



# Community farming for a sustainable society

Alpha MOS

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심창현



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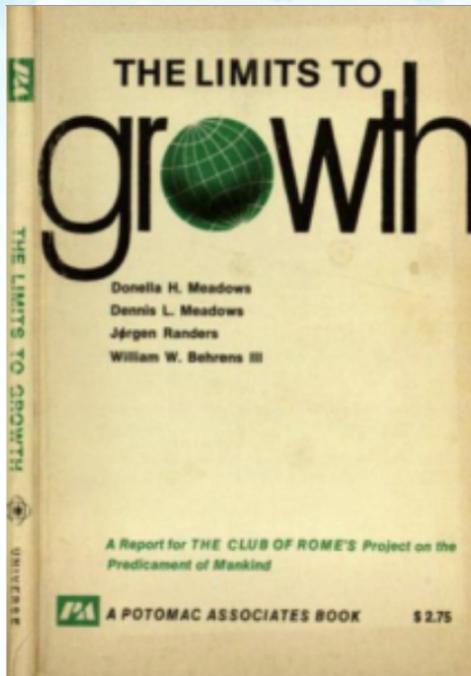
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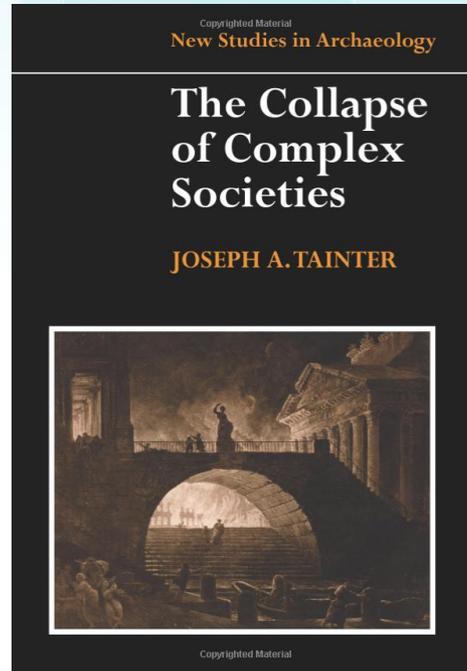
## **3. Challenges**

# Crisis of modern civilization

The collapse of modern civilization has been prospected by various research groups.



Report of Club of Rome ,1972



Joseph Tainter, 1988

Environment  
Earth insight

## Nasa-funded study: industrial civilisation headed for 'irreversible collapse'?

Natural and social scientists develop new model of how 'perfect storm' of crises could unravel global system



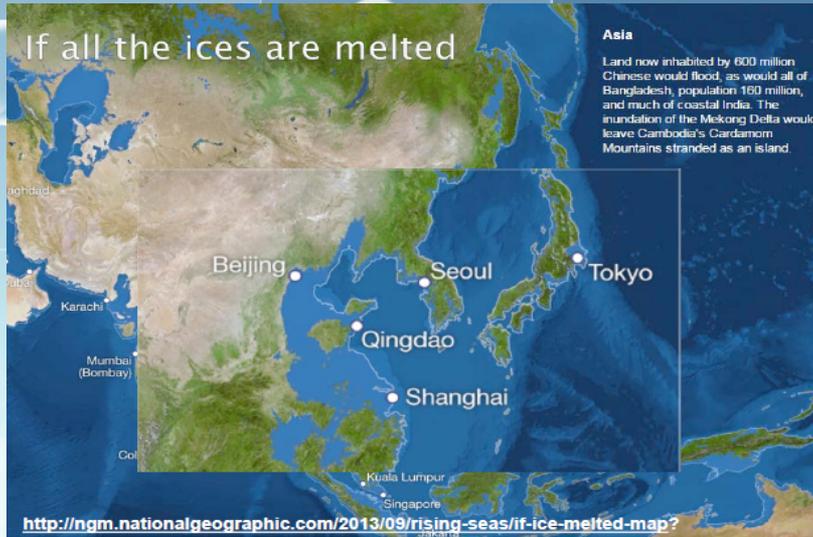
227k 1,673

Nafeez Ahmed

Friday 14 March 2014  
18.28 GMT



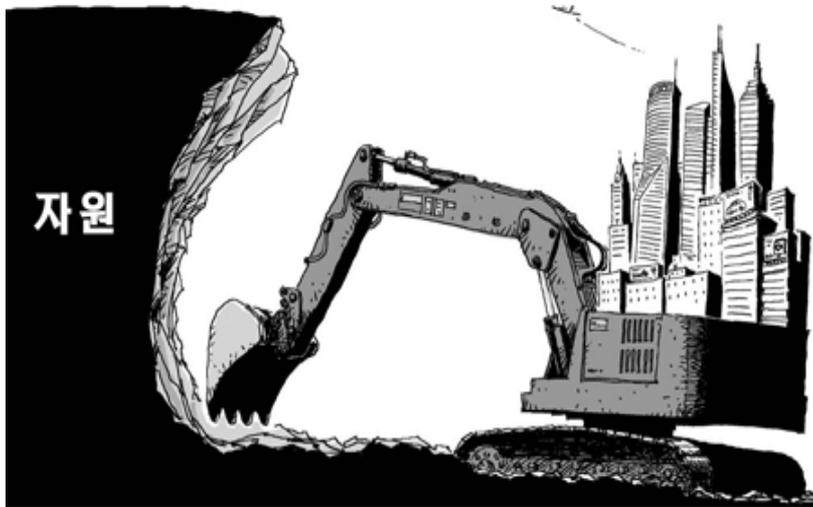
Research sponsored by NASA ,2014



## Climate crisis



## Terrorism



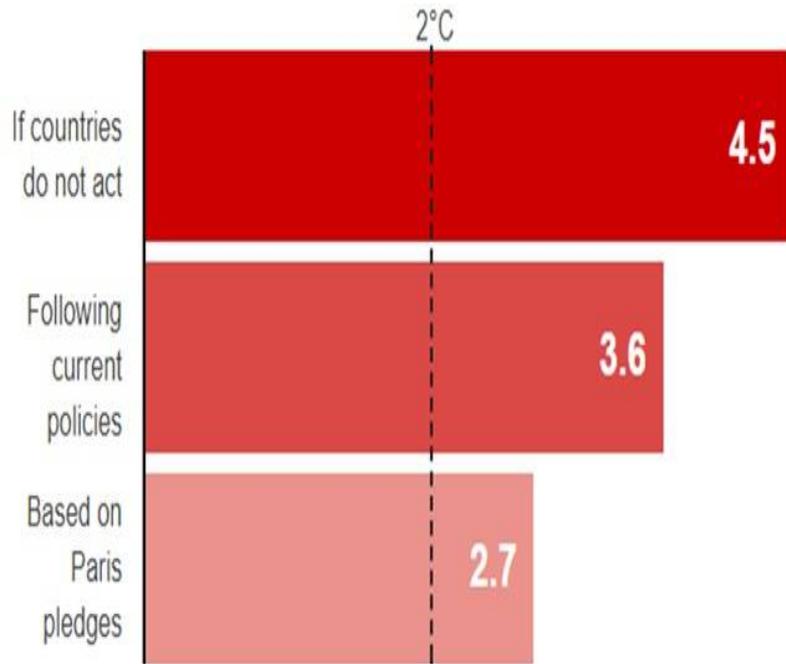
## Depletion of Natural resource



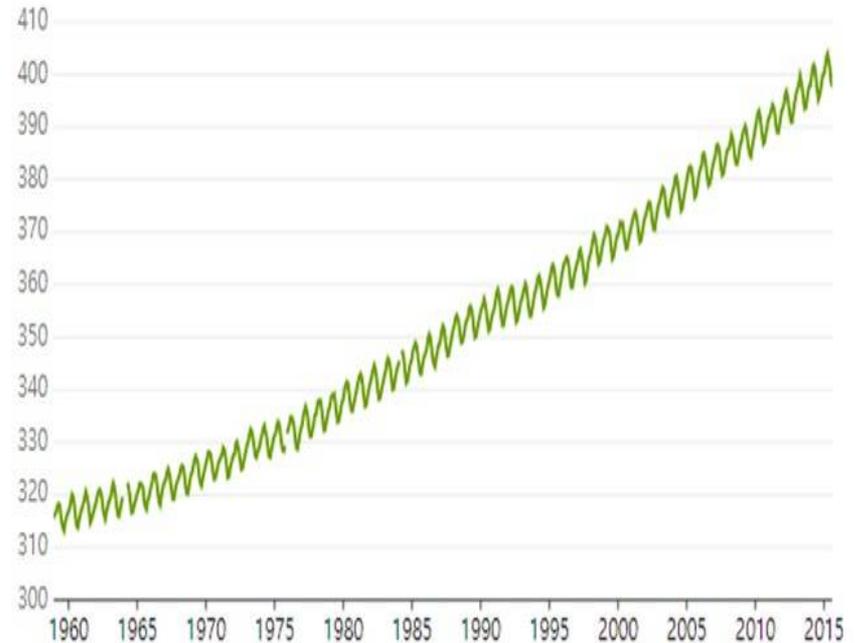
## Economical inequality

# Climate crisis

## Average warming (°C) projected by 2100



## Monthly average CO2 concentration (parts per million)



▲2100년까지 예상되는 평균 온난화(°C). 파리협약을 따른 경우(2.7°C)와 국가들이 향후 아무것도 하지 않는 경우(4.8°C). [출처= Climate Action Tracker, data compiled by Climate Analytics, ECOFYS, New Climate Institute and Potsdam Institute for Climate Impact Research]

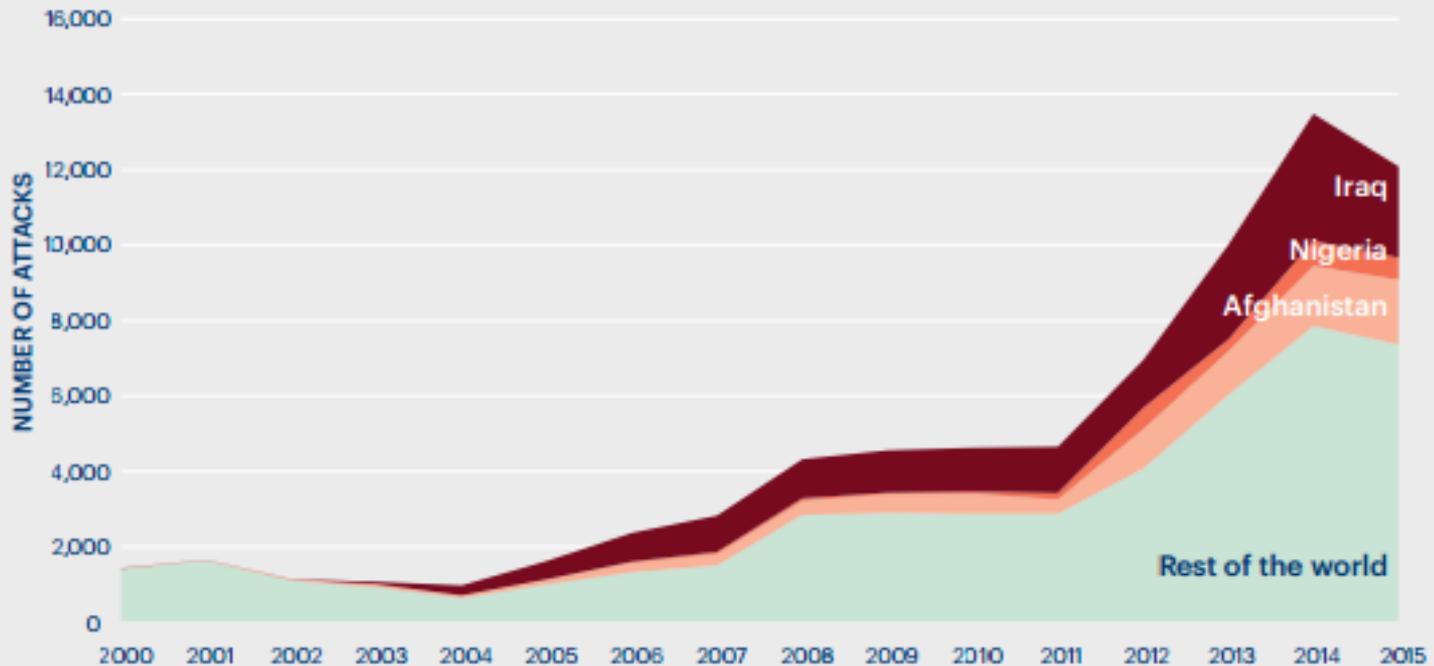
1960~2015년 월 평균 CO2 농도 (백만 분율) [출처=The Mauna Loa Observatory]

*“Love your neighbor as yourself” Luke 10:27*

# Terrorism

**FIGURE 1.6** TERRORIST ATTACKS, 2000-2015

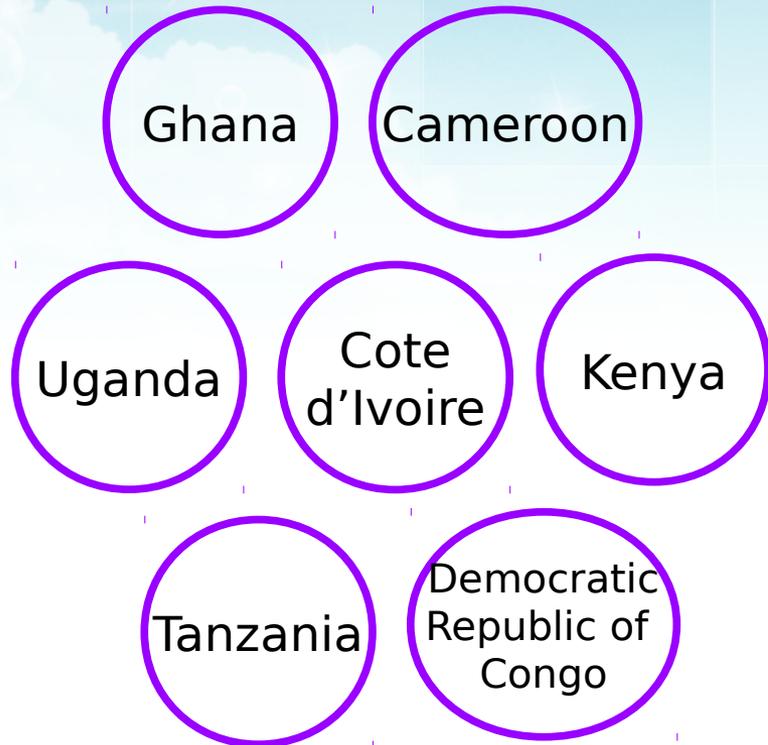
Nearly 40 per cent of terrorist attacks in 2015 occurred in Iraq, Nigeria and Afghanistan.



Source: START GTD, IEP calculations

## Example of economical inequality

Total GDP of 7 countries  
233.9 B\$



Total populations : 260000000

Total sales of Apple  
233.7 B\$



Total labors : 97200

# Find another way-sustainable society

## Sustainable society

### The concept of a sustainable society :

“one that is able to satisfy its needs without diminishing the chance of future generations.”

- Lester Brown, Founder of the Worldwatch institute, 1981

“A sustainable society is one that ensures the health and vitality of human life and culture and nature’s capital, for present and future generations.”

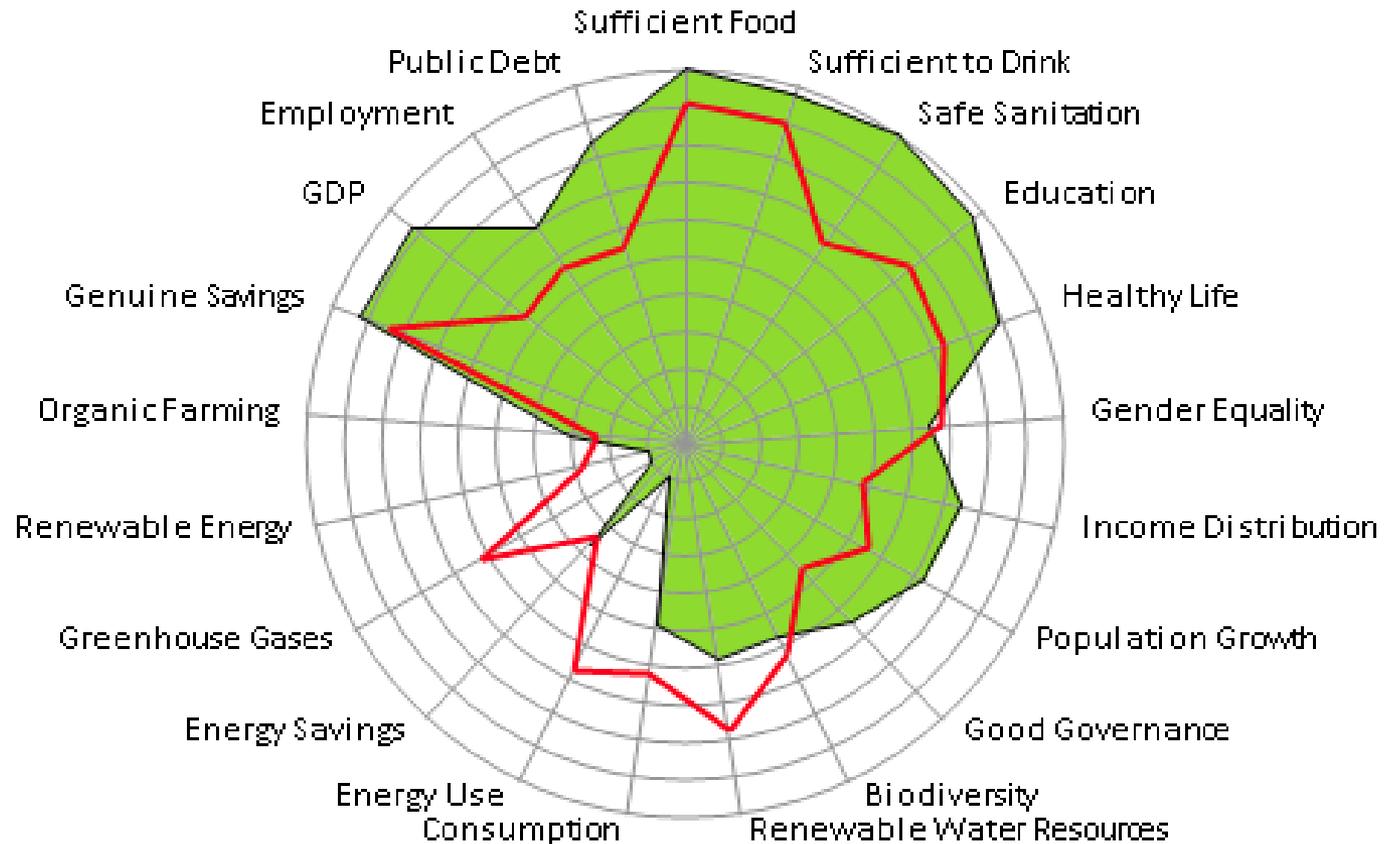
-Stephen Viederman

### **Sustainable society index (SSI)**

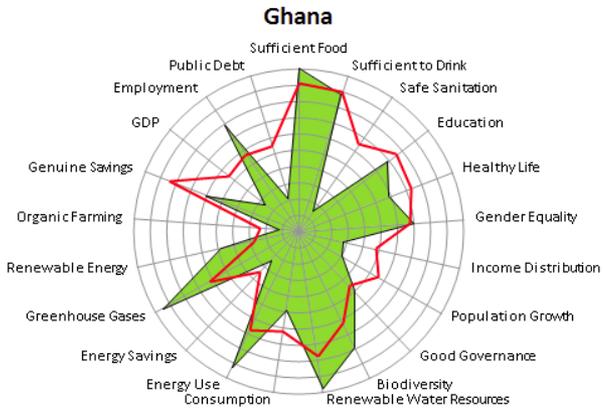
is presented by the Sustainable Society Foundation (SSF, [www.ssfindex.com](http://www.ssfindex.com) ).

**SSI** is calculated **considering Human wellbeing, Environment wellbeing and Economic wellbeing.**

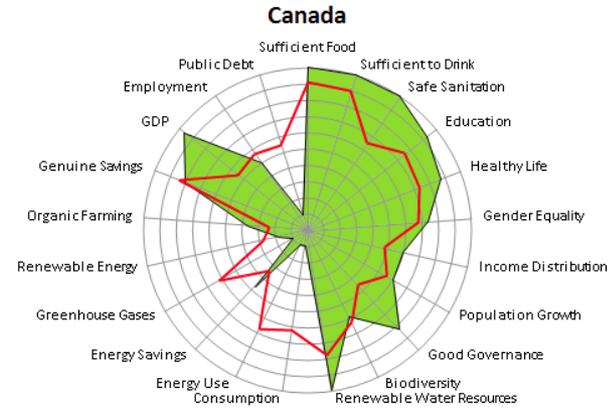
# Korea, South



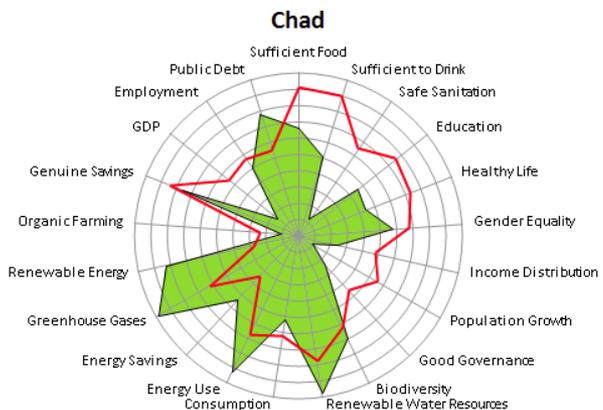
*The spiderweb shows the score of each of the 21 indicators of the country in green, on a scale of 1-10 (10=sustainable, 1=not sustainable). The red line is the weighted average score of all countries.*



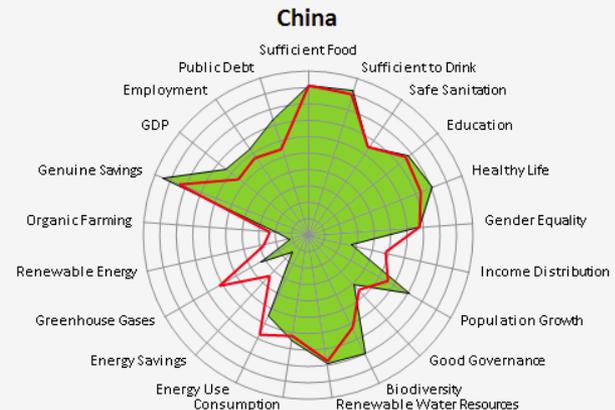
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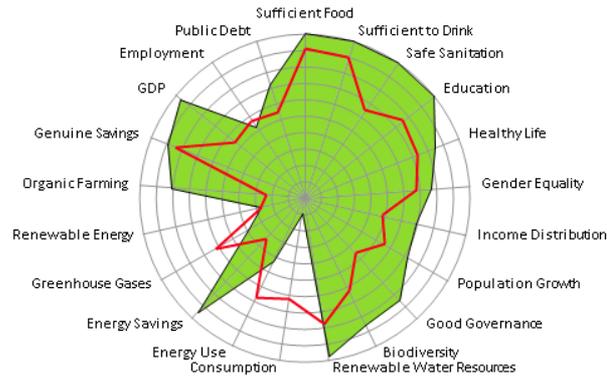


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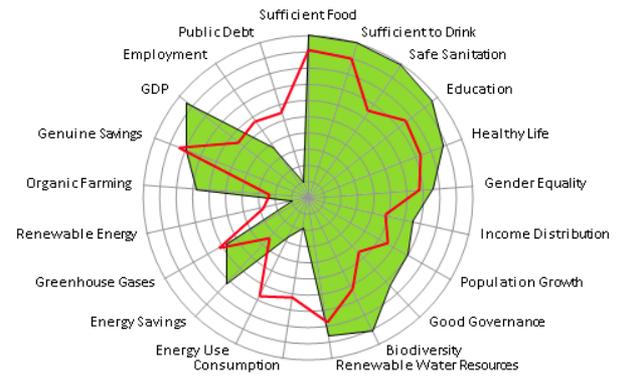
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### Denmark



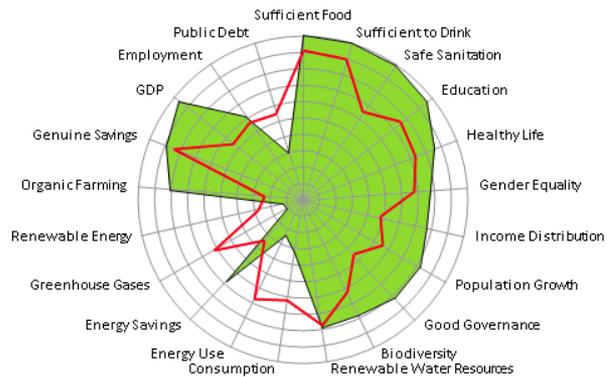
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### France



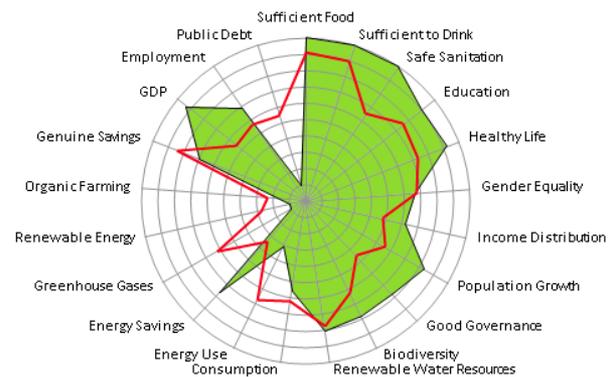
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### Germany

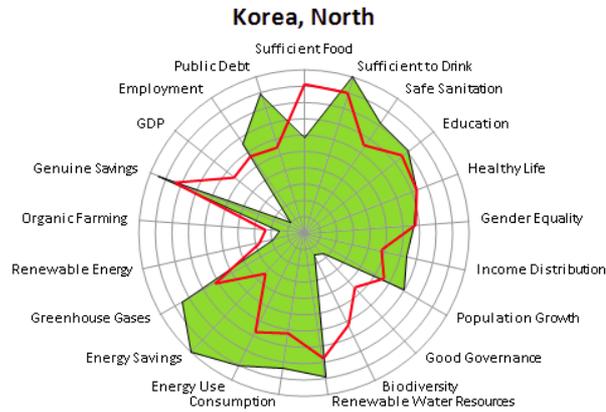


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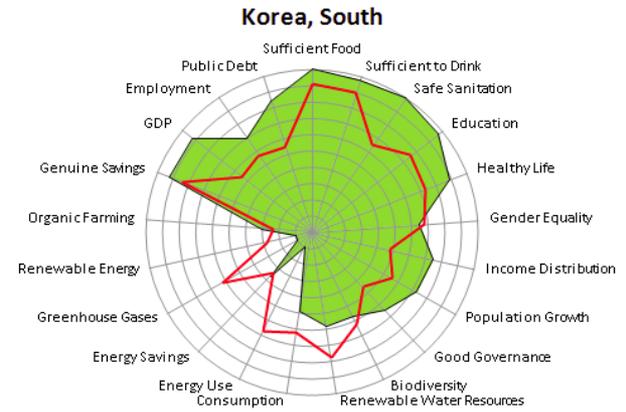
### Japan



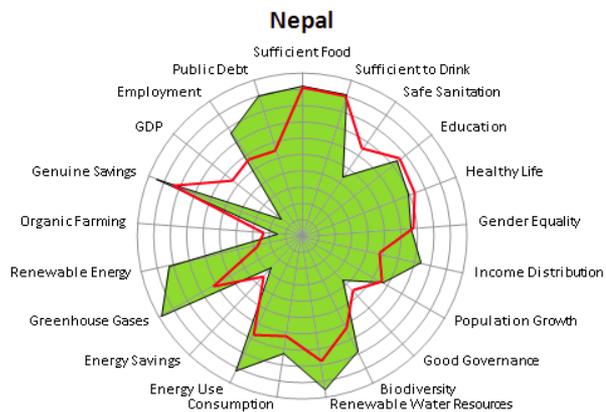
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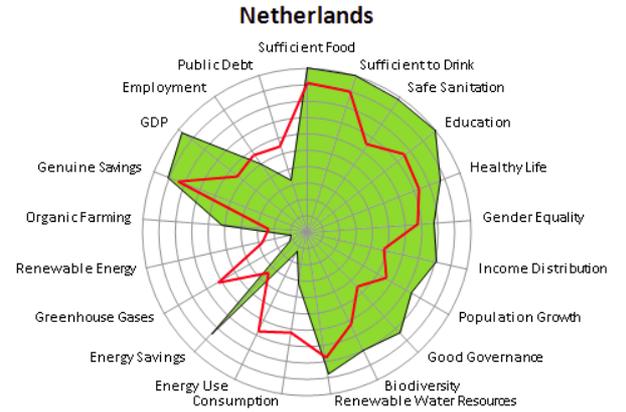
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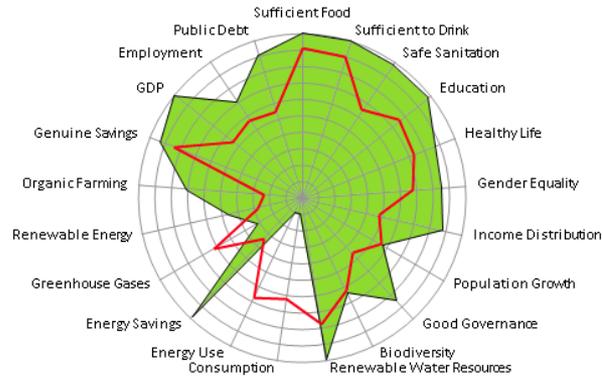


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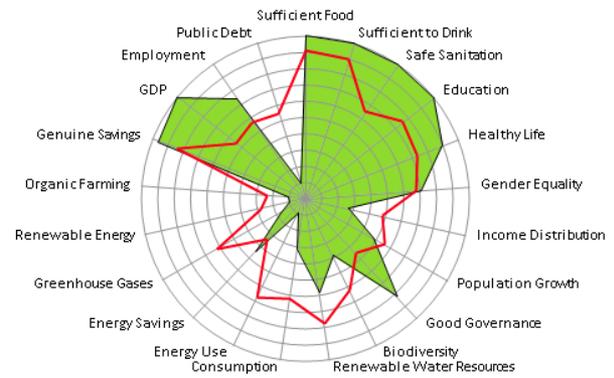
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### Norway



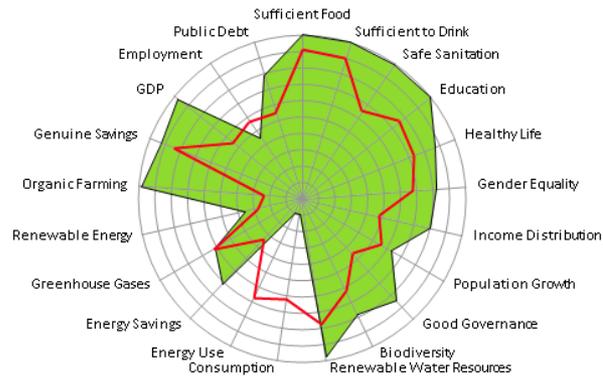
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### Singapore



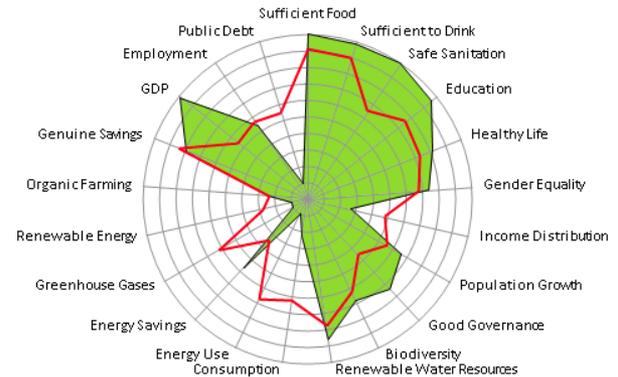
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### Sweden



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### United States



The spiderweb shows the score of each of the 21 indicators of the country in green, on a scale of 1-10 (10=sustainable, 1=not sustainable). The red line is the weighted average score of all countries.

# To realize sustainable society

**STOP**

destroying human life, culture and nature's capital

**CONSERVE**

what exists

**RESTORE**

what has been damaged

**PREVENT**

Future harm

presented by Stephen Viederman

**GO**

together

*All activities mentioned above should be based on a healthy community.*

A healthy community is established by **exchange of labor** among the members.

**Community farming** is a good activity to **exchange labors** each other.

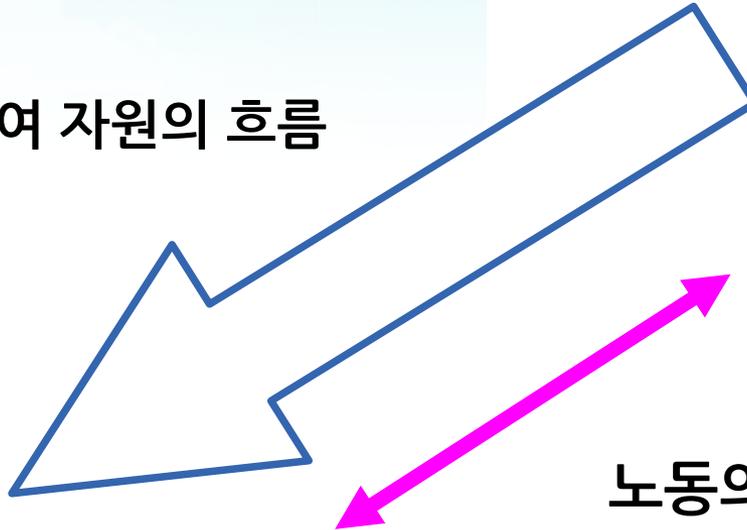
어떻게 건강한 공동체를 만들수 있는가 ?

- 경제적 자립 / 문화적 자립

동등과 존중 에 기초한  
유기적인 관계의 형성과 발전

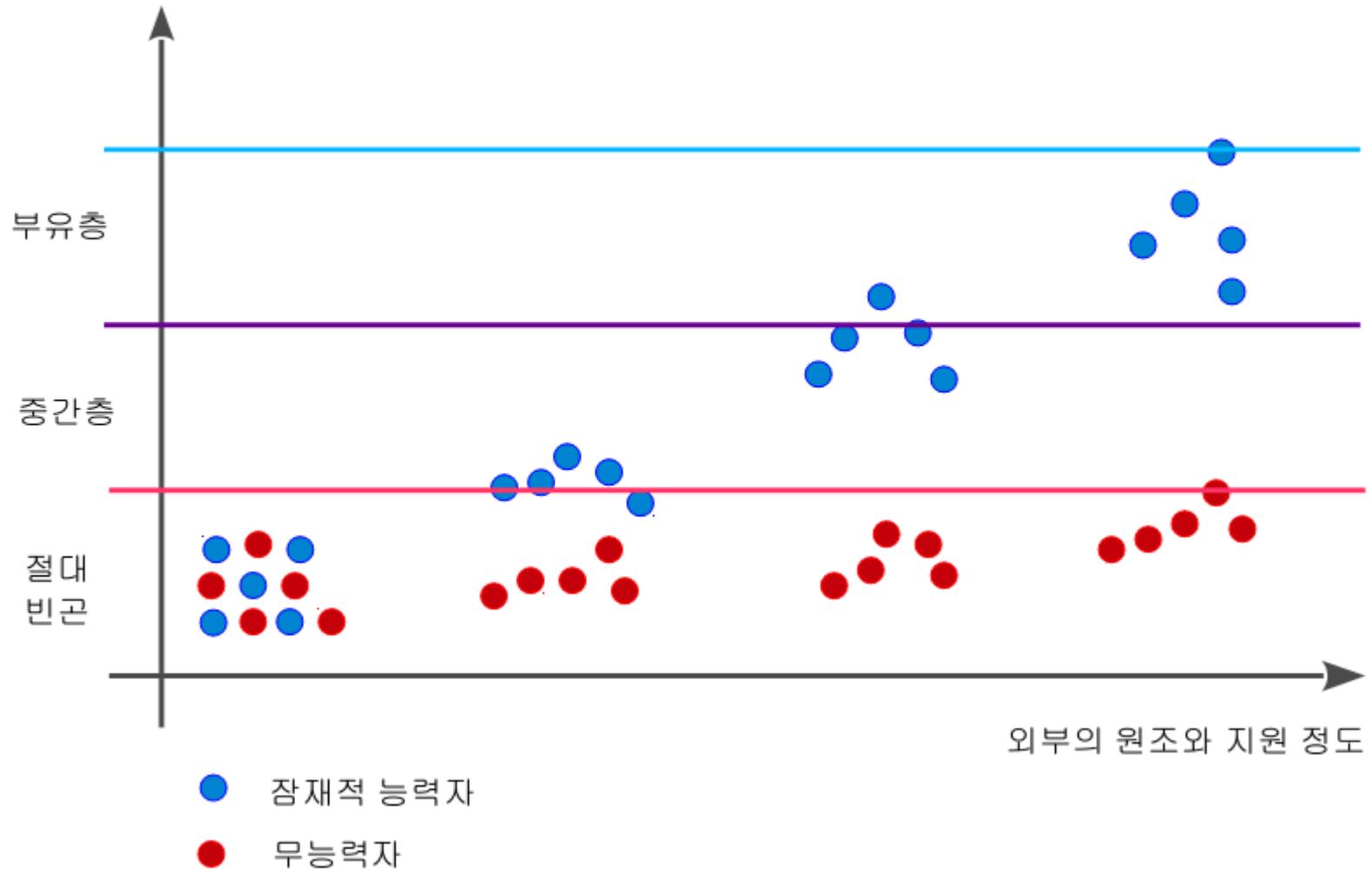


유여 자원의 흐름

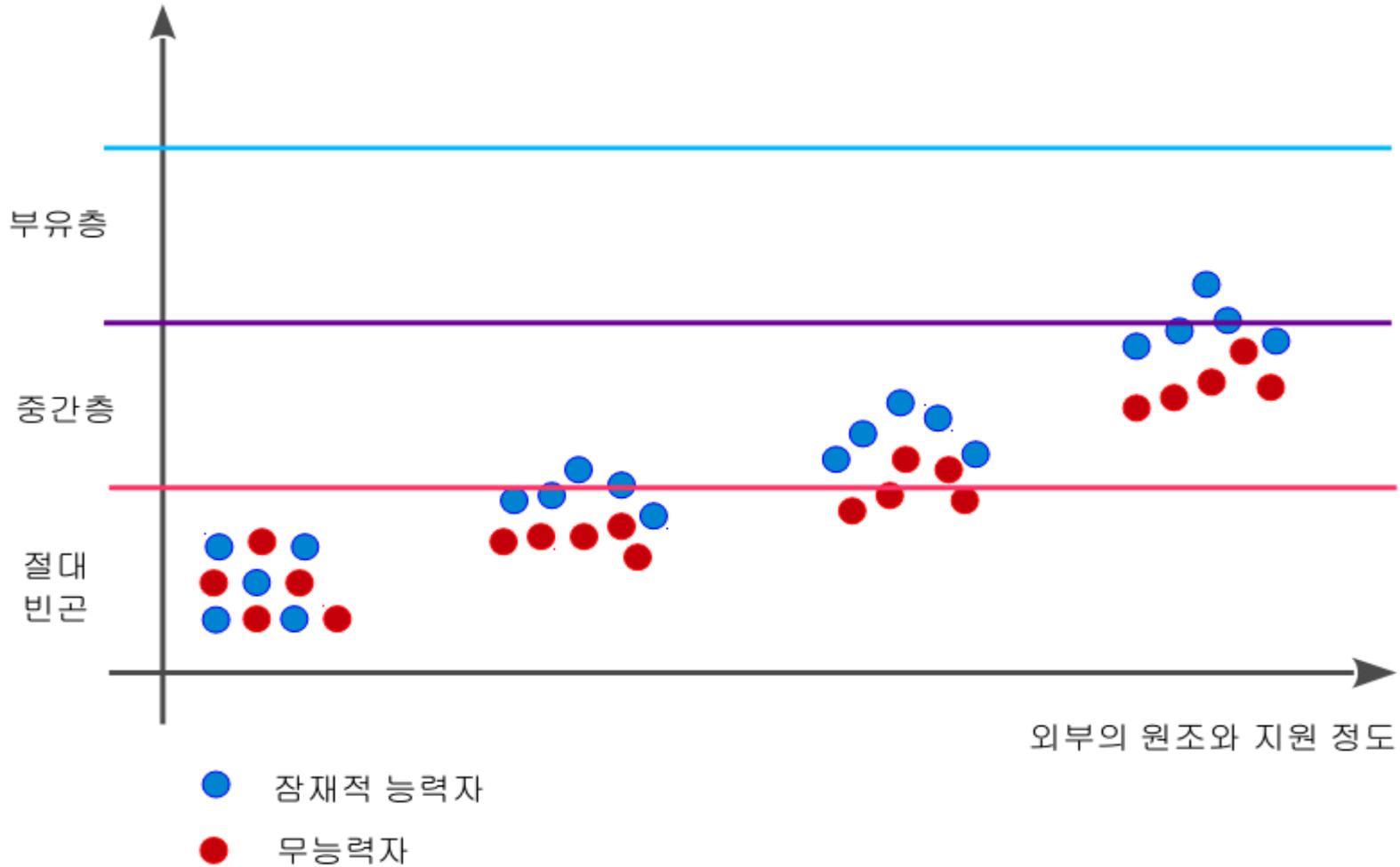


노동의 교환

사회 구성원간 결속력이 약한 집단의 외부 지원에 따른 삶의 질 향상 곡선



사회 구성원간 결속력이 강한 집단의 외부 지원에 따른 삶의 질 향상 곡선



### 1) Agriculture is not only industry

농민은 인류의 생명창고를  
그 손에 잡고 있습니다.

우리나라가 돌연히  
상공업 나라로 변하여  
하루 아침에 농민이  
그 자취를 잃어 버렸다 하더라도

이 변치 못할 생명창고의  
열쇠는 지구상 어느 나라의  
농민이 잡고 있을 것입니다.

윤봉길 의사의 [농민독본] 중의 일부



# 1) Agriculture is not only industry

**Agriculture, farming, has been directly associated with the production of essential food crops.**

But, at present, agriculture above and beyond farming includes forestry, dairy, fruit cultivation, poultry, bee keeping, mushroom, arbitrary, etc. Today, processing, marketing, and distribution of crops and livestock products etc. are all acknowledged as part of current agriculture. Thus, agriculture could be referred to as the production, processing, promotion and distribution agricultural products.



# 1) Farming is not only industry

Farming is directly connected to human being's survival, for lack of industrial products makes us inconvenient but lack of foods makes us not survival.

But, recently, farming has been one of industry and has been controlled under economics.

## Crisis of biodiversity



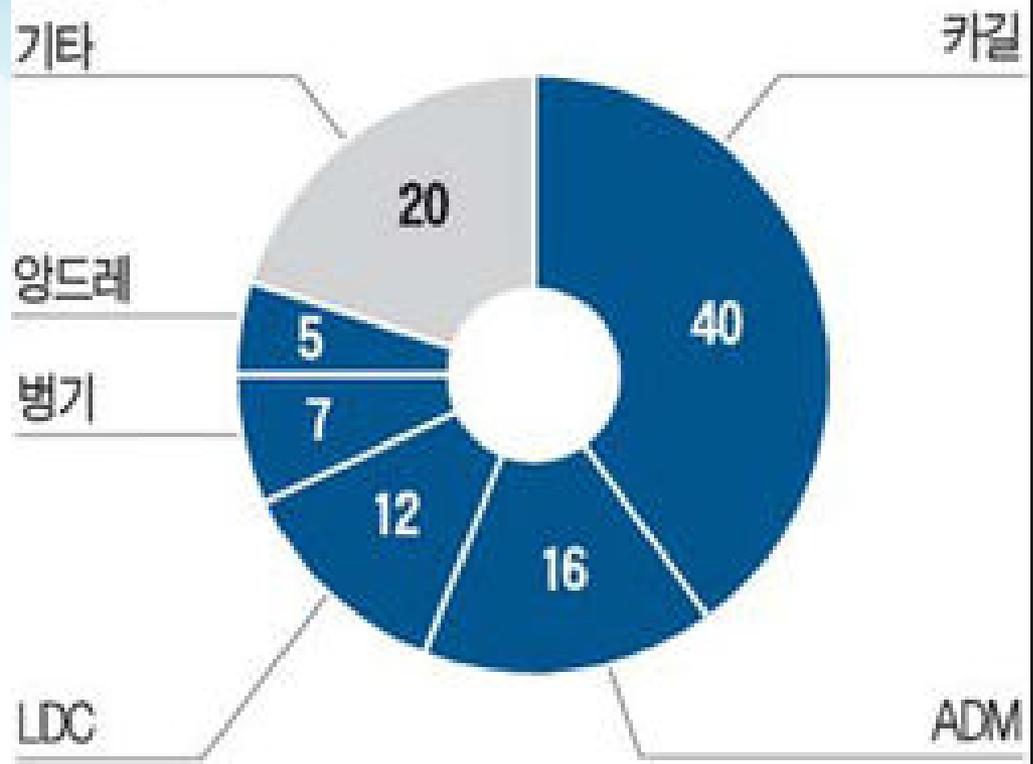
**Great Famine (Ireland)**



KBS스페셜 <종자, 세계를 지배하다>를 만든 사람들에 의해 만들어졌다

# 세계시장 80%를 장악한 5大 곡물메이저

(단위:%)

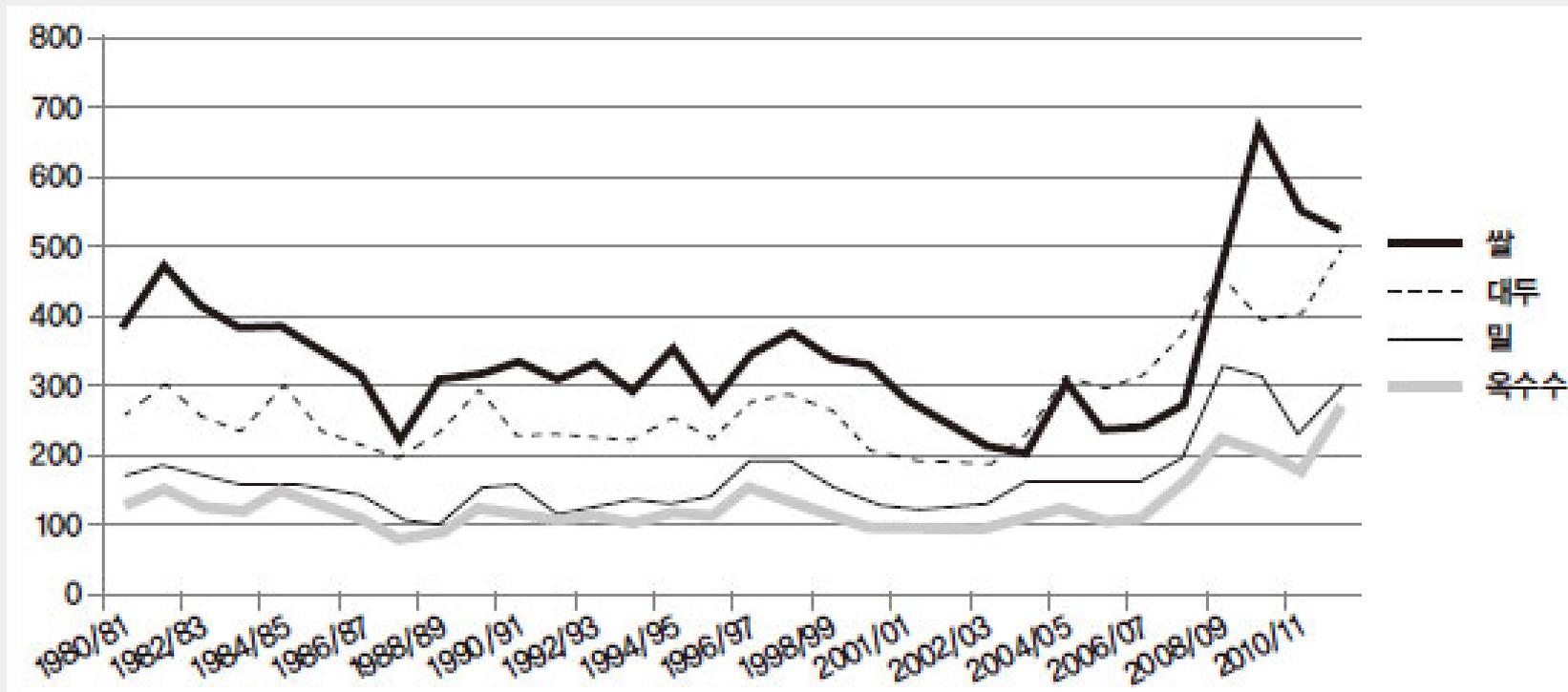


※2009년 기준

자료:한국농촌경제연구원(KREI)

# 연도별 곡물가격 변동추이(1980~2011)

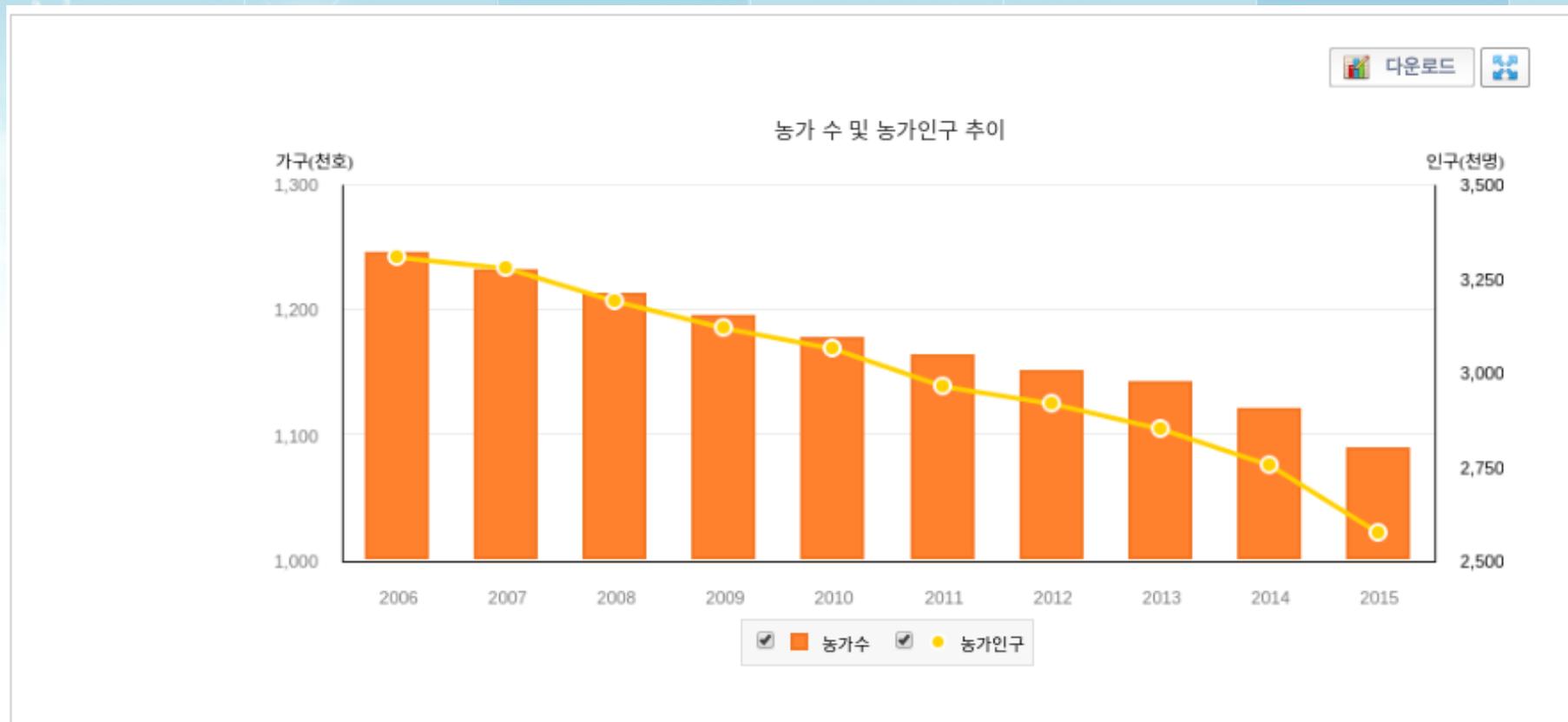
단위 : 달러/톤



\*자료 : USDA, Foreign Agricultural Service \*제공 : 서울대학교 산학협력단

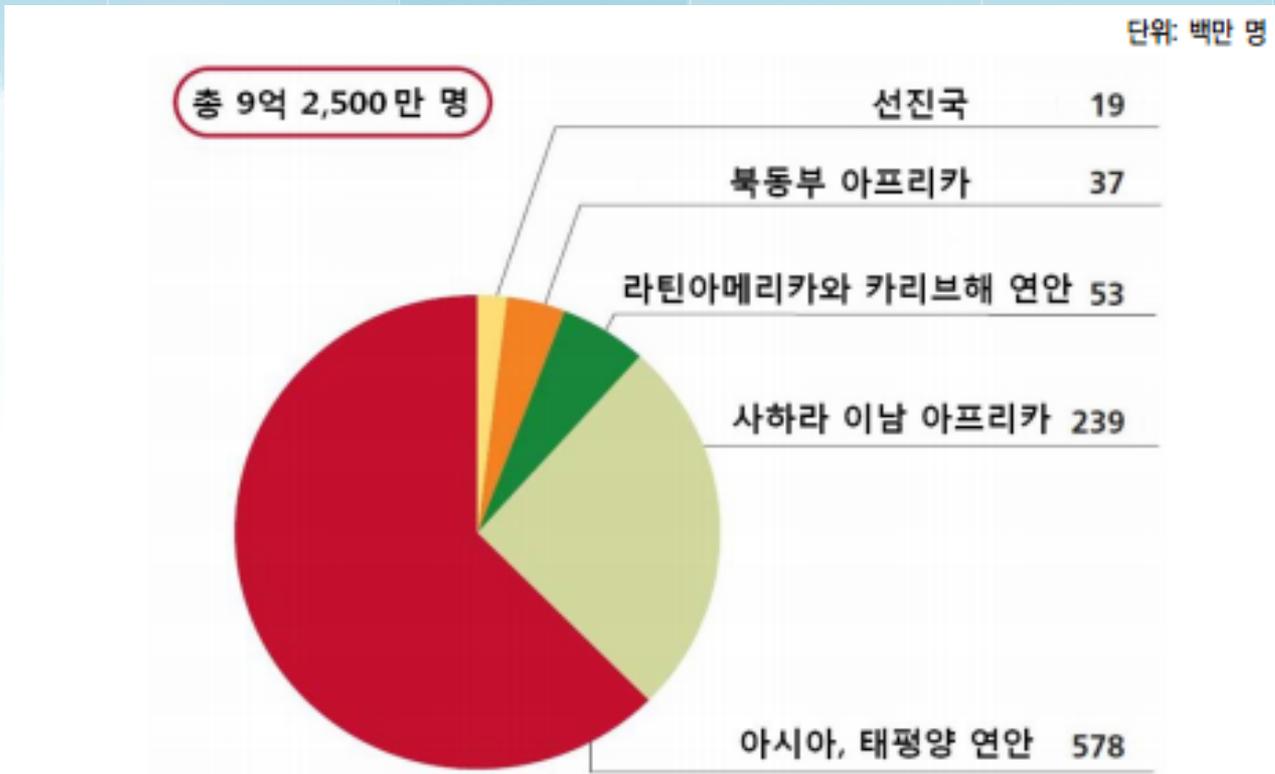
# 1) Farming is not only industry

## Population in agriculture in Korea



출처 : 통계청 「농업조사」, 「농업총조사」( '00년 '05년 '10년 '15년)

# Population in agriculture in the world ,2010



자료: [www.fao.org/hunger](http://www.fao.org/hunger).

## Population Growth and Distribution

### World Population Growth,

Population (in billions)

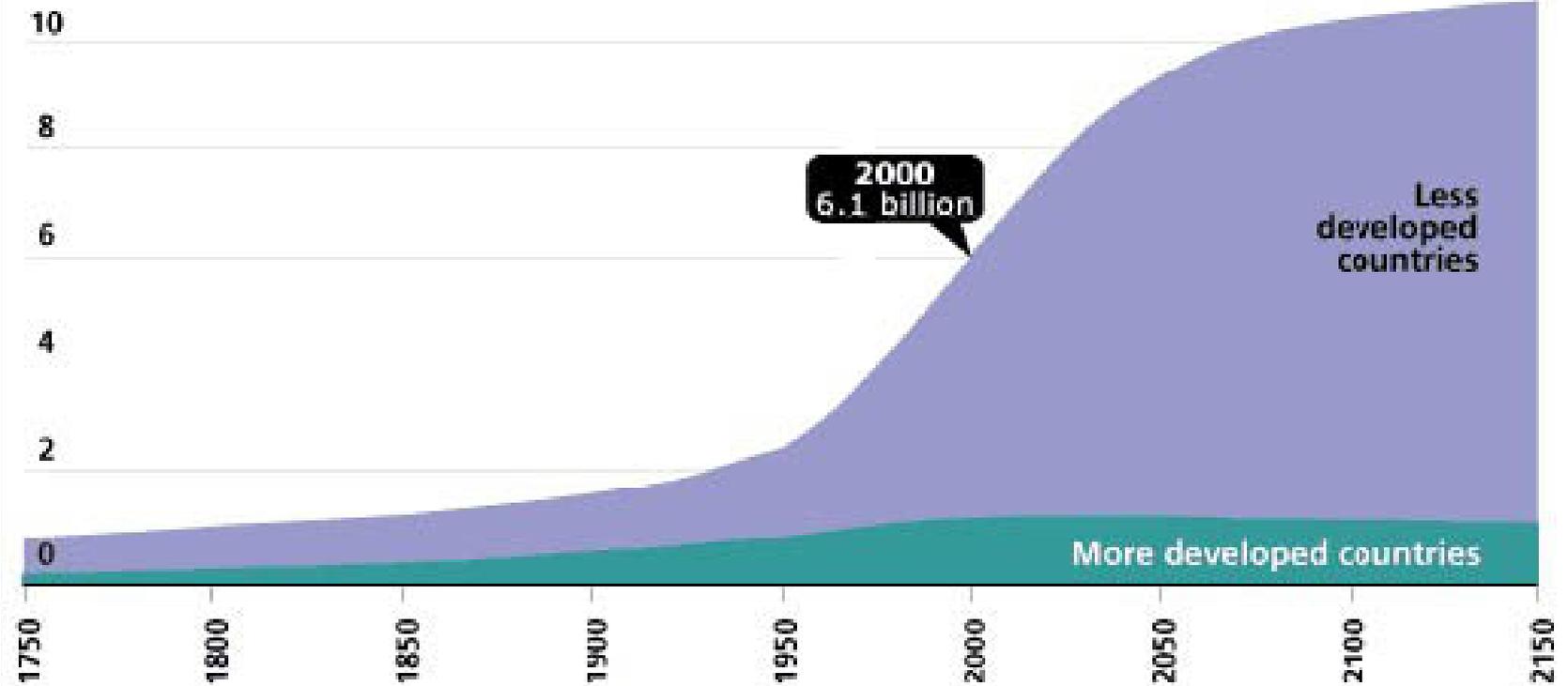
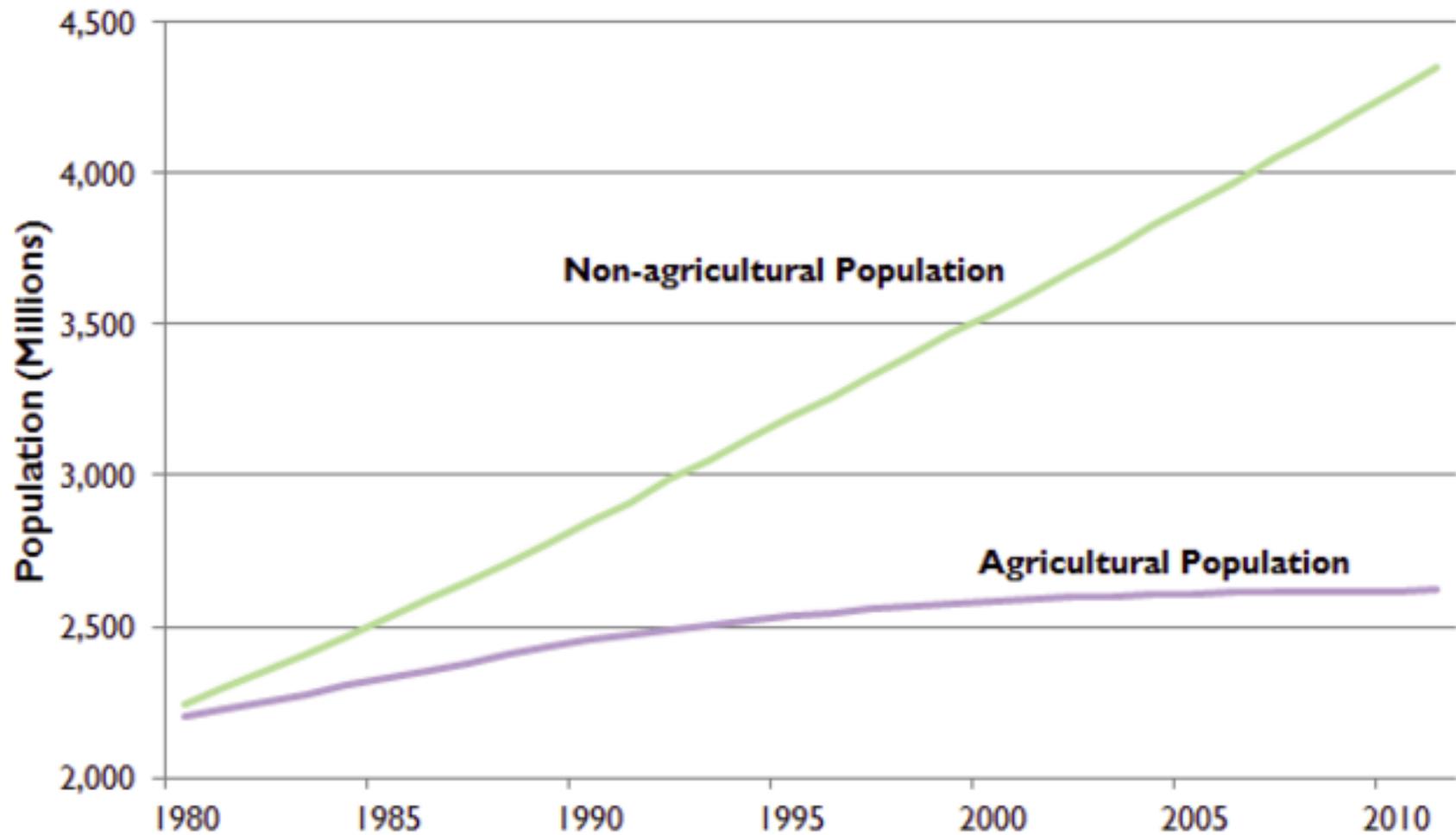


Figure 1. | **Global Agricultural Population, 1980-2011**



## **2) Various Farming Models**

**Family farming**

**Enterprise farming**

**Urban farming**

**Community supported farming**

**Smart farming**

**Plant factory farming**

**Community farming**

## 2) Modern Farming

### Family farming

A family farm is generally understood to be a farm owned and/or operated by a family it is sometimes considered to be an estate passed down by inheritance. It contrasts with farms operated as collectives, trusts or non-family corporations.

At least 500 million of the world's [estimated] 570 million farms are managed by families, making family farms predominant in global agriculture.

-by Wikipedia

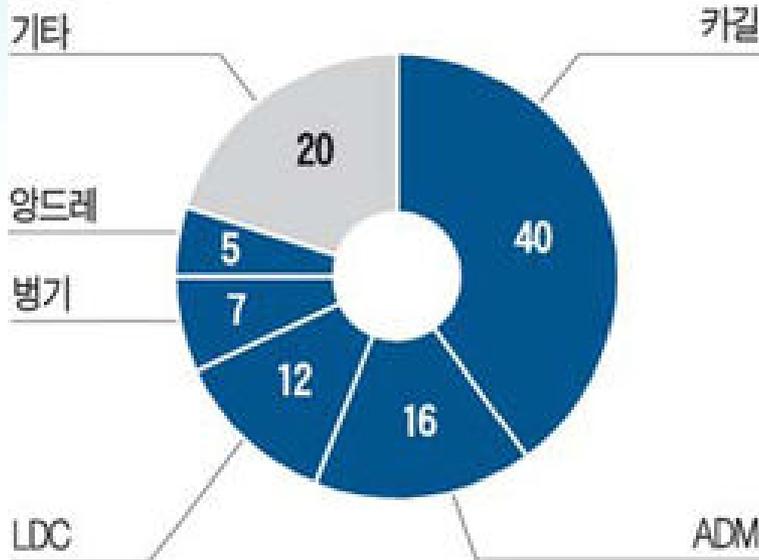


# Enterprise farming

4 major enterprise : Cargill, ADM(Archer Daniels Midland), LDC(Louis Dreyfus), Bunge

세계시장 80%를 장악한 5大 곡물메이저

(단위:%)



※2009년 기준

자료:한국농촌경제연구원(KREI)



# Urban farming

Urban agriculture, urban farming, or urban gardening is the practice of cultivating, processing, and distributing food in or around a village, town, or city.



# Community supported farming

Community-supported agriculture, commonly referred to as a CSA model, is a system that connects the producer and consumers within the food system more closely by allowing the consumer to subscribe to the harvest of a certain farm or group of farms. It is an alternative, socioeconomic model of agriculture and food distribution that allows the producer and consumer to share the risks of farming.

- Wikipedia



# Smart farming

Smart Farming uses modern Information and Communication Technologies (ICT) to maximize the efficiency into agriculture.



# Plant factory farming

A plant factory is a closed growing system which enables a farmer (agrotechnician) to achieve constant production of vegetables all year around. The facility utilizes artificial control of light, temperature, moisture, and carbon dioxide concentrations.

- Wikipedia



### 3) What is community farming ?

#### Definition in this article

The community farming mentioned here cultivates individual farmland in a same area through exchange of labor and sharing agricultural machinery. It does not mean co-production and a same share-out of products like a collective farming of communism.



# community farming

## Goals / Expectations

- To establish a healthy community through exchange of labor
- To produce grain and vegetable for self-sufficient through the community farming
- To ensure biodiversity through a lot of community farm
- To conserve cropland for future generation through organic farming

*A key of sustainable society is an individual who was awakened for the crisis of modern civilization, and the individual come from a healthy community.*

## ***Ex) Kibbutz***

**A Kibbutz is a collective community in Israel that was traditionally based on agriculture. The first kibbutz, established in 1909, was Degania. In 2010, there were 270 kibbutzim in Israel. Their factories and farms account for 9% of Israel's industrial output, worth US\$8 billion, and 40% of its agricultural output, worth over \$1.7 billion. They represent about 2.8 percent of Israel's population.**



## Ex) Regen Village

### The 'Tesla of eco-villages' is developing off-grid villages that grow their own food and generate their own power

Dana Varinsky 28 Sep 2016, 15:47 Tech Insider 76,433



FACEBOOK



TWITTER



LINKEDIN



GOOGLE+



EMAIL



ReGen Villages

**Typology :** Master plan,  
Residential, agriculture

**Location :** Almere,  
The Netherlands

**Year :** 2016

**Status :** Ongoing

**Size :** 15,500 m<sup>2</sup>

# Open Village



Project : Open Village  
Area : Toulouse, France  
Start : 2017. 2  
Status : Sharing initial idea



# To practice our farming



## Crop from our vegetable garden in 2017

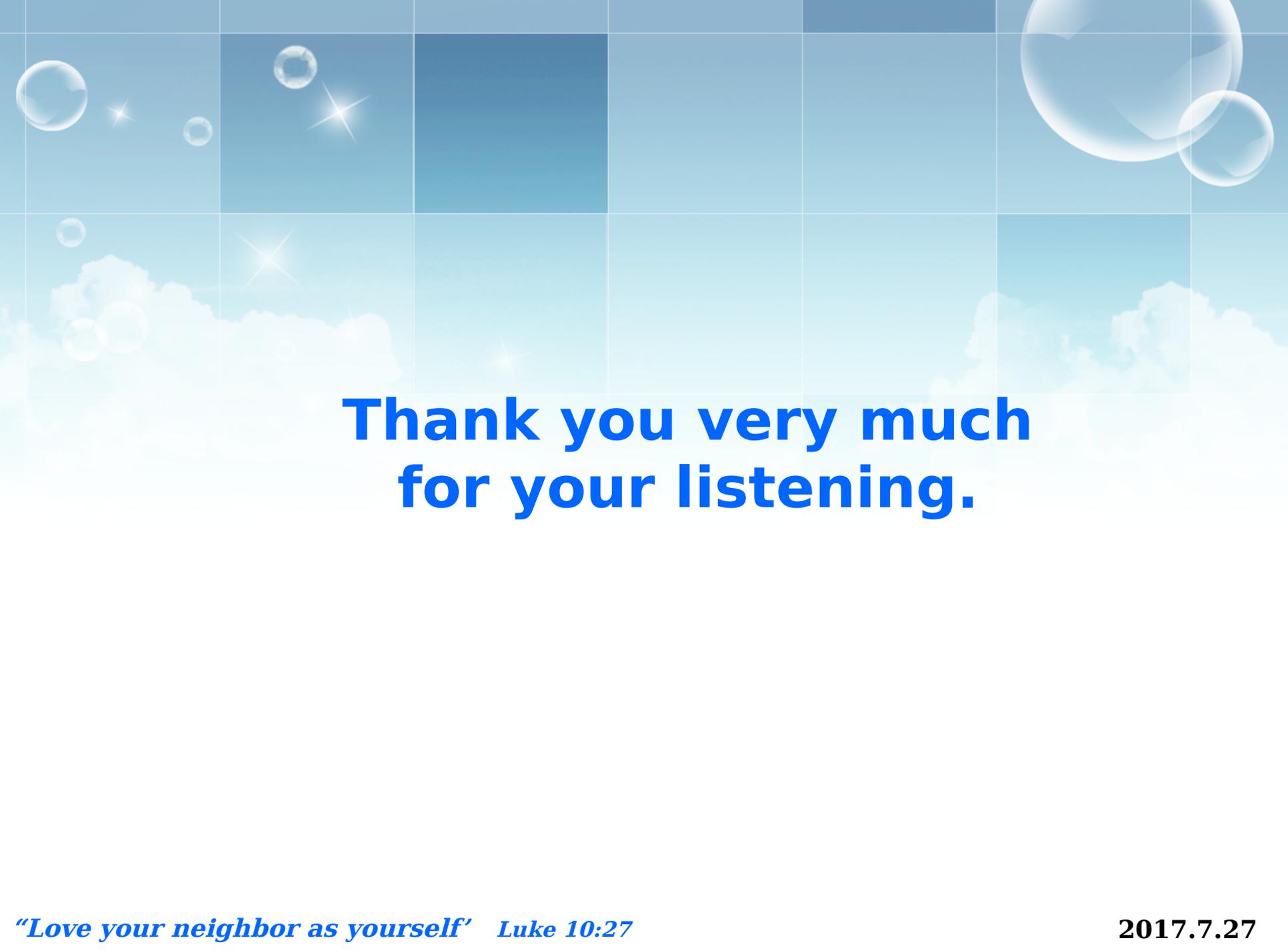
<b>Fruit /vegetable</b>	<b>Output</b>
Cherry tomato	800
Tomato	70
Apple	6
Cherry	8
Leaf of sesame	500
Bean	1 kg
Pumpkin	10
Cucumber	1
Blue berry	10
Pepper	10
Strawberry	500 g

# FBCC , Fourquevaux Biblical Community Church



### **3. Challenges**

- 1) Share an idea of community farming to your friends and neighbors**
- 2) Prepare your own vegetable garden.**
- 3) Invite your friends and neighbors to your vegetable garden.**
- 4) Make a community to farm together.**
- 5) Enlarge the vegetable garden for more crops.**



**Thank you very much  
for your listening.**