

Book Review

Collapse: How Societies Choose to Fail or Succeed

By Jared Diamond

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Reviewed by Muhammad Asyrofi Al Kindy, Universitas Negeri Malang, Indonesia

Email: asrofialkindi@gmail.com

The tale of the apocalypse has been taught in every society and every belief.¹ All holy books indicate that the end is a phase that every human being must go through. This phase is marked by a breakdown that will end everything that exists and initiate a new phase in life. Doomsday is believed to be a tool to cleanse the sins of humans who have polluted the world for a long time. The story of the Doomsday is also often associated with punishment from God. In this context, past civilizations that were destroyed are often considered to have violated God's orders. As science progressed, some scholars began to interpret how the world would end up in simple language and far from figurative as it is in the scriptures. The discussion about the end of the world began to be scientifically linked, and was associated with a more realistic scope of everyday life. At this stage, the apocalypse begins to be rationalized with scientific data and predictions.

One of the well-known theories of the collapse of human civilization is Malthus's theory. This theory states that the human growth rate exceeds the growth rate of foodstuffs.² He predicted that humans would become extinct because they would run out of food. But Malthus's fears did not materialize along with technological developments. Food production is still able to keep pace with human growth rates. However, technological developments also have side effects, namely pollution and environmental damage. Intensive production leads to increased use of fossil fuels, which releases carbon, resulting in global warming. In the contemporary era of the 21st century, predictions about the end of the world began to be associated with environmental damage. America's victory over the Soviet Union made the economy accelerate rapidly; globalization could not be stopped. Production is getting higher and this directly impacts on environmental damage.

Jared Diamond realized this and began writing a book about the prophecy of the destruction of contemporary civilization. He began documenting some of the collapses of past civilizations as models for the collapses we will face in the future. Diamond's initiative in writing this book is inseparable from his life history. He is a Professor of Geography and Physiology at the University of California (UCLA). Starting his career as a physiology lecturer, he studied how the organs of living things function.³ From there, his interest developed, and he expanded the scope of his studies in applied science

¹ Apocalypticism. (n.d.). Encyclopedia Britannica. <https://www.britannica.com/topic/apocalypticism>

² Malthus, Thomas Robert, 1798. "An Essay on the Principle of Population," History of Economic Thought Books, McMaster University Archive for the History of Economic Thought, number 1798.

³ Diamond, J. (2019). *Upheaval: How nations cope with crises and change*. Allen Lane.

from physiology, especially the study of birds (ornithology) and their habitat (ecology). He spent approximately four years researching bird habitat in the Papua Mountains. His study of birds led him to an interest in learning about the history of environment and civilization.

Factors for the Downfall of Civilization

His early career as a physiologist infuses every academic product he produces. He understood that environment and civilization also evolved as living things. This understanding is what he always carries and always applies to every work he pens down. His early books revolve around understanding how humans evolve and shape civilization (*The Third Chimpanzee*), followed by a study of the history of sexuality and its effects on social life (*Why is Sex Fun?*), as well as the history of the emergence of civilizations based on geographical conditions and environmental determinism (*Gun, Germ, Steel*).

After learning about the growth of civilization, he learned more about its collapse. His interest in this topic grew in his reading of the fact that every great civilization leaves behind ruins. This book tries to explain why civilizations that had experienced a golden age suddenly disappeared. The advancement of civilization should be able to lead it to survive the times. But why do they actually fall and leave only the ruins that we observe today.

Jared Diamond tries to explain this collapse in an environmental context.⁴ Using Montana as a model, he argues that the destruction of a civilization occurs when that civilization is no longer able to adapt to its surroundings. Furthermore, Jared stated that maladjustment is an accumulation rather than several processes. This process is condensed into several

frameworks. Diamond noted the five most dominant factors as triggers of collapse.

The first is environmental damage; he stated that this was caused by a civilization's mistake in utilizing the natural resources around it. Jared stated that overexploitation of renewable natural resources is a major cause of environmental damage.

The second factor that Jared pointed out was climate change. He said climate change was not really a major factor in the collapse. In his book, he states that variations in climate and weather can make a civilization weak. According to Jared, climate is only one of the secondary factors, like the wind that can blow and raise the embers that were already there. Jared stated that climate change is only a minor factor that can play a big role if other factors are met.

The third factor is enemy civilization, which is a common contributor to the destruction of civilizations. However, Jared elaborates that an enemy civilization would only destroy a civilization if the enemy itself was weak. The accumulation of the first factor and the second factor must occur first before this factor plays a further role.

The fourth factor is a supportive ally. This factor is an important factor that determines whether a civilization can grow. Support from a friendly civilization can be in the form of equipment or resources that cannot be produced on-site. Over time, support from neighbours can lead to dependence, especially on scarce and non-renewable resources. The loss of a friendly civilization will lead to the weakness of a civilization.

The fifth factor is the socio-political economic factor that influences the decision-making of a society on the environmental conditions around it. In the development of a

⁴ Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 11

civilization, institutions emerge as regulators in the distribution of resources. This also raises social class as a result of the role in these social institutions. The failure of an institution to make decisions related to natural resource management will have a very bad impact. The elite of a civilization who is late in realizing the signs of natural destruction will make it easier for a civilization to find its death.

In this book, Jared uses Montana as an initial model for analysing fragile civilizations. Montana is his childhood hometown. He often visited this place every vacation. His close interactions with Montana make him understand that his childhood paradise is changing. Over-exploitation, intensive livestock farming, introduced invasive species, trading partners, and policies carried out by the Montana government make him think Montana is a fragile civilization.

Some Examples of Civilization Destruction

In the Pacific sphere, Jared explained how island civilizations often left only traces behind, with their environments damaged and sometimes rendered uninhabitable. Diamond intensively explained that Easter Island was once a green island, filled with Giant Palm.⁵ The arrival of the Polynesians on the island began to bring about major changes. Due to the relative distance of Easter Island from other islands in the Pacific area, residents only exploited what was there, without relying on intensive trade with other islands. Along with the development of society, the island of Easter also began to have a ruler. At a certain stage, competition between these rulers began. They competed to erect statues (moai) as a social symbol. The sculpture was made in a stone quarry in an ancient volcano at the corner of the island of Easter, while the site for the statue

was located in the centre of government in the middle of the island. This causes many trees to be cut down to become wheels. When the tall trees were used up, the strong winds caused the soil to be eroded. The land began to become barren. Efforts to replant trees are also difficult because the soil is becoming barren and rats (which have been carried away since the discovery of the island) have caused many young trees to die. When all resources run out, they start fighting. Starvation leads to the spread of disease. The population began to decline, and what remained was dependent on the low-nutrient resources available offshore, as the wood needed for boats had also run out. This is the end of a civilization that was able to erect a giant statue in the past.

Elsewhere in the Pacific, Jared Diamond exemplifies the breakdown of civilization caused by a trade cut-off. Pitcairn and Henderson Islands were discovered by the escapees of the HMS Bounty ship rebellion. Located in Southeast Polynesia, these islands are relatively far from other islands. At first they thought the island was uninhabited, but after exploring the island, they found the remains of tools and places of worship. Research conducted by Marshall Weisler, found that there is a linkage of artifacts between the islands.⁶ Furthermore, artifacts from the island were also found on the island of Mangareva, a large island west of the Pitcairn archipelago. From here Diamond discovered the intensive trade relations between the islands, Mangareva as a producer of agricultural products, Pitcairn as a producer of rock for tools, and Henderson as a producer of marine products. The collapse of civilization began when intensive agriculture in Mangareva caused the depletion of soil fertility. Mangareva fell into warfare and cannibalism. As the supply of trade from the island began to stop, the inhabitants of the Pitcairn Islands and

⁵ Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 79

⁶ Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 121

Henderson Islands began to lack the resources to continue their lives.

The story of the next destruction in this book comes from Central America. Diamond takes the example of two civilizations that use technology, but have to give up because of climate change. The first civilization was Anasazi (Ancestral Pueblo) which left ruins in the middle of the desert of New Mexico, USA. To find out what happened when this civilization collapsed, researchers used measurements of carbon, tree rings, and packrat-midden (food garbage) to determine weather patterns and the nutrients they consumed at that time.⁷ The results show that in 600 AD, the area was not a desert, but a collection of semi-arid steppes. Their Anasazi nation began to occupy the area, and developed agricultural canals and innovations. They achieved brief glory until the height of their civilization in 1000 AD. The capital of Pueblo Chaco housed a large population and important buildings. But in the following years, the climate began to change, the rains started to become less and less, until a major drought occurred since mid-1425 AD. Famine began, and the remaining population began to flee and left for the valleys (one of which was Mesa Verde) which was cool and still flowed by water. All that remained of the mighty Anasazi, were only the small Indian tribes that endured with all their limitations.

A similar case with Anasazi also happened to the Classical Maya civilization. Appearing in fertile karst areas around the Yucatan peninsula, Classical Maya engaged in corn-intensive farming, and developed many cities with large buildings that served as places for performing religious rituals. Their civilization spread

southward through the Chiapas highlands. The stability of agriculture helps establish a stable government. In Diamond's analysis, the Classical Maya civilization was able to be self-sufficient in its country.⁸ They do not depend on friendly civilizations and are not disturbed by enemy civilizations around them. However, this triumph immediately collapsed when the drought struck in 800–950 AD. Rainfall, which is a mainstay for maintaining the height of the aquifer in karst areas, is starting to decrease in frequency. Research on fossil shells and sediments in one of the lakes in the Yucatan area found an increase in the isotopes of oxygen-18 and sulphur.⁹ The groundwater level decreases and the evaporation rate exceeds the inflow rate. The decline in natural carrying capacity was too late for the elites and leaders of the Classical Maya to realize that they were still busy building monuments and fighting. This causes them to become vulnerable and lose to enemy civilizations around them (Aztec).

In the next section, Jared Diamond tells how an experiment on the expansion of civilization was carried out by the Norse people in the Arctic Circle. In this episode, Norse explored far away and formed civilization posts in several islands in Northern Europe. Their farthest expansion has reached Iceland and Greenland.¹⁰ However, these two civilizations had different destinies. The Norse in these two regions still had a relationship with their ancestors in Scandinavia through intensive trade. These trade relations became intensive and created dependence on both tradition and logistics. This changed when Northern Europe was hit by climate change due to the "Little Ice Age". Agricultural land was

⁷ Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 145

⁸ Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 160

⁹ Drought and the ancient Maya civilization. (n.d.). National Centers for Environmental Information (NCEI). <https://www.ncdc.noaa.gov/abrupt-climate-change/Drought%20and%20the%20Ancient%20Maya%20Civilization>

¹⁰ Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 178

decreasing in productivity and the ice-free season was starting to decrease dramatically. Trade with Scandinavia started to stall. This incident caused the decline of the Norse civilization in both places. But different things started to happen. In Iceland, the Norse civilization, which was rooted in agriculture, survived due to the support of environmental conditions that still provided nutrients through volcanic activity. Meanwhile, in Greenland, this civilization rooted in agriculture began to weaken and was pushed back by the Inuit (Thule) civilization, which was more able to adapt through hunting. Further research found that the decision of the Norse elite who insisted not to prioritize the hunting sector also contributed to the collapse.

After reviewing the collapse of ancient civilizations in depth, Diamond began discussing some examples of modern civilizations that were about to collapse. In this section, Diamond subtly categorizes into two criteria. The first criterion is a modern civilization that has experienced an extraordinary tragedy until it is close to collapse (but still survives), and the second criterion is a civilization that still seems to survive but is starting to show clear signs of collapse. In the first criterion, the civilization reviewed is Rwanda with its genocide and the island of Hispaniola which is divided into two countries—Haiti and Dominica. Diamond in this chapter tries to note that the Rwandan Genocide was not only the result of political battles, but there were environmental factors at play. As is commonly known, the conflict in Rwanda was a battle between the Hutu ethnic group who work as farmers and the Tutsi ethnic group who work as breeders. The relationship between the two ethnic groups develops into a relationship between employers and workers.

In turn, the two ethnic groups have fought for leadership in Rwanda since ancient times. The arrival of colonial Germany and Belgium exacerbated relations between the two ethnic groups with the introduction of identity cards bearing ethnicity. Diamond further analyses that the rapidly growing population and fertile areas of Rwanda, which are confined to western Rwanda, contributed more to the beginnings of the genocide tragedy.¹¹ Diamond revealed that the Rwandan family structure in the pre-genocide era was dominated by young people, but they were still dependent on extended families. Minor conflicts arose within the Hutu family regarding the distribution of land which became narrower with each generation. Coupled with political propaganda, the small conflict escalated into widespread ethnic hatred against the Tutsi, who owned more land. Furthermore, Diamond revealed that in the Genocide, not only Tutsi were killed, but also many Hutu ethnic groups who were related by blood to the perpetrators of the massacre.

A different context is found on the island of Hispaniola. The arrival of France and Spain made this island split into two parts.¹² The eastern part controlled by Spain became Dominica and the western part controlled by France became Haiti. The two countries treat their colonies differently. France chose to make Haiti an intensive agricultural production machine for sugarcane and coffee, making it the richest colony of its time. Meanwhile, Spain chose to assimilate with the local population and make Dominica a place for transit and a residential area to support their invasion of Mexico. This difference in choice had an impact in the centuries that followed. Haiti is suffering from severe environmental damage due to intensive agriculture which does not

¹¹ Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 319

¹² Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 324

recognize crop rotation. Even after independence, Haiti is still beset by an international debt of independence and embargoes. The combination of degraded land and embargoes led to rampant poverty and people began encroaching on forests to meet their needs. Something different happened to Dominica, where the land there is not too exploited on a large scale. The more stable economic conditions also prevent the Dominican population from encroaching on the forest. The policy to protect the environment was getting stronger when Joaquín Balaguer came to power; he deployed the military and the conversion of natural gas to keep the forest from being plundered.¹³ During his reign, the law on environmental protection was legalized.

Conclusion

Most of Jared Diamond's descriptions in this book tell how a failure of civilization works. The phenomenon of collapse is indeed a frightening thing. However, in this book, he does not only write about ugliness. Furthermore, he also wrote several examples of civilizations that managed to get through a phase that was close to destruction but was able to rise again. Diamond stated that the success of this revival lies in the five indicators of the destruction of civilization, namely the response from the community or institutions that manage resources in a location. Diamond's decision-making is divided into two criteria, namely initiatives from the general public (bottom-up) or initiatives originating from the ruling institution (top-down). Some examples of the application of this concept are civilizations in the highlands of Papua, Tikopia Island and

Japan during the Edo Period.¹⁴ In both cases, the effort to avoid destruction originated from the bottom. The tribes in the Papuan Mountains, when the trees began to disappear from their environment they immediately realized it. They finally carried out mass planting of local tree species to replace the lost trees. Meanwhile, on Tikopia Island, tribal leaders implemented a policy to prohibit the harvesting of several fruit species as reserves when a storm hit the island. They also made a policy to send some young people to sail and venture outside the island as a means of regulating the population size so as not to overdo it. In the case of Japan in the Edo period, after large fires broke out and wood supplies for renovation were also difficult to find (due to massive deforestation in the previous period), the Japanese government began to strictly regulate forest use.¹⁵ They deployed troops to prevent looting, and began to make an inventory of their forestry data as a precaution and a basis for finding alternative substitutes.

Jared Diamond also emphasized that his aim in writing this book was not to spread pessimism about economic development and development. He intended to remind that the destruction of civilization had occurred in previous civilizations, and could happen to modern civilizations today. He also emphasized that the destruction of civilization is not an event that just happened. There is no silver bullet to finish or stop the collapse of civilization instantly.¹⁶ The destruction of civilization is a series of small events, and the success of understanding and avoiding them is something that must continue to be honed.

¹³ Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 343

¹⁴ Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 424

¹⁵ Diamond, J. (2005). *Collapse: How societies choose to fail or survive*. Penguin Books, (UK). Page 300

¹⁶ TED Talks. (n.d.). Why societies collapse | Jared Diamond [Video]. YouTube. <https://www.youtube.com/watch?v=IESYMFtLIis>