

## **Climate change causing political instability in the Middle East region: A critical analysis**

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### ***Abstract***

*The perception around the Middle East and as observed as the international battleground for oil and gas is slowly fading away. Falling economy and social corrosion brought by wars, droughts, famines, and other ecological pressures deplete the region's potential and attraction. Yet could climate change make things even worse, bringing instability in the region closer to collapse? The Middle East has already been a victim of climate change and is likely to suffer more due to rising temperatures and withering precipitation in the coming years. Falling agricultural production driven by droughts and desertification has been fuelling conflicts in the region. At the same time, tensions between ethnically fractionalized countries are likely to grow due to climatic disasters, leading to inter-communal violence. Likewise, intra-state conflict over natural resources is also connected to the discrimination occurring between diverse ethnic and religious groups. Considering those aggravating tensions and challenges, the study explored the connection between contemporary climate changes, rising conflicts, and political instability in the Middle East region. This study is the critical analysis of how climate change causing political instability in the middle-east region while for various reasons, 'eco-sectarianism' and 'horizontal inequalities' contributing to instability as well. In this connection, an example of Syria and Iran has been explored. Overall, an exploratory qualitative methodology has been followed for undertaking this research. While analysis of this research is based on secondary sources, including academic journals, articles, government, and non-government resources, acknowledged media platforms, statistics from the World Bank, UN agencies. Study analysis reveals that climate change contributes to political instability in the Middle-East is largely shaped by geopolitical*

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*influences. Climate change has been simply exploited as another vehicle of war, propaganda, or destabilization. Climate change is certainly not the individual trigger of war, violence, migration, or instability. Nevertheless, the absence of adequate water, unsuccessful watershed management, and the effects of sectarian conflict and external interests, manipulation of natural resources, and social inequality are all causes of political instability in the region.*

**Key Words:** Climate Change, Political Instability, Geopolitical Factors, Eco-Sectarianism, Horizontal Inequalities

## **Introduction**

While the urgency of climate change is recognized by most governments (Hart, 2016), its contribution to the escalation of conflicts was not considered seriously until Richard Ullman proposed it in an article titled 'Redefining Security' in 1983 (Barnett cf Collins, 2016). Climate change has since been called 'a threat multiplier' by some, implying its ability to aggravate volatility in the world's most precarious regions (The CNA Corporation, 2007). UN Secretary-General Ban Ki-Moon has cautioned about the probability of destabilization for the entire African continent driven by climate change (Moon, 2007), while the recent Intergovernmental Panel on Climate Change (IPCC) reports (IPCC, 2001; IPCC, 2007) and climate summits in Copenhagen (2009) and Paris (2016) brought the issue to global attention.

The Middle East has already been a victim of climate change and is likely to suffer more due to rising temperatures and withering precipitation in the coming years (Burke et al., 2013). Falling agricultural production driven by droughts and desertification has been fuelling conflicts in the region (Youness, 2015), while tensions between ethnically fractionalized countries are likely to grow due to climatic disasters, leading to inter-communal violence (Schleussner et al., 2016). Likewise, Stewart (2000) claims that intra-state conflict over natural resources is connected to the discrimination occurring between diverse ethnic and religious groups. Considering those aggravating tensions and challenges, the purpose of this research is to critically analyze the connection between contemporary climate change, rising conflicts, and political stability in the region.

To this end, this research first presents a brief overview of climate change in the context of the Middle-East based on a literature review. Next, it illustrates the various ways in which climate change, 'eco-sectarianism', 'horizontal inequalities', and other factors contribute to political instability. As this research followed exploratory methodology based on secondary sources, it reflects upon the example of Syria and Iran to understand the factual aspects on the ground around the debate

over climate change causing political instability. Finally, the paper will conclude on climate change as a significant contributor to political instability in the Middle East, while acknowledging other important causes of division and violence.

### **Overview of the Climate Change in the Context of Middle-East**

Though the Middle East is frequently observed as the international battleground for oil and gas, this perception is slowly fading away (Shahi and Vachkova, 2018). Falling economy and social corrosion brought by wars, droughts, famines, and other ecological pressures deplete the region's potential and attraction (Abott et al., 2007). Yet could climate change make things even worse, bringing instability in the region closer to collapse?

Studies linking climate change to social and political unrest are a good starting point for exploring the issue. An analysis conducted by the University of California on the history of conflict in sub-Saharan Africa between 1980 and 2002, claimed a direct relationship between the likelihood of conflict with warmer temperatures. Researchers asserted that temperature rise by just one °C would increase the possibility of conflict or civil war by up to 50 percent (Burke et al., 2013). On the other hand, it is estimated that anthropogenic climate change (Wadid et al., 2010) could expand the civil war in Africa by 55 percent by 2030 leading to an additional 390,000 deaths from battles assuming they will be as deadly as recent conflicts.

Furthermore, the World Bank Group (2014) predicted that due to the predicted rise in the sea level, approximately 3.8 million inhabitants within Nile Delta and surrounding coastal regions would be forced to shift into the internal areas. Coastal cities like Alexandria in Egypt, Benghazi in Libya, and Algiers in Algeria, might suffer from severe floods. Egypt, Jordan, and Libya may experience a 30 percent decrease in income from crops due to water shortage in the Tigris, Euphrates, Jordan rivers, and also the Sea of Galilee (ibid).

The Middle East is heavily dependent on desalinated seawater and groundwater (Maddocks et al., 2015), which further raises its vulnerability to water availability and drought (Shahi, 2019). Whilst climate change may pose an obvious threat to water availability, the history of the region has shown, other factors unrelated to climate change, have led to extreme water scarcity in the past. The 2011 civil war in Syria has been potentially exacerbated by the shortage of water and drought (Plumer, 2013), while water has been a significant component in defining the conflict between Israel and Palestine for decades (Asser, 2010). Historically, the Middle East has been prone to damaging droughts and has shown an apparent link between drought and political instability

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(Shahi, 2019). Water has dictated the fate of civilizations within Mesopotamia and the wider Middle East such as the Old Kingdom of Egypt, the Akkadi an Empire that have experienced crippled militaries and defenses by drought and water scarcity (ibid).

Although water is a crucial commodity and fundamental to human survival, it is often ignored amid regional violence and political chaos that advises global attention (Maddocks et al., 2015). According to the World Resources Institute, the most water-stressed countries in 2040 will include fourteen from the Middle East alone. Countries that are likely to score 5.0 out of 5.0 on the scale of water stress will include Oman, Lebanon, Israel, Palestine, United Arab Emirates, Saudi Arabia, Qatar, Bahrain, and Kuwait. Due to the risk of water depletion, the government of Saudi Arabia has said that its population will rely on imported grain fully by 2016, shifting from their self-sufficient historical model of growing everything they need at home. The National Intelligence Council of the U.S. suggested that countries in the Middle East and North Africa (MENA) is likely to face an increased risk of state failure and instability caused by water problems in the region. As a result, these countries would be diverted from foreign policy discussion with the U.S. (ibid).

The key question is: are these impending water and conflict problems climate-change related, or are they caused by external geopolitical factors, over-extraction, and other non-climate related factors? To help answer this, it is useful to look at the history of the region and some examples of political instability.

### **Contribution of Climate Change to Political Instability in the Middle East**

Historical review of conflicts in the Middle East shows that water resource management along the rivers, Tigris, and the Euphrates can be challenged by changes in regional control resulting in an overstretch of water supply (Hasan et al., 2019). A central portion of the Euphrates, northwest Iraq, and Syria has been occupied by the Islamic State in recent years. Water has been weaponized (Gleick, 2014; King, 2015) as dams have become the central point of battle in these regions. Reduced flow at the Euphrates has hence significantly impacted dependent activities such as agriculture and downstream energy production facilities (Kibaroglu and Gürsoy, 2015).

A study on the 2007–2010 drought-stricken Euphrates and the lower Jordan River basins (Feitelson and Tubi, 2017) investigating the potential link between climate change led droughts and conflict suggested that climate change is more likely an intermediate variable of conflict rather than the primary driver of it. Although large scale conflict spurred following the drought in Syria and Iraq, it did not replicate for the Jordan

River Basin even though they were more water-stressed and the relationships between the riparian countries were not completely frictionless. A further comparative analysis claimed that the behavior of the economic system and institutional arrangements of the upper riparian states and countries had shaped the possibility of conflict. However, it is noteworthy that conflict evolved when crucial factors, such as adaptive capacity were conceded (ibid).

While climate change has been increasingly accused of being the driver of the ongoing violence in Syria and Yemen, the conflicts are rooted in the complex political, historical, social, and economic foundations in these countries. This logic is also supported by cases like Turkey and Iran that have experienced drought during the same period but have not fallen into armed conflict (Hart, 2016). Meanwhile, influential world leaders such as Barack Obama have asserted that global warming assisted in leading Syria into civil war. He stated that though he doesn't believe climate change is not the cause of conflict around the globe, high food prices from crop failures and drought fed the early unrest in Syria (Meyer, 2018). Climate change does have the ability to aggravate existing tensions and potentially cause conflict for marginalized or economically deprived groups who are likely to be the worst victims of this crisis. On this account, the effects of climate change relating to security still need to be considered sincerely though generalizations of this at a global or regional-scale need to be evaded (Hart, 2016).

The politicization of this issue has led to more investigation of the causal relationship between climate change and conflict however the majority of study remains indecisive and (Feitelson and Tubi, 2017) are often based on dependent variable sampling strategies that are ineffective (Adams et al., 2018). For example, drought and climate change are frequently labeled by interpreters as catalysts for social unrest and conflict in Yemen, Syria, Palestine, and beyond (Plumer, 2013; Powell, 2017). It could be argued that analysts and policymakers are not considering the impacts of militarized state power, resource exploitation, and global political-economic forces in their assessments of conflict (Selby and Hoffmann, 2014). In a more recent study, systematic interrogation of the claims that climate change and related drought pushed Syria into the war was discredited (Selby et al., 2017). Research suggests that human security is being undermined by climate change as the livelihood of people is at risk of diminishing access to natural resources necessary for survival. This effect is not only directly on people but on governments as they are challenged on the capacity to accommodate their populations' needs. Hence, in certain contexts, these forms of direct or indirect impacts can lead to conflict and violence (Barnett and Adger, 2007).

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Another study by the think tank Chatham House, pick up on the issue of climate change impacting global food security. They specifically recognize the possible disruptions on food supply brought about by climate led obstruction on ‘chokepoints’ that refer to crucial trading routes in the Middle East. Countries in the MENA region rely on specific trading routes for grain exports, starting from the Black Sea via Russia and Ukraine ports to Turkish Straits. There are no alternative routes that are established for these exports which means climate catastrophes like heat waves, rising sea levels, and heavy storms could seriously jeopardize some of these chokepoints leading to a heightening of prices and shortage of food supply in vulnerable countries like Yemen (Bailey and Wellesley, 2017).

In addition to the various ways in which climate change is causing political instability in the region, the aspects of eco-sectarianism could be a possible dimension in shaping conflicts. On this account, the paper will now delve into a brief analysis of this phenomenon in the following segment.

### **The Idea of ‘Eco-Sectarianism’ and ‘Horizontal Inequality’ in Shaping Conflict**

In the past, the Middle East may have been shaped by drought, but these days’ geopolitical forces, inequality, social division, and natural resource exploitation are causing extensive instability. Socio-economic inequalities are glaring in the region (Ncube et al., 2014), and ensuing social division leading to sectarianism (Taylor, 1989). In societies with fragmented national identities such as ‘Sunnis’ and ‘Shiites’, in Syria and Iraq, conflicts and natural disasters affect the population disproportionately (Shahi and Vachkova, 2018). This can be further explained by the political phenomenon of ‘eco-sectarianism’ that occurs in disintegrated societies that are also victims of environmental catastrophes. Nations that have not been able to integrate pre-modern identities to modern state frameworks run the risk of stimulating split narratives in the face of natural catastrophes from concerns of preferred treatment for distinct religious groups (ibid). Countries like Syria, where discrimination between distinct religious groups is prevalent, the population affected by ecological disasters, are likely to interpret their devastation as an outcome of the discriminatory policies of the government. For example, the Sunni communities in Syria believe that Alawites had been given preferential treatment and consecutively were better compensated for the farmers’ plights during the drought in 2006 (ibid).

Consequently, according to Stewart (2000), the deprivation suffered by different cultural groups in mixed ethnic societies lead to ‘horizontal inequalities’ that cause sectarian radicalization and marginalization.

Horizontal inequalities refer to the lack of equal access to healthcare, economic assets, and education, all of which are necessary for the sustainable development of societies that are ethnically and religiously diverse (Stewart, 2003). It could be argued that horizontal inequalities occur in all societies, even in countries like the USA. This is evident that among the ethno-sectarian groups when services are not justifiably distributed or when the poor are disproportionately affected by a natural disaster, as shown in the Hurricane Katrina aftermath in the US (Elliott and Pais, 2006; Myers et al., 2008). In such circumstances, griefs against the state and the controlling ethnic group are undoubted outcomes (Fearon and Laitin, 2003) and as the case of Syria highlighted, this can be exploited by external players with covert and conflicting agendas.

With observing the wider regional context, for instance, in Yemen and Syria, it is understandable that drought is a contributing factor to political instability. Therefore, climate change potentially as a threat to any political establishment in the middle east, cannot be ruled out (Shah, 2019). Environmental disaster might act as a ‘threat multiplier’, rather than directly triggering armed conflicts in the Middle East (Schleussner et al., 2016), but the extent is still not quite calculable. In contrast war over resources such as oil in recent history, has been well quantified indicating that one of the biggest threats to the environment and people are conflicts driven by the sovereignty of land and control over natural resources. A vivid example of this is the Iraqi army lighting fire in the oil wells and creating one of the worst environmental disasters in 1991 by causing long term pollution of the seas and soil in the region (Literathy, 1993). Although water with its trans boundary implications is one of the main issues that could affect the region, constructing it as a security issue is weakened from the ongoing eco-sectarianism that is linked to the oil industry, conflict, corruption, and a plethora of associated social and economic problems (Shahi and Vachkova, 2018).

In an attempt to situate the ongoing debate and highlight how climate change may have been exploited for economic and political gain, the cases of Syria and Iran will now be explored.

## **Syria**

Some geographic locations are labeled as ‘naturally’ violent often stemming from biased sampling and reporting (Adams et al., 2018), and this stigma is exacerbated by civil unrest linked to global warming (ibid 2018). These authors argue that climate change is not the single cause of civil conflict and subsequent migration, as both Syria and Jordan were stricken by drought, but only the Syrians are fleeing from their homeland, not the Jordanians. However, the Syrian war is described as one of the most prominent examples of adverse climate-induced conflict (Kelley et

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al., 2015). Drought in 2006 devastated agricultural land in eastern Syria, resulting in at least 85percent deaths of livestock (Waterbury, 2013), and more than 50percentreduction in the yield of barley and wheat (Erian et al., 2011). Overall crop-productions were severely affected (up to two-thirds) leading to food-insecurity (Hart, 2016).

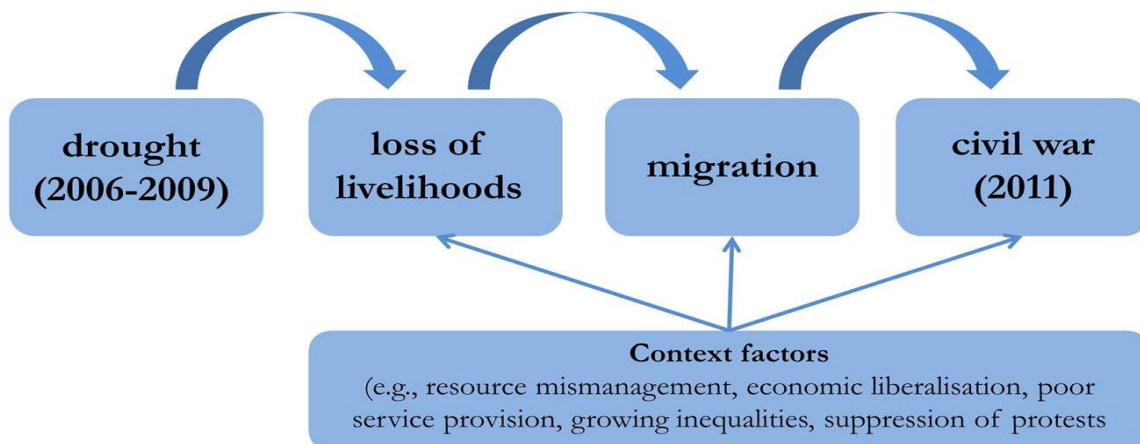
Furthermore, the country had to import wheat to meet internal demands, and the cost of wheat, rice, and livestock feed increased more than two-fold (Feitelson and Tubi, 2017). The people start to migrate to bigger cities to find jobs where they formed communities surrounding Hamah, Homs, and Daraa (Waterbury, 2013). Conflict erupted which was fuelled by the Arab Spring protests. President Bashir al Assad used armed forces to control the protesters, resulting in close to half-a-million deaths in the next five years. The cause of war in Syria is certainly multifaceted. Political instability, combined with economic and social inequalities, was the major factor. Drought created unemployment, famine, and water scarcity, leading to economic hardship for the citizens who were already marginalized. These people had few other options and took arms in the conflict.

A study that reviewed the agricultural productivity in Syria (Iraq and Turkey) between 2001 and 2015 showed that both governments and public sectors could minimize the adverse effects through resource management and infrastructure developments (Eklund and Thompson,2017). Droughts are a regular phenomenon in the Middle East (De Châtel, 2014), and although there is a recent increase in water-related violence, complex religious interactions, and ethnic diversity played major roles in instigating the conflict (Gleick, 2014). A study investigating the state's role in conflict generation pointed out that states' economic structure plays a major role (Gemenne et al., 2014). It can be observed that the drought caused the agricultural collapse, leading to large scale migration, raising tensions, which contributed to the escalation of conflicts to civil war. However, water scarcity was not the sole factor. The Syrian economy is highly dependent on agriculture, and over-exploitation of groundwater resources is also common (Feitelson and Tubi, 2017).

Additionally, in a post-Iraq and Afghanistan era, where America was cautious of getting involved, the interest of neighboring external forces like Iran and Hezbollah on one side and Saudi Arabia, Turkey, and Qatar on the other fuelled the conflict in Syria even more (Friedman, 2013). Drought just exposed the vulnerability of policies and the power structure of the Syrian regime (Châtel, 2014). According to Syrian economist Samir Aita, "The drought did not cause Syria's civil war," but he explains that the government failed to drought response mainly impacted in fuelling the uprising (Friedman, 2013). The monopolistic Assad regime



corrupted the agricultural sector in Syria and exploited the resource by over-extraction of groundwater. When the drought hit, the farmers simply could not sustain and survive and had to migrate to the bigger cities for work (ibid). Ide (2015) proposes that the conflict in Syria was an outcome of a four-stage process after reviewing the relevant pieces of evidence, and certainly cannot be blamed only on climate change as depicted below.



**Source:** Suggested a four-stage relationship between the beginning of the civil war in Syria in 2011 and climate change (Ide, 2015).

Further climate conflict research recognized three key limitations, ‘limited dialogue between different methods’, ‘an overstatement of differences’, and a ‘lack of theoretical engagement’ that may negatively influence policy advice (Ide, 2018).

## Iran

Like many other Middle Eastern countries, the socio-political landscape of Iran is strongly influenced by water scarcity, from the fall of the Safavid dynasty (1501–1738) to the recent Iranian revolution (Shahi, 2019). In Iran, the isolated communities formed around scattered water sources causing nation-wide instability and insecurity (Katouzian, 2004). Iran has been facing both internal (e.g. water shortage and desertification) and external (e.g. trade restrictions and wars fought in Yemen and Syria) challenges over the last decades which are putting pressure on the government (Shahi, 2019). The government of Iran expects a decline of 25 percent in surface water by 2030 (Bozorgmehr, 2014). And it is one of the highest in the world. States like Khuzestan in Iran have seen falling rates of precipitation by 30 to 80 percent leading to fast drying of rivers and lakes. Some experts have recognized the mismatch of water supply and demand as ‘water bankruptcy’ (Madani et al., 2016). Iran is unable to accommodate its agricultural, developmental, and political goals due to insufficient water supply which identifies the nation as water bankrupt

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(ibid). This should be noted that per capita water availability in Iran is significantly lower than the global average of 7,000 cubic meters, but slightly above the regional average of 1,300 cubic meters (Hajizade, 2018).

In just four decades Iran's population from a mere 30 million in 1979 to 82 million. This population growth is forcing agricultural growth which is dependent on water (Worldometers.info. 2019). The farmers are over-extracting the groundwater, as there is no incentive to sustainable agriculture (Shahi, 2019), and because about half of the croplands are in low-quality soil (Mesgaran et al., 2017). On top of that, climate change is taking a heavy toll on the water reserves: lake Hamun and lake Urmia have lost over 90percent of the area in the last 30 years (Weiss, 2018). Due to the dams and irrigation projects water is diverting from tributary rivers, resulting in desiccation and increased frequency of salt storms in exposed lakebeds, severely curtailing the agricultural productivity of the nearby lands (ibid). And farmers are pushed to cities for jobs. As mentioned before, migration can promote conflict in cities where migrants can join antagonizing groups and intensify the violence (Reuveny, 2007).

The governing body in Iran is afflicted by ingrained corruption, favoritism, economic mismanagement, and unaccountability which created a gap between the general public and the state, questioning the legitimacy of the Islamic Republic formation after 40 years of its establishment. Iran has a crisis due to water shortage, and apparently, the Islamic Republic has no active plan that can bring sustainable results. The shortage of drinking water is sparking violent demonstrations in some provinces like Khuzestan and Sistan-Baluchestan. These provinces are mostly inhabited by ethnic minorities, and people consider these environmental problems as state-sponsored injustice against them (Shahi, 2019).

Droughts and subsequent desert-expansion make the countryside empty and forcing people to move to cities that are affected by disparity, pollution, redundancy, poverty, and the ever-increasing political divide. The state needs to allocate more economic resources, which are already dwindled by American sanctions, to maintain national security (Shahi, 2019). Therefore, it could be observed that climate change, in the presence of other conditions, poses an existential threat to the Islamic Republic.

## **Conclusion**

In conclusion, it could be said that while climate change contributes to political instability in the Middle East, it is largely shaped by geopolitical influences. Climate change has been simply exploited as another vehicle of war, propaganda, or destabilization. As various authors point out,

climate change is certainly not the individual trigger of war, violence, migration, or instability. Nevertheless, the absence of adequate water, unsuccessful watershed management, and the effects of climate inconsistency can undoubtedly have a destabilizing effect—the shift of vast populations from rural to urban centers from the countryside. The extended drought in 2006 combined with water preoccupations by other groups in the east of the Mediterranean particularly in Syria resulted in increased unemployment and insecurity of food for more than a million people, ultimately causing political instability. Furthermore, according to recently published regional economic outlook report of IMF (2019) in several Arab countries, slow-moving economy and unemployment are still stimulating social tension and widespread demonstrations while this unrest includes global trade tension, oil price volatility, and a disorganized Brexit process causing slower growth in the MENA region.

The unemployment problem is due to climate change and migration or slow economic growth contributing to unrest in the Middle East is not a new phenomenon. It is well evident in this research that violent protests experienced by several Arab countries since early 2010 contributed to the bloody civil wars in Syria, Yemen, and Libya while after ten years unemployment is still found a major contributing factor for violence and conflict in this region. In the case of Iran, challenges of an already weakened economy, politically cornered by international forces and socially threatened by droughts is likely to bring more divide between the state and the people with increased ecological pressures (Shahi, 2019). Internal political agendas, sectarian conflict and external interests, manipulation of natural resources, and social inequality are all causes of political instability in the region. However, climate catastrophes undoubtedly can enhance existing challenges in a society, especially because its worst victims are those that contributed least to the problem and do not have the means to escape their circumstances. It forces people to rebel to demand justice against deep-rooted religious and ethnic inequalities, global resource exploitation, and many other causes that ultimately leads to political instability.

Given the severity of the issue, policymakers would need to start considering several key options to counter ecological pressures. While this research has focussed on climate change's contribution to political stability in the context of the Middle East only, it must be said that it is not a nation or region-specific issue. Displacement of masses forced migrations from famine; flooding and several unanticipated challenges are likely to threaten the global economy and political stability of the world. [Word count: 4,068]

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