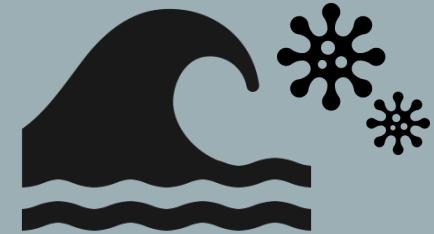




# Civilization and Natural Disasters



What Made COVID-19 Become a Disaster



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# COVID-19 Defined From the Perspective of Civilization



1. What Actually Is a “Disaster”
  - The Definition of Disaster
  - Are Epidemics “Disasters”?
  - COVID-19 as a “Disaster”
  
2. Appearance and Disappearance of “Disaster”
  - Appearance and Disappearance of “Disaster”
  - Epidemics as a Past “Disaster”
  - Epidemics as a New “Disaster”
  
3. Civilization and Natural Disaster
  - What Civilization Actually Is
  - Civilization and COVID-19
  
4. Conclusion



# Civilization and Natural Disasters

## ~What Made COVID-19 Become a Disaster~

### Abstract

In modern society, humans have overcome several disasters, such as famine during their history. Civilizations which were generated by starting cultivating and cattle-farming in ancient times brought about disasters such as infectious diseases as well (Diamond, 2012). "Disasters" involve phenomena that diminishes humans' function of creations, by natural or human-made factors. In the 1960s, the menace of infectious disease was defined as negligible. However, COVID-19 has caused one of the most significant damages among humans' records of disasters. Diseases themselves appear all over the world, but what made COVID-19 become such a catastrophe? Our research goes through the relation between its causative factors, and the structure of civilization's massive network where livings and non-livings move interactively. The system "civilization" which eliminated famine, brought us the outbreaks of the infectious diseases. We date the origin of this contradiction to the philosophy that formed the modern society. Also, the fact that circumstances where this system does not function brings great confusion to humans, was revealed when the Great East Japan Earthquake occurred. This is attributed to our dependence on infrastructure which connects others on a network, expanding network by division of labor (Ridley, 2013).

Since many problems came to light, we have been continuing our research on civilization in association with natural disasters.

*Key Words :*            *Cultivation, Farming, Disease, Disaster, Civilization, COVID-19*



# 1. What Actually Is a “Disaster”?





## “Civilization and Natural Disasters” Research

- Research started since the **Great East Japan Earthquake** (or, 3.11) occurred → Civilization and Natural Disasters

Hypothesis: The pause of daily life can happen by the **severance of the network of civilization.**





# 1. What Actually Is a "Disaster"?

## Definition of "Disasters"



"Phenomena of humans and their creation are harmed by natural or human-made factors."

SATO *et al*, 1964



# 1. What Actually Is a “Disaster”?

## Definition of “Disasters”



“Experiencing the cease of function itself is not a disaster, but **when it harms human’s life** , it becomes a disaster.”

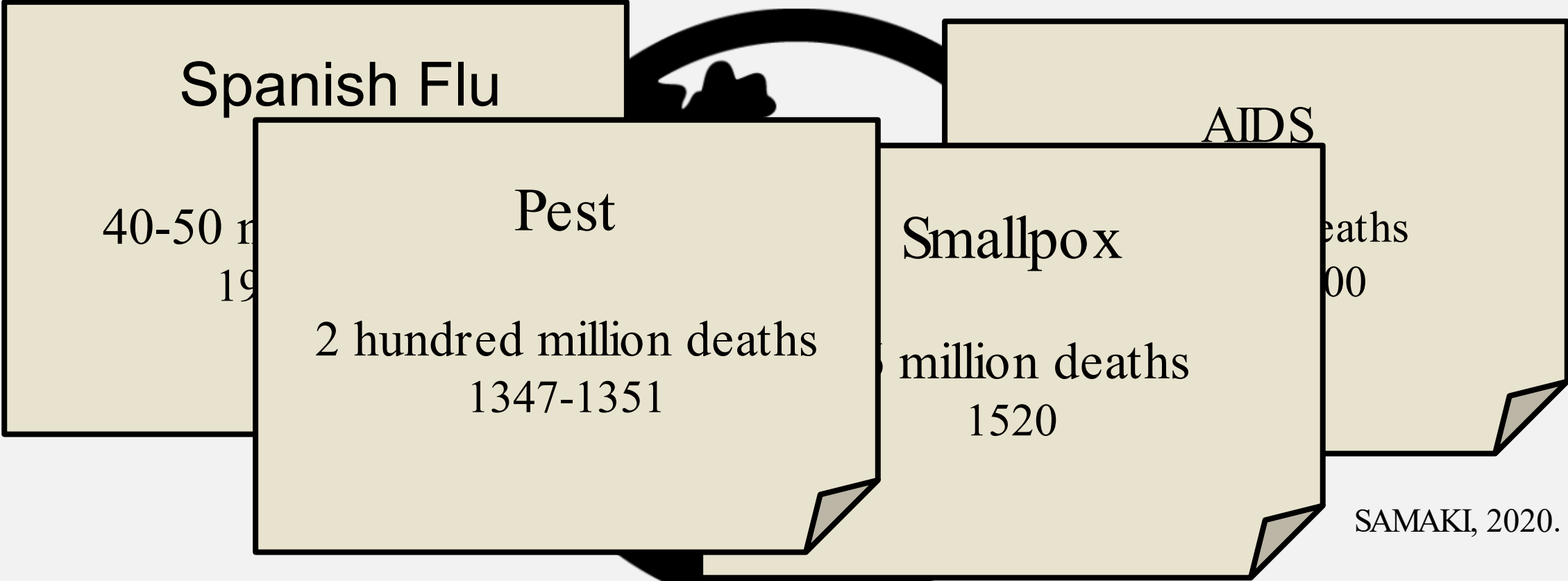
SATO *et al.*, 1964



# 1. What Actually Is a “Disaster”?



Are Epidemics “Disasters”?



SAMAKI, 2020.



# 1. What Actually Is a “Disaster”?

## COVID-19 as a “Disaster”

- Epidemics as “Disasters” were said to have been **overcome** .
- *However* ... COVID-19 is clearly a “disaster”.



Lockdowns



Disappearing face masks

# 1. What Actually Is a "Disaster"?

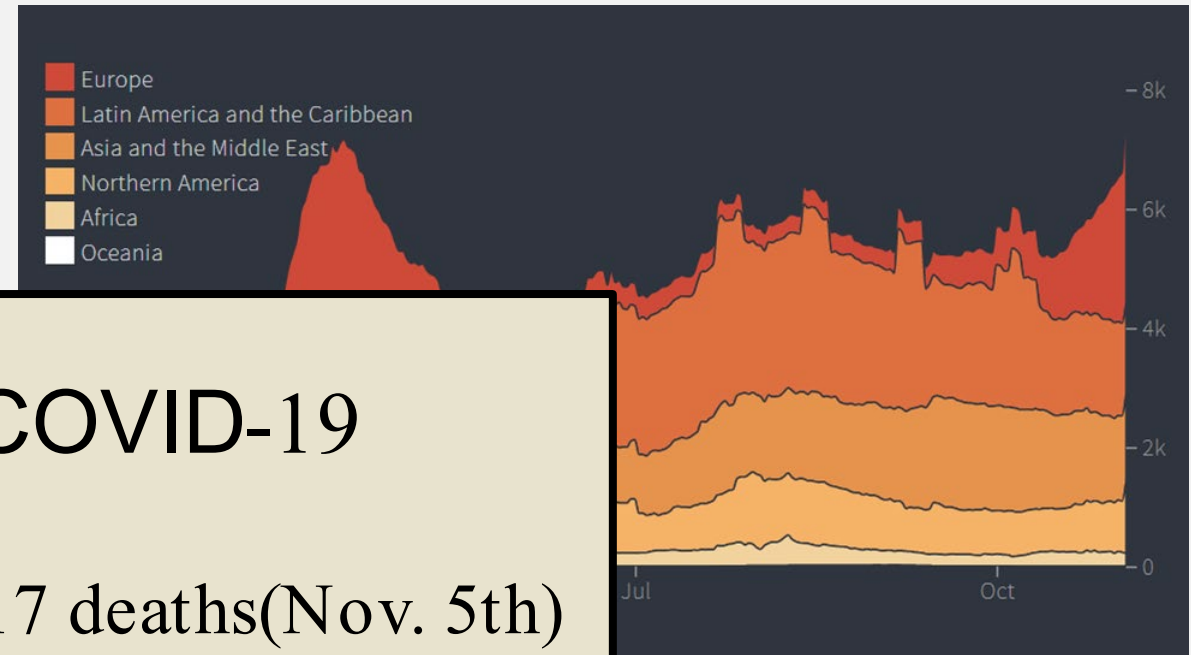


COVID-19 as a "Disaster"

Deaths due to COVID-19

COVID-19

1,224,717 deaths (Nov. 5th)  
2019-

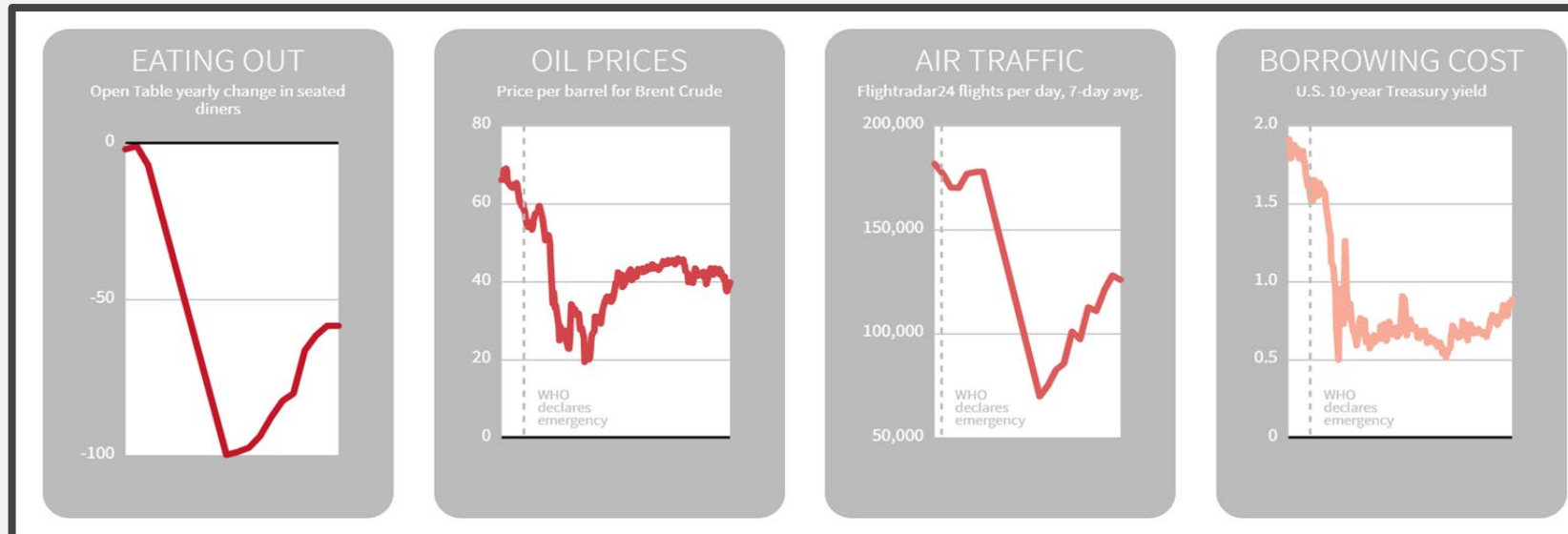
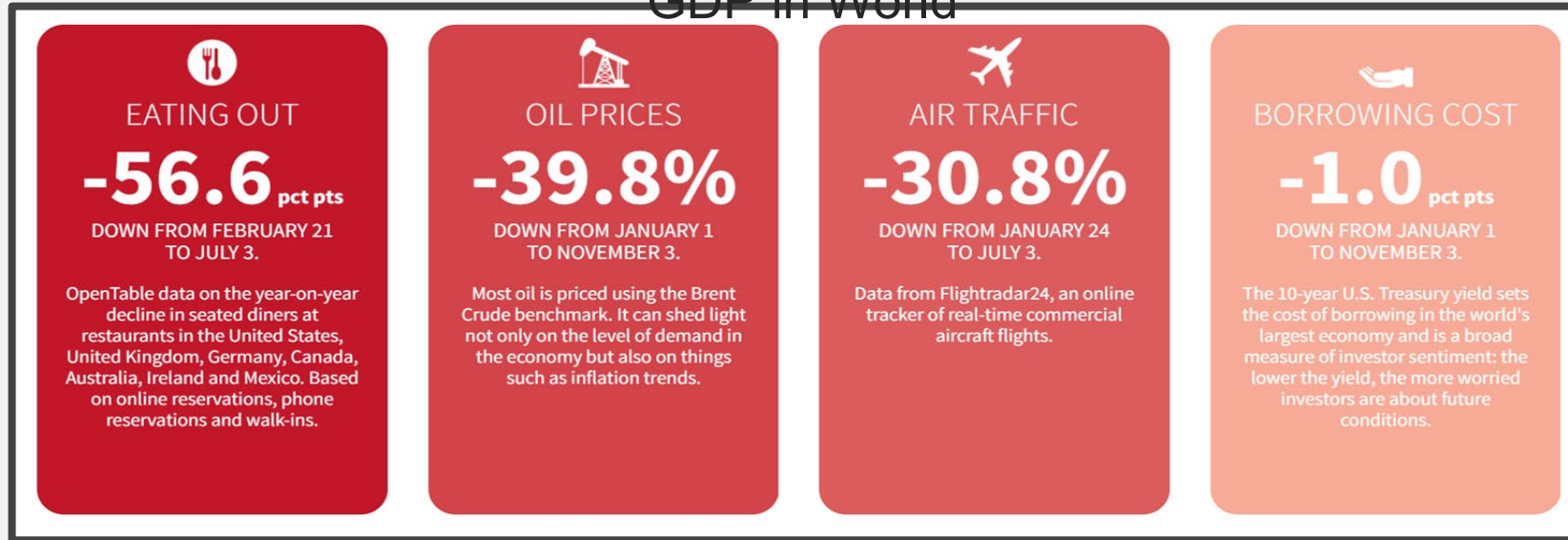


Reuters, 2020



# 1. What Actually Is a “Disaster”?

## GDP in World





## 2. Appearance/Disappearance of "Disaster"

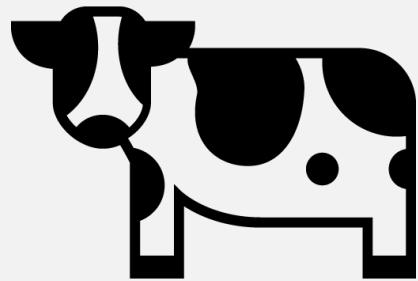




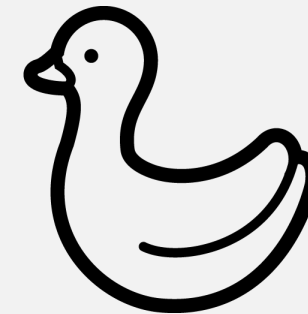
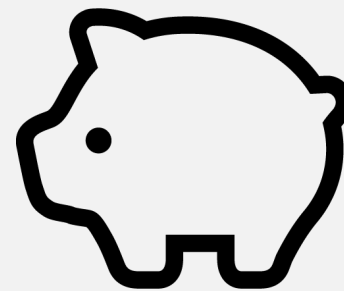
## 2. Appearance/Disappearance of “Disaster”

### Appearance/Disappearance of “Disaster”

"The lethal gift of livestock" -Diamond,1997



Measles/Tuberculosis/Smallpox



Influenza

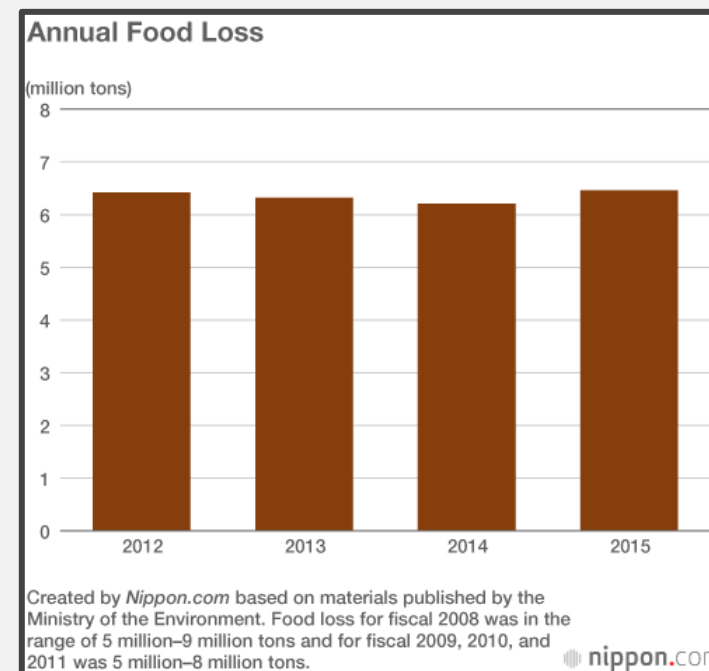
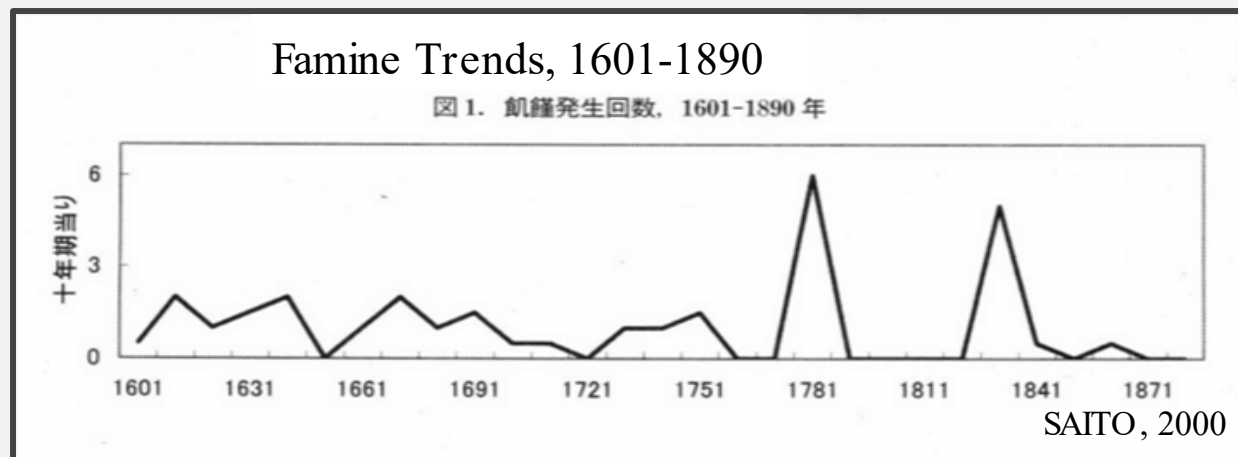


## 2. Appearance/Disappearance of “Disaster”

### “Disaster” That Has Been Overcome

#### Famines

- Overcome by food delivery from other countries/regions ⇨ Enabled because of civilization

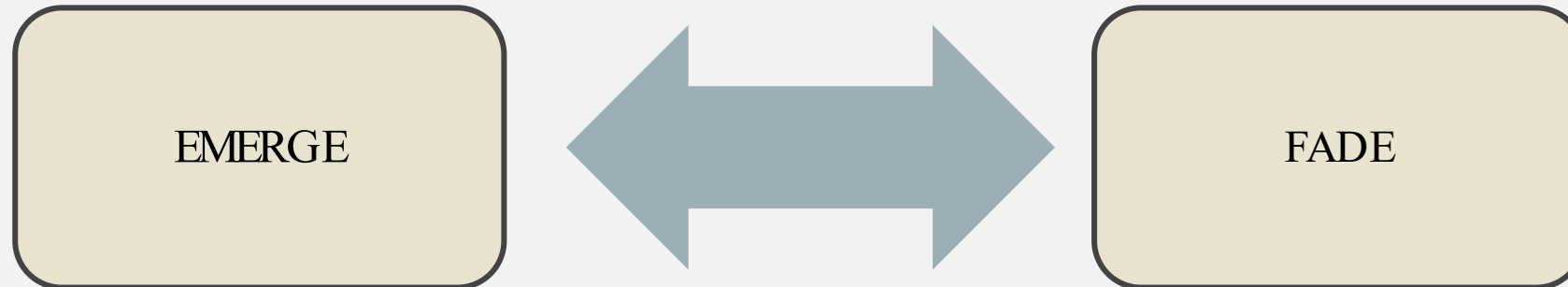




## 2. Appearance/Disappearance of “Disaster”

”Disasters‘ Overcome then Revived

- Happens because of the expansion of human sphere. (Sato *et al.*, 1964)







## 2. Appearance/Disappearance of “Disaster”

### Epidemics as a Past ”Disaster“

Overcome because of..

- Developed technology
- Effective medicines made/implemented quickly

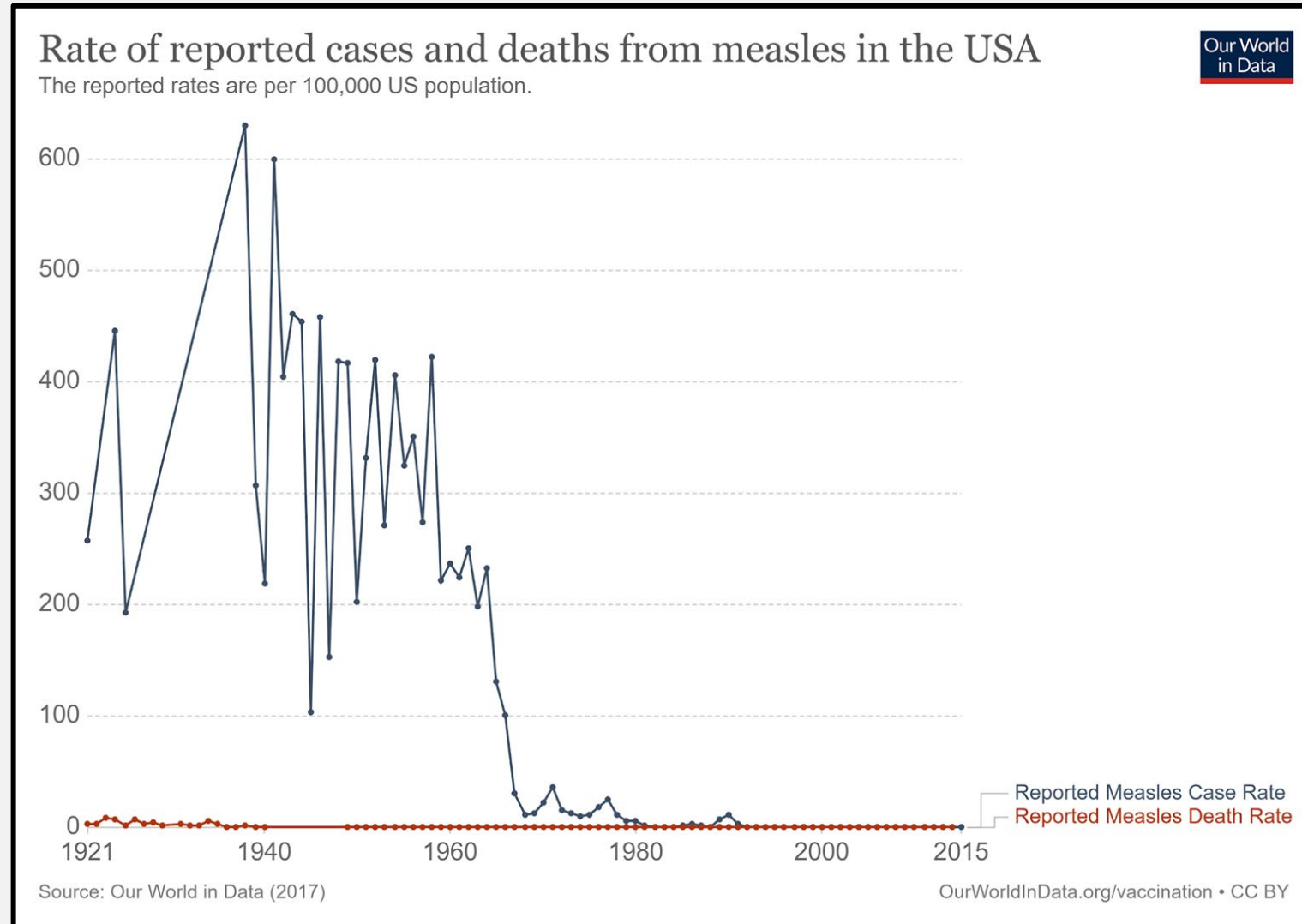


“Epidemics have  
been  
overcome.”

## 2. Appearance/Disappearance of "Disaster"



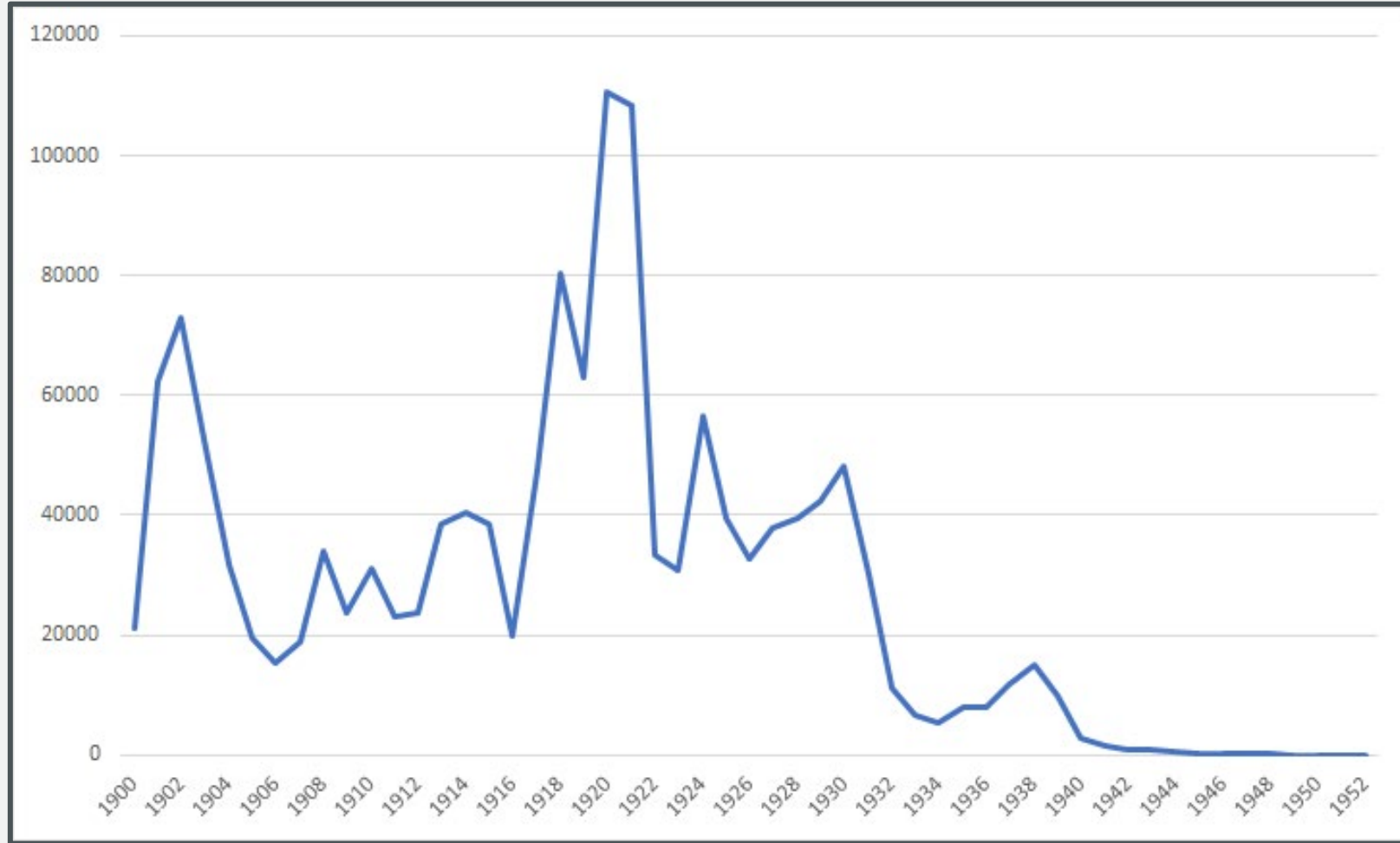
### Victims of Epidemics (Measles) Shrinking





## 2. Appearance/Disappearance of "Disaster"

### Reported number of smallpox infections (USA)



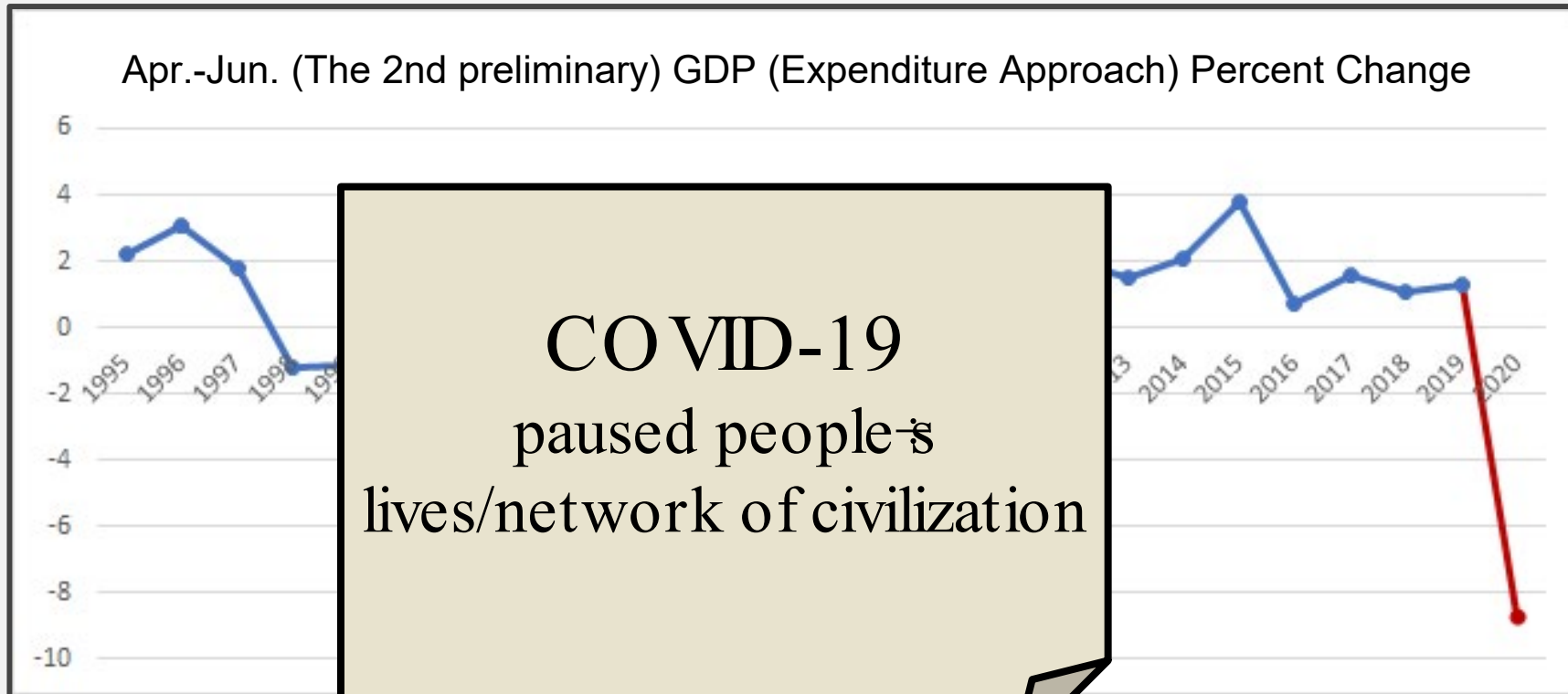
Source :

World Health Organization, 1969-1988, Our World in Data, 2018



## 2. Appearance/Disappearance of "Disaster"

### Epidemics as a New "Disaster"



Source: Cabinet Office (Japan), 2020

## 2. Appearance/Disappearance of “Disaster”



### **Global Export Restrictions In Response To COVID-19**

Countries that have imposed temporary export restrictions on products due to COVID-19\*



\* Products affected include personal protection equipment, pharmaceutical products, hand sanitizer and food.

\*\* Germany has lifted export bans on medical equipment.

Source: International Trade Centre





### 3. Civilization and Natural Disaster





## What Civilization Actually Is

Division of Labor

&

Distribution

RIDLEY, 2010 *OTA et al.*, Trans. 2013



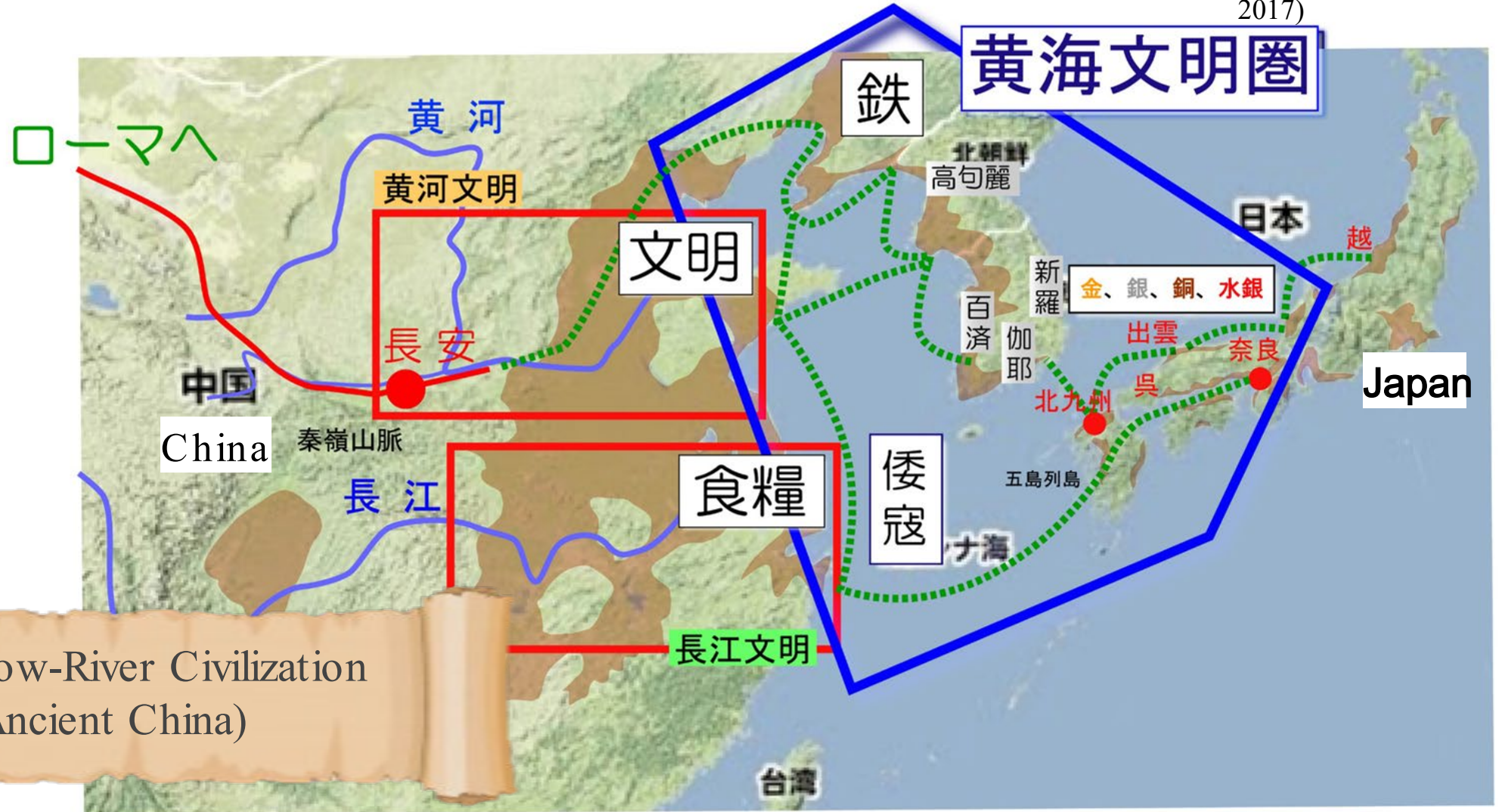
- Huge population held by dividing works, producing goods efficiently, and exchanging them



### 3. Civilization and Natural Disasters



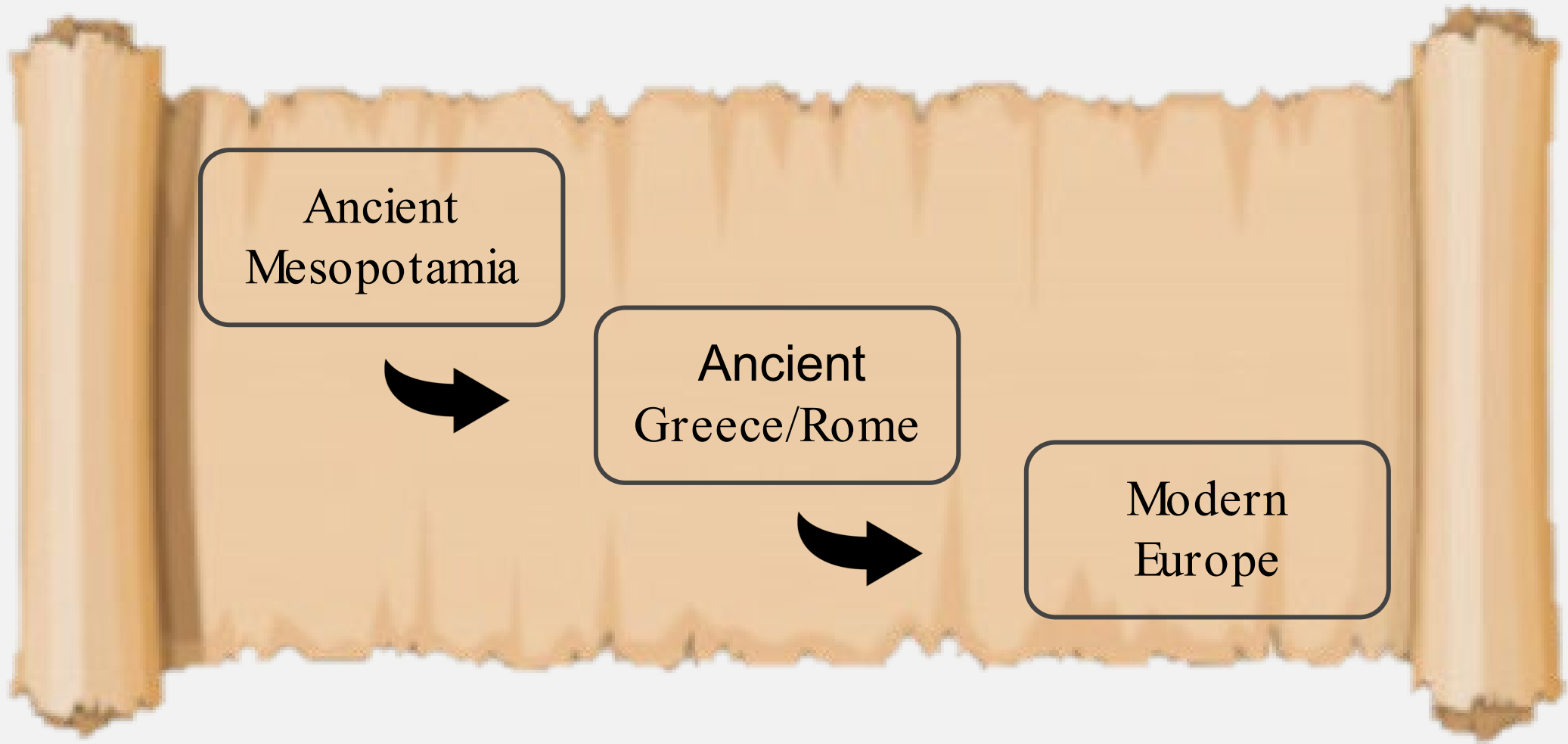
(MARUYAMA, 2017)



The Yellow-River Civilization  
(Ancient China)

- シルクロード  
Silk Road
- 大河  
River
- 交易ルート  
Trade Routes
- 平野域  
Plain Area

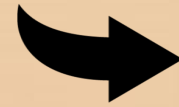




Ancient  
Mesopotamia



Ancient  
Greece/Rome



Modern  
Europe

### 3. Civilization and Natural Disasters

## Civilization and COVID-19

- Caused lockdowns
- Suspended networks
- Revealed the basis of the civilization





# Conclusion



## Conclusion

- “Disaster”

— a natural/human-made phenomenon which intrudes human lives

- **COVID -19 is a “disaster”**

A threat to stop civilization networks

# Conclusion

FU DO

1. Revise our recognition of

(WATSUJI, 1979)

“風土”

2. Foster people's collective wisdom

3. Use technology and science correctly to overcome disasters





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