archilife Research Foundation, Taiwan
- President,
 Taiwan Society of
 Sustainable Built
 Environment

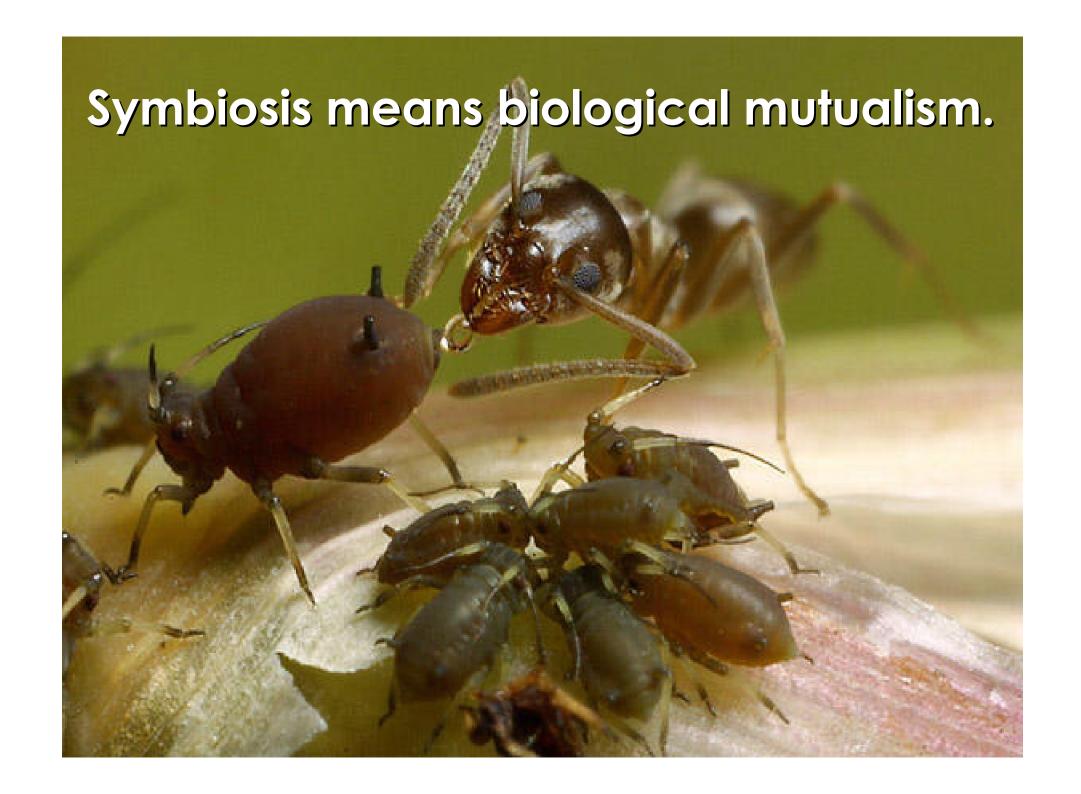


Symbiosis & Beyond

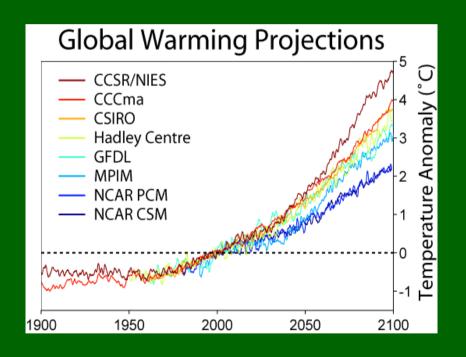


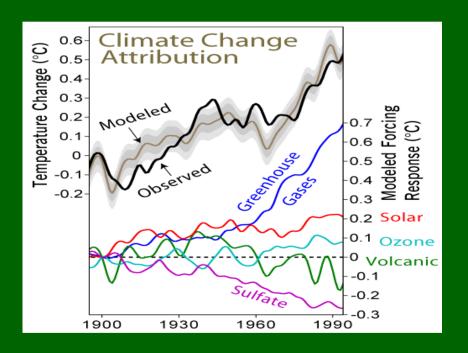
Judy C.Y. Huang, Secretary General
Archilife Research Foundation, Taiwan
September 19, 2008





Use symbiosis to deal with global warming and climate change







Deliver the solution and suggestion for sustainable development



SB05Tokyo

SB07Taipei







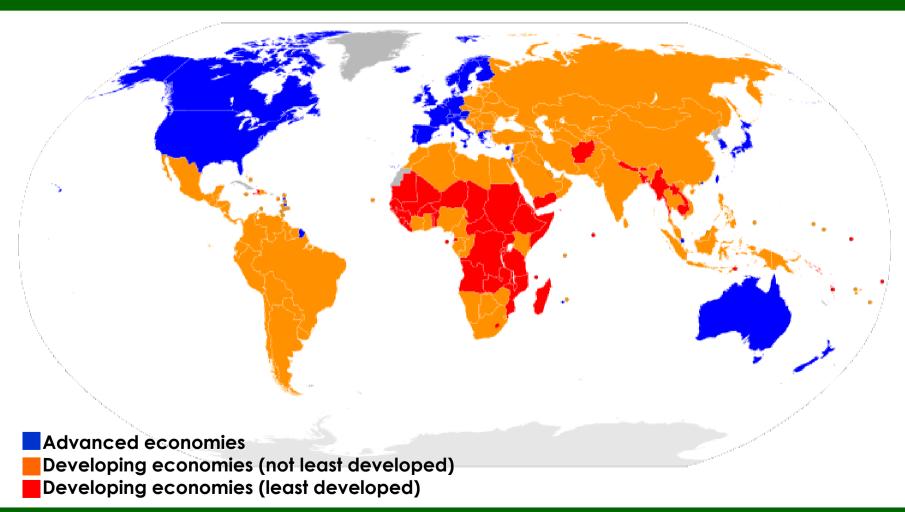






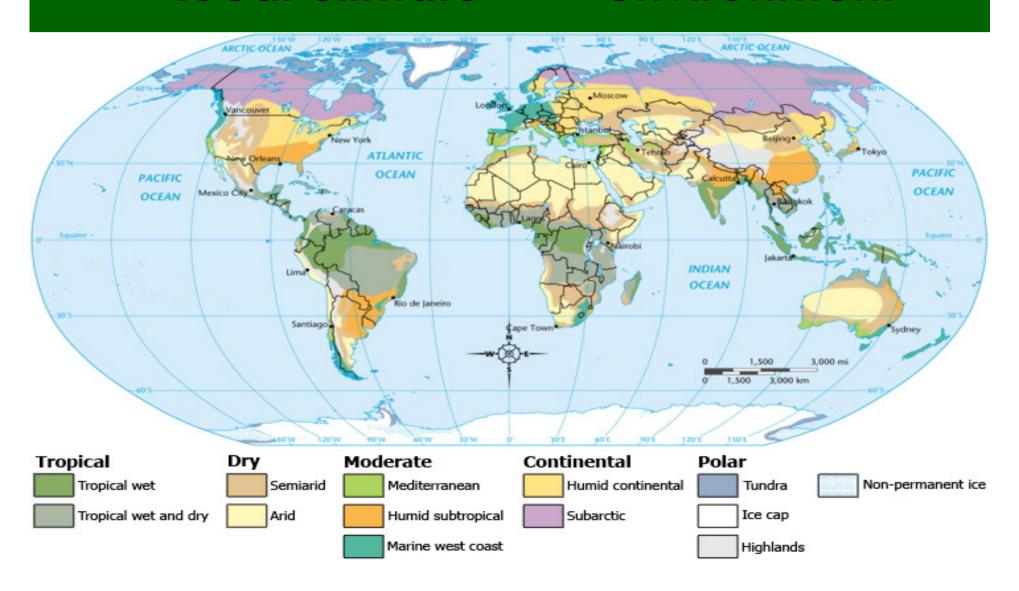


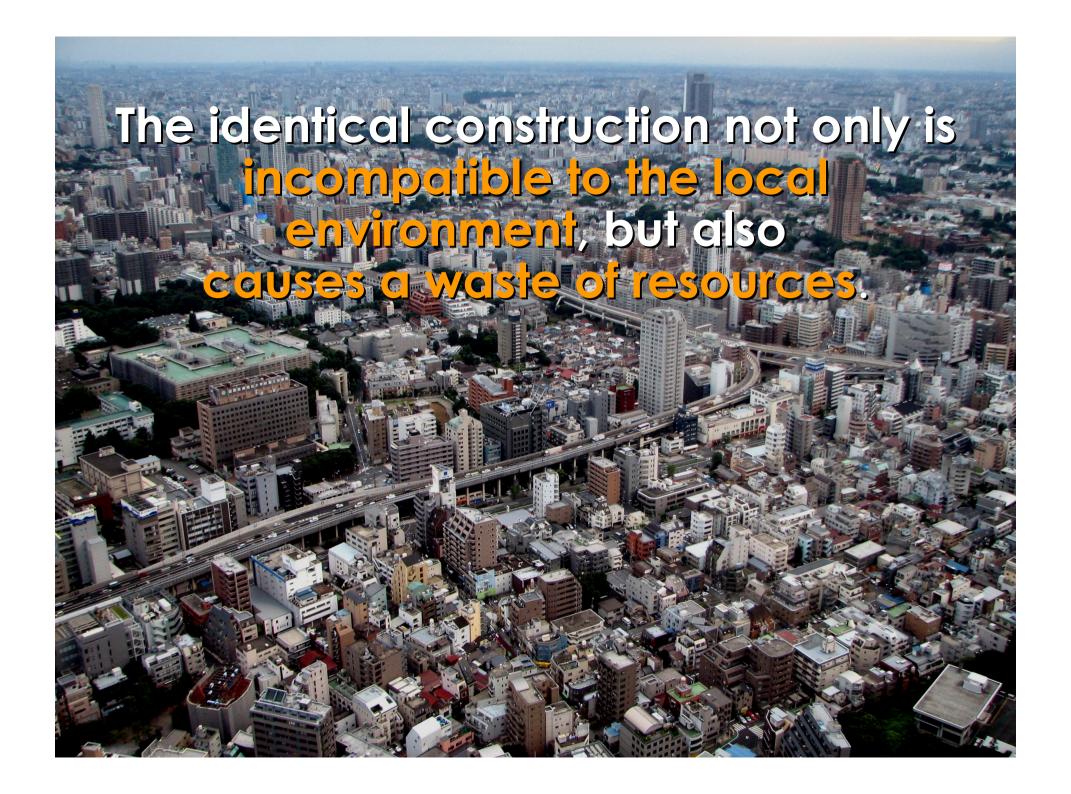
Advanced vs. Developing economies



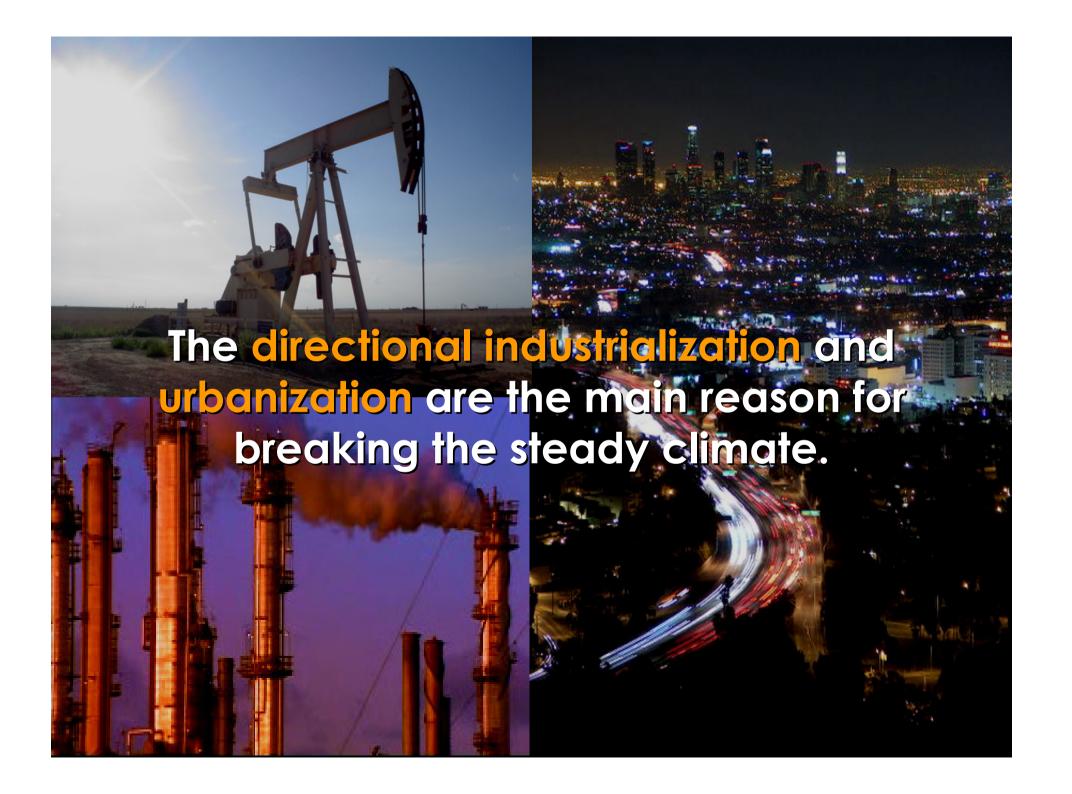


The western model can not match the local climate and environment.









Industrial civilization

Take ancient forest petrochemical industry energy

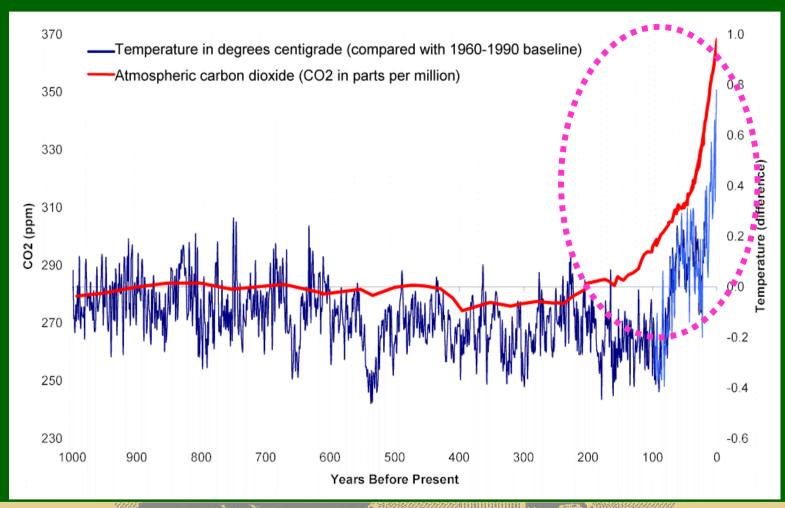


Industrial civilization

Cut down the forest to utilize



The CO₂ concentration rises fast.





IPCC's Reports

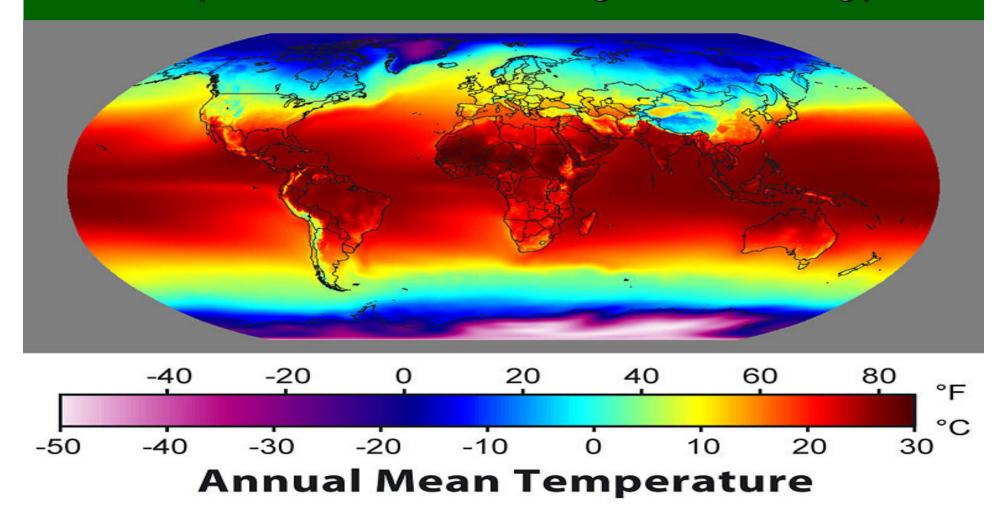
(The Intergovernmental Panel on Climate Change)





The CO₂ concentration

- Determine future global temperature
- Impact on climate change and ecology







Taiwan The characteristic of the East

Symbiosis protection umbrella

Natural physical environment

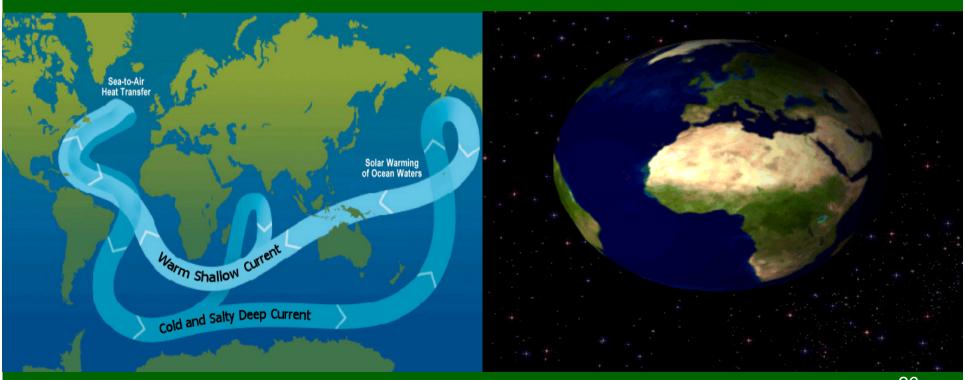
Symbiotic Architecture (Solid)

> Symbiotic Living (void)

Indoor physical control

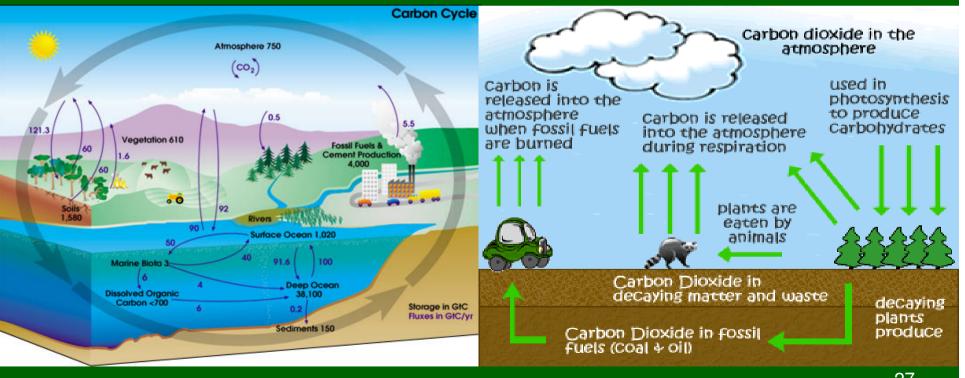


IPCC's reports overlooked the relationship between climate change and the evolution of the Earth.

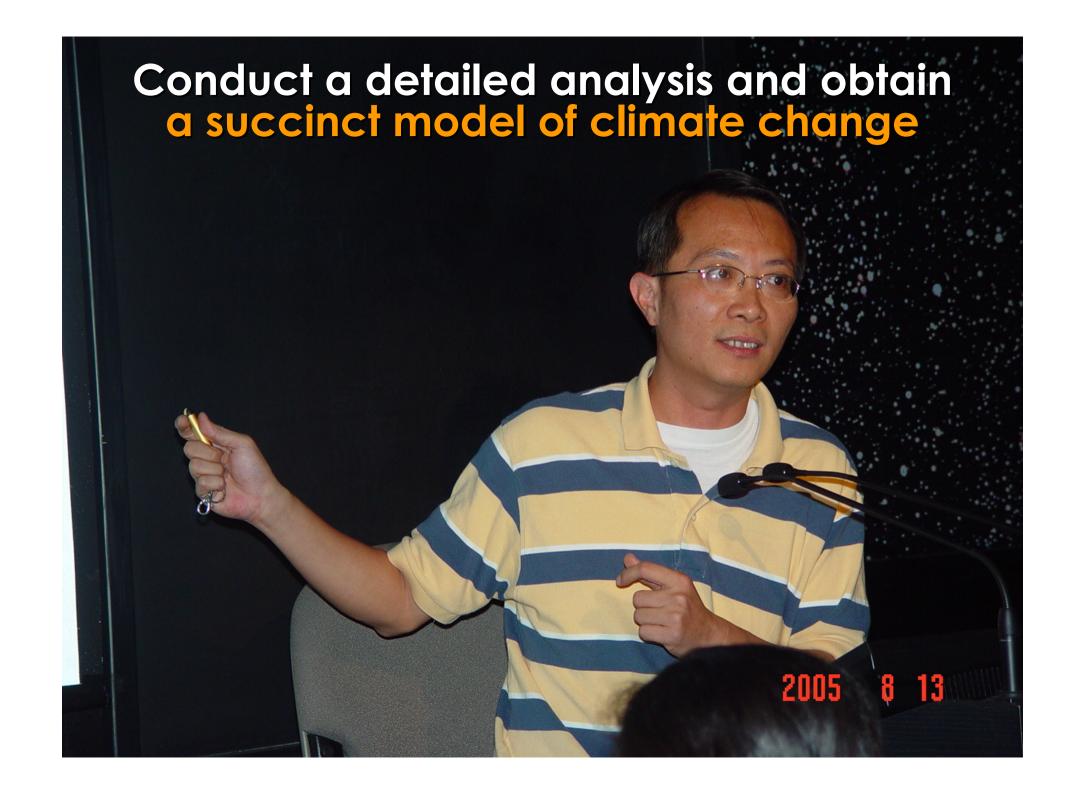


IPCC's inference model

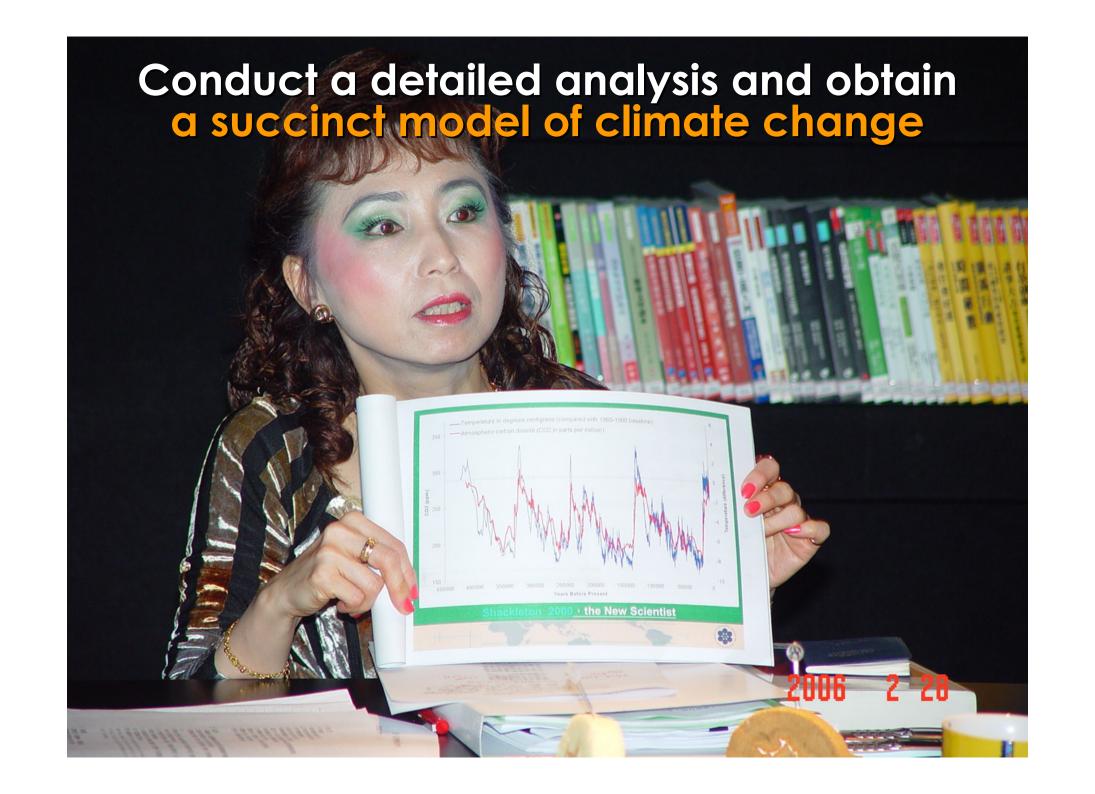
- Overstress the proportion of artifical emission of CO₂
- Underestimate the role played by natural evolution









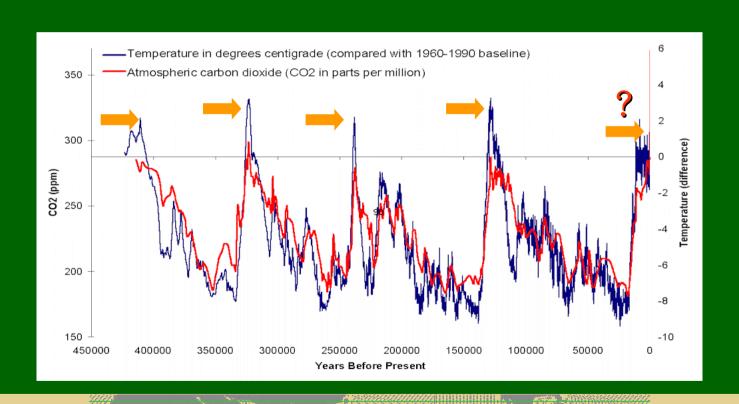


With CO_2 concentration increases, the return of desertification areas will be expanded, and the areas will have more frequent disasters.

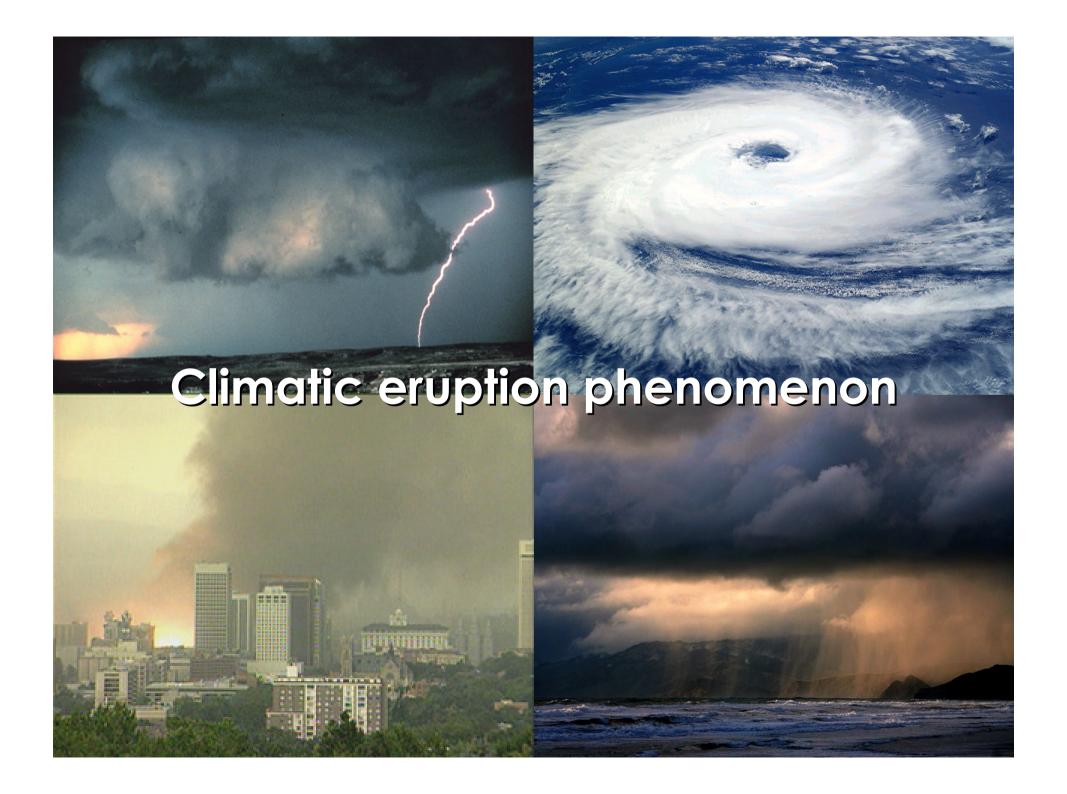


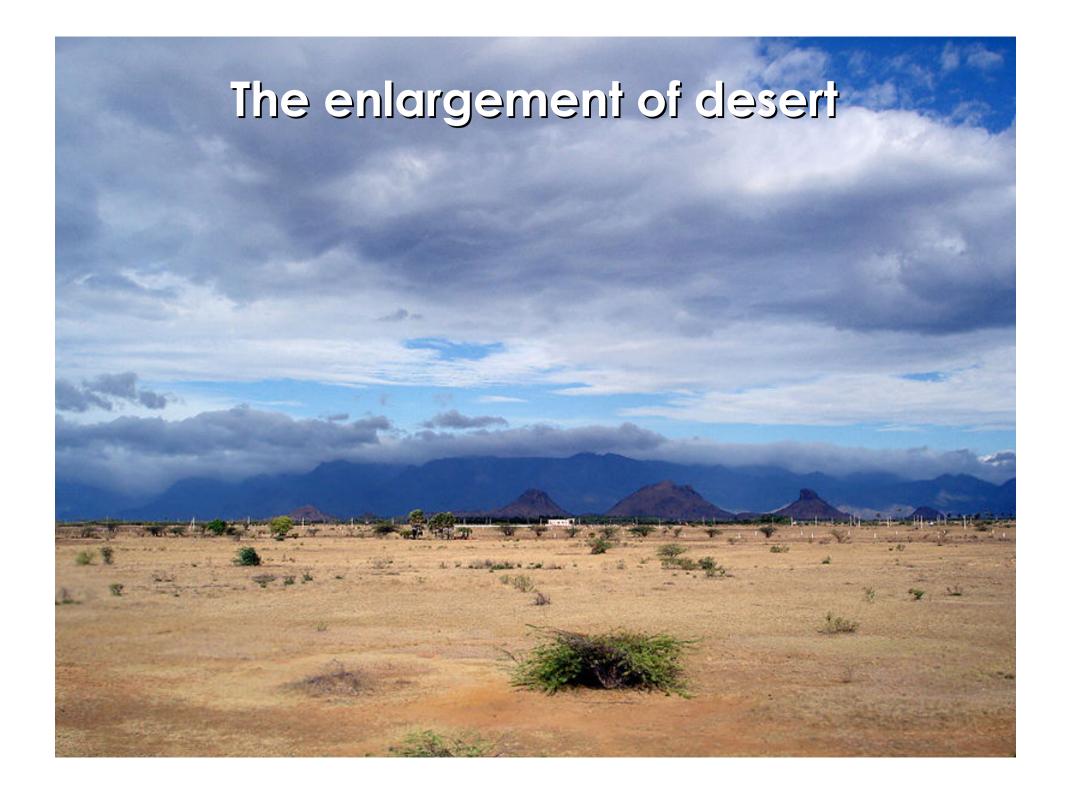


When the climate exceeds extreme value, the safety factor of the industrial products will be insufficient.









If the desertification is getting worse, the arable land would be reduced and food will be lacked immediately.



Biomass energy exclude arable lands and make food supply much shorter.

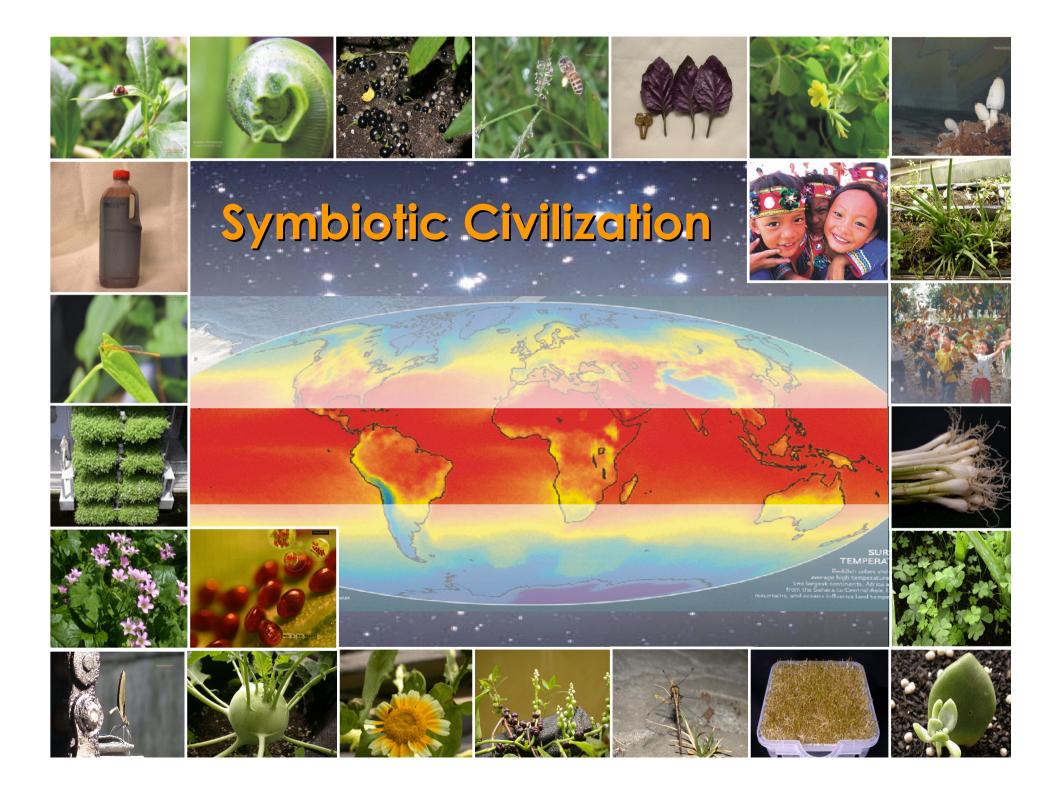


People

who are threatened by desertification

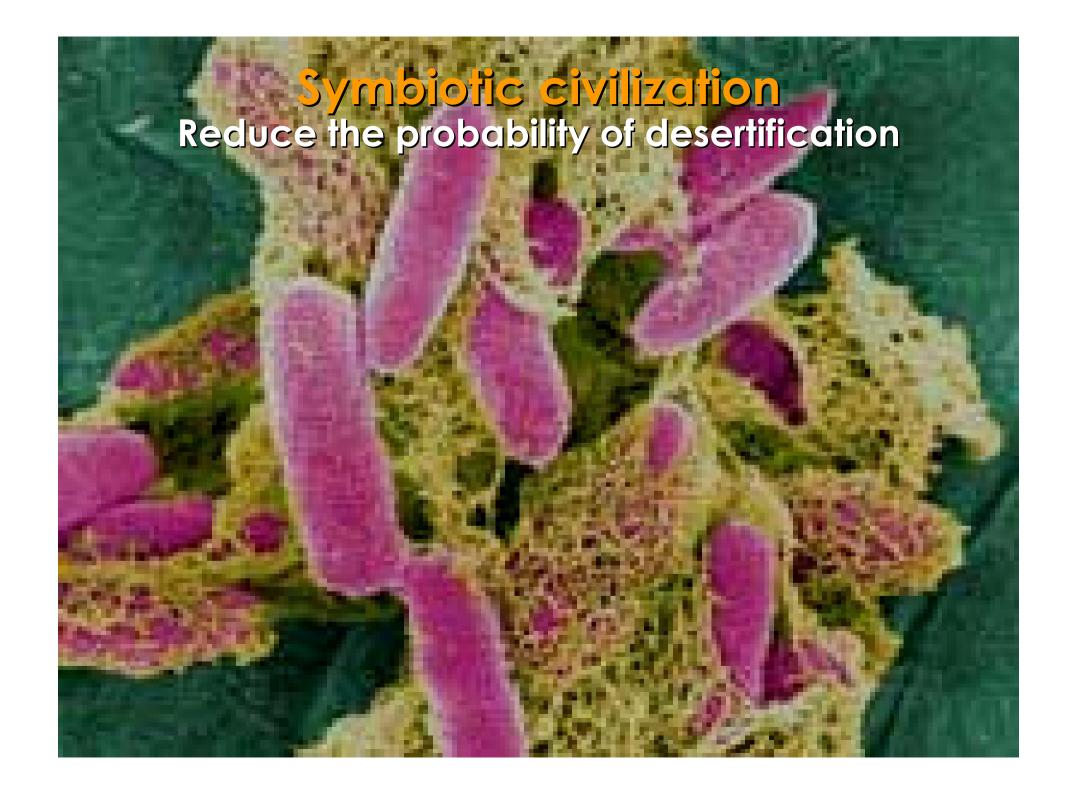
Their subsistence will have serious destruction.















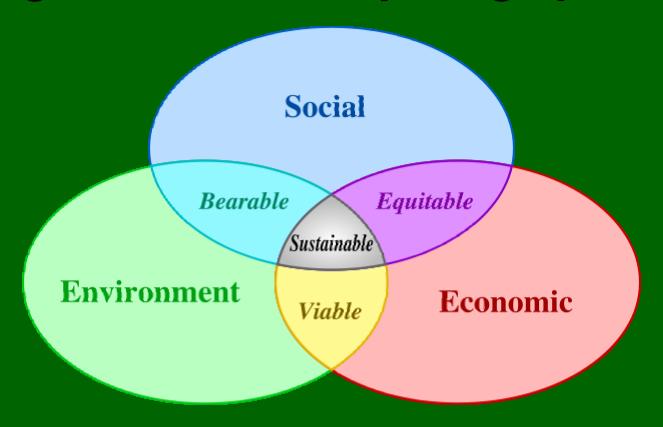








High-efficient recycling system



Make sustainable development come true

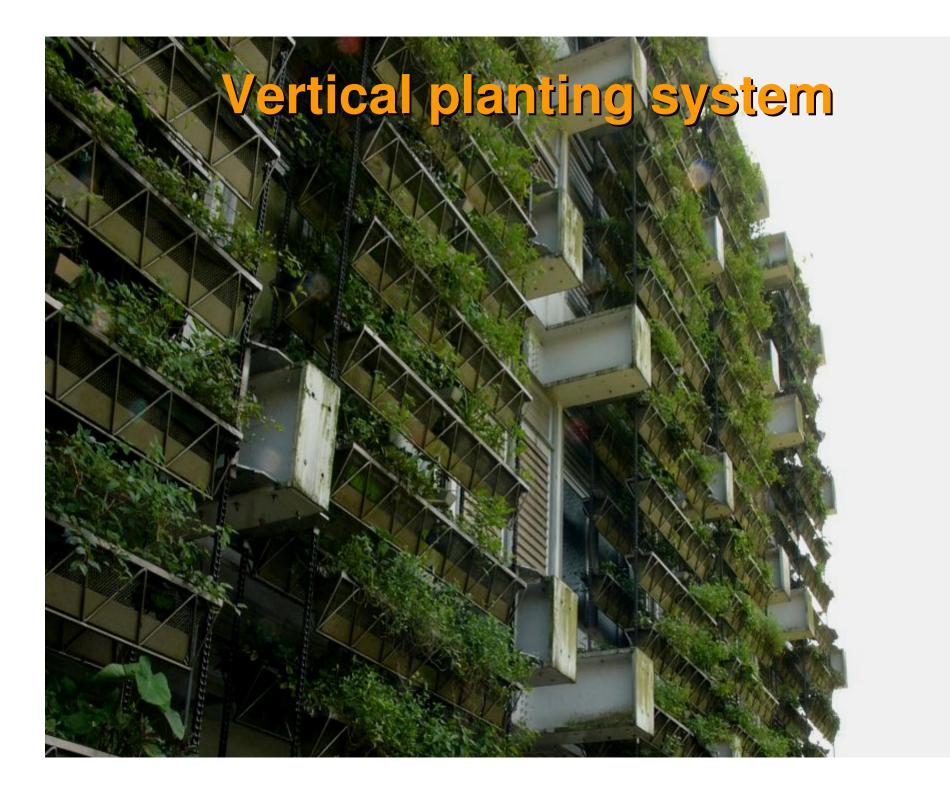


















Nucleic acid meal

- Vegetables + some proteins
 - A kind of healthy diets



Waste and wastewater

- Dry toilet
- Wastewater treatment system



Compost function

2-step compost or sterilization



Wastewater

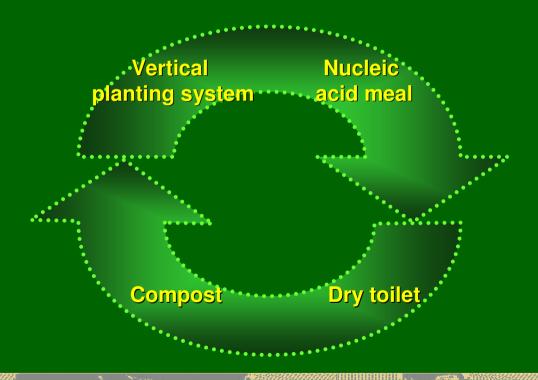
Feedback to the vertical planting system



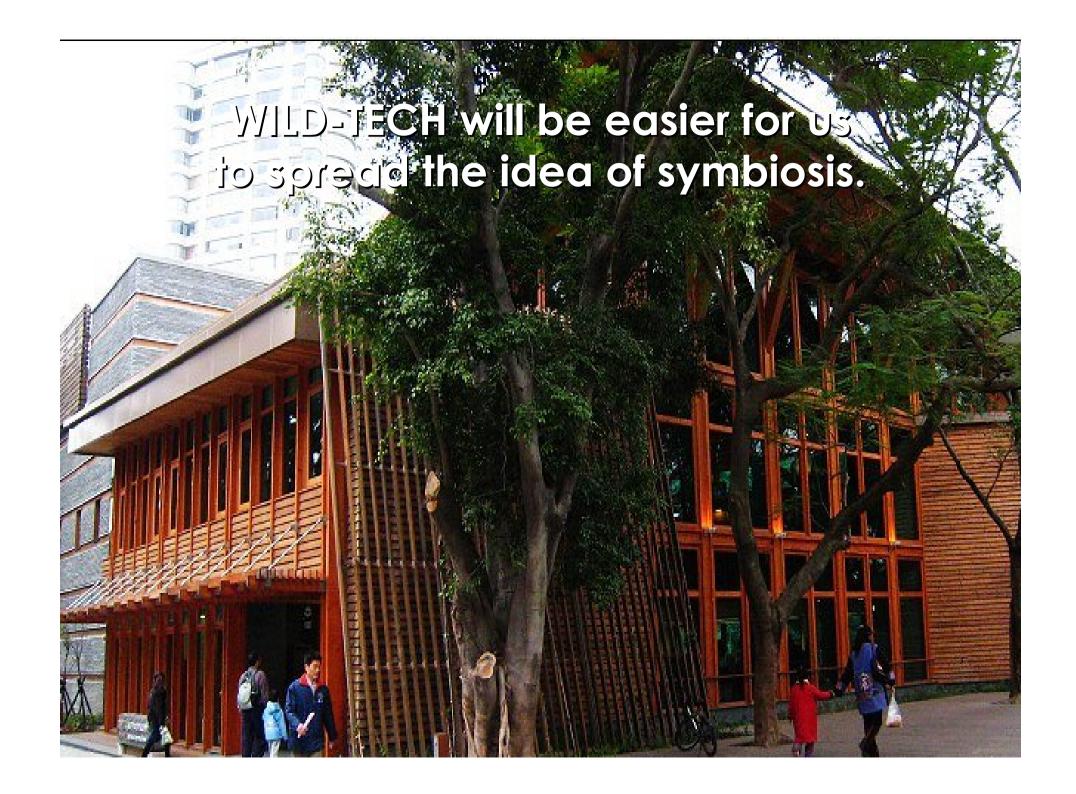


WILD-TECH

Accommodate more micro-scaled or multiple recycling systems









Human

The center of this recycling system

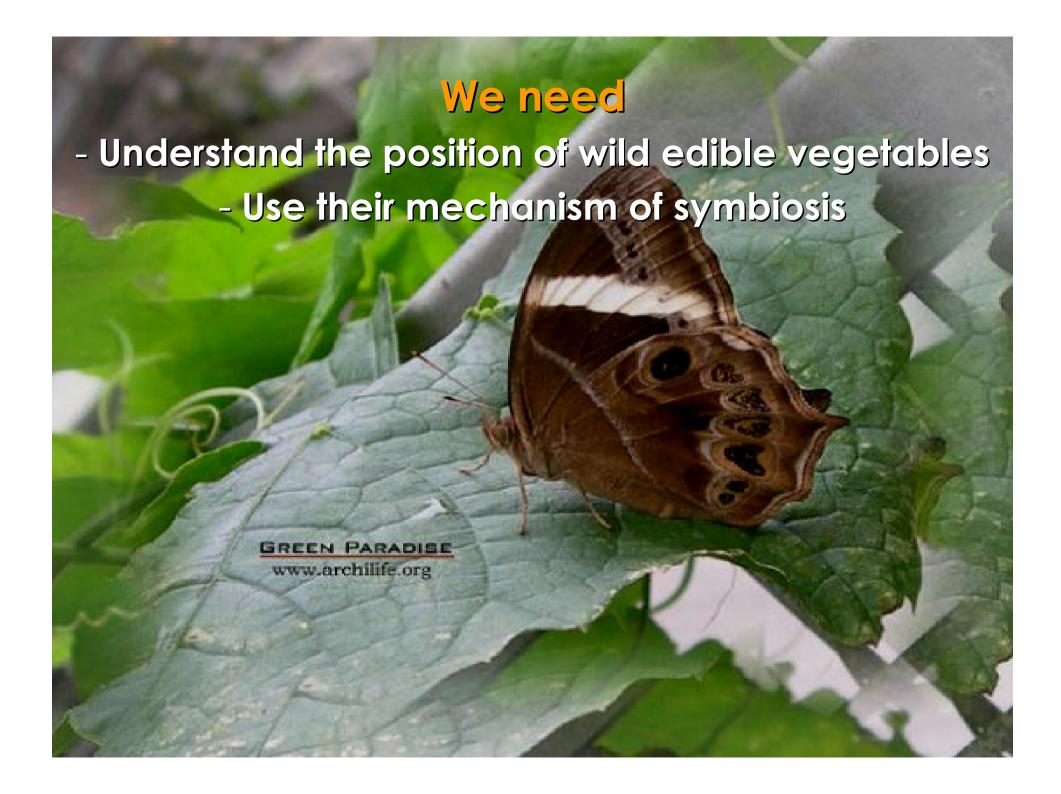
Human and wild edible vegetables together form the symbiotic recycle.











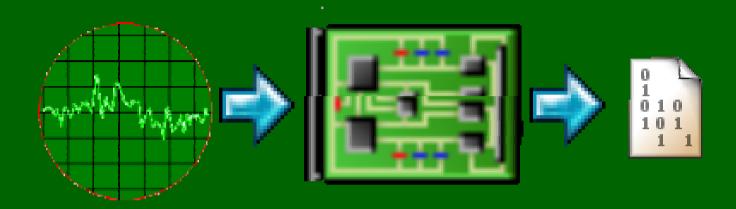








Digitalization



- Reduce the dependence on urban markets
 - Enhance networking
 - Transmit the information of symbiosis





Cyberspace

The world of Internet

Replace traditional markets









Digitalization + Symbiosis

- Investigate the new civilization
- Induce the future habitable construction



Digitalization + Symbiosis

- Hope for some concrete results before SB11



Energy crisis and Climate change





Are you interested?







Thank's for your attention.



