Guo Jianli

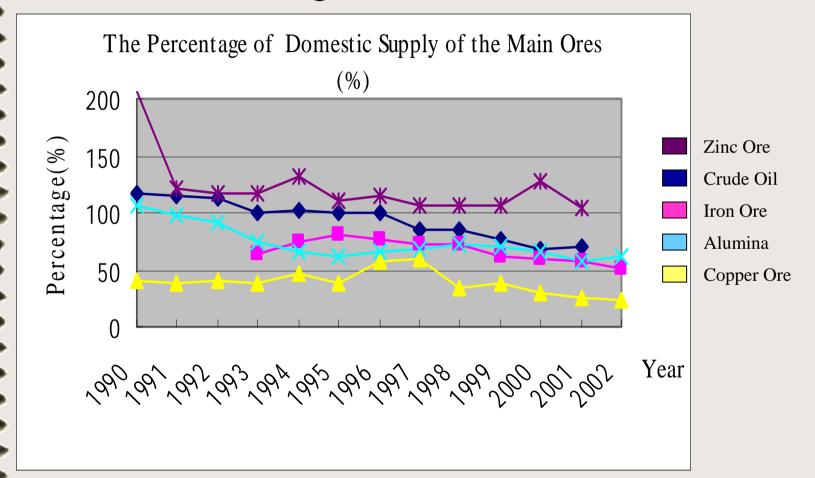
- 1. The problems we are facing.
- 2. What's circular economy?
- 3. The main issues of establishing circular economy.
- 4. What are we doing now?

# -The problems we are facing.

- Resources shortage
- Environmental crisis
- Pressure from the economical development and the keep-increasing population

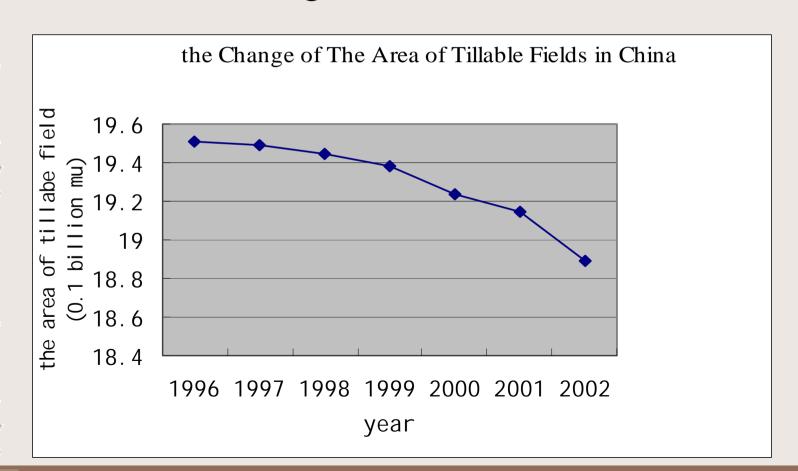
## -The problems we are facing.

## Resources shortage:



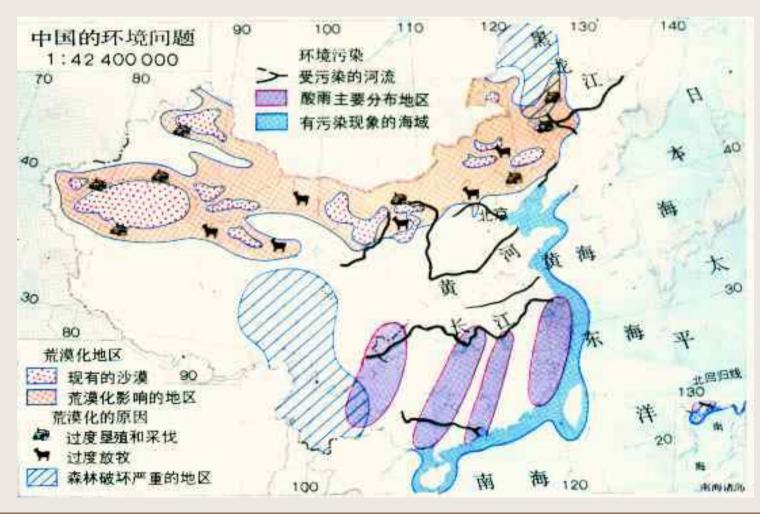
## -The problems we are facing.

## Resources shortage:



## -The problems we are facing

### **Environmental Crisis**



# -The problems we are facing

Pressure from the economical development and the keep-increasing population, in 2020,

- The GDP is predicted to be >4,000 billion \$;
- The population will reach about 1.47 billion.

## -The problems we are facing

• So that we should:

Using the Limited Resources to Meet the Demand of the Development

And circular economy is a possible way.

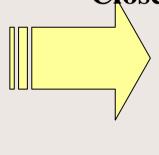
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## -What's circular economy?

One-way



"Closed Materials Cycle" -based





Linear economy

Circular economy

Mass-production, mass-consumption and mass-disposal"

## -What's circular economy?

#### The main merits:

- To abate the extraction from nature
- To dramatically reduce the wastes

#### The limitations:

- Most of the materials can't be recycled
- Cost (Recycling is a energy-consuming and labor-consuming process)

## -What's circular economy?

Then, is there any other way?

Sure!

Maybe it is:

- To put nature (or other planet) into the cycle
- Etc...

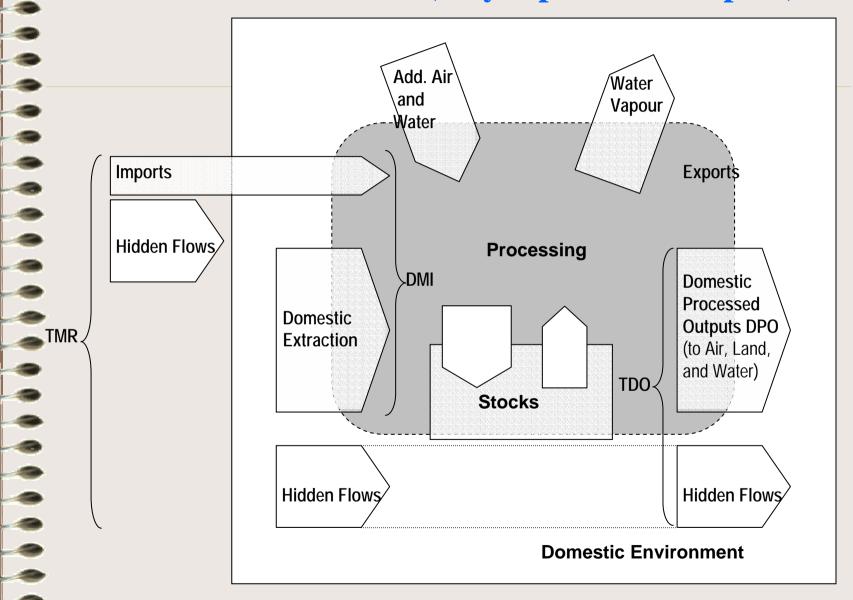
Circular Economy might be far from the best way, however, it's a possible way towards a sustainable future.

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-Main issues about circular economy

- Issue 1: What does the material basis of our economy look like?
- Issue 2: How to make the materials closed?
- Issue 3: What are the side effects of circular economy?
- Issue 4: How to turn those ideas into practice?

#### **Issue 1: the material basis (only inputs and outputs)**



-Main issues about circular economy

• Issue 2: How to close?

Some basic theories of closing the material cycle:

- Eco-efficiency (For enterprises)
- Industrial Ecology (For Industries)
- Waste Resource Utilization (For whole society)

-Main issues about circular economy

• Issue 3: Side effects of circular economy

- Decreasing the diversity (Efficiency is harmful to the diversity)
- Hampering innovation
- Else....

-Main issues about circular economy

- **Issue 4: How to realize?** 
  - Green Purchase...;
- Industries: clean production, industrial ecology, ...
- Citizens: use the products longer, actively participate in the reclaim process;

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## -What are we doing?

We have done some initiative work to establish circular economy, which mainly are:

- Research work
- Laws and regulations
- Demonstration

## -What are we doing?

#### Research work

- Basic theories of circular economy
- Material flow study
- Relevant technologies

## -What are we doing?

Laws and Regulations

- The Law for Clean Production
- The Law for Waste Recycling (under constitution, mainly about the home appliances and used cars)

## -What are we doing?

## **Demonstration Projects:**

- Demonstration province/ city of Circular
  Economy: Liaoning Province and Guiyang
  City;
- about 10 Eco-industrial Parks
- Clean Productions among some enterprises

-What are we doing?

# There remains a long way for us to go ahead.....

## Thanks a lot!

Any recommendation or question is appreciated!