

# State-Society Relations and Industrial Sustainable Growth: The Case of Post-Revolution Tunisia

Mohamed Ismail Sabry



20  
23

May 4 - 6,  
Cairo Egypt

ECONOMIC  
RESEARCH  
FORUM



منتدى  
البحوث  
الاقتصادية

ERF 29<sup>th</sup> Annual Conference

# **State-Society Relations and Industrial Sustainable Growth: The Case of Post-Revolution Tunisia**

*Mohamed Ismail Sabry*

Visiting Postdoctoral Researcher, International Institute for Social Studies (ISS), Erasmus University Rotterdam, The Netherlands.

[Misabry@hotmail.com](mailto:Misabry@hotmail.com)

## **Abstract**

This paper investigates the effect of state-society relations (SSR) in the industrial sector on sustainable economic growth of post-Revolution Tunisia. The empirical part of the paper depends mainly on qualitative data collected from fieldwork interviews with the most important actors and publications of CSOs. The paper suggests the presence of State Capture as the defining characteristic of SSR in post-Revolution Tunisia. The combination of having powerful tycoons, weaker state, and ineffectively organized social actors produced conditions that harmed sustainability. These settings allowed tycoons to violate environmental regulations and prevented Green innovation and the adoption of Green technologies. Two important industrial sectors with notorious record of environmental pollution are studied.

In the textiles sector, tycoons and MNCs' comparative power allowed them to neglect regulations against health and safety hazards (HSH). The low value added of the industry placed tycoons under low pressure to use more environment-friendly technologies. The relatively less commitment of international developmental organizations towards environmental hazards reduced the power of environmental-CSOs' resistance in the sector. The more labor-saving nature of suggested Green technologies could have resulted in less enthusiasm towards these technologies. The dominance of a less dominant and incapable state in the extractive phosphate industry has, on the other hand, has enabled environmental CSOs to be more effective in facing environmental violations. The lack of trust and different ranking

of priorities between the UGTT and some environmental CSOs prevented the realization of a more productive outcome that would have led to a more sustainable operation of the sector.

### **Acknowledgement**

The research was partly funded by MECAM where part of the qualitative data was collected during the author's fellowship as a postdoctoral research affiliate at MECAM for the period between March and June 2022.

### **Keywords**

State-Society Relations, Sustainability, Health and Safety Hazards, Tunisia, State, Tycoons, Entrepreneurs, Labor, Civil Society Organizations, State Capture.

### **JEL Codes**

Q53, P52, O44, O43, O5

## Introduction

Day after the other, the world is increasingly alarmed by the extent of environmental degradation that it has reached while it continues to experience further degradation. Sporadic denial campaigns are retreating in front of the growing realization of the heavy environmental burden, inducing multilateral and international agreements and summits such as the Paris Climate Accords of 2015 and lately the Sharm El-Sheikh Climate Change Conference (COP27) in November 2022. In such settings, more democratic systems are expected to be more welcoming to sustainable development objectives, where the people suffering from environmental hazards and pollution would expectedly find an effective mean for representing their interests in having a better life through various civil society organizations (CSOs), political parties, parliamentarians, and even elected cabinet ministers. Such an assumption withstood the shock that followed US President Donald Trump's withdrawal from the Paris Accords, an action that was reversed by his successor President Joe Biden shortly after assuming office in 2021.

Agreeing with these assumptions, the democratization of Tunisia seemed to go hand in hand with the greening of the country's developmental efforts. Enormous international developmental aid, especially from the European Union (EU), flew to the country in the aftermath of the Jasmine Revolution of 2010-2011, much of which targeted the creation of a more environmentally sustainable economy. CSOs were freed from the grip of the former Ben Ali's regime oppression and new CSOs with environmental mission evolved. Nevertheless, social protest for environmental issues intensified and accounts of major violations to environmental regulations and laws and inadequacy in the legal framework governing environmental issues kept flowing a decade after the revolution and the accompanying democratic transformation. The Tunisian industrial sector was responsible for much- if not most- of the activities that brought most of the public frustration because of environmental issues.

This paper investigates the effect of state-society relations (SSR) on sustainable development of the industrial sector of post-Revolution Tunisia. State-society relations are investigated based on the power dynamics governing the interaction among the main actors identified here as the state, businesspeople, labor, and environmental CSOs. Tunisia provides

a very interesting and rich case study. The intense political and social struggles in the country's democratic transition produced a unique situation in the whole region. Despite the increase in political freedoms and association rights, environment hazards still pose a major challenge to the population and particularly to industrial labor. The ambiguity increases when looking at the massive international developmental assistance that poured into the country following the revolution, where many of the major donors and aid providers, such as the EU, had a clear Green agenda.

The paper suggests the presence of State Capture as the defining characteristic of SBLR in post-Revolution Tunisia. This refers to a situation where big businesspersons- or tycoons- dominate the state and where other social actors are weaker, despite the freedom of association that a more open political system provides (see Hellman et al., 2003; Innes, 2014; Sabry, 2022a). The combination of powerful tycoons, weaker state, and ineffectively organized social actors produced conditions that harmed sustainability and exposed the population, and especially labor to environmental hazards. Tycoons were able to violate environmental regulations and Green innovation and the adoption of Green technologies were both discouraged. Two industrial sectors which are crucial for the Tunisian economy and which at the same time have notorious record of environmental pollution are studied with reference to the main actors in SSR, the textiles and extractive phosphate industries. The empirical part of the paper depends on qualitative data collected from fieldwork interviews and publications of CSOs, as well as other available academic publications.

The paper will start with a theoretical perspective exploring how SSR affect sustainable development with a focus on State Capture as a relevant SSR mode for the Tunisian case. Accordingly, some hypotheses will be formulated. This will be followed by the methodology section. The following section would be on the case of Tunisia, where the identified two sectors will be analyzed. The paper will end with a conclusion.

# Theoretical Perspective

## State-Society Relations in Transition

Many works in the literature have discussed how major changes accompanying transition to democracy affect economic outcomes. Special attention was given to state-business relations (SBR) but also some works addressed the wider scope of state-society relations.

Democratization is believed to shift the power balance among different state-society actors to the advantage of social players. Authoritarian regimes are likely to produce a dominant state vis a vis social actors, even if it favored one social actor at the expense of others as is the case in Crony Capitalist orders, where business tycoons are privileged but subservient and loyal to the state (Sabry, 2022a). In more democratic countries, however, social actors are freer to organize and with the help of independent business associations, labor unions, and other forms of civil society organizations a more balanced power dynamics are in place. The degree of such a balance depends on the degree of democratization and other different conditions that shape the resulting power allocation. It is often the case that a democracy gives more power to tycoons relative to other social players and even relative to the state. The literature refers to this case as State-Capture and it is more common in countries experiencing transition to democracy (Hellman et al., 2003).

State Capture refers to a situation where tycoons dominate the state, influence policy makers, and mold policies to fit their interests at the expense of other actors (Adly, 2010; Enderwick, 2005). It is likely to emerge from a relatively more democratic system that, however, has inadequate level of political liberalization. These conditions enable the capture of the state through tycoons' involvement in funding election campaigns and various other means (Hellman et al., 2003; Innes, 2014). Other social actors normally have more space to aggregate their power and organize independently from the state. Yet, certain obstacles prevent them from amassing enough power to balance tycoons' power. Managers and owners of small and medium enterprises (SMEs), who would be referred to here as "entrepreneurs" to differentiate them from tycoons, have several organizational dilemmas that prevent them from effectively acting as a collective actor. This includes the likely dominance of tycoons over various business associations (J. Bennett, 1998), entrepreneurs' likely workplace isolation (unlike labor), their less capability to fund election campaigns (unlike tycoons) or offer

substantial voting votes to politicians (unlike labor) (Shadlen, 2002). The prevalence of substantial informal private sector dominated by SMEs in developing countries is a further point to be considered. Labor also suffers from collective action problems, including fragmentation along industrial sectors, skills, and other differentiating lines (Reich et al., 1973; Streeck, 2009). The presence of a sizable informal sector in developing countries again decreases labor's collective power (Schneider, 2009). Similar obstacles for CSOs could be anticipated especially when speaking about environmental-oriented organizations operating in developing countries. This might include fragmentation, possible conflicting interest representation, lack of funding, and low public awareness.

### Tunisia's Transition and State-Capture

There is a number of reasons why the post-Revolution Tunisian SBLR until 2021 could be described as State Capture.<sup>1</sup> The Tunisian state in the post-Revolution period was generally weaker than it had been before 2011. A number of factors contributed to this outcome. One of the leading factors was the Islamist-Secularist polarization that reached its climax in 2013 and continued thereafter to cause constitutional deadlocks, frequent cabinet changes, general political instability (Carboni, 2022; Tamburini, 2022), power fragmentation and struggle between the president and the ministry, and ultimately state inability to implement “a coherent long-term economic strategy” (Paciello, 2013). The bureaucratic apparatus was an arena contended between the two competing political powers with each party trying to infiltrate and control it (Boubekeur, 2016). Moreover, the administration that persisted- and many of its elements were represented as independent technocrats (Carboni, 2022)- had inherent sentiments against the Islamist Al-Nahda party which contributed to reform blockage and diminished government effectiveness (Marzo, 2019). This fragmentation and polarization paralyzed also the parliament and negatively affected its legislative role. The popularity of the political parties and the meaning of political electoral competition also diminished with the increase in technocratic elements in ministries, who were increasingly used as a consequence of power fragmentation (Carboni, 2022). The disappointment from the political system was translated into lower voter turnout (Aliriza, 2020; Carboni, 2022; Marzo, 2019).

Against this background, tycoons' power was freed from the constraints of the Ben Ali state, at the same time where they maintained connections with the administration that survived

the fall of Ben Ali. They joined dominant political parties, funded electoral campaigns, and won parliamentary seats (Oubenal & Ben Hamouda, 2018). They also controlled a significant part of the banking system (Oubenal & Ben Hamouda, 2018). Their control over the biggest and only accepted representative of business interests in economic and social dialogues, the UTICA, is however debated (Sabry, 2022b).

Democratization opened the way as well for entrepreneurs to organize and defend their interests. But the role of the UTICA in this regard is again debatable and CONECT- the business association that is more representative of SMEs- was denied representation in economic and social dialogues (Sabry, 2022b). On the other hand, democratization unleashed the power of the biggest labor union in Tunisia, the UGTT, and it evolved into a dominant political player and the most organized social actor. It, however, mainly represented public sector workers and was less representative of private sector workers. Despite the emergence of other unions in the aftermath of the Revolution, the UGTT had the exclusive right to represent labor interests in social dialogues.

With the diminished power of the state and the boosted and more dominant power of tycoons, post-Revolution Tunisia seemed to reproduce the conditions of State Capture. Such a development was not uncommon for countries undergoing a democratization transition. Nevertheless, what was rather special about the Tunisian case was the almost matching power to tycoons of labor unionism represented by the UGTT. The presence of the union was rather limited in the private sector and was specifically powerful in the public sector, suggesting that tycoons and the UGTT each was dominant in their respective fields of influence.

## State Capture and Sustainable Development

State-society relations shape policies. Power dynamics within SSR affect the formulation and/or the actual implementation of industrial policies and ultimately- through this mechanism- affect sustainable growth. The main focus here is on policies on health and safety hazards (HSH), on one hand, and innovation and technology, on the other. Formulated and- more importantly- implemented policies in these two areas affect the level of sustainable development.



How would the power dynamics in State-Capture impact on sustainable development? Tycoons power allows them to control state resources, whether natural resources, legislations and regulations, or licenses and permits. They are more likely to pressure for the formulation of favorable regulations and policies (Enderwick, 2005; Hellman et al., 2003; Hellman & Kaufmann, 2001). The stronger their power and the weakness of the other contending social actors and the state, the more are their expected gains. Yet, tycoons do not always act as a unified collective actor. As pointed by Schneider (2005), tycoons' lobbying on the legislature is more likely to be fragmented and seeking individualistic gains and allocation of resources and less likely to seek broader policy change or reform. This could be rather minimized when a broad-based cross-sectoral associations exist, where these business associations could contribute to building consensus among tycoons (Shadlen, 2002). Hence, in State-Capture, tycoons are more powerful than other social players but there are many limits to their power including other social actors' organizational power and inter-tycoons' conflicting interests when they cannot act collectively.

Tycoons' power could be exercised either through blocking the enactment of legislations and regulations less favorable to their interests or their implementation. There is often a gap that often exists between policy enactment and implementation. Lemos' (2017) study on the USA suggested that accountability measures are harder to enforce with implementation of policies and regulations in comparison to their enactment. Furthermore, the contacts between lobbyists and state enforcers are largely unregulated. Democratization should foster political accountability, yet some conditions in unmaturing political systems could arguably shield tycoons' practices by protecting their partner officials from being accountable.

Health and safety regulations should be strongly defended by labor. The International Labor Organization (ILO) representing trade unions on a global scale is an ardent defender of labor against HSH at the workplace and has set occupational safety and health standards which are ratified by many countries (ILO, n.d.). Trade unions should be supported by environmental CSOs, where the latter's role would be specifically important in raising the awareness on environmental issues even among labor. In terms of lobbying for these set of policies, labor unions would be more influential, but CSOs could also play an important role through their connections and communications with the government and the ministries handling environmental issues. The role of CSOs would be amplified by foreign donors assistance, especially when they operate in developing countries which depend heavily on foreign aid and

assistance. The European Union (EU) is especially active in supporting environmental policies internationally (EU, n.d.). The enactment and implementation of health and safety regulations are expected, however, to meet much resistance from both tycoons and entrepreneurs given the costs that are likely to accrue with the enforcement of these policies. It is expected that such resistance is fiercer the more the country depends on low value added activities and its export goods are more cost-sensitive. Tycoons' upper hand in State Capture suggest that they would hinder the enactment and/or the implementation of health and safety regulations. Thus:

*Hypothesis 1: The higher the power of tycoons vis a vis the state, the lower the enactment or implementation of environmental laws.*

*Hypothesis 2: The lower the value added generated by an industrial sector in State-Captured countries, the lower the enactment or implementation of environmental laws.*

Tycoons' success in doing this depends, however, on the power of the resisting coalition composed of labor unions and environmental CSOs. The power of these CSOs- and their possible coalition with labor unions- would be fostered by the openness of the country to international aid and especially from countries and organizations with a Green mission, such as the EU. Hence,

*Hypothesis 3: The more open a democratic country is to developmental aid from partners committed to a Green agenda, the higher the power of environmental CSOs.*

Moreover, in sectors which tycoons do not dominate, environmental CSOs and/or labor's resistance would be stronger and likely to be more effective. Hence:

*Hypothesis 4: The less the sector is dominated by tycoons, the higher the resistance and effectiveness of resistance of environmental CSOs and their environmentalist coalition with labor unions.*

State-Capture might be detrimental to innovation and technology upgrading, with Green technology not being exceptional. Green innovation refers to innovations that result in less pollution besides other objectives such as energy saving, green product design, waste recycling, and/or corporate environmental management (Chen et al., 2006, p. 332). Innovation in this regard could refer to product or process innovation, where the latter refers to major changes in production and distribution methods (Sdiri, 2022). Tycoons might choose to defend their

market share by lobbying for strict regulations. SMEs would accordingly be denied from easily entering the market and trying to acquire significant market share through innovation. This could also be true for Green technologies and innovation. Even in the presence of a more welcoming culture, there would be likely less incentive to win market share by using the appeal of Green technologies and innovation when the market entry is rather blocked and reserved for incumbents.

*Hypothesis 5: The less competitive the market is, the less Green Innovation and Green Technologies adoption.*

On the other hand, labor could rather be an active actor standing against Green technology adoption and innovation. Generally speaking, labor-saving technologies would be resisted by powerful labor unions, whenever they feel endangered (see Frey, 2019). Strong labor unions were accused of rent-seeking that limits enterprise R&D spending and thus hinders innovation, with some empirical evidence supporting this claim (Bradley et al., 2017). Yet, other works argued that this should not always be the case and that other factors, such as market size and labor demand elasticity, play a role (Calabuig & Gonzalez-Maestre, 2002; Dowrick & Spencer, 1994). Thus, Green technologies that are more labor-saving and spending on R&D to innovate Greener technologies and techniques might be resisted if they affect workers' material gains, even if they minimize HSH.

*Hypothesis 6: The more labor-saving (capital-intensive) a Green technology is, the more likely it is to be resisted by labor.*

## Methodology

The empirical work of this paper mainly depends on qualitative data collected from several interviews conducted mainly with members of the government (Ministry of Environment), business associations (UTICA and CONECT), the main Tunisian labor union UGTT, local branches of EU development cooperation organizations (GIZ), Tunisian and international CSOs (FTDES, Rosa Luxemburg Foundation, Fredrich Ebert Foundation, Heinrich Böll Foundation, HIVOS, and Advocate sans Frontier) during several fieldtrip visits to Tunisia in 2022. The interviewees are anonymous and are rather referred to using their organizational

affiliation, where they agreed to use their organizational affiliation. Details about the interviewees are reported at the appendix. Secondary sources- including statistical data- are obtained from various publications and datasets, including publications of CSOs and international organizations.

Given the peculiarities of the Tunisian case, tycoons in this research refer to big Tunisian business families who control a big market share or significant market shares in different sectors. Tunisian big families often have holding groups with various enterprises operating in different sectors (Oubenal & Ben Hamouda, 2018). The individual enterprises controlled by these holding groups are not necessarily large firms and could actually be SMEs, at least in terms of employment (Sabry, 2022b). Thus, entrepreneurs would here refer to owners and managers of SMEs which are not part of large holding groups.

Another important constituent of tycoons are multinational corporations (MNCs). These are largely EU, and particularly French, German, and Italian enterprises, since these countries dominate foreign direct investment in Tunisia (Guesmi & Moisseron, 2018).

## The Tunisian Case

### A general Outlook

Following the Revolution, many policy initiatives and funding opportunities that were strongly supported by foreign donors and international development organizations targeted the creation of a more sustainable economy and industrial sector. The constitution of 2014 accounted, in an unprecedented way (Mabrouki & Ben Othmane, 2022), for environmental rights in its articles 44 and 45 on the right for clean water and a good environment, respectively (Labiadh & Gaaloul, 2022, p. 14). Tunisia also signed a number of international agreements that targeted the creation of a more sustainable economic development.

Nevertheless, sustainable development in Tunisia is still in a rather dissatisfactory position. Various indicators reveal this, some of which are reported in Table 1. The levels of particulate matter (PM<sub>2.5</sub>) has generally increased by more than 10% between 2001-2005 and 2016-2020, although the figure stay below the average figures of the Arab World, middle income countries

and the world. The percentage of the population exposed to at least 35 micrograms per cubic meter- which is far above the level accepted by the World Health Organization (WHO) guidelines of 10 micrograms per cubic meter- increased by about 68% in the same period exceeding 77%. Yet, freshwater withdrawals by industry has fallen dramatically between the same periods and was much lower than the comparable regions and the world in 2016-2020. These numbers, however, do not reflect most of the environmental problems faced by Tunisia as reflected in different publications of CSOs and others and discussed below.

*(Please insert Table 1 here)*

Two main factors could be identified here as being responsible for the persistence of low sustainability in the post-Revolution period. These are here suggested to be the easiness of violating environmental laws and regulations and the obstacles facing innovation and technological upgrading in general and in terms of Green technologies in particular. Both factors are a consequence of State-Capture characterizing SSR in the post-Jasmine Revolution Tunisia.

Even if Tunisia was among the first international signatories of international agreements on human rights and environmental issues, enactment of laws was rather slow, as pointed out by ASF1. FTDES1 argued that tycoons' violations are enabled by the way environmental laws were written, whereby their application is rather voluntary. An FTDES report pointed out that enacted laws are not compatible with Tunisia's signed commitment to international standards. For instance, the social responsibility of enterprises- law 35 of 2018- was written in a vague way and abiding to it is voluntary rather than mandatory. Furthermore, incentives or supportive measures were not identified (Al-Zayer, 2021). MINENV1 affirmed that even if legislations and regulations related to production wastes are mandatory, the application of environmental regulations and laws are voluntary in the part related to industrial inputs and issues related to excessive resource use. While projects that are funded by the EU are usually required to submit environmental and social impact studies before starting operating, domestic projects are not. The Ministry of Environment is currently working on these issues, according to the interviewee; yet the fact remains that up to the present there is much room for major environmental mischiefs that are not at least criminalized by the law.

Regardless to the voluntary or mandatory nature of environmental laws and regulations, significant violations exist. According to FTDES1 and ASF1, MNCs often violate HSH

regulations. On the other hand, both interviewees agreed that SMEs missed resources that would enable them to effectively implement the regulations. Environment-friendly activities, they suggested, should rather be subsidized by the state.

Standing on the other side of the equation, labor as the main bearers of the consequences of environmental violations is a candidate of presenting a balancing force. The UGTT strongly protects the social rights of labor and especially those of the public sector (Aliriza, 2020). It managed even to increase public sector employees' salaries despite post-Revolution economic hardships (Vatthauer & Weipert-Fenner, 2017). As pointed out by RLS1, state-owned enterprises (SOEs) restructuring is often subject to wide discussions; yet, nothing takes place. The UGTT resists the calls for downsizing SOEs or disposing of extra workers, according to FTDES1. The UGTT fight hardly to preserve the jobs of public sector employees and obstruct the privatization of SOEs. The union's resistance to public-private partnerships and private investment projects in the renewable energy sector is interpreted by some as a defensive action out of fear of the ultimate privatization of STEG, the SOE responsible for energy provision in Tunisia (Ben Rouine & Roche, 2022).

The UGTT has various means of influencing the enactment and even a stricter implementation of environmental regulations and laws. According to UTICA1, there is regular meetings and strong cooperation between the UGTT and the UTICA, the main and only accepted official representative of businesspeople in social and economic negotiations. Both sides settle most issues by mutual negotiations and sometimes the government intervene to settle the remaining issues of disagreement between both sides. There are sectoral agreements between the UGTT and UTICA; but there is also the recently established national council for social dialogue that was created in 2018 on the national level, from the government, UGTT, and UTICA. The interviewee attested that the UGTT is more powerful than UTICA in terms of connections with decision makers. This opinion is supported by UGTT2 account that the state administration is represented in the UGTT and functionaries are allowed to be part of the union. Given such settings, one might anticipate that the UGTT had the means to compel businesspeople, tycoons and entrepreneurs alike, on following regulations against HSH and the state to strictly implement these regulations.

Nevertheless, despite the effective interest representation of the UGTT for labor and especially public sector employees, the support of the union for the protection from HSH seemed in doubt. UGTT1 and UGTT2 asserted that the union is increasingly supporting

environmental issues. UGTT2 affirmed the union's commitment to environmental issues especially those stressed on by the ILO and international trade union movements and the United Nations (UN) sustainable development goals (SDGs). Nevertheless, both UGTT interviewees asserted that the union is often faced by a dilemma between defending the social rights, right to have a secured job, and environmental rights of labor.

CSOs seemed to have a clearer assessment on the priorities set by the UGTT and where the rank of the commitment to environmental issues was positioned. FTDES1 and ASF1, on the other hand, stressed that the UGTT seems not to set protection from workplace environmental hazards as a welfare objective, attributing this to a lack of awareness. To the contrary, FES1 believed that the UGTT is aware about this but is rather incapable of doing something. If UGTT pushed for abiding to regulations, enterprise owners would threaten to close down. There was an incidence where this indeed happened, and the people blamed the UGTT for this. Thus, as asserted by ASF1 ranked, environmental rights were in the third place among UGTT's priorities after employment and economic and social rights.

According to UGTT2, the union was also marginalized in policymaking on environmental issues. The state refrains from inviting them to policy consultancy meetings, and when it does, this is rather done for window dressing and less serious fashion and often to appease international development organizations that require the participation of the UGTT. The interviewee asserted that this is the case although the union has access to the administration, where public functionaries are members of the UGTT. Information asymmetry allows state officials to manipulate UGTT's participation in policy consultancy and render it ineffective, said UGTT2. Agreeing with his assessment, MINENV1 pointed out that the UGTT is not part of the steering committee for the project the interviewee is responsible for at the Ministry of Environment, despite having representatives of business associations and CSOs. The interviewee attributed this to administrative issues related to how the UGTT is structured.

Rather than the UGTT and other labor organizations, environmental CSOs seem to have a more focused mandate to promote the protection of labor from HSH at their workplace and in their local community. The Tunisian Forum for Economic and Social Rights (*Forum Tunsien pour les Droits Economiques et Sociaux* - FTDES) is one of the CSOs that emerged after the revolution and which is active in the field of environmental rights, by pursuing mainly activities aiming at raising awareness but also by taking part in organizing social protest and encouraging litigation against violators (Mabrouki & Ben Othmane, 2022). Another CSO active in the field

is the Tunisian branch of the international Lawyers Without Borders (Avocats Sans Frontières-ASF). The CSO is active in raising awareness on environmental issues. It targets judges and is working on raising awareness on these issues among a new generation of judges, as asserted by ASF1.

Despite the acknowledged support that international organizations promoting environmental issues provide for CSOs, there are often complaints that it was rather insufficient. FTDES1 complained that the recommendations given by big international organizations do not often come with the needed enforcement capacity to ensure continuity. Developmental projects that these organizations sponsor last only for few years and then reach their conclusion. The funding provided by these projects is temporary or limited in comparison to challenges. As suggested by ASF1, the effect is rather limited to creating exemplary cases (e.g.: enterprises) and then the state is expected to put environmental policies in place.

What further complicates the task of environmental CSOs is the mutual distrust between the UGTT and some of these CSOs. UGTT2 expressed his doubts on some of the foreign-funded and politically-motivated CSOs, asserting that UGTT was pleased to collaborate with those the interviewee referred to as national CSOs. FTDES1, on the other hand, believed that environmental issues are not the first among the list of priorities of the UGTT. HBS1 assessed UGTT's commitment to environmental issues as insufficient, despite their participation in different events on the environment.

There are two means by which environmental CSOs try to influence the state and policymaking. The first is through direct or indirect communication with the state. The Ministry of environment is one of the most likely targets for environmental CSOs. MINENV1 pointed out to how the Ministry of Environment invites environmental CSOs to the steering committee of one of the projects- whose structure was similar to other ministry projects- with other candidates such as UTICA and CONECT being also invited. Environmental CSOs have, however, only one vote out of 19 votes. HBS1 affirmed that the state often invite environmental CSOs to different events and listen to their recommendations. The process, however, is less institutionalized, depend on the minister in office, and is rather likely to be more informal. Moreover, discussions with environmental CSOs often fit window dressing purposes to appease donors. CSOs also used to communicate with parliamentarians. Yet, this route was no longer possible after the disbandment of the parliament and the suspension of constitutional political mechanisms after the 25<sup>th</sup> of July 2021. Another possible but indirect route of



communication is through international donors who often listen to the assessment of environmental CSOs. This indirect route also became less possible with the rise of the nationalist (populist) rhetoric in the post-25<sup>th</sup> of July 2021 political scene. Together with claims of defending national sovereignty from foreign influence, CSOs are increasingly facing repressive laws against their activities. At any case, the interviewee's account suggests that environmental CSOs' influence on policymaking is rather limited, whether because the state functionaries lack the capacity to effectively conduct a real partnership in policymaking with civil society or their willingness to formulate policies more independently from CSOs while at the same time maintaining CSO participation to appease international development cooperation partners and donors.

The second route for environmental CSOs to influencing the state is more confrontational through social protest and litigation. An FTDES report pointed out that social protest because of environmental issues was insignificant before the revolution and grew exponentially thereafter. Before 2011, social protests had focused mainly on social welfarist agendas. In post-Revolution Tunisia, police repression was no longer used against such protest as it had been the case under Ben Ali. Environmental social protest has also coincided with a rising awareness on environmental issues. It took also different forms, such as demonstrations, set-ins, and litigation which protestors won sometimes against violating industries, even when the rulings were not sometimes implemented (e.g.: the *Menich Msab* campaign) (Labiadh & Gaaloul, 2022).

On the other hand, the state also seemed incapable of enforcing environmental regulations, especially at the peripheries. According to FTDES1, local governments- *baladyat*- have limited power. The law gives them rights and obligations, but they do not get enough funding. They also show little concern for environmental issues in their implemented projects. The irony is that even Green technologies seem to be responsible also for some of the HSH to local communities. FTDES1 pointed to the Bourg Salhi project, where wind mills were placed too near to homes and damaged the agriculture activity of the local community.

The second factor affecting sustainability in Tunisia in an indirect way is the overall problematic conditions facing innovation and technology upgrading, including Green Technology, in the country. International and EU organizations channeled and provided much assistance to realize a better business climate that should have encouraged innovation and technological upgrading, including the adoption of more environmentally-friendly

technologies. Nevertheless, the market remained restrictive for the growth of SMEs in many industrial sectors (Mouelhi & Ferchichi, 2017).

This is attributed to various reasons. The Tunisian economy had deep structural problems that supported such an outcome. The country is strongly integrated in global value chains (GVCs), and especially European led value chains thanks to geographical proximity and historical factors. However, Tunisian involvement is largely confined to what is referred to as the “offshore sector” which is dominated by multinational corporations (MNCs) and whose activities are directed to exporting. The “onshore sector” is to the contrary controlled by domestic tycoons who used to benefit from various privileges under Ben Ali. The offshore sector is relatively more productive, but it still specializes in mainly assembly and low value added activities that characterize the country’s participation in European GVCs (Nucifora et al., 2015). Specialization of low value added and exploiting the benefit of having cheap labor makes it hard to anticipate the interest of FDI in digitalization and technologically upgrading the Tunisian industrial sector, as suggested by FES2. Furthermore, the link between the offshore and onshore sectors is marginal. The investment in physical capital is also limited (Nucifora et al., 2015). All of this means that prospects for upgrading in the value chain are rather minimal. Big incentives for innovation and policies that foster backward or forward integration seem to be missing or ineffective. This expectedly impacts on the capability of developing local Green technologies for the offshore sector.

Another reason is that tycoons maintained strong relations with the administration and by this reduced the effect of the enacted laws on their market dominance in different sectors, as pointed by RLS1. According to Startup1, tycoons dominated private banks and channeled resources to their own businesses. Even international and EU funds that were originally directed to SMEs ended in tycoons’ owned SMEs that were part of their larger holding groups. Consequently, innovative SMEs that had sound models did not receive enough bank funding (Stölting, 2015); and according to SME1, funding chances for SMEs were limited and/or low information on them was available. Both venture capital and business angels in Tunisia remained insignificant, as assessed by RLS1 and Startup1; and private equity investments generally remained insufficient despite the creation of many private equity investment vehicles (e.g.: SICARs investment companies, FAs funds for startups, and FCPRs mutual funds) (Stölting, 2015). HIVOS1 wondered about the insufficiency of venture capital funding despite

the availability of funds, together with their refrain from taking risks, despite the nature of this financial vehicle.

Finally, there were various obstacles that prevented the realization of the great innovation potential held by startups. The implementation of laws that would have encouraged the mushrooming of innovative startups was rather low. Startup1, for instance, asserted that there was a slow implementation of the Startup Act of 2019 regulations and laws that targeted startups, despite the backing of international organizations. CONECT-GIZ1 spoke about different developmental projects targeting SMEs and innovation that the GIZ supports. In one of the projects, enterprises and startups were brought together with experts with the purpose being supporting innovation and its application by domestic enterprises. The success of the project was very limited, given that enterprises complained about the lack of financial resources to support their adoption of startups' innovation. This made it necessary to think of providing funding for innovation. At any case, international development organizations generally aim at creating pilot success stories under the presumption that these would be emulated by other enterprises. Arguably, this brings some doubts on the scale and pace of the success of this strategy.

In short, a combination of tycoons' dominance and state's incapability and inefficiency led to low innovation, at a time where international developmental assistance was insufficient or disoriented. The likely outcome was hindering the development of new local Green technologies and business models that would have fostered sustainability.

## The Textiles Sector

The textiles industry is one of the most important sectors of the Tunisian economy, contributing by about 23% of industrial exports and employing more than 174 thousand persons (Gaaloul, 2022, p. 11). As Table 2 reveals, the industry was responsible for more than 32% of the value added of the manufacturing sector in Tunisia in 2001-2005, although this figure has continuously fallen through time and was in 2015-2020 lower by about 45% of the stated figure. The sector is also one of the major sectors where MNCs are active, where the sector is strongly connected to global (and especially European) supply chains. Despite the active

presence of European FDI in this manufacturing sector, Tunisia's engagement in the EU value chain is mainly focusing on low value added assembly activities (Nucifora et al., 2015).

*(Please insert Table 2 here)*

The sector is causing alarming pollution levels. The ecological hazards caused by the textile sector in Tunisia could be attributed to different reasons. The first is the nature of the industry itself. The industry is well known for its heavy ecological burden, where it is considered globally the most ecologically harmful industry (Choudhury & Kumar, 2013). The production processes use water extensively. It is estimated that the textiles industry is responsible for wasting 4 trillion liter of water annually, where a single shirt wastes about 25 liters and a trouser more than double that much; and most of this wasted water is not reused (Gaaloul, 2022, pp. 11–15). Another major concern is wet processing while intensively using different dangerous chemicals (e.g.: in bleaching, dyeing, printing), utilizing heavy metals in items such as binders and auxiliaries, and waste water issues especially with regard to the used dyes (Choudhury & Kumar, 2013). Due to the waste water resulting from the industry, it is responsible for about 17 and 20% of water pollution in the whole world (Gaaloul, 2022, pp. 11–15). To this could be added the carbon emissions of the industry (Tsai, 2018).

What aggravates the environmental hazards for Tunisia is the country's specialization in low value added and also the most polluting activities in the value chain, where dyeing and printing activities are generally among the highest polluting processes of the industry (Mia et al., 2019). The inability of Tunisia to upgrade its involvement in higher value added activities with less ecological impact corresponds well with the obstacles hindering innovation and technological upgrading in the country.

The incapability to innovate or technologically upgrade hinders the development or adoption of more Green technologies that would reduce the ecological hazards of the existing activities, even without upgrading in the value chain. Green chemistry is an example of technology that substantially reduces the environmental hazards and waste of the industry. It could decrease costs of solvents, reagents, waste disposal, and energy (Choudhury & Kumar, 2013). There is also an increasing use of “eco-friendly” textile among clothing and fashion brands (Nabil, 2021). Automation is another example of a technology that could reduce wastes at the stages of dyeing and printing (Choudhury & Kumar, 2013). Industry 4.0 technologies-entailing digitalization of manufacturing and service processes and system components'

integration- could also reduce pollution together with making production more efficient and allowing customized production (Tsai, 2018). “Green textile industry” is expected to be less costly than non-green one for the production of garments, although it initially necessitates substantial investment (Nabil, 2021).

Tunisia has an industrial cluster in the field of textiles, the Monastir-El Fejja (Mfcpole), that is more technologically and ecologically-oriented (Mfcpole, n.d.). Yet, innovation and technology upgrading in the sector was still problematic. A policy paper submitted to the Tunisian government pointed to the underdeveloped use of different technologies in the textile sector and how Industry 4.0 technologies, and especially artificial intelligence (AI) would significantly boost the sector. For instance, only a few large firms used automated quality inspection and only in some aspects. Firm managers of the sector have little understanding of AI and the collaboration of these firms with AI firms and startups as well as academic institutions is rather absent (Chatbri et al., 2019). To this could be added the pointed out earlier general difficulties faced by startups. This should impact negatively on the innovation and technological upgrading of the sector and this applies as well with regard to the Greening of the sector with the help of Industry 4.0 technologies.

The final and widely acknowledged reason for the acute environmental hazards caused by the sector is major violations of laws and regulations. The FTDES reported a number of violations for which the sector is responsible and especially the washing and dyeing processes which are responsible for using huge amount of water and use various toxic chemicals (Gaaloul, 2022, pp. 11–15).

The situation is especially critical in the Monastir province. According to ASF1, the textiles sector is responsible for major pollution of the Gulf of Monastir and its fish resources because of dumping industrial wastes. The peasants in the area also complain of the exaggerated use of water, mostly freshwater. The companies working in the sector dig deep wells to extract freshwater, mostly without obtaining licenses or permissions; this then limits the share of freshwater extracted by water extracting and distributing companies. The interviewee’s account is supported by an FTDES report. Textile companies in the province which has meager potable water resources use underground water resources in their industrial activities, aggravating the water shortage problem for the local population. This was happening at a time when the state failed to play its regulatory role and implement environmental laws and regulations that prohibit these activities (Gaaloul, 2022, pp. 11–15).

ASF1 suggested that MNCs working in this sector violate environmental laws more, since they have more financial resources. The Tunisian companies in the sector are mostly SMEs, while multinationals employ and produce more and cause higher pollution. There is no respect for environmental laws as they do in their countries of origin.

The growing commitment to environmental regulations among global value chains provides a puzzling situation. According to GIZE1, there is a growing concern among enterprises in the sector on the ISO certification that is increasingly required by the EU for exporting textiles, since failing to meet the requirement would subject violators to higher taxes. Nevertheless, the implementation of pollution-related environmental requirements in the sector is less pressing than the more urgent energy saving ISO requirements and the mechanism for the implementation of the former retains much ambiguity, leaving more room for the continuation of violations of environmental regulations in the sector. According to the interviewees' assessment, only a few firms in the sector apply the pollution-related ISO requirements, induced by the demand of their main clients in the value chain.

Social protest against the environmental violations of the sector in the Gulf of Monastir has started even a few years before the revolution, in 2006, but increased in number following the revolution. Protests at times were violent, where equipment were burnt and roads were cut in 2013 (Labiadh & Gaaloul, 2022, pp. 25–29). Nevertheless, the sector continues to operate without major disruption from social protests.

Hence, the textile sector in which MNCs has significant power witnesses major violations in environmental regulations, given the general power enjoyed by tycoons in the country and in the sector, agreeing with the first and fourth hypotheses, respectively. The low value added characterizing Tunisia's participation in the global textile value chain makes violations more common, given the focus on cost-saving rather than investment in better and greener technologies that are likely to need heavy (at least initial) investment. This provides evidence in support to the second hypothesis. As for the third hypothesis, despite the openness to developmental aid to the EU which has an ardent environmental policy, the power of environmental CSOs are not powerful enough to offer the resistance that would force a stricter implementation of environmental regulations in the textile sector. This is likely attributed to the lack of sufficient support of international and EU organizations to ecological issues other than the ones responsible for CO<sub>2</sub> emissions and climate change, such as energy transition. Despite the overall low competition in many markets in Tunisia, the textile sector in the country

is characterized by the presence of many producers and SMEs, suggesting a more competitive settings. Thus, there is no evidence supporting the fifth hypothesis. Finally, there is no evidence that Industry 4.0 technologies which are more labor-saving are resisted by labor and the UGTT. Yet, it is likely that the prospects of what these technologies- that could help in having a more Green textile sector- could do for the employment in this sector could provide a disincentive for their adoption. This is especially the case given the labor intensive nature of the industry in Tunisia and the fact that it is a major employer for Tunisian workers. This could be in partial and indirect agreement with the sixth hypothesis.

### The Extractive and Phosphate Industries

The phosphate extractive industry is another important industry in the Tunisia, where the country is one of the leading countries of the world in its extraction. Phosphate extraction dates back to the late 1890s and early 1900s, during the French colonial period. New cities were built to serve the phosphate mining activity in the area, mainly four: Redeyef, Moulares, Metlaoui, and Mdhilla (Irouche et al., 2021). The industry is dominated by the public sector represented mainly in two big companies: the Gafsa Phosphate Company- *Compagnie des Phosphates de Gafsa* (CPG) and the Tunisian Chemical Group *Groupe Chimique Tunisien* (GCT) in Gerbs. While the former mainly extracts phosphate, the latter uses this phosphate in producing phosphoric acid and different fertilizers. The CPG is playing a major role in the economic and social activities of the region, providing services such as water and electricity provision as well as investing in education, transportation and cultural activities (Irouche et al., 2021).

Acute violations of environmental laws and regulations are also witnessed in the two main SOEs operating in this industry. According to ASF1, workers of these enterprises are exposed to dangerous vapors both at the work place and their nearby residential areas where wastes are being dumped into potable water. This is supported by different FTDES studies. One of the studies pointed to how both mentioned companies are responsible for dangerous diseases as well as polluting water, soil, and air (Ben Othman & Mabrouki, 2021). Another study discussed how the CPG improperly store its extracted phosphate in open air resulting in polluting the air of the Redeyef. The volume of the stored extracted millions of tons-worth of phosphate has increased since 2017 as a result of frequent work stoppage due to social protests (Irouche et al., 2021, pp. 114–115).

Furthermore, the activities of the CPG causes major water shortages in the area. FTDES reports discussed how the CPG uses potable water resources of the region, instead of sea water, in washing phosphates which aggravated the water shortage of the locals. This is against Tunisian law that prohibits the unjustifiable use of potable water if other sources could be used. In fact, the company controls more water resources extracted from wells than those at the disposable of the Tunisian public company responsible for using and distributing potable water on the local inhabitants (Irouche et al., 2021, p. 113).

On the other hand, the GCT is also responsible for major environmental hazards especially in the city of Gabes. The highly hazardous and radioactive byproduct of the production of fertilizers, the phosphogypsum, is directly dumped to the sea, with the estimated amounts being 5 million tons annually. This is added to air pollution in the city which is predominantly caused by the activities of the GCT. Moreover, as in the case of CPG, the GCT uses potable water in its production processes instead of sea water and deprives the local community from dear water resources. Overall, the consequences of the industrial activities of the GCT in Gabes were drastic for fishery and agriculture activities in the area, besides the widespread respiratory, skin, and cancer diseases among the city inhabitants. Workers are additionally subject to more hazards, as they do not wear protective suits and are subject to very hazardous working conditions (Irouche et al., 2021, pp. 116–120).

The pollution from phosphate is not confined to the activities of the two SOEs, but ASF1 suggested that some state officials collaborate with some tycoons in causing further violations. ASF1 brought the example of a big businessman, politician, and parliamentarian who comes from a big family and a former member of a former ruling party. The tycoon used his connections in securing the right to transfer phosphates by trucks rather than the- less polluting and cheaper option- using the railway. This resulted in a major pollution in the region. The trucks were overloaded, driven at higher speeds, and the roads were in poor conditions and sometimes passing by hilly topographies. All of this produced much dust that harmed local communities. An FTDES report discussed the violation made by transportation vehicles that transport phosphate through the main road exposing the locals in Mdhilla to various hazards (Mejbri & Attar, 2022).

Social protest because of environmental issues increased in the post-Revolution period. This caused several social protests from Redeyef city, where the locals once locked down a company's facility in June 2018, and induced the company to pledge to contribute to supplying



potable water for the locals. The locals of another city, Mdhilla, where both CPG and GCT have facilities, blocked the road in front of trucks transferring phosphates (Ben Othmane, 2022a, 2022b). In at least one case, social protest backed by environmental CSOs acquired the support of local government officials. The local government in Mdhilla prohibited the transportation phosphate through the main road of the city (Mejbri & Attar, 2022). Furthermore, the StopPollution movement was active in defending environmental rights and organizing various protesting activities. The movement, for instance, was active in protests against the GCT in Gabes and forced its lockout for a whole month in late 2020 (Irouche et al., 2021, p. 120). The frequent stoppage of operations explain why the rent obtained from the mining sector has drastically fallen by almost 87% between 2005-2010 and 2015-2020 (see Table 2).

In these conditions, the UGTT commitment to defending environmental rights of labor and their local communities were brought into question. ASF1 referred to how the GCT appeal to UGTT, saying that the pressure on environmental issues on the company will lead to closing up of the enterprise and the loss of labor jobs. Fearing this, the UGTT refrained from engaging in major efforts on environmental issues, although at times there is support from syndicates and workers. UGTT2 affirmed the dilemma that the UGTT faced between the preservation of jobs and protection from HSH. The interviewee discussed how the union stressed on the urgent need of adopting more advanced and environmentally-friendly technologies and techniques instead of the outdated ones used in the sector, but was met by the SOEs' assertion that resources are limited and the prospect of the easier alternative of privatization, which is generally much resisted by the UGTT. The UGTT is not against using a more capital-intensive or labor-saving technologies to upgrade the sector and reduce its HSH, according to UGTT2. Yet, the SOEs management or the state should provide proper compensation for workers who would lose their jobs, something that the interviewee would rightly done based on previous experiences. Putting this together, one would reach the conclusion that a sort of implicit, likely reluctant, acceptance of the status quo by the UGTT.

The lack of trust between the UGTT and environmental CSOs was manifested in the seemingly lack of coordination between the two parties in environmental-induced protest. UGTT1 asserted that the union understands the just case that motivated workers to protest against SOEs working in the phosphate industry, but it has never called for such protests. The interviewee had some doubts on who encouraged the protests, pointing to the ultimate benefits

that accrued to tycoons such as the pointed out arrangement to transport phosphate by trucks. Regardless to the validity of the doubts, they reveal the distrust towards some environmental CSOs which was pointed out earlier in this paper.

The case of phosphate industry in Tunisia provides evidence supporting some of the presented hypotheses. The low value added of the extractive industry and its less competitive (monopolist) nature seemingly provides a disincentive for adopting greener technology or following environmental regulations, agreeing with the second and fifth hypotheses. The post-2011 Revolution democratic settings empowered environmental CSOs and enabled it to spread awareness and rally support for the environmental cause and against the violations happening in this sector, as suggested by the third hypothesis. The sector is not controlled by tycoons and is almost exclusively controlled by the state through SOEs. This is coinciding with fierce environmental protest supported by environmental-oriented CSOs, which often managed to even block SOEs from operating and to pledge to take action to address environmental issues. This seems to support the fourth hypothesis. Even when the sector is not controlled by tycoons, their interests were manifested in the way they benefited from social protest enabling them to engage in polluting activities such as transporting phosphates by trucks. Finally, the seemingly reluctant acceptance of the UGTT of the status quo and refraining from more persistently pressing for the adoption of more Green technologies and techniques that could be possibly more labor-saving provide evidence that partially support the sixth hypothesis.

## Conclusion

Political instability resulting from the Islamist-Secular ideological polarization, the lack of administrative capacity, and an interest in keeping status quo or even hindering reform to safeguard favorite allocation of resources to tycoons have all contributed to poor implementation of policies that should have otherwise fostered sustainability. The resulting conditions reflecting state capture was detrimental to innovation and to SMEs financial capability to adopt environment-friendly technologies, especially that the lack of actual support tempts many entrepreneurs to join the informal sector.

As investigating the textiles sector has revealed, tycoons and MNCs' comparative power allows them to neglect the implementation of regulatory techniques that would save the labor

from environmental hazards, whether at the factory or in their local communities. Tycoons were under little pressure to use more environment-friendly technologies, especially given the low value added of the industry. The relatively less commitment of international donors and developmental organizations towards environmental hazards in comparison to climate-change related emissions reduced the power of environmental-CSOs' resistance in the sector. The more labor-saving nature of suggested Green technologies- such as industry 4.0 technologies- could have resulted in less enthusiasm towards these technologies.

The extractive phosphate industry has, on the other hand, showed how the low presence of tycoons in the sector have enabled environmental CSOs and environmental protest movements to be more effective in facing environmental violations. Environmental CSOs were aided by the democratic settings and the support of international donors having Green agendas, without being much resisted by tycoons' interests. A less dominant and incapable state was unable to neither repress nor adequately meet the demands of the protesters. At times the state even gave in to tycoons' interests in activities related to the sector. Furthermore, the lack of trust and different ranking of priorities- among employment preservation and environmental rights- between the UGTT and some environmental CSOs prevented the realization of a more productive outcome that would have led to a more sustainable operation of the sector.

Strengthening the capabilities and the autonomy of the state while, at the same time, guaranteeing that the checks and balances are in place would enable better enactment, and more importantly, implementation of environmental policies. These checks and balances could not be effectively established without a powerful and independent civil society, a civil society that is determined on pursuing non-exclusive, more balanced, and cooperative state-society relations. Mutual trust should be built among different civil society actors. In Tunisia, higher trust would have facilitated cooperation between the UGTT and environmental CSOs and would have helped the state in implementing environmental regulations by providing a sharper and more consensus-based policy consultancy and obliged the state to take civil society more seriously as a policymaking partner. International development organizations could play a role in creating such a cooperation between civil society actors, given that they have their separate links to each of them. The UGTT should be encouraged to be a part of steering committees of government decision making bodies and environmental CSOs should be more integrated in social and economic state-society dialogues and given more voting share in different decision making bodies.

The increasing relevance of ISO certification for GVCs and the development of Industry 4.0 technologies both offer considerable chances for more sustainable development in Tunisia. But such a potential could be sufficiently exploited through policies that foster innovation, technology transfer, and professional training. More effort should be placed to ensure that regulations and laws that facilitate the emergence of startups and venture capital financing, which are already in place, are effectively implemented and reinforced by further measures. Professional training programs should be the product of state-society dialogues that strongly involve UGTT as well as businesspeople- whether tycoons or entrepreneurs- through their various business associations- UTICA, CONECT, or other smaller associations. This should be matched by compensation schemes that would enable structural transformation and technological upgrading in different sectors, on top of which the textiles and mining sectors.

## Bibliography

- Adly, A. I. (2010). Politically-embedded cronyism: The case of post-liberalization Egypt. *Business and Politics*, 11(4). <https://doi.org/10.2202/1469-3569.1268>
- Al-Zayer, N. (2021). *Qanoon Al-Masaaolaya Al-Mogtamaaya lil-Moaasasat: Hykal bela Rawh (The Law of Social Responsibility of Institutions)*.
- Aliriza, F. (2020). *What Democracy for Tunisian Workers?*
- Ben Othman, R., & Mabrouki, R. (2021). Qanoon Al-masaolya Al-mojtamaaya fi Tunis: Daaf Al-mohtawa wa Ghayab Al-irada Al-saysya (The Law of Social Responsibility: The Weakness of the Content and the Political Will). In FTDES (Ed.), *Al-Taqrir Al-Sodasi Lil-aadala Al-beaya: Hoqoq, Masaolaya mojtamaaya, Sayada Ghizaaya, wa Tanmaya mostadama (The Six-Party Report for Environmental Justice: Rights, Social Obligations, Nutrition Sovereignty, and Sustainable Development)* (pp. 85–101). Forum Tunisien pour les Droits Economiques et Sociaux (FTDES).
- Ben Othmane, R. (2022a). Al-hawd Al-mangamy- Ayn toatabar Qatrat Al-maa halman saab Al-manal (The Mining Basin- Where obtaining a Water Drop is unrealizable Dream). In FTDES (Ed.), *Mokhtarar min ahm Manshorat qasm Al-aadala Al-beaya hawl mawdoat Al-haq fi Al-Maa (Selection of Important Publications of the Environmental Justice*

- Section on the Right to the Use of Water*) (pp. 4–10). Forum Tunisien pour les Droits Economiques et Sociaux (FTDES).
- Ben Othmane, R. (2022b). Faraa Al-hawd Al-mangami Lil-montada: Al-nidal motawasil min agl Al-haq fi Al-maa (The Mining Basin Branch of the Forum: The Strive for the Right to access Water continues). In FTDES (Ed.), *Mokhtarat min ahm Manshorat qasm Al-aadala Al-beaaya hawl mawdoa Al-haq fi Al-Maa (Selection of Important Publications of the Environmental Justice Section on the Right to the Use of Water)* (pp. 38–43). Forum Tunisien pour les Droits Economiques et Sociaux (FTDES).
- Ben Rouine, C., & Roche, F. (2022, March 31). *Longreads*. ‘Renewable’ Energy in Tunisia: An Unjust Transition. <https://longreads.tni.org/renewable-energy-in-tunisia>
- Boubekeur, A. (2016). Islamists, Secularists and Old Regime Elites in Tunisia: bargained Competition. *Mediterranean Politics*, 21(1). <https://doi.org/10.1080/13629395.2015.1081449>
- Bradley, D., Kim, I., & Tianc, X. (2017). Do unions affect innovation? *Management Science*, 63(7). <https://doi.org/10.1287/mnsc.2015.2414>
- Calabuig, V., & Gonzalez-Maestre, M. (2002). Union structure and incentives for innovation. *European Journal of Political Economy*, 18(1). [https://doi.org/10.1016/S0176-2680\(01\)00074-X](https://doi.org/10.1016/S0176-2680(01)00074-X)
- Carboni, A. (2022). Non-party ministers and technocrats in postrevolutionary Tunisia. *The Journal of North African Studies*.
- Chatbri, H., Jemmali, S., & Hannachi, S. (2019). *Empowering the Tunisian Textile Industry with Artificial Intelligence*. [https://www.researchgate.net/publication/339079880\\_Empowering\\_the\\_Tunisian\\_textile\\_industry\\_with\\_artificial\\_intelligence](https://www.researchgate.net/publication/339079880_Empowering_the_Tunisian_textile_industry_with_artificial_intelligence)
- Chen, Y.-S., Lai, S.-B., & Wen, C.-T. (2006). The Influence of Green Innovation Performance on Corporate Advantage in Taiwan. *Journal of Business Ethics*, 67(4), 331–339. <https://doi.org/10.1007/s10551-006-9025-5>
- Choudhury, R., & Kumar, A. (2013). Green chemistry and the textile industry. *Textile Progress*, 45(1), 3–143. <https://doi.org/10.1080/00405167.2013.807601>
- Dowrick, S., & Spencer, B. J. (1994). Union Attitudes to Labor-Saving Innovation: When are Unions Luddites. *Journal of Labor Economics*, 12(2). <https://doi.org/10.1086/298359>

- Enderwick, P. (2005). What's Bad About Crony Capitalism? *Asian Business & Management*, 4(2). <https://doi.org/10.1057/palgrave.abm.9200126>
- EU. (n.d.). *Environment*. Retrieved October 27, 2022, from [https://european-union.europa.eu/priorities-and-actions/actions-topic/environment\\_en](https://european-union.europa.eu/priorities-and-actions/actions-topic/environment_en)
- Frey, C. (2019). The Technology Trap: Capital, Labor, and Power in the Age of Automation. In *The Economic Record* (Vol. 95, Issue 311).
- Gaaloul, M. (2022). Sanaat Ghasl Al-Nasig fi Al-Sahel Sayasa Sanaaya gheir Mostadama (The Textile Industry in the Sahel Area- a non-Sustainable Industrial Policy). In FTDES (Ed.), *Mokhtarat min ahm Manshorat qasm Al-aadala Al-beaaya hawl mawdoa Al-haq fi Al-Maa (Selection of Important Publications of the Environmental Justice Section on the Right to the Use of Water)* (pp. 11–16). Forum Tunisien pour les Droits Economiques et Sociaux (FTDES).
- Guesmi, K., & Moisseron, J.-Y. (2018). *European Industrial Policies in Tunisia: A Bottom-Up Assessment* (No. 29).
- Hellman, J. S., Jones, G., & Kaufmann, D. (2003). Seize the state, seize the day: State capture and influence in transition economies. *Journal of Comparative Economics*, 31(4). <https://doi.org/10.1016/j.jce.2003.09.006>
- Hellman, J. S., & Kaufmann, D. (2001). Confronting the challenge of state capture in transition economies. *Finance and Development*, 38(3).
- ILO. (n.d.). *International Labour Standards on Occupational Safety and Health*. Retrieved December 12, 2022, from <https://www.ilo.org/global/standards/subjects-covered-by-international-labour-standards/occupational-safety-and-health/lang--en/index.htm>
- Innes, A. (2014). The Political Economy of State Capture in Central Europe. *Journal of Common Market Studies*, 52(1). <https://doi.org/10.1111/jcms.12079>
- Irouche, S., Moulin, M., & Anquetil-Barba, P. (2021). Al-redeyef, Qabes, wa Jarjis: La Beaa bedoun Saraa Tabaqi. Tandid, Moqawama, Tanzim (Redeyef, Gabes, wa Zarzis: No Environment without Class Struggle. Condemnation, Resistance, Organization). In FTDES (Ed.), *Al-Taqrir Al-Sodasi Lil-aadala Al-beaya: Hoqoq, Masaolaya mojtamaaya, Sayada Ghizaaya, wa Tanmaya mostadama (The Six-Party Report for Environmental Justice: Rights, Social Obligations, Nutrition Sovereignty, and Sustainable Development)* (pp. 110–127). Forum Tunisien pour les Droits Economiques

et Sociaux (FTDES).

J. Bennett, R. (1998). Business associations and their potential contribution to the competitiveness of SMEs. *Entrepreneurship & Regional Development*, 10(3), 243–260. <https://doi.org/10.1080/08985629800000014>

Labiadh, I., & Gaaloul, M. (2022). Al-tahrokat Al-Baaya ma baad Al-thawra: Ashkal ahtagagya motanawaa min agl astrdad Al-hoqoq (The Post-Revolution Environmental Movements: Various Protesting Forms to restore Rights. In FTDES (Ed.), *Monasart Al-qadaya Al-beaya: Min Al-ahtigag ila Al-taqadi: Al-taqrir Al-Sanawi l-qasm Al-aadala Al-beaya (Supporting Environmental Issues: From Demonstrations into Litigation: The Annual Report of the Environmental Justice Section)* (pp. 9–29). Forum Tunisien pour les Droits Economiques et Sociaux (FTDES).

Lemos, M. H. (2017). Democratic enforcement? Accountability and independence for the litigation state. In *Cornell Law Review* (Vol. 102, Issue 4). <https://doi.org/10.31228/osf.io/scq2t>

Mabrouki, R., & Ben Othmane, R. (2022). Al-taqadi min agl Takris Al-aadala Al-beaya: Astakhdam Alayt Al-taqadi ka-istratejaya jadida Lil-defaa aan Al-hoqoq Al-beaya (Litigation for enforcing Environmental Justice: The Use of Litigation as a New Strategy to Defend Environmental Rights). In FTDES (Ed.), *Monasart Al-qadaya Al-beaya: Min Al-ahtigag ila Al-taqadi: Al-taqrir Al-Sanawi l-qasm Al-aadala Al-beaya (Supporting Environmental Issues: From Demonstrations into Litigation: The Annual Report of the Environmental Justice Section)* (pp. 57–74). Forum Tunisien pour les Droits Economiques et Sociaux (FTDES).

Marzo, P. (2019). Critical junctures, path dependence and Al-Nahda's contribution to the Tunisian transition to democracy. *Journal of North African Studies*, 24(6). <https://doi.org/10.1080/13629387.2018.1480943>

Mejbri, M., & Attar, H. (2022). Astatjayat Al-monasara fi Al-defaa aan Al-hoqoq Al-beayaa: Tagarob Al-montada Al-Tunisi Lil-hoqoq Al-iqtisadaya wa Al-iqtamaaya (The Support Strategy to Environmental Rights: The Experience of the FTDES). In FTDES (Ed.), *Monasart Al-qadaya Al-beaya: Min Al-ahtigag ila Al-taqadi: Al-taqrir Al-Sanawi l-qasm Al-aadala Al-beaya (Supporting Environmental Issues: From Demonstrations into Litigation: The Annual Report of the Environmental Justice Section)* (pp. 30–56). Forum Tunisien pour les Droits Economiques et Sociaux (FTDES).

- Mfcpole. (n.d.). *Technopole Tunisia, Mfcpole Competitiveness Cluster, textile industry*. Retrieved December 5, 2022, from [http://www.mfcpole.com.tn/Fr/accueil\\_46\\_7#?](http://www.mfcpole.com.tn/Fr/accueil_46_7#?)
- Mia, R., Selim, M., Shamim, A. M., Chowdhury, M., Sultana, S., Armin, M., Hossain, M., Akter, R., Dey, S., & Naznin, H. (2019). Review on various types of pollution problem in textile dyeing & printing industries of Bangladesh and recommendation for mitigation. *Textile Engineering & Fashion Technology*, 220–226. <https://doi.org/10.15406/jteft.2019.05.00205>
- Mouelhi, R. B. A., & Ferchichi, M. G. (2017). Micro Small And Medium Enterprises In Tunisia. In EMNES (Ed.), *Micro, Small And Medium Sized Enterprises Development in Egypt, Jordan, Morocco & Tunisia Structure, Obstacles and Policies* (pp. 64–74). The EU-Mediterranean and African Network for Economic Studies.
- Nabil, B. (2021). Green Technology in Textile Industries. *Journal of Textile Science & Fashion Technology*, 8(2). <https://doi.org/10.33552/JTSFT.2021.08.000684>
- Nucifora, A., Doemeland, D., & Rijkers, B. (2015). Barriers to the Creation of Good-Quality Jobs in Tunisia: Economic Stagnation and Private Sector Paralysis. In *Labor Policy to Promote Good Jobs in Tunisia: Revisiting Labor Regulation, Social Security, and Active Labor Market Programs* (pp. 13–38). The World Bank. [https://doi.org/10.1596/978-1-4648-0271-3\\_ch1](https://doi.org/10.1596/978-1-4648-0271-3_ch1)
- Oubenal, M., & Ben Hamouda, H. (2018). *The political economy of business elites in Tunisia: Actors, strategies and identities* (No. 1273).
- Paciello, M. C. (2013). Delivering the Revolution? Post-uprising Socio-economics in Tunisia and Egypt. *International Spectator*, 48(4). <https://doi.org/10.1080/03932729.2013.847674>
- Reich, M., Gordon, D. M., & Edwards, R. C. (1973). A theory of labor market segmentation. *AMER.ECONOM.REV.*, 63(2).
- Sabry, M. I. (2022a). The institutional origins of state–society relations. *Fulbright Review of Economics and Policy*, ahead-of-print. <https://doi.org/10.1108/FREP-05-2022-0032>
- Sabry, M. I. (2022b). The Post-Arab Spring Social Contract in Tunisia: Social Actors’ Comparative Gains and Losses. In *SSRN Electronic Journal*. <https://doi.org/10.2139/SSRN.4259102>
- Schneider, B. R. (2005). Business Politics and Policy Making in Contemporary Latin



America. *Political Science*.

Schneider, B. R. (2009). Hierarchical market economies and varieties of capitalism in Latin America. In *Journal of Latin American Studies* (Vol. 41, Issue 3).

<https://doi.org/10.1017/S0022216X09990186>

Sdiri, H. (2022). *The Influence of Environmental Commitment and Innovation on Export Intensity: Firm-Level Evidence from Tunisia* (No. 113793; MPRA Paper).

Shadlen, K. C. (2002). Orphaned by democracy: Small industry in contemporary Mexico. *Comparative Politics*, 35(1). <https://doi.org/10.2307/4146927>

Shleifer, A. (2005). Understanding regulation. *European Financial Management*, 11(4). <https://doi.org/10.1111/j.1354-7798.2005.00291.x>

Stölting, S. (2015). *Neighbourhood SME financing: Tunisia, Regional Studies and Roundtables*.

Streeck, W. (2009). Industrial relations today: Reining in flexibility. *Economics, Management, and Financial Markets*, 4(3).

Tamburini, F. (2022). ‘How I Learned to Stop Worrying and Love Autocracy’: Kais Saied’s “Constitutional Self-Coup” in Tunisia. *Journal of Asian and African Studies*. <https://doi.org/10.1177/00219096221079322>

Tsai, W. H. (2018). Green Production Planning and Control for the Textile Industry by Using Mathematical Programming and Industry 4.0 Techniques. *Energies* 2018, Vol. 11, Page 2072, 11(8), 2072. <https://doi.org/10.3390/EN11082072>

Vatthauer, J. P., & Weipert-Fenner, I. (2017). *The quest for social justice in Tunisia: socioeconomic protest and political democratization post 2011*. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-51866-3>

World Bank. (n.d.). *World Development Indicators (WDI)*. Retrieved September 24, 2021, from <https://datatopics.worldbank.org/world-development-indicators/>

## Tables

**Table 1: The Performance of Tunisia in some Environmental Indicators in a Comparative Perspective**

		PM2.5 air pollution, mean annual exposure (micrograms per cubic meter)	PM2.5 air pollution, population exposed to levels exceeding WHO guideline value (% of total)	PM2.5 pollution, population exposed to levels exceeding WHO Interim Target-1 value (% of total)	Annual freshwater withdrawals, industry (% of total freshwater withdrawal)
Tunisia	2001-2005	34.58	100.00	46.07	4.26
	2006-2010	35.55	100.00	41.58	4.69
	2011-2015	34.67	100.00	35.13	4.31
	2016-2020	38.05	100.00	77.25	1.84
Arab	2001-2005	52.73	100.00	..	..
	2006-2010	53.79	100.00	..	..
	2011-2015	54.60	100.00	..	..
	2016-2020	58.73	100.00	..	4.72
Middle Income	2001-2005	55.07	99.38	..	..
	2006-2010	59.03	99.36	..	..
	2011-2015	55.84	98.97	..	..
	2016-2020	52.45	97.94	..	9.97
World	2001-2005	47.15	95.33	..	..
	2006-2010	50.25	95.14	..	..
	2011-2015	47.90	93.85	..	..
	2016-2020	45.35	91.32	..	16.25

Source: Author's calculation using data from the WDI (World Bank, n.d.).

**Table 2: Some Industrial Sectoral Indicators of Tunisia (2001-2020)**

Year Range	Textiles and clothing (% of value added in manufacturing)	Manufacturing, value added (% of GDP)	Medium and high-tech manufacturing value added (% manufacturing value added)	Mineral rents (% of GDP)
2001-2005	32.10	16.12	14.10	0.02
2006-2010	23.29	16.76	11.50	1.64
2011-2015	19.57	14.99	25.45	0.60
2016-2020	17.59	14.13	27.57	0.22

Source: Author's calculation using data from the WDI (World Bank, n.d.).

## Appendix

### List of Interviewees

ASF1: A member of the *Avocats Sans Frontières*- Lawyers without Borders in Tunisia.

CONNECT-GIZ1: A former member of the CONNECT business association

FES1: A member of the German *Friedrich Ebert Stiftung*- Friedrich Ebert Foundation in Tunisia.

FES2: A member of the German *Friedrich Ebert Stiftung*- Friedrich Ebert Foundation in Tunisia responsible for environmental issues.

FTDES1: A member of the Forum *Tunisien pour les Droits Economiques et Sociaux*- Tunisian Forum for Economic and Social Rights (FTDES).

GIZE1: A member of the *Deutsche Gesellschaft für Internationale Zusammenarbeit*- German Society for International Cooperation (GIZ), working in one of the environmentally-related projects in Tunisia.

HBS1: A member of the German *Heinrich Böll Stiftung* in Tunisia

HIVOS: A member of the MENA team of the Dutch *Hivos*.

MINENV1: A member of the Ministry of the Environment in Tunisia

RLS1: A member of the German *Rosa Luxembourg Stiftung Nordafrika*- Rosa Luxembourg Foundation North Africa in Tunisia.

SME1: An owner/manager of an SME and a member of one of UTICA's chambers.

Startup1: A member of the Startups Association in Tunisia.

UGTT1: A member of the UGTT

UGGT2: A member of the UGTT involved in representing the union in environmental issues.

UTICA1: A member of the UTICA business association and a head of one of the chambers in the association.

**Table A.1: Definition of the different Indicators used in the paper.**

<b>Indicator Name</b>	<b>Definition from the WDI Dataset</b>
Textiles and clothing (% of value added in manufacturing)	Value added in manufacturing is the sum of gross output less the value of intermediate inputs used in production for industries classified in ISIC major division D. Textiles and clothing correspond to ISIC divisions 17-19.
Manufacturing, value added (% of GDP)	Manufacturing refers to industries belonging to International Standard Industrial Classification (ISIC) divisions 15-37. Value added is the net output of a sector after adding up all outputs and subtracting intermediate inputs. It is calculated without making deductions for depreciation of fabricated assets or depletion and degradation of natural resources.
Medium and high-tech manufacturing value added (% manufacturing value added)	The proportion of medium and high-tech industry value added in total value added of manufacturing
PM2.5 air pollution, population exposed to levels exceeding WHO guideline value (% of total)	Percent of population exposed to ambient concentrations of PM2.5 that exceed the WHO guideline value is defined as the portion of a country's population living in places where mean annual concentrations of PM2.5 are greater than 10 micrograms per cubic meter, the guideline value recommended by the World Health Organization as the lower end of the range of concentrations over which adverse health effects due to PM2.5 exposure have been observed.
PM2.5 pollution, population exposed to levels exceeding WHO Interim Target-1 value (% of total)	Percent of population exposed to ambient concentrations of PM2.5 that exceed the World Health Organization (WHO) Interim Target 1 (IT-1) is defined as the portion of a country's population living in places where mean annual concentrations of PM2.5 are greater than 35 micrograms per cubic meter.
Annual freshwater withdrawals, industry (% of total freshwater withdrawal)	Annual freshwater withdrawals refer to total water withdrawals, not counting evaporation losses from storage basins. Withdrawals for industry are total withdrawals for direct industrial use.
Mineral rents (% of GDP)	Mineral rents are the difference between the value of production for a stock of minerals at world prices and their total costs of production. Minerals included in the calculation are tin, gold, lead, zinc, iron, copper, nickel, silver, bauxite, and phosphate.
Ores and metals exports (% of merchandise exports)	Ores and metals comprise the commodities in SITC sections 27 (crude fertilizer, minerals nes); 28 (metalliferous ores, scrap); and 68 (non-ferrous metals).

<sup>i</sup> For a more detailed discussion, see Sabry (2022b).