



# **BUSINESS RESPONSIBILITY TOWARDS THE ENVIRONMENT AND HUMAN RIGHTS IN SYRIA**

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## ■ EXECUTIVE SUMMARY

- Environmental damage and degradation pose serious threats to the enjoyment of a range of human rights enshrined in international human rights instruments, such as the rights to life, health, food, water, housing, and development, to name a few. The rights of women, persons with disabilities, and children may be disproportionately impacted by these consequences.
- In October 2021, the UN Human Rights Council adopted Resolution 48/13 recognizing the right to a clean, healthy, and sustainable environment. The UN General Assembly followed suit in July 2022, noting also the responsibility of businesses to respect human rights in this respect as per the UN Guiding Principles on Business and Human Rights.
- The formal recognition of the right to a clean, healthy, and sustainable environment by the international community raises the profile of environmental protection and underscores the relationship between the environment and human rights; human rights and the environment are interdependent, and a clean, healthy, and sustainable environment is necessary for the full enjoyment of a wide range of human rights.
- In addition to international human rights law, environmental damage and degradation is also addressed in international humanitarian law, international criminal law, and international environmental law. These legal frameworks also address the responsibilities of businesses, which arguably also apply to other entities that resemble businesses in terms of their structures and activities, such as non-governmental organizations.
- The impact of private business on the environment and relevant human rights was examined in three main fields across Syria: Oil industry, Deforestation and urban expansion over agricultural lands.
- Business impact on the environment in the studied field affects different rights of individuals and local communities including the right to a clean, healthy and sustainable environment, and the rights to life, health, food, water and sanitation, housing, and development.
- Most of the private business activities examined in the report were in the areas outside the regime-controlled territories. This is attributed to the absence of state services and institutions since 2011 which lead to weak governance structure and the absence of state-owned businesses. The latter were excluded from the research.
- The existing dynamics of the political economy in Syria, especially after 2011, make it difficult to separate private businesses profitability from their connection to de facto authorities on the ground. However, this does not mean that businesses are under the complete control of militias and de facto authorities. The research highlights a level of business autonomy that is larger across north Syria than the regime-controlled areas.
- The research acknowledges that business activities studied in this report are vital to support local needs. They are essential to providing much needed housing for the IDPs, employment opportunities to local communities, fuel for local industries and even heating where alternative sources are not available. Recommendations therefore are based on the need to improve the environmental impact of the business practices.
- Recommendations are directed to all relevant stakeholders including local businesses and their organizing bodies where available, local authorities, non-governmental organizations (Syrian or international), and donors. The approach is that the impact of business on the environment and human rights is a collective responsibility that could be improved in collaboration between the relevant parties.

## ■ INTRODUCTION

The devastation of the Syrian conflict has reached unprecedented scales across the different areas of control. In its thirteenth year, the political and economic conditions further complicate the humanitarian and human rights conditions in the country. In addition to loss of lives because of military operations and oppression of the civilian uprising, the prolonged conflict led to the fragmentation of the country to different areas of political and economic governance. This is coupled with a wide scale destruction of infrastructure that negatively affects all aspects of life including healthcare, industry, agriculture, food and water security, and other sectors of the Syrian services and economy.

The conflict's dynamics have also left a severe environmental impact, with long lasting effects. The destruction of water infrastructure, either for drinking or irrigation purposes, left Syria, a country with historical water insecurity, in an even more fragile condition.<sup>1</sup> The persistence of conflict dynamics further escalates the problems that emerge from erosion of soil, deforestation, pollution, and other causes. These dynamics limit access to agricultural lands and hinders its preservation in a country that is facing a real threat of food insecurity.<sup>2</sup> The destruction of the oil industry infrastructure has also led to extremely harmful practices to the environment that led to air, water, and soil pollution further aggravating the problem.

Environmental harm negatively affects the lives of Syrians in the short and long term. Water, soil and air pollution have direct effects on the local communities' health, and access to food and water, to name a few. Long term environmental impact, including loss of water and agricultural land, carries dire consequences for Syria's recovery and stability.

Concerns over human rights violations and humanitarian needs have been focused on more urgent violations that are closely connected to the armed conflict. Violations that are connected to the environmental impact of existing governance and business practices are overlooked and necessary to address. Of course, harm to the environment and its impact on human rights could be attributed to many factors. It is undeniable that Syria is very susceptible to the impact of global warming and it had witnessed long droughts in the years before 2011. However, local Syrian dynamics further exacerbate the problem as a result of 13 years of conflict that led to weakened governance, difficult

economic conditions, wide scale destruction of infrastructure, among many other reasons. Business practices in Syria and their relevant impact on human rights should be read and interpreted in this context.

With the increasing awareness of global environmental issues, the environmental impact of the Syrian conflict became the topic of several recent studies.<sup>3</sup> This paper's specific contribution to this line of research will be in two points. It will explore the relevant international legal framework concerning business' impact on the environment and human rights. It will also identify private businesses' impact on the environment across Syria, and the consequences of these practices on the human rights of the affected individuals and communities.



## **METHODOLOGY**

This research aims to explore the impact of private businesses on the environment in Syria. Harm to the environment has been the focus of a few studies that emerged in the last few years. However, an exploration of the role of private business dynamics remains missing. Identifying the role of businesses is especially relevant in the areas outside the regime control, where there is a wider margin for bottom-up feedback that could allow a possibility for improving local business practices.

In the regime-controlled territories, the question remains whether there is a possibility to influence local business practices. General awareness of the environmental impact is possible, but also holding those actors who are intentionally carrying activities with negative environmental impact to account is equally important.

This paper, however, aims to explore two main points. First, it outlines the relevant international legal frameworks which address human rights and the environment. It then analyses primarily the potential human rights impacts of adverse business activities and highlights the responsibilities of business actors in this regard. The paper also addresses the responsibility of businesses in relation to international humanitarian law, international criminal law, and international environmental law. Second, it seeks to explore the existing business networks whose activities carry a negative environmental impact and their relationship to the de facto authorities. This is investigated through the lens of three main identified issues: impact of oil industry, deforestation, and urban expansion over agricultural lands. These issues are not limited to one area of control, but could be observed across the country.

The research relies on extensive desk research to analyze the legal frameworks, comprising both hard and soft law norms and principles, addressing the human rights impacts of environmental damage and the responsibility of businesses in this regard. The legal analysis primarily draws on the United Nations (UN) Guiding Principles on Business and Human Rights, General Comments of various UN treaty bodies, reports of relevant UN Special Rapporteurs, and selected case law.

The contextual analysis of the main issues explored in this report is based on extensive surveying of the existing literature and news reporting in Arabic and English. The desk research is supplemented with 7

expert interviews to further shed the light on the local business dynamics and across the country.

Although the report is a preliminary investigation of the issues at hand, it proposes a set of recommendations that could help in mitigating the negative impact of businesses on the environment and relevant human rights. The recommendations seek a wider engagement of the affected local communities with the businesses themselves or with the victims of the potential abuses, or in conversations between the two groups. Recommendations are also directed to the governing authorities in order to improve the regulatory framework where these businesses operate.

Finally, few words are needed to identify what is meant by businesses in this research. The paper does not discuss government or state owned organizations or companies. It only addresses businesses that are owned by private individuals or groups. Businesses under discussion are not limited to large companies, but they also account for medium and small businesses. This could vary from registered companies to individual sole traders. This paper also addresses the relevant activities of non-governmental organizations (NGOs), many of which resemble corporations in terms of their business activities and organizational structures.

## LEGAL FRAMEWORKS

Under international law, several legal frameworks, comprising both hard and soft law, address the environment and human rights nexus. These include international human rights law (IHRL), international humanitarian law (IHL), international criminal law (ICL), and international environmental law (IEL).

As per the UN Guiding Principles on Business and Human Rights, businesses have a responsibility to respect human rights. This refers to internationally recognized human rights,<sup>4</sup> but also includes IHL in situations of armed conflict, as well as other additional standards depending on the circumstances.<sup>5</sup> These standards and concomitant responsibilities arguably also apply to non-governmental organizations (NGOs).<sup>6</sup>

The following section outlines the relevant normative frameworks comprising international norms which businesses and similar actors have a responsibility to respect.

### I. International Human Rights Law

#### A. *The right to a clean, healthy, and sustainable environment:*

Environmental damage and degradation affect a range of human rights, such as the rights to life, health, food, and water, to name a few. Women and girls, as well as vulnerable groups such as children, persons with disabilities, and the elderly, are disproportionately impacted by these consequences and feel them most acutely.

Following the UN Human Rights Council's adoption of Resolution 48/13 recognizing the right to a clean, healthy, and sustainable environment (R2HE) in October 2021,<sup>7</sup> the UN General Assembly followed suit in July 2022.<sup>8</sup> The resolution also noted that "the right to a clean, healthy and sustainable environment is related to other rights and existing international law".<sup>9</sup> On the responsibility of businesses, the resolution "[r]ecall[ed] the Guiding Principles on Business and Human Rights, which underscore the responsibility of all business enterprises to respect human rights".<sup>10</sup>

The formal recognition of R2HE by the international community of states raises the profile of environmental protection and underscores the relationship between the environment and human rights; human rights and the environment are interdependent, and a clean, healthy, and

sustainable environment is necessary for the full enjoyment of a wide range of human rights.<sup>11</sup> It is thus an implicit right linked to a range of other rights.

With regard to the normative scope and content of R2HE, the substantive elements include:<sup>12</sup>

- clean air;
- a safe and stable climate;
- access to safe water and adequate sanitation;
- healthy and sustainably produced food;
- non-toxic environments in which to live, work, study and play; and
- healthy biodiversity and ecosystems.

The procedural elements of R2HE include:<sup>13</sup>

- access to information;
- the right to participate in decision-making; and
- access to justice and effective remedies, including the secure exercise of these rights free from reprisals and retaliation.

### B. *Broader international human rights framework*

As emphasized above, R2HE relates to other internationally recognized human rights enshrined in the Universal Declaration of Human Rights (UDHR),<sup>14</sup> the International Covenant on Civil and Political Rights (ICCPR),<sup>15</sup> the International Covenant on Economic, Social, and Cultural Rights (ICESCR),<sup>16</sup> and/or the Convention on the Rights of the Child.<sup>17</sup>

The consequences of environmental harm often produce compounding effects and result in the impairment of several human rights concurrently. For example, land degradation may result in food insecurity, water scarcity, and loss of livelihoods, affecting the right to an adequate standard of living, as well as the right to food and the right to water. These effects could also result in displacement, affecting the right to housing, resulting in displacement, hunger, and potentially contributing to gender-based violence.<sup>18</sup>

#### 1. *The right to life*

The right to life can be directly and indirectly affected by environmental degradation.<sup>19</sup> It is also a right whose realization may depend on the fulfillment of a range of other rights, such as the right to health.

In its General Comment No. 36, the Human Rights Committee underscored that "[e]nvironmental degradation, climate change and unsustainable development constitute some of the most pressing and serious threats to the ability of present and future generations to enjoy the right to life".<sup>20</sup> It

further elaborated that the obligation to ensure this right depends in part on measures taken by states parties to protect the environment against harm caused by public and private actors.<sup>21</sup>

The Committee on the Rights of the Child has elaborated that the activities and operations of business enterprises may adversely affect the realization of a child's right to life, survival, and development in various ways.<sup>22</sup> One such way highlighted by the Committee is environmental degradation and contamination which can compromise children's rights to health, food security, and access to safe drinking water and sanitation.<sup>23</sup>

## 2. The right to health

Article 12(1) of the ICESCR recognizes "the right of everyone to the enjoyment of the highest attainable standard of physical and mental health".<sup>24</sup>

In their report on human rights obligations relating to the enjoyment of a safe, clean, healthy, and sustainable environment, the former UN Special Rapporteur on human rights and the environment warned that the deleterious health impacts of climate change include increased incidences of respiratory disease, cardiovascular disease, malnutrition, and water-borne and vector-borne diseases.<sup>25</sup> As such, environmental harm contributes to lifelong health problems, infringing on the right to health perennially.<sup>26</sup>

It is also crucial to recognize that climate change "erodes many of the key social and environmental determinants of health, including access to adequate food and water, clean air, culture and livelihoods".<sup>27</sup> In a similar vein, the Committee on Economic, Social, and Cultural Rights (CESCR) have affirmed that the right to health, as enshrined in the ICESCR, "embraces a wide range of socio-economic factors that promote conditions in which people can lead a healthy life, and extends to the underlying determinants of health, such as food and nutrition, housing, access to safe and potable water and adequate sanitation, safe and healthy working conditions, and a healthy environment".<sup>28</sup>

## 3. The right to food

The right to food forms part of the right to an adequate standard of living, and is enshrined in Article 25(1) of the UDHR<sup>29</sup> and Article 11(1) of the ICESCR, with Article 11(2) "recognizing the fundamental right of everyone to be free from

hunger".<sup>30</sup> Article 1(2) of the ICESCR states: "In no case may a people be deprived of its own means of subsistence."<sup>31</sup>

Environmental degradation patently interferes with the enjoyment of the right to food and to an adequate standard of living generally.<sup>32</sup> Not only do climate change, extreme weather, and shifting participation patterns affect food security, but these phenomena also exacerbate drivers of food insecurity, such as conflict and poverty.<sup>33</sup>

On the relation between land and the right to food, the CESCR has stressed that the former is crucial to guaranteeing the enjoyment of the latter, particularly if such lands are used for food production.<sup>34</sup> Accordingly, depriving land users of the land they use for productive persons risks endangering their right to adequate food.<sup>35</sup> The Committee on the Rights of the Child has highlighted that selling land to investors can deprive local populations of access to natural resources linked to their subsistence.<sup>36</sup>

## 4. The rights to water and sanitation

While not explicitly mentioned in the UDHR or the international human rights covenants, the human rights to safe and clean drinking water and sanitation were recognized by the UN General Assembly in Resolution 64/292 "as a human right that is essential for the full enjoyment of life and all human rights."<sup>37</sup>

As elucidated by the CESCR in 2002, the "human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses".<sup>38</sup> The right to water encompasses "the right to be free from arbitrary disconnections or contamination of water supplies".<sup>39</sup> The Committee also underscored that "[w]ater should be treated as a social and cultural good, and not primarily as an economic good."<sup>40</sup>

## 5. The right to housing

The right to housing, enshrined in Article 25(1) of the UDHR<sup>41</sup> and Article 11(1) of the ICESCR<sup>42</sup>, is threatened by climate change in a number of ways. Extreme weather, including drought and erosion, can render territories inhabitable, resulting in displacement and migration.<sup>43</sup>

As the CESCR noted in its General Comment No. 26, "as access to land provides space for housing, the enjoyment of the right to adequate housing depends largely on having secure access to land."<sup>44</sup> Depriving people of such access could subject them

to displacement and forced eviction, and may consequently result in the violation of their right to adequate housing.<sup>45</sup>

## 6. The right to development

Both Articles 1(1) of the ICCPR and the ICESCR respectively state: “All peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic, social and cultural development”.<sup>46</sup>

The Declaration on the Right to Development, adopted by the UN General Assembly in 1986, further affirms that the right to development is “an inalienable human right by virtue of which every human person and all peoples are entitled to participate in, contribute to, and enjoy”.<sup>47</sup>

Environmental degradation poses considerable risks to the enjoyment of this right. As such, the Rio Declaration on Environment and Development (1992) stipulates that individuals and communities should have appropriate access to information concerning the environment, as well as the opportunity to participate in decision-making processes.<sup>48</sup> Relatedly, businesses and other relevant actors who produce information about development projects should provide that information transparently.<sup>49</sup>

### C. Business responsibility

Pursuant to Guiding Principles 18–19 of the UNGPs, businesses “should identify and assess any actual or potential adverse human rights impacts with which they may be involved either through their own activities or as a result of their business relationships”, include “meaningful consultation with potentially affected groups and other relevant stakeholders”, “integrate the findings from their impact assessments across relevant internal functions and processes, and take appropriate action”.<sup>50</sup>

In addition to the responsibilities of businesses enumerated in the UNGPs, the OHCHR’s ‘Framework Principles on Human Rights and the Environment’ outline specific responsibilities in this regard in a supplementary manner. The instrument provides that the responsibility of businesses to respect human rights includes the responsibility to:<sup>51</sup>

- avoid causing or contributing to adverse human rights impacts through environmental harm;
- to address such impacts when they occur, and;

- to seek to prevent or mitigate adverse human rights impacts that are directly linked to their operations, products or services by their business relationships.

Businesses should therefore:<sup>52</sup>

- comply with all applicable environmental laws;
- issue clear policy commitments to meet their responsibility to respect human rights through environmental protection;
- implement human rights due diligence processes (including human rights impact assessments) to identify, prevent, mitigate, and account for how they address their environmental impacts on human rights, and;
- enable the remediation of any adverse environmental human rights impacts.

## II. International Humanitarian Law & International Criminal Law

### A. Relevant rules

Principle 12 of the UNGPs states that “in situations of armed conflict enterprises should respect the standards of international humanitarian law”.<sup>53</sup> The applicable body of IHL in this regard is that which applies to non-international armed conflicts (NIACs).

In its 2005 study of the rules of customary IHL, by which all states are bound, the ICRC found that the following rules apply in NIACs:<sup>54</sup>

Rule 43. The general principles on the conduct of hostilities apply to the natural environment:

- A. No part of the natural environment may be attacked, unless it is a military objective.
- B. Destruction of any part of the natural environment is prohibited, unless required by imperative military necessity.
- C. Launching an attack against a military objective which may be expected to cause incidental damage to the environment which would be excessive in relation to the concrete and direct military advantage anticipated is prohibited.

Rule 44. Methods and means of warfare must be employed with due regard to the protection and preservation of the natural environment. In the conduct of military operations, all feasible precautions must be taken to avoid, and in any event to minimize, incidental damage to the environment. Lack of scientific certainty as to the effects on the environment of certain military operations does not absolve a party to the conflict from taking such precautions.

Rule 45. The use of methods or means of warfare that are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment is prohibited. Destruction of the natural environment may not be used as a weapon.

The International Law Commission's Draft Principles on the Protection of the Environment in relation to Armed Conflicts (PERAC) reinforce these rules.<sup>55</sup>

While the Rome Statute does not provide significant environmental protection in the context of NIACs, it addresses damage to the natural environment in some ways. Environmental damage could constitute a material element of other crimes. For example, the burning of forests may constitute the basis for the war crime of destruction of property.<sup>56</sup> The following Rome Statute provisions are of relevance to the protection of the environment in NIACs:

- Pillaging a town or place, even when taken by assault.<sup>57</sup>
- Destroying or seizing the property of an adversary unless such destruction or seizure be imperatively demanded by the necessities of conflict.<sup>58</sup>

### **B. Business responsibility:**

Business enterprises may have an impact on the environment in armed conflict settings, and incur liability accordingly, in various ways.

Providing professional services and advice to parties to the armed conflict may amount to complicity in environmental destruction and trigger liability. Business enterprises may be held responsible for violations of IHL perpetrated against the environment by, for example, selling weapons to armed forces that cause widespread, long-term, and severe damage to the environment.<sup>59</sup> Such enterprises may be subject to domestic proceedings for breaches of domestic criminal or civil legislation. Individuals within these entities, such as executives, may also be brought to justice under universal jurisdiction trials or before international or specialized criminal tribunals.

Businesses may have a direct or indirect impact on the environment through their operations or indirectly through the way their products or services are used.<sup>60</sup> This includes exacerbating existing environmental and climate vulnerabilities.<sup>61</sup>

Businesses may also be liable for the war crime of pillage for environmental damage or destruction.<sup>62</sup>

After World War II, the destruction of forests was considered to constitute a violation of the prohibition of pillage, for which individuals could be held responsible.<sup>63</sup> The Committee on Facts and Evidence of the UN War Crimes Commission found prima facie evidence that nine Germans, who had been heads of various Departments in the Forestry Administration in Poland during the Nazi occupation, "could be listed as war criminals on a charge of pillaging Polish public property."<sup>64</sup> In the Revolutionary United Front (Liberia) Case, the Special Court of Sierra Leone condemned the indicted for, inter alia, the war crime of "pillaging and burning" and thereby violating common Article 3 of the Geneva Conventions as well as Article 4(2)(g) of Additional Protocol II.<sup>65</sup>

Heightened managerial care with regard to environmental issues is required from business enterprises operating in conflict zones.<sup>66</sup>

### **III. International Environmental Law**

While the UNGPs do not explicitly mention climate change, both the ICCPR and ICESCR have been interpreted in a manner consistent with international environmental law.<sup>67</sup> The UN Working Group on Business and Human Rights asserts that such developments are consistent with the Commentary to Guiding Principle 12 that "business enterprises may need to consider additional standards [of human rights] beyond those specifically given in the Guiding Principles".<sup>68</sup>

The Working Group further affirmed that the responsibilities of business enterprises under the Guiding Principles include the responsibility to act in regard to actual and potential impacts related to climate change.<sup>69</sup>

In this regard, it is relevant to recall that UN General Assembly Resolution 76/300 "[a]ffirm[ed] that the promotion of the human right to a clean, healthy and sustainable environment requires the full implementation of the multilateral environmental agreements under the principles of international environmental law".<sup>70</sup> It follows that, in order for the right to be realized, businesses also have a responsibility to respect the norms and principles enshrined in multilateral environmental agreements.

As regards climate change, the Paris Agreement sets out a global framework to limit global warming to well below 2°C, and pursue efforts to limit it to 1.5°C. The Agreement explicitly links human rights and climate change in the preamble. The parties acknowledged that they:

“should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity”.<sup>71</sup>

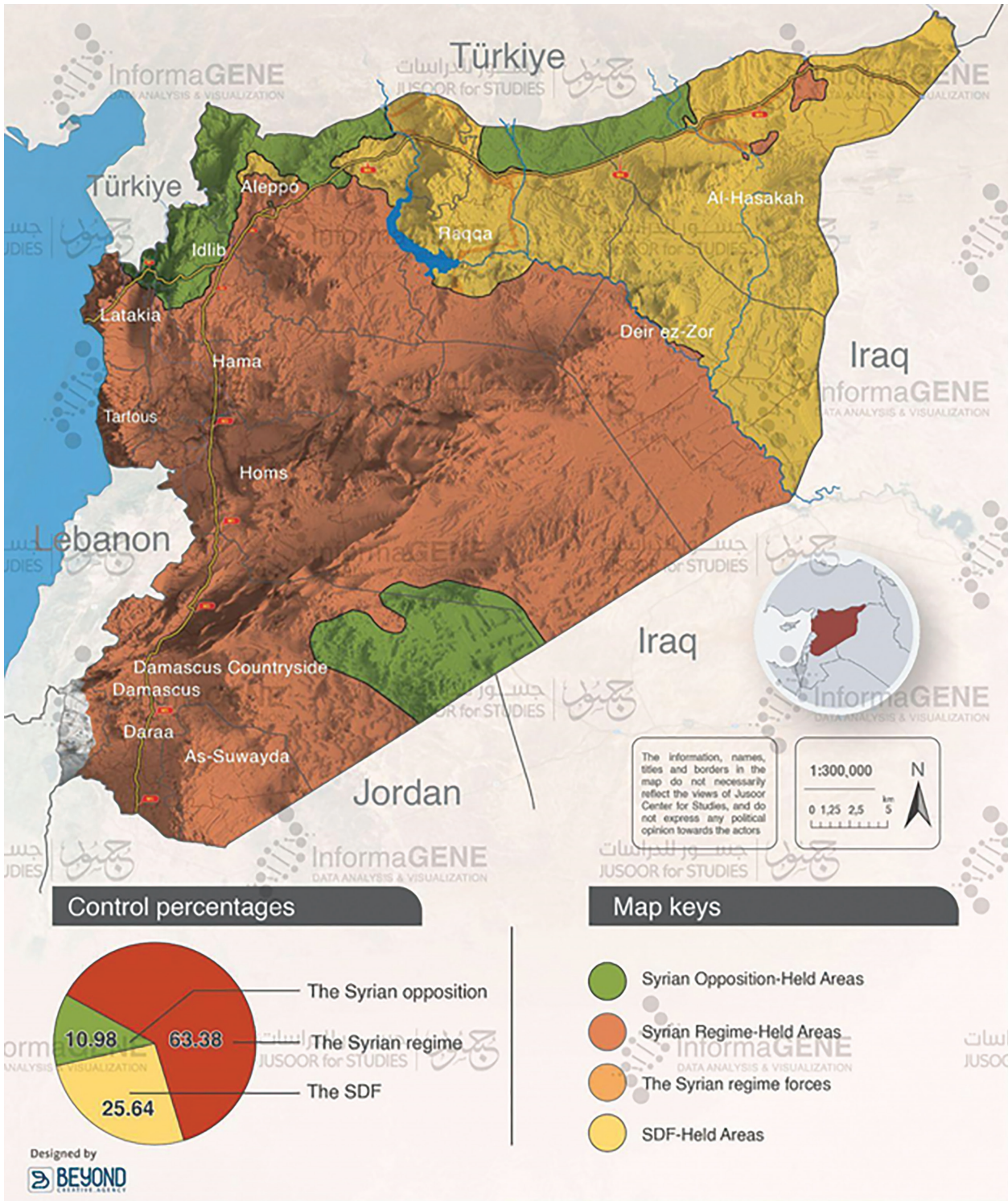
In *Milieudefensie et al.v. Royal Dutch Shell* (2022), the Hague District Court ordered Dutch-based oil and gas multinational Royal Dutch Shell to reduce its CO2 emissions associated with its products by 45% from 2019 levels by 2030.<sup>72</sup> The judgment represents the first time a private company was ordered to comply with the Paris Agreement, and the first time one has been found to have a duty to mitigate greenhouse gas emissions under the Agreement. The Court partly grounded its decision in an “unwritten standard of care based on the goals of the Paris Agreement and the UNGPs”.<sup>73</sup>

Moreover, the 1992 Rio Declaration on Environment and Development explicitly links the environment to peace and development, recognizing that they are “interdependent and indivisible”.<sup>74</sup> The Declaration also frames environmental protection as an integral part of sustainable development processes which cannot be considered in isolation from it.<sup>75</sup>

## BUSINESS IMPACT ON THE ENVIRONMENT AND HUMAN RIGHTS IN SYRIA

Private business impact on the environment and related human rights in Syria could be observed in three main areas: the impact of the oil industry,

deforestation, and urban expansion. These areas of impact are not restricted by the internal boundaries that delineate the different areas of control within the country. The following analysis will address each of these three issues, identify the current business dynamics and actors that are causing the issue and explore the impact of these practices on the environment and the rights of the communities and individuals.



Map showing the different areas of control in Syria as of early 2023.<sup>76</sup>

## I. Impact of Oil Industry

The collapse of the oil industry in northeast Syria began in 2012 as violence escalated in the country and the authority of the central government shrank. The rapid rise of the Islamic State in Iraq and Syria (ISIS) and its control of some of the oil fields in Deir Ez-zor (2014) was followed by a military campaign by a Western coalition, led by the United States, to regain territories and limit the organization's funding from oil revenues. This was also parallel to a similar brutal air bombing campaign by the Russian air force, which joined the Syrian conflict on the side of the Syrian regime (2015), and for the same purpose. The operations against ISIS and its oil revenues further added to the destruction of oil wells, refineries, storage facilities and the remaining infrastructure that was established before 2011.<sup>77</sup> The Syrian Democratic Forces (SDF) took control of the oil fields after the defeat of ISIS (2018).

The SDF contracted private businesses to run the oil fields in its territories to reduce operation costs.<sup>78</sup> The absence of proper regulations to govern the industry allowed investors to operate oil fields and refining activities by relying on primitive methods that do not protect the local communities, the workers or the environment. The profitability of the business and the great need for oil in the different areas of control in Syria only helped to reinforce these practices. The weak regulation of the industry led to the spread of 'burners', which are basic devices to refine extracted oil and separate its derivatives. The oil industry economy provides tens of thousands of Syrian families with employment opportunities, exposing them at the same time to the dangers from hazardous substances and production processes.<sup>79</sup>

### A. Oil production and refining

The oil industry is one of the most profitable businesses in Syria. In the territories outside the Syrian regime's authority, the industry is controlled by the de facto powers in the northeast and northwest. The methods of control over the oil industry and its revenues vary between the different regions. Burners, which produce the widest range of negative impact on the environment and human rights, are generally owned and operated by individual investors. Burners can be standard or electric with different capacities. The latter is more efficient with less negative environmental impact, but they are more expensive to buy and maintain.<sup>80</sup> In the early stages after 2011, most of the makeshift extraction and refining of oil was conducted by the owners of the

land where the oil wells are located.<sup>81</sup> Soon afterwards, military factions became increasingly involved in controlling oil wells, and the extraction process, under the pretext of protecting and securing oil production. This remained the case despite the change of authorities controlling the region, ISIS and then the SDF.<sup>82</sup>

In northwest Syria, where there are no oil fields, burners rely on imported oil from the northeast. Oil is imported through the Khalifah al-Juhaishi Company, which monopolizes the purchase of crude oil from the SDF and its sale to the owners of burners in the northwest.<sup>83</sup> Oil from the SDF areas of control is transported to the northwest through the Al-Hamran checkpoint. It is then transported by trucks to the refineries, which are grouped in Tarheen. Refined oil is then distributed to the rest of the northwest, including the areas controlled by the Hayat Tahrir Al-Sham (HTS).<sup>84</sup> A company called Imdad monopolizes the distribution of oil and its derivatives in the areas under the control of the Syrian National Army (SNA). The company was created in 2020 and it is connected to the SNA.<sup>85</sup>

Until October 2022, Watad company was in control of importing and distributing oil and its derivatives in the territories under the control of HTS.<sup>86</sup> Reports indicate that the company is allegedly closely linked to HTS<sup>87</sup> and its imports passed through the areas under the control of SNA. Reports of a potential deal between HTS and SDF to import crude oil directly to Idlib were denied.<sup>88</sup> In the regime-controlled territories, SADCOP (Mahrukak) company is in charge of this process, in a continuation of a pre-2011 trend.<sup>89</sup> Katerji company is in charge of importing oil from SDF territories.<sup>90</sup> The company is owned by Hussam Katerji, a militia leader and a Syrian Parliament member. He was sanctioned by the EU (2019) and the US (2020) for his financial and military support of the Syrian regime.<sup>91</sup>

Oil produced and refined in Syria is not the only source of oil products. A Turkish company called "MT" monopolizes the importation of oil products into northwest Syria, both the SNA and HTS territories. Not much is known about the Turkish company, and it relies on Turkish agents for the sale of its imported oil to Syrian customers.<sup>92</sup> Authorities in the different areas of control levy their own taxes over every step of the process. From taxing the production to sales to entry through checkpoints, etc. Therefore, the further the end destination is from the production site, the more expensive the price of oil products.<sup>93</sup>

The de facto authorities across Syria control the oil



industry by relying on networks of crony capitalists. These businesses operate for the benefit of the militias and forces in control in the northwest (SNA and HTS), northeast (SDF), and the regime-controlled territories.<sup>94</sup> The connection to the main militias or military faction offers businesses wider access to resources and markets. This does not necessarily mean that businesses involved in the oil industry are all fronts for these armed groups, and there is a space for businesses to grow and operate. Naturally, in the Syrian conditions, the closer a business to the decision making circles, the larger and more profitable are its operations.<sup>95</sup>

In the regime-controlled territories, Iranian oil represents the majority of imported oil, through the port of Baniyas. It is then refined at the only oil refinery in the country at Baniyas.<sup>96</sup> Although the infrastructure retained its pre-2011 status, the negligence of the authorities of the Syrian regime and the Iranian and Syrian attempts to evade sanctions imposed against both countries, promoted practices that carry their own environmental hazards. Oil spillage into the Mediterranean, either from the Baniyas refinery or from the oil tankers off the coast, have been reported in 2019,<sup>97</sup> 2021,<sup>98</sup> and 2022.<sup>99</sup> The damage to the marine environment is devastating, and it is further complicated by the possibility of reaching the international waters and beyond. Despite its environmental impact, this issue is beyond the scope of this research.

### **B. Environmental Impact**

The process of extracting oil from the ground generates hazardous substances.<sup>100</sup> Carbon monoxide, Hydrogen sulfide, sulfuric acid, polycyclic hydrocarbons and other toxic substances, vapors and heavy metals are byproducts of the oil industry.<sup>101</sup> In the normal conditions of extracting oil, the industry is heavily regulated for the protection of the workers. In the Syrian case, where the industry regulations collapsed after 2011, many of the safeguards were abandoned. For example, the extraction of oil is accompanied by extracting water from the same wells. Such water is rich in radioactive elements, and in normal operating conditions, is injected back into the well or gets disposed of in a safe manner. In the northeast of Syria, oil extraction relies on basic techniques that seek to maximize profit on the expense of the needed precaution to dispose of such substances. Reports claim that these substances are dumped onto the fields or into the Euphrates.<sup>102</sup> Such pollution damages the soil of the agricultural lands, the harvest, the animals and the

people living off that land. The radioactive element could take years to be cleared.<sup>103</sup>

Refining the extracted oil is also accompanied by its own set of hazards. Local refining methods could be described as primitive and rely on makeshift devices called 'burners'. The tank of these burners is heated up for 15 to 20 hours to separate the oil from other substances. The process generates a great amount of air pollution that strongly and negatively affects the lives of the surrounding communities.<sup>104</sup> Increasing cases of cancer, miscarriages, respiratory diseases and other illnesses are reported in Al-Hasakah and Deir Az-Zor governorates, in addition to complaints against the fumes resulting from the refining process.<sup>105</sup> For those involved in the process of refining themselves, the dangers are more severe. Direct exposure to the fumes increases their chances of developing cancer or respiratory diseases.<sup>106</sup> They are also exposed to dangers emanating from the absence of safety measures at the worksite, which may include the explosion of the 'burners'.<sup>107</sup>

Oil spillage into the Euphrates was reported on different occasions near the oil smuggling points between the areas controlled by the SDF and the Syrian regime.<sup>108</sup> The Euphrates represents the main source of drinking and irrigation water for northeast Syria. It also forms roughly a de facto borderline between the regime and SDF areas of control. Although the river pollution is not solely caused by oil spillage, the oil industry is increasingly taking the blame given the primitive methods used to extract, refine and transport the oil produced. The environmental impact of oil spills into the Euphrates is severe. Locals were reported to have exhibited symptoms of poisoning because of their drinking water contamination. Pollution also affects the wildlife in the area with reports of fish and other animals around the river reported dead.<sup>109</sup>

In northwest Syria, both SNA and HTS controlled areas, makeshift burners are also present with similar effects on the environment, populations health, wildlife, agriculture and water resources.<sup>110</sup>

### **II. Deforestation**

Among the key environmental issues wreaking havoc in various parts of Syria is deforestation. The factors driving this phenomenon are linked to the multifaceted and pervasive consequences of over a decade of conflict. The two primary drivers of deforestation in the country are logging and forest fires.

### A. Logging

Thirteen years of conflict have left Syrians to face poverty, deteriorating living conditions, fuel shortages, a rise in energy prices, and a scarcity of electrical power and heating diesel. As a result, a massive black market for logging has emerged, which has served as a source of income for many,<sup>111</sup> as well as a means for heating and cooking.<sup>112</sup>

This practice is widespread primarily in the coastal regions and the north. In the former, it has been reported that criminal gangs pay workers to cut down trees to sell on the black market.<sup>113</sup> In Hama, logging is carried out by organized networks of firewood traders and charcoal workers for the purposes of selling firewood to residents for winter heating.<sup>114</sup>

In Idlib, the absence of environmental regulations has enabled residents in the area, many of whom are internally displaced persons (IDPs), to make a living off of logging. The practice, however, is not limited to individuals – non-state armed groups in various areas of northern Syria have profited from this trade.

According to one interviewee, several militia groups have established economic offices and engage with firewood traders – either those affiliated with them or local traders within their broader network of relationships.<sup>115</sup> The armed groups offer traders protection in exchange for business partnerships. The source adds that sometimes an agreement is made between a militia group and a specific contractor to cut down trees in an entire area in exchange for a sum of money for the benefit of the faction controlling the area. Logging operations involving these actors are therefore more organized and rely on mechanisms that regular individuals do not possess.

According to interviews conducted by Syrians for Truth & Justice (STJ), militia groups sell large quantities of timber to traders in A'zaz city, regime-held areas, and Türkiye.<sup>116</sup> The groups, often represented by traders and brokers, have also sold logs to relief organizations to distribute as firewood to IDPs. An STJ interviewee working at a relief organization stated: "We used to purchase logs and wood from the A'zaz market to distribute to IDP camps. We bought logs cut down from the Barsa Forest. We used to buy freshly cut logs because they are less costly than dried wood... The [Levant] Front cut down the mount's trees and sold them to organizations, which would distribute them in aid to IDPs."<sup>117</sup>

The prices of firewood increased exponentially during the conflict,<sup>118</sup> providing the impetus for individuals and militias alike to seize lucrative logging opportunities. Prior to the conflict, one ton of firewood cost approximately 6,000 Syrian pounds (SYP). In 2018, this steadily increased to SYP 100,000. As of 2022, prices were reported to be between SYP 900,000 and SYP 1 million.<sup>119</sup> While it is important to take into account the severe devaluation of the Syrian pound, this nevertheless demonstrates a striking increase in firewood prices. A number of sellers have described the firewood market as a stock market.<sup>120</sup>

### B. Forest fires

Beyond logging practices, forest fires are a widespread phenomenon that have increased in frequency throughout the course of the conflict. The percentage of deliberate forest fires on the Syrian coast skyrocketed from 41% between 1987-1998 to over 90% between 2011-2018.<sup>121</sup> Reports indicate that such fires are part of an established commercial practice; burned forest lands are sold to traders and developed into real estate projects or industrial facilities.<sup>122</sup> It has also been reported that major coal traders in coastal Syrian cities are influential individuals with close ties to the Assad family, and are awarded government tenders after forest fires to clear the area and benefit from the potential resulting charcoal.<sup>123</sup>

According to sources, shortly after the fires die down, traders cut down both burned and unburned trees and transport them to unknown locations. Local residents are barred from approaching these areas in the aftermath of fires.<sup>124</sup> Several reports have suggested that businesspersons who offer to buy burned lands are typically connected to the Syria Trust for Development, an organization run by Asma Al-Assad. These individuals include Yasar Ibrahim and Abu Ali Khader.<sup>125</sup>

In 2020, the Minister of Agriculture stated that the burned areas amounted to 11,500 hectares in the governorates of Tartous and Latakia, and that 60% of the areas were forest lands, with the remaining area being agricultural lands, 4% of which was cultivated.<sup>126</sup> Reports also revealed that hundreds of farmers lost their agricultural trees, most of which were decades-old fruit trees, particularly in Kessab and the Jableh countryside.<sup>127</sup>

### C. Charcoal production

Another key practice driving deforestation is

charcoal production. The charcoal trade is one of most prominent ones on the Syrian coast, insofar as some forest fires had been deliberately started by those who benefit therefrom. In Latakia alone, the trade is worth approximately USD \$100,000.

According to one interviewee, charcoal kilns are built within forests, which has led to fires in more than one area.<sup>128</sup> In some areas, such as Baniyas, such kilns were built under unsafe conditions and pose a very high risk of igniting a fire.<sup>129</sup>

The charcoal produced serves two purposes: grilling and hookah. According to the interviewee, hookah charcoal has devastating consequences on the environment because it relies on branches whose thickness exceeds 2 or 3 centimeters. Oak trees in particular take a long time to regrow, and as a result of the charcoal trade, these trees will soon become extinct in coastal areas.<sup>130</sup>

The process is described as one not requiring complex techniques or tools.<sup>131</sup> After firewood is collected, it is buried in sand, and subsequently covered and ignited to achieve anaerobic combustion, thus producing charcoal. After the flames smolder, the cover is removed and the burning firewood is ventilated. The resulting firewood is sorted according to weight and shape. The good quality is selected for hookah charcoal. If the charcoal derives from oak, the price of a kilogram goes for 15,000 Syrian pounds. Lower quality charcoal is sold for grilling, and is sold for 8,000 Syrian pounds per kilogram on average.<sup>132</sup>

Under Syrian law, it is illegal to transport charcoal from one region or governorate to another, but the transport takes place regardless through trade networks linked to the Syrian government.<sup>133</sup>

When forest fires broke out in 2021 in the areas of Qardaha and its environs, the Syrian government strictly prohibited the disposal of burned trees except through the Directorate of Agriculture or the Ministry of Agriculture. The Directorate issued tenders, and most of these tenders were awarded to the same investor in the charcoal trade. The same scenario took place in Mashqita, which has the last forests that contain pine and wormwood trees.<sup>134</sup>

The Syrian government has yet to issue any legislation to ban charcoal kilns. As of 2023, it is still permissible to license charcoal kilns. According to the same interviewee, this license is suspended after a five-year period for five years in order to allow the forest area to regrow. There are also a large number of unlicensed charcoal kilns due to

local administrations' failure to impose fines.<sup>135</sup> While the number of kilns cannot be precisely ascertained, the interviewee estimates at least 1000 charcoal kilns along the Syrian coast. If each kiln produces at least 100 kilograms of charcoal per week, there is a real and serious risk of the forest's depletion.<sup>136</sup>

The charcoal trade is controlled by certain individuals who are directly connected to the Assad family. One of these individuals is Yasar Al-Assad, Bashar Al-Assad's cousin. According to the interviewee, all the cafes and stores in Latakia are obliged to purchase from this network on its terms and prices.<sup>137</sup>

There is a glaring lack of space and a platform for civil society organizations and victims of environmental harm in the Syrian coast to advocate for the protection of the environment. In the interviewee's words:

"The conflict has changed the form of relations between humans and the environment. There is no longer environmental awareness about the necessity of preserving forests and adhering to these laws. There are 400-year-old trees that have been cut down for commercial purposes".<sup>138</sup>

#### ***D. Environmental impact***

Deforestation poses devastating impacts to the natural environment, and concomitantly, human health and security.

Logging causes trees to emit carbon dioxide into the atmosphere rather than absorb it. Deforestation is responsible for 12-20% of all greenhouse gas emissions,<sup>139</sup> which contribute to rising temperatures and trigger extreme weather events. Trees also play a crucial role in local water cycles by maintaining a balance between the water in the atmosphere and the water on land. Deforestation thus disrupts that balance and results in changes in precipitation and river flow.<sup>140</sup>

Further, deforestation contributes to soil erosion and loss of arable land, which in turn adversely impacts livelihoods and plunges those who depend on forests into poverty and food insecurity.<sup>141</sup>

Food insecurity can also be driven by the devastating impact of forest fires on agriculture and livestock.<sup>142</sup> The smoke from these fires constitutes a mixture of hazardous air pollutants, which pose serious risks to human health.<sup>143</sup> The fires also affect the climate by emitting substantial amounts of greenhouse gasses.

At the 2021 UN Climate Change Conference, or 'COP26', the 'Glasgow Leaders' Declaration on Land and Forest Use' emphasized the critical role of sustainable land use in adapting to climate change, holding the increase in the global average temperature to below 2 degrees Celsius, and achieving global sustainable development goals.<sup>144</sup>

### III. Urban Expansion on the Expense of Agricultural Land

Military operations in most Syrian cities resulted in the displacement of millions of people from their original areas of residence, which caused a significant population increase in some areas. Idlib and northern Aleppo each received a third of the overall IDP population in Syria, approximately 2.1 of 6.9 million IDPs, 1.5 million of whom reside in camps.<sup>145</sup>

Therefore, it was necessary to respond to this crisis by securing housing for the displaced, which prompted many organizations to provide shelter and promote the construction of affordable housing units. Undoubtedly, the priority remains to provide shelter to those in need. However, the planning and building of these housing units and complexes should address the environmental and sustainability issues that were addressed in the report whenever possible. This will help improve the conditions of human rights in the region and help avoid any potential conflict or humanitarian crisis stemming from environmental degradation.

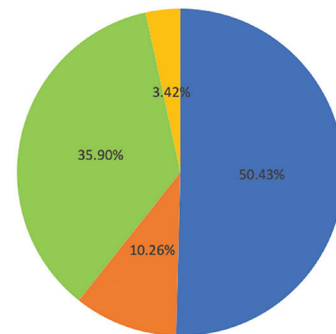
Türkiye's announcement in 2022 of its plan to return one million Syrian refugees to Syria until the end of the year prompted organizations to accelerate the construction and delivery of new housing units in areas under the control of the de facto authorities in northern Syria.<sup>146</sup> Whether the goal is to improve people's quality of life by helping them move from camps to buildings, or to sell these housing units on the market and make financial profits, new construction projects are spreading widely and rapidly throughout northern Syria. The earthquake that struck Turkey and Syria in February 2023 also caused wide scale destruction in the northwest, and this was one of the additional reasons that prompted the NGOs to build new housing units in the area, to meet the needs of those displaced from their destroyed homes due to the earthquake.

Since 2015, Syrian NGOs have launched dozens of low quality IDP housing units near Idlib, Azaz, Afrin and Jarablus.<sup>147</sup> The construction of these units resulted in many legal, demographic, and environmental repercussions. Some residential

villages were built on agricultural lands owned either by the state or privately, and some were built within forests planted with trees.

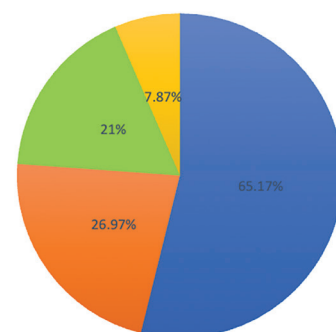
The organizations tried to build on state-owned lands so local authorities can maintain more legal control over the complexes and also to prevent agricultural land being transformed into housing,<sup>148</sup> but that wasn't the case in all of the projects.

According to the Assistance Coordination Unit (ACU) report, 50% (59 complexes) of the housing complexes were established on agricultural lands, while 10% (12 complexes) were established on lands that were forests and hills planted with trees.<sup>149</sup> At the same time, 36% (42 complexes) of the housing complexes were built on rocky and mountainous lands. Only 3% (4 complexes) of the housing complexes were built on flat ground in a square intended for government or school buildings.<sup>150</sup>



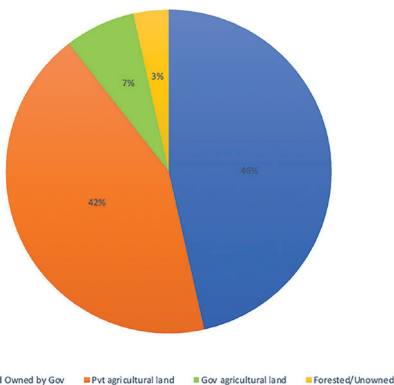
■ Agricultural Land ■ Forests and Hills ■ Rocky, mountainous lands ■ Flat ground (intended for schools)  
 Graph (1): Types of land where housing complexes for IDPs were constructed

Concerning the mechanism by which the complexes emerged, the report found that 50% (58 complexes) were established by the donor, whether it was a local or international organization, donors, or businessmen. Another 21% (24 complexes) were camps converted into housing complexes. IDPs established 21%, and 6% (7 complexes) were established by the contractors and traders of construction materials.<sup>151</sup>



■ Donor (intl, local) ■ Camps ■ IDP ■ Contractors traders of construction material  
 Graph (2): The mechanism through which housing complexes for IDPs were constructed

As regards the ownership of the lands on which housing complexes were established, the report shows that 46% (54 complexes) of the housing complexes were public lands owned by the government before the housing complexes were established on them. According to the same report, 42% (49 complexes) were private agricultural lands before housing complexes were built on them. Another 7% (8 complexes) were agricultural lands owned by the government, and 4% (5 complexes) were forested and tree-planted lands not owned by anybody.<sup>152</sup>

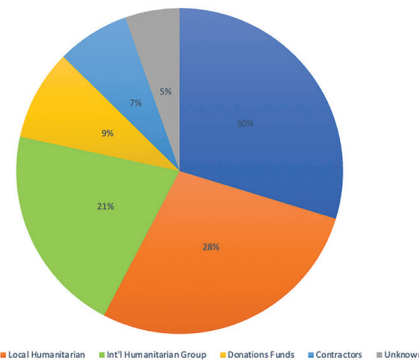


Graph (3): Ownership of the land where housing complexes for IDPs were constructed

The first reported housing project was initiated by Ataa Relief in summer 2015 near Atmeh town in northern Idlib governorate, but cheap housing construction projects began to rapidly sprout up in 2020.

These projects attracted many parties who participated in them in different roles, under the watchful eyes of Turkey, which remains responsible for authorizing construction, channeling funds, approving project locations and even vetting potential IDP beneficiaries. Actors can be classified according to their roles into donors, regulators and implementers.<sup>153</sup>

According to the ACU report, 30% of complexes (35 complexes) were built by their residents at their own expense. Most likely, these complexes were camps, and the residents started converting them into rooms or cement houses. Local humanitarian organizations established 28% (33 complexes). International humanitarian organizations established 21% (24 complexes), and 9% (11 complexes) were established depending on donation funds. Contractors established 7% (8 complexes), where the houses of these complexes are often sold to the inhabitants themselves.<sup>154</sup>



Graph (4): Groups responsible for building housing complexes for IDPs

Organizations engaged in the housing sector can be divided into developers and contractors. Developer organizations are typically the supervisors of projects. They have the task of hiring several other construction companies and ensuring they get paid. On the other hand, contractors are the boots on the ground. They oversee every aspect of housing projects, including design, accounting, staffing with project managers, hiring subcontractors and managing compounds after delivery. This categorisation relates to the size of the organization and its financial capacity.<sup>155</sup>

Developers are limited to finding funds, choosing the land where the project will be implemented, proposing a design and blueprint with an internal or external engineer consulting, and then announcing the tender for the project.

The tenders are usually taken by businesses (companies) active in the construction business in the area. The military factions have also entered the trade line, and each faction has an economic office and deals with merchants either affiliated with it or local merchants within the faction's network of relationships. Some of these businesses may already be owned by these factions and operate under their protection. The companies working on the project have nothing to do with planning, unless the owner of the company objects, for example, to the method of work. The decision is usually made between the faction and the organization responsible for construction.<sup>156</sup> In northern Aleppo, local councils and AFAD oversee housing project construction, with no clear role for the Syrian Interim Government (SIG).<sup>157</sup>

In practice, an NGO submits a proposed plan to a local council, which in turn invites an AFAD official to validate the process. The process is a formality in cases in which the new housing projects are to be built on private land such as agricultural lands. So, the role of the local council is to grant approvals to establish these residential villages. Once the necessary permits are issued, local councils

become solely responsible for monitoring the progress of the project and imposing building codes on the contractors.<sup>158</sup>

During implementation, the role of the developers is limited to monitoring the work done by the constructor and ensuring the requirements are met.

The models of Turkish NGO intervention vary significantly. While some NGOs are involved in construction, others only intervene in managing projects, subcontracting local companies or NGOs, or procuring building materials such as cement, pipes, interlock bricks and steel for projects. In the case of the Turkish Humanitarian Relief Foundation (IHH), it mainly operates by contracting local subcontractors and NGOs. The same tendency applies to Kuwaiti, Palestinian and Qatari organizations.<sup>159</sup>

On the other hand, the majority of Syrian NGOs operate as contractors as they are slowly shifting their dependence for funding on international Western funds to Arab and Syrian individual donors. This is the case for the Molham Volunteering Team, Ataa, al-Bonian and Ihsan for Relief and Development.<sup>160</sup>

#### **A. Environmental impact**

The most sustainable damage that low quality IDP housing projects could inflict on local communities is potentially on the environment. According to the European University Institute, there are three apparent effects: water scarcity, food insecurity and deforestation.

The larger the population in a given area, the greater the need for water to meet drinking and sanitation needs. In addition, construction projects require a lot of water, and all of this leads to great pressure on water resources in areas that already suffer from water shortages. When residents cannot access surface water sources, they turn to groundwater sources, where local residents are forced to dig wells up to 300 meters deep to extract the water they need. Moreover, the widespread use of cesspits also threatens water reserves and pollutes the soil because they are not equipped with layers of stones and sand to filter wastewater.

As for the impact on food security, the conversion of agricultural lands into residential complexes led to a decrease in agricultural revenues, forcing landowners to sell or rent their lands to reduce losses and generate more revenues. Urban expansion in these areas is taking place horizontally, as the houses built are single-story

units and occupy larger areas, causing the uprooting of forests and olive and pistachio trees. The growing population and declining agricultural production deepen the region's dependence on foreign aid and assistance.<sup>161</sup>

The PAX report on the environmental impact of the conflict in Syria confirms that dozens of newly established IDP settlements, often placed amidst commercial orchards, have resulted in tree loss, such as that seen at the IDP settlement of Shamarin, established on the Turkish border in 2014.<sup>162</sup>

Also in Afrin, 2018 also marked the acceleration of a years-long process of environmental degradation, partly linked to the arrival of tens of thousands of Syrians fleeing war in other parts of the country. At the end of 2018, thousands of displaced persons arrived in Afrin—from Ghouta, from the countryside of Homs, from all parts of Syria, so some forests were cleared to build settlements. The clearing of forests or orchards to build homes for displaced people is common across northwestern Syria. This dynamic is particularly contested in Afrin, where several human rights organizations have accused Turkey of “demographic engineering” in formerly Kurdish-majority areas, as extensive settlements are built to host displaced Arab communities.<sup>163</sup>

The 2019 incursion by Turkish-backed rebels into Afrin resulted again in the displacement of Kurdish civilians, and an influx of new IDPs coming from other areas. North of Afrin, a small park overlooking the city largely disappeared, as IDPs built informal settlements and cut down the trees for firewood and housing. In a 27 hectare forest patch (in 2015 and 2018), around 43% was deforested between 2018 and 2021. The 45% at the top of the hill has deteriorated badly (and is hardly forest anymore), as has the patch at the south, representing the remaining 12%.<sup>164</sup>

Recent satellite images of Lake Maydanki near Afrin show a devastating loss of green spaces, accelerating the process of environmental degradation.<sup>165</sup>

Likewise, the increasing population pressure on these areas that are not equipped with the necessary infrastructure, and due to the low quality of constructed housing units and the unavailability and high cost of heating fuel, encouraged businesses to exploit these crises, as the firewood trade caused significant deforestation in the region. Hundreds of hectares of forest in Afrin and Idlib are cut down every winter, fueling a vicious cycle and causing irreparable environmental damage.<sup>166</sup>

## RECOMMENDATIONS

Businesses' impact on the environment and human rights in Syria is a complex issue, as has been discussed in this report. Solutions addressing this impact will, therefore, require the engagement of multiple stakeholders to protect the rights of individuals, communities and businesses. Consequences of such impacts are widespread and long-term, and therefore need to be addressed urgently. Based on the analysis provided in this research, recommendations could be grouped in three categories based on the role of the respective stakeholders. The challenges on the ground, stemming from the armed conflict and humanitarian crisis, pose obstacles in the way of the optimal application of these recommendations. Advocating for greater consideration of environmental aspects in humanitarian aid projects will be easier to implement in practice than in the area of illegal oil extraction, for example. Nevertheless, the latter sector should also (continue to) receive a high level of attention from local authorities and, in particular, international actors.

While priority should be given to ensuring basic needs and human rights of affected communities are met, the report advocates for the implementation of a list of recommendations to overcome environmental and sustainability issues, whenever and wherever possible.

### To Businesses and Local Authorities

Businesses and local authorities play a complementary role in the current political conditions, especially in north Syria, both east and west. The weakened governance structures because of the armed conflict, means implementing the requirements of the international human rights law in this regard requires the cooperation of these two groups of stakeholders. NGOs providing housing for IDPs are also included in this group. The following is recommended:

- **Stakeholders must abide by the relevant internationally recognised human rights law in their own decisions and practices.** This research has surveyed the relevant international legal frameworks that govern the impact of businesses on the environment and human rights.
- **Stakeholders should carry out the relevant human rights due diligence practices, and request their implementation on an ongoing basis.** Businesses and local authorities must

identify, prevent, mitigate, and account for their activities adverse environmental impact on human rights and seek to mitigate them.

- **Stakeholders should establish meaningful consultation mechanisms prior to and during the implementation of projects with adverse environmental impact.** Such consultations should include businesses, local authorities, affected communities and bodies of experts to approve the business plans and mitigate their negative impacts. Consultations should be available to all members of the affected communities, including vulnerable groups. They should also provide for remedies for the affected individuals as a result of the business practice.

### To Civil Society

Syrian civil society organizations (SCSOs) are expected to encourage best practices and monitor relevant stakeholders' compliance with the environment and human rights.

- **Facilitate capacity building and awareness raising on environment and human rights.** SCSOs should engage businesses, local authorities and NGOs operating in Syria to encourage the best environmentally friendly and human rights compliant practices during the implementation of relevant projects and activities.
- **SCSOs should be involved in monitoring and evaluating the environmental impacts of development and early recovery projects.** SCSOs should advocate for keeping housing and infrastructure projects planned across Syria compliant with human rights laws and environmental due diligence.
- **SCSOs should support and encourage local authorities' and communities' green projects.**

### To Donors and Non-Governmental Organizations

International and local NGOs and their donors are expected to be better informed of the impact of the projects they implement and fund on the environment. Therefore, NGOs are expected to implement best practices in that regard with the financial support of their donors. This includes but not limited to:

- **Require environmental impact analysis and risk assessment plans for relevant projects.** This is most relevant in projects with clear adverse environmental impact on human rights. Housing and infrastructure projects are an example.
- **Dedicate adequate funding to local civil**

society organizations projects and research in order to enable them to monitor the environmental and human rights impacts of business activities.

- **Ensure sufficient funding for new housing projects** including funding for essential services like water, sanitation, and electricity facilities, which, if provided, may contribute to alleviating the negative effects of such projects on the environment.
- **Encourage and fund green projects that have lower environmental impact on human rights.** This is most relevant with alternative energy sources that could substitute for logging and oil derivatives that are extracted through burners.



## REFERENCES

1. Médecins Sans Frontières, Inadequate water and sanitation pose health threats in Syria, June 16, 2023.
2. World Food Programme, Syria emergency, accessed November 7, 2023.
3. PAX, War, Waste and Polluted Pastures: An Explorative Environmental Study of the Impact of the Conflict in north-east Syria, May 2021; idem, Scorched Earth and Charred Lives: Human health and environmental risks of civilian operated makeshift oil refineries in Syria, August 2016; idem, Axed and Burned: How Conflict-caused Deforestation Impacts Environmental, Socio-economic and Climate Resilience in Syria, March 2023; Syrians for Truth and Justice, Syria: Satellite Images Reveal Extensive Logging in 114 Forest Patches in Afrin, April 2023; Roba Gaafar, The Environmental Impact of Syria's Conflict: A Preliminary Survey of Issues, Arab Reform Initiative, April 7, 2021.
4. UN Office of the High Commissioner for Human Rights (OHCHR), 'Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework', 2011, Principle 12.
5. Ibid, Commentary to Principle 12; See also UN General Assembly, Resolution 76/300, July 28, 2022, para 3.
6. See, e.g., Domenico Carolei and Nadia Bernaz, Journal of Human Rights Practice, 'Accountability for Human Rights: Applying Business and Human Rights Instruments to Non-Governmental Organizations' 2021.
7. UN Human Rights Council, Resolution 48/13, October 8, 2021.
8. UN General Assembly (n 5).
9. Ibid, para 2.
10. Ibid.
11. See, e.g. UN OHCHR, UNEP, UNDP, "What is the Right to a Healthy Environment? Information Note", 2023.
12. Ibid, page 9.
13. Ibid.
14. UN General Assembly, Universal Declaration of Human Rights, December 10, 1948, 217 A (III).
15. UN General Assembly, International Covenant on Civil and Political Rights, December 16, 1966, UNTS, vol. 999, p. 171.
16. UN General Assembly, International Covenant on Economic, Social and Cultural Rights, December 16, 1966, UNTS, vol. 993, p. 3.
17. UN General Assembly, Convention on the Rights of the Child, November 20, 1989, UNTS, vol. 1577, p. 3.
18. See, e.g., Itzá Castañeda Camey, Laura Sabater, Cate Owren, and A. Emmett Boyer Jamie Wen (ed), IUCN, 'Gender-based violence and environment linkages: Summary for policy makers', 2020; See generally UNFPA, 'Voices from Syria 2023: Assessment of Findings of the Humanitarian Needs Overview', 2023.
19. The right to life is enshrined in Article 3 of the Universal Declaration of Human Rights, Article 6 of the International Covenant on Civil and Political Rights, and Article 6 of the Convention on the Rights of the Child.
20. Human Rights Committee, 'General comment No. 36 (2018) on article 6 of the International Covenant on Civil and Political Rights, on the right to life', October 30, 2018, para 62.
21. Ibid.
22. Committee on the Rights of the Child, 'General comment No. 16 (2013) on State obligations regarding the impact of the business sector on children's rights', April 17, 2013, para 19.
23. Ibid.
24. International Covenant of Economic, Social, and Cultural Rights (n 16) Art 12(1).
25. Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, "Human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment", July 15, 2019, para 31.
26. See also Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, "Human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment", July 19, 2018, para 24.
27. Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment (n 25) para 31.
28. Committee on Economic, Social, and Cultural Rights, 'General Comment No. 14: The Right to the Highest Attainable Standard of Health (Art. 12)', August 11, 2000, para 4.
29. Universal Declaration of Human Rights (n 14) Art. 25(1).
30. International Covenant on Economic, Social, and Cultural Rights (n 16), Art. 11.
31. International Covenant on Economic, Social, and Cultural Rights (n 16), Art. 1.
32. See, e.g., Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment (n 26), para 35.
33. Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment (n 25) para 34.
34. Committee on Economic, Social, and Cultural Rights, 'General comment No. 26 (2022) on land and economic, social and cultural rights' January 24, 2023, para 6.
35. Ibid.
36. Committee on the Rights of the Child (n 22) para 19.
37. UN General Assembly, Resolution 64/292, The human right to water and sanitation, August 3, 2010, para 1.
38. Committee on Economic, Social, and Cultural Rights, 'General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant)' January 20, 2003, para 2.
39. Ibid, para 10.
40. Ibid, para 11.
41. Universal Declaration of Human Rights (n 14) Art. 25(1).
42. International Covenant on Economic, Social, and Cultural Rights (n 16), Art. 11.
43. See, e.g., OHCHR, 'Understanding Human Rights and Climate Change', Submission of the Office of the High Commissioner for Human Rights to the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change, 2015.
44. Committee on Economic, Social, and Cultural Rights (n 34) para 7.
45. Ibid.
46. International Covenant on Civil and Political Rights (n 15) Art 1; International Covenant on Economic, Social, and Cultural Rights (n 16), Art. 1.
47. UN General Assembly, Declaration on the Right to Development, December 4, 1986, Art 1.
48. UN General Assembly, Rio Declaration on Environment and Development, August 12, 1992, Principle 10.
49. Report of the Special Rapporteur on the right to development, 'Right to development', July 2, 2019, para 45.
50. UN Guiding Principles on Business and Human Rights (n 4) Principles 18-19.
51. OHCHR, 'Framework Principles on Human Rights and the Environment', 2018, para 35.
52. Ibid; See also UN Guiding Principles on Business and Human Rights (n 4) Principles 15-21.
53. UN Guiding Principles on Business and Human Rights (n 4) Principle 12.
54. Jean-Marie Henckaerts and Louise Doswald-Beck, ICRC, 'Customary International Humanitarian Law: Volume 1: Rules', Cambridge: Cambridge University Press, 2005.
55. UN International Law Commission, Draft principles on protection of the environment in relation to armed conflicts, 2022.
56. UN Environment Programme, 'Protecting the environment during armed conflict: an inventory and analysis of international law', December 28, 2009, p. 30.
57. Rome Statute of the International Criminal Court (last amended 2010), July 17, 1998, Art. 8(2)(e)(v).
58. Ibid, Art. 8(2)(e)(xii).
59. ICRC, 'Business and International Humanitarian Law: An Introduction to the Rights and Obligations of Business Enterprises Under International Humanitarian Law', November 2006, p. 24.
60. Ibid.
61. Australian Red Cross, 'Doing Responsible Business in Armed Conflict Risks, Rights and Responsibilities', June 15, 2020, p. 21.
62. Conflict and Environment Observatory, 'Policy report: Enhancing corporate environmental responsibility in conflict-affected settings', 2020, p. 12-13.
63. Ibid.
64. Ibid.
65. UN Environment Programme (n 56) p. 31.
66. ICRC (n 59) p. 22.
67. UN Working Group on the issue of human rights and transnational corporations and other business enterprises, Information Note on Climate Change and the Guiding Principles on Business and Human Rights, June 2023, para 4.
68. Ibid.
69. Ibid, para 16.
70. UN General Assembly (n 5) para 3.
71. Paris Agreement to the United Nations Framework Convention on Climate Change, December 12, 2015, TIAS No. 16-1104.
72. UN Environment Programme, Global Climate Litigation Report, 2023, p. 50-51.
73. Ibid.
74. UN General Assembly, Report of the United Nations Conference on Environment and Development, August 12, 1992, para 25.
75. Ibid, para 4.
76. Jusoor, Map of military control across Syria at the end of 2022 and the beginning of 2023, January 2, 2023.
77. Fanack, سوريا: الحصانة البيئية للحرب باتت أكثر وضوحاً, December 3, 2019.
78. Samer al-Aani, متعهدو النفط في مناطق قسود ينتهكون "قيصر" ويهددون البيئة,

- Almodon, November 20, 2020.
79. Talal Mustafa and Wajih Haddad, الكارثة الاجتماعية والبيئية.. حرائق النفط البدائية.. الكارثة الاجتماعية والبيئية، Harmoon Centre, June 2023.
80. Ibid.
81. Interview with an expert conducted for this research, October 2023.
82. Interview with an expert conducted for this research, October 2023.
83. Talal Mustafa and Wajih Haddad, الكارثة الاجتماعية والبيئية.. حرائق النفط البدائية.. الكارثة الاجتماعية والبيئية، Harmoon Centre, June 2023.
84. Interview with an expert conducted for this research, October 2023.
85. Syria TV, شركة "وتد" للمحروقات توقف عملها شمالي سوريا، October 28, 2022.
86. Enab Baladi, "وتد" تنفي إیرام أي اتفاق مع "قسد" لتوريد النفط إلى مناطق سيطرة "الإنقاذ"، February 2, 2022.
87. See, e.g., Annahar, "ذراع الجولاني النفطية في إدلب توقف عملها... ما علاقة؟"، October 30, 2022.
88. Ibid.
89. Enab Baladi, موردان رئيسان وعوامل تضغط على الأسعار: من يتحكم بقطاع المحروقات في الشمال السوري، August 23, 2020.
90. Samer al-Aani, متعهدو النفط في مناطق قسد ينتهكون "قيصر"، Almodon, November 20, 2020.
91. OFAC, Syria Designations; Syria-related Designations, November 9, 2020; EU Council, Council Implementing Decision (CFSP) 2019/87, January 21, 2019.
92. Enab Baladi, موردان رئيسان وعوامل تضغط على الأسعار: من يتحكم بقطاع المحروقات في الشمال السوري، August 23, 2020.
93. Interview with an expert conducted for this research, October 2023.
94. Interview with an expert conducted for this research, October 2023.
95. Interview with an expert conducted for this research, October 2023.
96. Adnan Abdulrazzak, هكذا يسدّد الأسد ثمن النفط الإيراني، Alaraby Aljazeera, February 2, 2023.
97. Wim Zwijnenburg, Iranian Oil Spills on Syria's Shores: A Brief OSINT Overview of an Environmental Incident, Bellingcat, July 31, 2019.
98. Helena Smith, Cyprus prepares for Mediterranean oil spill from Syrian power plant, The Guardian, August 31, 2021.
99. Angham Daiyoub, Thermal power plant oil spill in Baniyas, Syria, EJ Atlas, October 13, 2022.
100. Oil industry in northeast Syria and its impact on the environment and health has been extensively covered in the existing reporting, most notably the work of Wim Zwijnenburg, PAX.
101. PAX, Scorched Earth and Charred Lives: Human health and environmental risks of civilian operated makeshift oil refineries in Syria, August 2016.
102. Samer al-Aani, متعهدو النفط في مناطق قسد ينتهكون "قيصر"، Almodon, November 20, 2020.
103. Wim Zwijnenburg, Beyond The Debris – The Environment Is A Major Victim Of The Syrian Conflict, Crisis and Environment, November 2018.
104. Ahmad Jamous, حرائق النفط البدائية.. موت بحصد حياة الأطفال والكبار شمال شرق سوريا، Noon Post, May 1, 2022.
105. Rami Suwaid, تلوث البيئة العبرية [VII].. سموم "الحراقات" تقتل السوريين، Alaraby Aljazeera, July 6, 2015.
106. Ibid.
107. Shevan Ibrahim, أمراض مزمنة وتشوه للأجنة... ماذا فعلت الحراقات بأهالي الحسكة؟، Raseef 22, May 4, 2023.
108. Mohammed Hardan, Oil smuggling in Syria worsens pollution in Euphrates River, Almonitor, August 21, 2022.
109. Samer al-Aani, متعهدو النفط في مناطق قسد ينتهكون "قيصر"، Almodon, November 20, 2020.
110. Lyse Mauvais and Ammar Hamou, How Syria's makeshift refineries poison people—and the land that sustains them, Syria Direct, June 10, 2022.
111. Mustafa Rustum, الحرائق وقطع الأشجار والصيد الجائر ترهق غابات سوريا، Independent Arabia, November 26, 2020.
112. Arab News, Illegal logging turns Syria's forests into 'barren land', August 20, 2023; PAX, Axed and Burned: How Conflict-caused Deforestation Impacts Environmental, Socio-economic and Climate Resilience in Syria, March 2023; Syria TV, طن الحطب بحدود المليون ليرة.. ازدياد الاعتداء على الأشجار في حماة، October 17, 2022.
113. PAX, Axed and Burned: How Conflict-caused Deforestation Impacts Environmental, Socio-economic and Climate Resilience in Syria, March 2023.
114. Syria TV, طن الحطب بحدود المليون ليرة.. ازدياد الاعتداء على الأشجار في حماة، October 17, 2022.
115. Interview with an expert conducted for this research, October 2023.
116. Syrians for Truth and Justice, Syria: Satellite Images Reveal Extensive Logging in 114 Forest Patches in Afrin, April 2023.
117. Ibid.
118. PAX, Axed and Burned: How Conflict-caused Deforestation Impacts Environmental, Socio-economic and Climate Resilience in Syria, March 2023.
119. Ibid.
120. Syria TV, طن الحطب بحدود المليون ليرة.. ازدياد الاعتداء على الأشجار في حماة، October 17, 2022.
121. Kamal Shahin, ضرب على غابات الساحل السوري... من يصرقها عمدا؟، Syrian Untold, June 5, 2019.
122. Enab Baladi, حرائق متوقعة في سوريا يشعل فتيلها تغير المناخ والإهمال، Enab Baladi, May 31, 2022.
123. Alsouria, تفاصيل حرائق الساحل السوري.. ماذا خسرت المنطقة؟.. من المسؤول والمستفيد؟، September 18, 2020.
124. Ibid.
125. Adnan Ali, من تدمير سوريا إلى بيعها، Syria TV, August 3, 2023.
126. Enab Baladi, حرائق متوقعة في سوريا يشعل فتيلها تغير المناخ والإهمال، Enab Baladi, May 31, 2022.
127. Alsouria, تفاصيل حرائق الساحل السوري.. ماذا خسرت المنطقة؟.. من المسؤول والمستفيد؟، September 18, 2020.
128. Interview with an expert conducted for this research, October 2023.
129. Interview with an expert conducted for this research, October 2023.
130. Interview with an expert conducted for this research, October 2023.
131. Interview with an expert conducted for this research, October 2023.
132. Interview with an expert conducted for this research, October 2023.
133. Law No. 6 of 2018 on forestry, Article 8, 2018.
134. Interview with an expert conducted for this research, October 2023.
135. Syria, في الساحل السوري.. مفاعل غير مرخصة، Syria Untold, October 25, 2019.
136. Ibid.
137. Ibid.
138. Ibid.
139. Grantham Research Institute on Climate Change and the Environment, What is the role of deforestation in climate change and how can 'Reducing Emissions from Deforestation and Degradation' (REDD+) help?, London School of Economics, February 10, 2023.
140. World Wildlife Fund, Deforestation and Forest Degradation, accessed November 7, 2023.
141. Aljazeera, Soil erosion: Lost livelihoods, lost incomes and lost food, December 5, 2019.
142. Enab Baladi, حرائق متوقعة في سوريا يشعل فتيلها تغير المناخ والإهمال، Enab Baladi, May 31, 2022.
143. Hannah Brown, What are the health effects of wildfires and how can I protect myself?, Euro News, August 01, 2023.
144. UK National Archives, Glasgow Leaders' Declaration on Forests and Land Use, November 2, 2021.
145. Since 2011, more than 14 million Syrians have been forced to flee their homes in search of safety. More than 6.8 million Syrians remain internally displaced in their own country, UNHCR, Syria Refugee Crisis Explained, March 14, 2023.
146. Ben Hubbard and Elif Ince, Turkey's Plan to Draw Refugees Back to Syria: Homes for One Million, The New York Times, May 4, 2022.
147. Bana Bitar, IDP Housing Complexes in North-Western Syria: Actors, Processes and Consequences, European University Institute, November 2022.
148. Ibid.
149. The ACU is a nongovernmental organization and a team of technocrats that support societal resilience and peacebuilding for all Syrians.
150. Information Management Unit, Housing Complexes in North-Western Syria, Assistance Coordination Unit, April 2022.
151. Ibid.
152. Ibid.
153. Bana Bitar, IDP Housing Complexes in North-Western Syria: Actors, Processes and Consequences, European University Institute, November 2022.
154. Information Management Unit, Housing Complexes in North-Western Syria, Assistance Coordination Unit, April 2022.
155. Bana Bitar, IDP Housing Complexes in North-Western Syria: Actors, Processes and Consequences, European University Institute, November 2022.
156. Interview with an expert conducted for this research, October 2023.
157. Bana Bitar, IDP Housing Complexes in North-Western Syria: Actors, Processes and Consequences, European University Institute, November 2022.
158. Ibid.
159. Ibid.
160. Ibid.
161. Ibid.
162. PAX, Axed and Burned: How Conflict-caused Deforestation Impacts Environmental, Socio-economic and Climate Resilience in Syria, March 2023.
163. Lyse Mauvais, 'Crimes against nature': Forest clearing around Afrin's Maydanki Lake sparks anger and shock, Syria Direct, September 2, 2022.
164. PAX, Axed and Burned: How Conflict-caused Deforestation Impacts Environmental, Socio-economic and Climate Resilience in Syria, March 2023.
165. Lyse Mauvais, 'Crimes against nature': Forest clearing around Afrin's Maydanki Lake sparks anger and shock, Syria Direct, September 2, 2022.
166. Bana Bitar, IDP Housing Complexes in North-Western Syria: Actors, Processes and Consequences, European University Institute, November 2022.



