



Syrian Uprising and the Environmental Crisis: Unintended Consequences

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ABSTRACT:

The Syrian uprising, which began in 2011 and escalated into a devastating conflict, has garnered worldwide attention primarily for its profound humanitarian impact and geopolitical ramifications. However, the environmental consequences of this protracted crisis have largely remained in the shadows. This research provides a succinct overview of the unintended environmental repercussions of the Syrian uprising. The conflict has wrought significant changes to Syria's environment, marked by deforestation, land use transformations, illegal logging, and disruptions to conservation efforts. Forested areas have been cleared for refugee settlements and urban development, leading to deforestation and a loss of biodiversity. Simultaneously, the breakdown of governance during the conflict has facilitated illegal timber harvesting and poaching, exacerbating the depletion of forest resources. Moreover, the Syrian conflict has contributed to air pollution and climate change, indirectly affecting forests and the environment. Activities such as the burning of fossil fuels and destruction of infrastructure have led to increased greenhouse gas emissions and altered forest ecosystems. Forests, which are essential for water resource regulation and soil erosion prevention, have dwindled, impacting water quality and local communities' access to clean water. While the environmental impacts of the Syrian uprising are secondary to the humanitarian and political crises, they are far from insignificant. This research underscores the need for increased attention to the environmental dimensions of conflict and calls for holistic approaches that consider the interconnectedness of humanitarian, political, and environmental concerns in post-conflict reconstruction and peacebuilding efforts.

Key words: Uprising, environmental crisis, environmental concerns, deforestation, climate change.

1. Introduction:

The Syrian uprising that began in 2011 has evolved into a multifaceted and protracted conflict, capturing the world's attention due to its devastating impact on the Syrian population and its geopolitical significance. While much focus has rightly been on the humanitarian and political aspects of the crisis, the unintended environmental consequences have been underexplored. This research paper aims to shed light on the environmental repercussions of the Syrian uprising, highlighting the pollution caused due to use of excessive ammunitions, deforestation for settling the internally displaced Syrians, water pollution and their contribution in climate change.

The Syrian Uprising or the Civil War is in its 12th year of instability and chaos, the impact it has caused on Syrians is beyond dialogue. Many fled the country while the rest are internally displaced. The situation in Syria is highly sensitive and it is quite natural to overlook the damage caused to the environment, however, sooner or later, either after the political instability resolves or before that the environmental issues will attract the attention of the masses. Every kind and types of weapons are used in Syria from all the actors in the war irrespective of its effect on human or nature. Not just domestic but foreign weapons are used which as well are certainly more impactful, dangerous and the chances of survival is close to nothing. The consequences that is emanated leaves it traces not just on human bodies but also on the surface of the earth.

This research paper is about the environmental crisis that started long before the uprising and eventually became worst. President Bashar al Assad turned cities and provinces in to dust he threw bombs and rockets just to remain in power. In the tragedy Syria lost most of its cultural heritages and monuments. Much ink has been spilled about Arab Spring and Syrian Uprising, but almost all these studies haven't spoken about the impression that has been left on the environment. This paper will add volume in research as well as it will disclose the shocking amount of pollution caused by the weapons (which includes all kinds of guns, pistols, grenades, bombs, rockets etc), the destruction of infrastructure as well as the pollution that will be caused in rebuilding and resettling the people. Moreover, deforestation, obstruction of forest, and change of land use shall be discussed at length. and the impact of uprising on water resources.

The lush green forests of the western provinces contain most of Syria's natural tree cover, and have suffered the most degradation caused by the war. The hills of Idlib and Aleppo, home to massive olive and fruit orchards, were also affected by the movement of millions of internally displaced persons (IDPs) and fighting between regime forces and rebel groups. Urban forests in and around some Syrian cities faced severe degradation due to the sieges by the

regime, when people struggled to keep warm during the harsh winters. Throughout the war, local news reports emerged indicating how rapidly increasing energy prices, bombardments, wildfires and charcoal production all contributed to the thinning or even complete deforestation of forested areas. By combining local news reports, governmental documentation, scientific research and remote-sensing analysis conducted by PAX, a clear picture emerges of both the causes and consequences of conflict-linked deforestation in Syria. To understand the scale and impacts, the following analysis will make a distinction between three different types of forest cover, namely natural forest and reserves, commercial orchards, and tree loss in and around urban areas. This will be followed by an analysis looking at the causes of forest loss.ⁱ

2. Air Pollution due to ammunition

Military activity such as deploying combat planes, warships and tanks, and the use of overseas military bases, is highly energy intensive and dependent on fossil fuels. Research published last summer by Brown University, found that the US Military produces more CO₂ emissions annually than some countries, including Portugal and Sweden.

A typical passenger vehicle emits about 4.6 metric tons of CO₂ per year. This assumes the average gasoline vehicle on the road today has a fuel economy of about 22.2 miles per gallon and drives around 11,500 miles per year. Every gallon of gasoline burned creates about 8,887 grams of CO₂.ⁱⁱ

Explosive weapons completely can devastate a landscape. They can reduce buildings to toxic rubble and destroy long-cherished trees; they can contaminate the soil for decades and cause poisons to leach into once healthy rivers; they can decimate ecosystems and disturb the harmony of nature. They kill humans and animals without reflection and tip the world out of balance.ⁱⁱⁱ

Lead is the most prevalent contaminant at Superfund sites across the country (EPA 2001a). The highly toxic metal triggers more Superfund cleanups than any other industrial chemical or waste product in the environment. Lead is considered the number one environmental threat to children's health by the federal government, and at very low levels is linked to subtle developmental delays and reduced I.Q. in children (EPA 2001b, 2001c)^{iv}

In Syria, the reality is even starker. The levels of destruction seen there is on the scale of European cities destroyed in World War II Germany, such as Dresden. In Aleppo alone, at least 15 million tonnes of rubble were estimated to have been created in bombing attacks by 2017, while 5.3 million were reported in Homs, according to the World Bank's Toll of War report.^v

Such vast quantities of rubble, and the ensuing clearance needed, raises a host of environmental concerns many of which could have a significant impact on human health. And it is not just Aleppo and Homs - Raqqa, Douma and many other urban areas also witnessed major attacks. Indeed, AOAV's data on explosive violence in Syria shows that three-quarters of all harm from explosive violence happened in populated areas. Few places were safe. By 2017, it was reported that 50% of Syria's basic social infrastructure lay damaged or broken.^{vi}

During 2018, heavy bombardment continued to rain down on towns and cities; 34,136 buildings were damaged or destroyed in Eastern Ghouta; a further 1,415 were impacted in Idlib; some 1,198 in Manbij; and yet more in Taqba and Afrin.^{vii}

Such damage continued across the country in 2019, and such damage will continue until the conflict comes to its much-welcomed end. A thematic assessment of satellite identified damage by the research organisation REACH, published in 2019, gives a snapshot understanding on just how high the levels of rubble rise across Syria.^{viii}

Dr. Stuart Parkinson, SGR, assesses the latest data on the huge carbon emissions of the world militaries- and argues that only reductions in military spending will lead to the necessary cuts in the form of pollution. In 1997, international climate negotiations led to the agreement of the Kyoto Protocol, which set carbon emission reduction targets for industrialised nations for the first time. However, one of many compromises made to bring this treaty in to being was that the emission of military forces would be excluded from these targets. As US lead negotiator, Stuart Eizenstat, later stated, "We took special pains, working with the Defence Department.... To fully protect the unique position of the United States as the world's only super power We achieved everything they outlined as necessary to protect military operations At Kyoto, the parties, for example, took a decision to exempt key overseas military activities from any emissions targets, including exemptions for bunker used fuels used in international aviation and maritime transport and from emissions resulting from multilateral operations."^{ix}

Estimating a global total data for military carbon emissions is even more difficult. Nations which are members of the organisations for Economic Co-operation and Development (OCED) which includes most of the world's industrialised democracies- routinely publish data on energy consumption and economic activity. This can be used to estimate military carbon emissions. If the governments concerned have not complied their own estimates. Many of these countries tend to spend a lower proportion of national income on their military's than higher spenders like the USA or UK. However, many of the world's other large military spenders -such as China, Saudi Arabia, Russia and India-are much less transparent. And these are the economies which are also often heavily based on fossil fuels. Hence the military spending is likely to be significantly more carbon intensive.^x

Using military hardware results in huge quantities of emissions. In the war in Ukraine, 36 Russian attacks on fossil fuel infrastructure were recorded. In the first five weeks alone, leading to prolonged fires that released soot particulates, methane and CO₂ in the atmosphere, while oil infrastructure has been ablaze on the Russian side. The oil fields that were set on fire in 1991 during the second Gulf War contributed 2% of global emission for that year.^{xi}

Globally, the military sector is estimated to generate around 6% of all CO₂ emissions. Post-war rebuilding also produces significant emissions. Estimates suggest that reconstruction in Syria will lead to 22 million tonnes of CO₂ emissions.^{xii}

More arms means more damage to the climate, not greater security. Rising defence budgets among NATO states will simply convince Russia and China to increase military investment in turn. At \$2.1 trillion, global arms spending has already reached record levels.^{xiii}

Particularly in Syria since many countries are indirectly participating in supplying arms to the rebels or to the regime the exact number of CO2 emission or the literal damage caused or causing to the environment cannot be obtained. Nevertheless, Syria is drenched with weapons. Ranging from small arms to anti-aircraft rockets to air-dropped bombs, the massacre is fueled by the easy availability of weapons looted from caches in Iraq; transferred directly to specific parties by other countries; or diverted from those transfers to unintended recipients. Like stated earlier, it is difficult to trace when some weapons being used in the conflict were transferred and from which country. It is even more difficult, in some cases, to identify specific models of some weapon systems and thus the producer of those weapons. Besides, considering there are three main actors in Syria weapons to these specific fronts are sent by specific countries. Like, Dozens of companies in Russia have produced the weapons being used by the Syrian military today. Almaz-Antey Air Defense Concern produces the Buk medium-range land-based missile system and S-200 long-range surface-to-air missiles. Bazalt produces RPG-29 rocket-propelled grenades. The Degtyarev plant produces 9M119 Svir anti-tank guided missiles, 9M133 Kornet anti-tank guided missiles, KPV heavy machine guns, and Kord-12.7mm heavy machine guns. JSC Defense systems, a Russian-Belarusian company, produces S-125 Neva/Pechora surface-to-air missile systems and S-300PMU air defence systems. Moreover, The Defense Industries Organisation (DIO) of Iran has provided the Syrian army with M40 recoilless rifles, which are anti-tank guns. Many seem to have also ended up in the hands of opposition groups. The DIO also provided the Syrian army with AM50 anti-materiel rifles. These were originally exported to Iran from the Austrian company Steyr-Mannlicher in 2006. Iran then cloned the rifles and shipped them to the Syrian army. The DIO also produces and supplies the armour-piercing incendiary bullets fired by the rifles. Meanwhile, the Aerospace Industries Organisation of Iran has provided the Syrian military with Toophan anti-tank missiles, which is a reverse-engineered copy of the US military BGM-71 TOW missile.

Transfers to the Syrian opposition often follow a more circuitous route to their recipients. For example, several opposition groups including Al-Asala Watanmya, Daraa Revolution Commission, Durou al-Thawra, and Kataib al-Qasas use FN-6 shoulder-fired missiles. These are produced by the China Precision Machinery Import-Export Corporation. Qatar purchased these weapons from an unknown seller, which some investigators believe to be the Sudanese government. Qatar then transferred the FN-6s, via Turkey, to opposition groups affiliated with the Free Syrian Army.

These are not the only weapons thought to have come from China via Sudan. The Sudanese government is also thought to have sold Chinese-made anti-materiel sniper rifles and anti-tank missiles to Syrian opposition groups. In addition, Sudanese-made 7.62×39-millimeter ammunition has been used by Soqor al-Sham, a group that recognises the Syrian National Coalition's military command.

Some of the Syrian opposition's weapons seem to have come from Croatian stockpiles. In 2012, Saudi Arabia is thought to have financed the purchase of thousands of rifles and hundreds of machine guns, rocket and grenade launchers, and ammunition for opposition fighters from a Croatian-controlled stockpile of former Yugoslav weapons.

Some weapons also seem to have come directly from the United States. In April 2014, Syrian opposition groups supported by the West said they received about a dozen BGM-71 TOW anti-tank missiles, which were produced by the Hughes Aircraft Company (now part of General Motors). Other weapons used by the Syrian opposition groups are Russian or US-made and seem to have been looted from various caches or retransferred from other countries. Russian company KB Mashinostroyeniya makes many of the man-portable air defence systems (MANPADS) used by various opposition groups. Several groups also use the MILAN anti-tank missile system produced by Euromissile in France.

Meanwhile, Islamic State (IS), according to a comprehensive report from Amnesty International, uses weapons designed or manufactured by more than 25 countries. The bulk of these arms and ammunition were seized from Iraqi military stocks. IS has also gained access to weapons from other sources, in particular from the capture or sale of Syrian military stocks and arms supplied to armed opposition groups in Syria by countries including Turkey, the Gulf states, and the United States. IS fighters are now equipped with large stocks of mainly AK variant rifles, but also US military issue M16, Chinese CQ, German Heckler & Koch G3 and Belgian FN Herstal FAL type rifles. In addition, IS has captured more sophisticated equipment, such as guided anti-tank missiles (Russian Kornet and Metis systems, Chinese HJ-8, and European MILAN and HOT missiles), and surface-to-air missiles (Chinese FN-6s). However, WILPF's Disarmament programme, Reaching Critical Will, has undertaken to track some of these weapons from their use in Syria back to their manufacturers. We do so in order to highlight the companies that are contributing to the ongoing conflict, whether the weapons being used are new or old, whether they were transferred decades ago or recently. Most of the Syrian military's weapons originally came from the Soviet Union or the former Yugoslavia. Now the government mostly receives weapons from Russia and Iran. It uses the state budget to fund its arms imports – thus the government is using the tax money of the very people it is targeting to finance the weapons it uses against them.^{xiv}

Its difficult to imagine the amount of CO2 that has already been emitted in the environment and that which will be emitted in future. Because the sources of these weapons are unknown it is difficult to impose the liability of such actions.

3. Deforestation and Land Use Transformation:

Forests play a critical role in regulating water resources, and their decline has affected water availability and quality. Forest helps in maintaining a balance in the water cycle. They act as natural sponges, storing water during wet periods and releasing it gradually during drier times. In the context of Syria, the decline in forests, often due to deforestation and land degradation, has indeed had a negative impact on water availability and quality.

Reduced forest cover has heightened soil erosion, impacting agriculture and local communities' access to clean water. The lands in Syria have turned barren. Efforts to address soil erosion in Syria would ideally involve sustainable land management practices, reforestation efforts, and the rehabilitation of degraded lands. However, the ongoing conflict and associated challenges make these efforts difficult to implement comprehensively.

Syria has experienced one of the most significant refugee crises in recent history due to the ongoing Syrian civil war. Most of the Syrian refugees have sought shelter in neighbouring countries, including Turkey, Lebanon, Jordan, Iraq, and Egypt. These host countries have established refugee camps and informal settlements in forest or fields that are either huge part of the country's biodiversity or are agricultural lands. In the beginning these host countries assumed the Syrian uprising to be a temporary event and hence the arrangements were interim with tents made from cloth or plastic. Unfortunately the said event never met its end and the refugees started migrating to cities and towns in the country which in turn created internal disharmony and economic failures.

Refugee population often rely on wood as primary source of fuel for cooking and heating. In regions with limited access to alternative energy sources, this led to increased demand for firewood, potentially contributing to trees as cut down for fuel. Besides, establishing refugee settlements requires clearing land for temporary shelters and infrastructure, which usually involves removal of trees and vegetation which eventually leads to localized deforestation and habitat destruction. Moreover, with high population density in refugee settlement leads to overgrazing and soil degradation leading to permanent hinderance of vegetation. Prominently, its been more than a decade, the temporary settlements have now turned in to permanent settlement. Many refugees have started building concrete houses on these lands.

Efforts to mitigate deforestation in and around refugee settlements included providing alternative energy sources, promoting sustainable land management practices, and addressing the environmental impacts as part of broader humanitarian and development strategies. However, its essential to recognize that refugee crises often involve complex trade-offs between meeting immediate humanitarian needs and addressing long-term environmental concerns. Satellite images - from July 2018 (top) and May 2019 (bottom) - show the impact of the government's offensive on Town D in southern Idlib^{xv}



Numerous assessments report significant forest loss in Syria's natural forests and reserves. Open-source data sets such as Global Forest Watch are a useful starting point to identify key areas of forest loss, providing a user-friendly platform and country- or governorate-specific information based on general forest-loss data from Hansen.⁶⁴ For example, these data show that in Latakia alone, there was a 31 per cent loss in tree cover in the period 2001-2021. In Hama the loss was even 34 per cent. An initial remote-sensing analysis using Sentinel-2 data was released by PAX in 2020, demonstrating the widespread forest loss in the western part of Syria, with a 20.4 per cent loss of tree cover in the period 2012-2019.⁶⁵ Another assessment by Mohamed using Landsat data at a 30m resolution reported the loss of more than 24 per cent of forest cover (29,155 hectares) in the western governorates of Latakia, Tartous, Idlib, Hama and Homs, which contain 76 per cent of Syria's natural forests and 11 per cent of its forest reserves.⁶⁶ This study, which included the major forest losses as a result of Syria's extreme wildfire year in 2020, attributed less than 3 per cent of forest loss to urbanisation, 28 per cent to agricultural land conversion and 69 per cent to conversion to bare areas, likely a result of wildfires and rampant clearing linked with the need for fuel wood. For a detailed analysis of tree-cover loss in Syria, PAX developed a model using Sentinel-2 20-metre resolution imagery and machine learning. This model has been applied to the largest areas where tree-cover loss was found, and some smaller areas with notable changes in forested areas and parks. For the latter, a smaller number of case studies will be presented to showcase these impacts.^{xvi}

4. Impact on Water Resources:

Syria has been increasingly suffering from water scarcity, with dire consequences for its population and economy. Before the outbreak of the uprising in mid-March 2011 the country witnessed several years of severe drought (1999-2001 and 2006-2009), which resulted in population displacements and a reduction in the supply of water, sanitation and hygiene (WASH), particularly in rural areas. The renewable water resources in Syria were estimated at 808m³ /capita/year in 2012, which is below the water scarcity threshold of 1000 m³ /capita/year.³ It was expected that the absolute water scarcity threshold (500 m³ /capita/year) would be reached by 2050 but climate change, developments in the upstream country, Turkey, and the consequences of the war have only intensified and accelerated water scarcity and pollution problems. In fact, in 2015 Syria was ranked among the 25 countries most likely to face extreme water stress by 2040.^{xvii}

Water scarcity, mismanagement and pollution were growing concerns in Syria before 2011 in fact one of the major reasons for the uprising was the drought, during that period the Syrians witnessed migration and sufferings of the farmer. Destruction of and damage to water infrastructure caused by the war, however, have considerably increased the previous shortcomings. Agriculture has been the economic sector most affected, with impacts on its production structure. The population has also suffered from water shortages and pollution. Diseases have spread and continual increases in water prices have more and more impacted family expenditure in a context of sustained daily cost of living rises. Water scarcity and pollution constitute serious obstacles in any economic reconstruction process, and particularly affect agricultural food production and the well-being of the population. In Syria this is taking place alongside other factors, including shortages and high energy prices (fuel oil, gas and electricity). The effects of climate change will only further exacerbate the various predicaments related to water scarcity and pollution in the future.^{xviii}

The United Nations representatives who took the microphone in Baghdad in early June 2023 to talk about Iraq's current drought had little reason to be optimistic. While Germans and Central Europeans were moaning about one of the year's first heatwaves with temperatures from 30-40 degrees, in southern Iraq, prolonged temperature above 50 degrees and long overdue rains have been destroying its marshland, the ecosystem at the heart of the Middle East's crescent.^{xix}

Other stretches along Euphrates and Tigris are also facing huge challenges: if climate change in the region continues like this, by 2050 it will suffer more than 300 strong sandstorms a year. evaporation, reduce water flow and lack of rainfall will reduce the entire country's water capacity to a minimum. Two little water stored in the soil available for agriculture has serious consequences for both rural and urban population. More than a year ago Iraqi minister of environment Jassim Abdul Aziz al Falahi hinted at what scientists had predicted much earlier. What has already begun to happen will, within the next decades, also impact the surrounding countries and the European Community.^{xx}

The conflict has disrupted water infrastructure. Reduced access to clean water, and led to the displacement of millions of people, further straining water resources. Additionally, the Euphrates River, a major water source for Syria, has faced reduced water flow due to upstream dam construction in Turkey, compounding the crisis. the water crisis in Syria remains a complex and pressing issue, affecting both urban and rural populations.

Water scarcity has been worsening in the Middle East and North Africa (MENA) region as a result of state policies, mismanagement, conflicts and climate change. In 2013, the region received only 2.1% of world average annual precipitation and contained only 1.2% of renewable water resources, while its population amounted to more than 5% of the global population and its land occupied about 10% of the world's land area. In the same year MENA's internal renewable water resources received only 6% of its average annual precipitation, against a world average of 38%.¹ In 2020, more than 200 million people in the Arab-speaking countries of the region lived in a condition of water scarcity and 160 million in absolute water scarcity.^{xxi}

The continual degradation and damage in water treatment networks have increased the proportion of Syrians depending on often unsafe alternatives to piped water, which reached 47% in 2022 from 38% in the previous year. Wastewater has been discharged untreated into the natural environment resulting in serious risks to public health and significantly contaminating groundwater resources. In this context, water pollution and tankers selling unlicensed water (around 1,000 litres generally) have resulted in the dissemination of numerous diseases such as leishmaniasis in Aleppo and Deir al-Zor and typhoid fever around Damascus.^{xxii}

Since September 2021, individuals have been allowed to use smart cards to purchase limited quantities of water: two large packs of water equivalent to six 1.5 litre bottles every two weeks at a price of SYP 3,150 (USD 1.2 at the official exchange rate of 2,814 SYP/USD since April 2022) each and one small pack (equivalent to twelve 1-litre bottles) every two weeks at a price of SYP 4,200 (USD 1.5) each.^{xxiii}

In January 2022 the Ministry of Industry decided to stop selling water to private distributors. In this decision it was stipulated that the government would sell 70% of its production of bottled water through institutions affiliated with the Syrian Trade Establishment (STE) and 30% through the Social Military Establishment (SME), which is affiliated to the Ministry of Defence. Previously, private actors had been marketing 70% of the state-produced bottled water and the STE and the SME 20% and 10% respectively.⁷² This did not prevent a new price increase in the following weeks. The government had already decided in September 2021 to only market its bottled water through state entities. However, a few weeks later without providing any reasons it once again enabled private actors to operate in the market. The reality was that even during this short period, deliveries of water to various private actors by the STE continued, while state institutions were accused of being unable to supply sufficient quantities throughout the country, creating water shortages in various areas.^{xxiv}



image courtesy boredpanda.

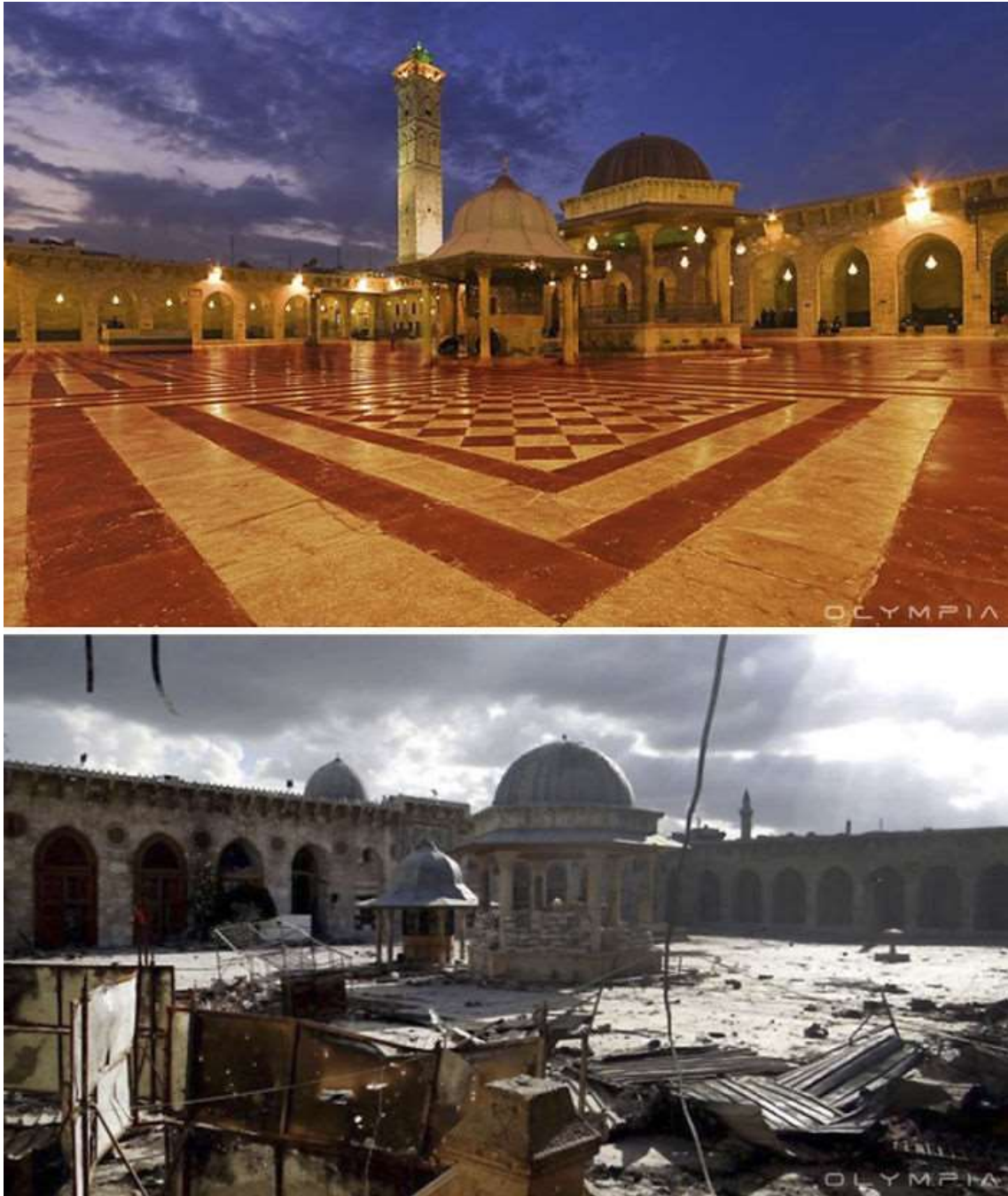


image courtesy boredpanda.



image courtesy boredpanda



image courtesy boredpanda^{xxv}



image courtesy boredpanda.

5. Holistic Approaches and Conclusion:

The Civil war has exposed people to new challenges and difficulties that does not seem to meet solution any sooner. Pollution, internal displacement and migration is causing complex burden on cities and suburbs for clean drinking water. The impacts of climate change will exacerbate problems relating to water scarcity and pollution, resulting in a further reduction of renewable water resources, an increasing frequency of droughts because of decreasing rainfall, increasing domestic and agricultural demand for water as temperatures continue to rise, and growing seawater infiltration in coastal aquifers as sea levels increase and groundwater over-exploitation persists .

- a) The interconnectedness of humanitarian, political, and environmental issues in the Syrian crisis underscores the need for holistic approaches in post-conflict reconstruction and peacebuilding.

- b) Environmental considerations must be integrated into conflict resolution and reconstruction efforts to address the unintended consequences and promote sustainable recovery. Restoring Syria to its original ecological state is indeed important not only for mitigating climate change but also for various other environmental and humanitarian reasons. Syria is a home to flora and fauna. Restoring natural habitats can help conserve biodiversity and protect endangered species, which is crucial for maintaining ecosystem health and resilience in the face of environmental changes.
- c) Ammunition is major source of Co2, import of weapons in Syria should be completely prevented, besides, there must be a ban on manufacturing of weapons as well. The existing government must draft legislation imposing complete ban on use, import, and manufacturing of weapons of any kind or form. Foreign actors must be eliminated from the country from all the ends.
- d) It's a high time President Bashar al Assad needs to settle the Civil war and work in direction to restore the peace and form reformative governance in the country. The destructed cities must be rebuilt, and peace must be reinstated. Citizens must be assured of their well-being by the regime.
- e) In conclusion, the environmental crisis resulting from the Syrian uprising, though secondary to the humanitarian and political crises, is a critical issue that demands greater attention. Deforestation, illegal logging, air pollution, and climate change have all been exacerbated by the conflict, affecting the environment and the well-being of the population. Recognizing these unintended consequences and integrating environmental concerns into peacebuilding and reconstruction efforts is essential for ensuring a more sustainable and resilient future for Syria and its people.

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^{xii} ibid

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