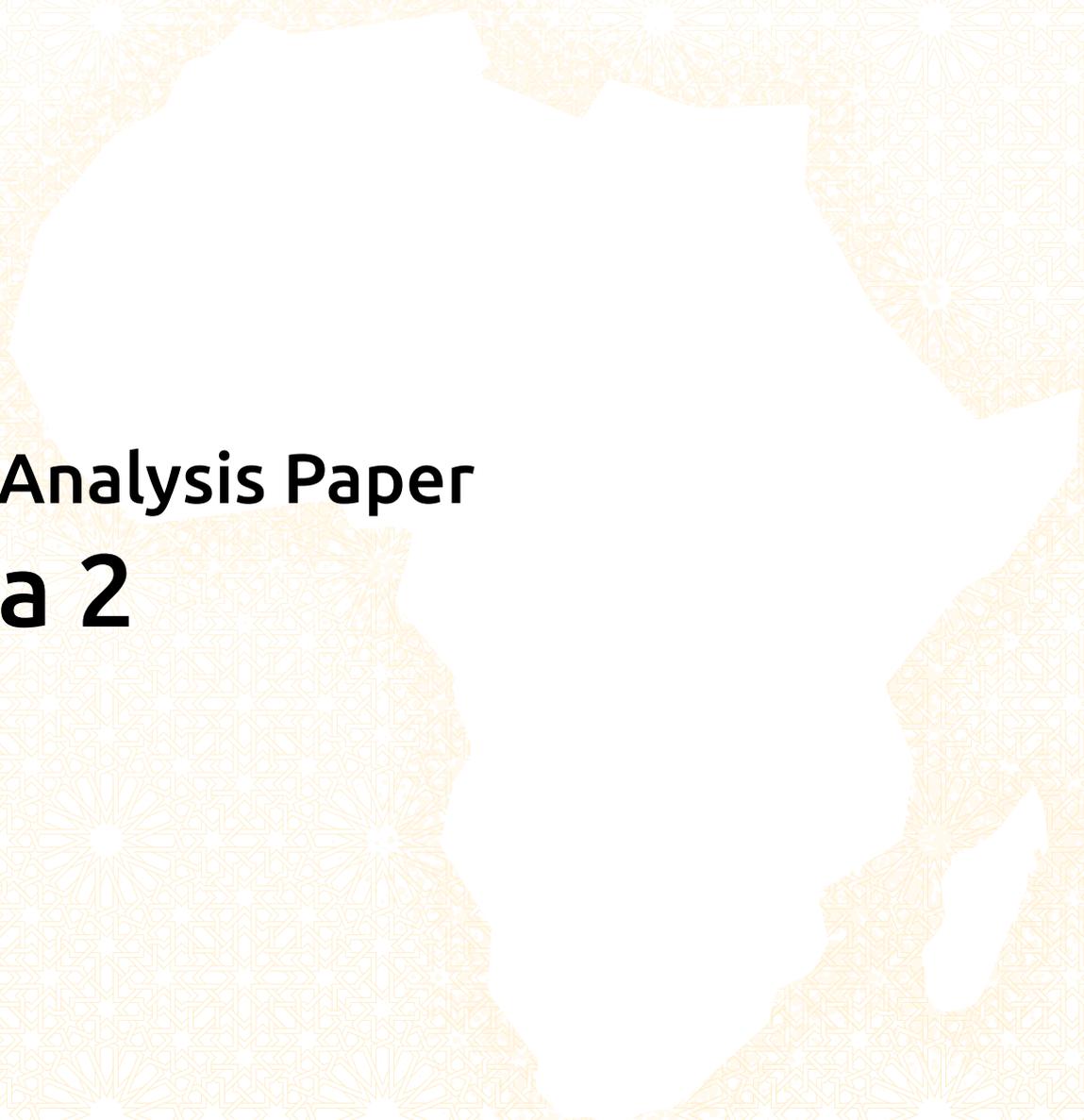


Social and ecological transformation in Morocco and across Africa



Country Analysis Paper **Tunisia 2**

Country Analysis Paper - Tunisia

Social and ecological transformation in Tunisia
Looking for a new development model
Social justice and sustainability



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■ Abbreviations

ARP	Assemblée des Représentants du Peuple
CCFD	Comité catholique contre la faim et pour le développement - Terre Solidaire
CCNUCC	Convention-cadre des Nations unies sur les changements climatiques
CPG	Company of Phosphate Gafsa
FTDES	Forum Tunisien pour les Droits économiques et sociaux
GCT	Groupe Chimique Tunisien
GI	Green Infrastructure
GIZ	Gesellschaft für internationale Zusammenarbeit
COP22	Conference of the Parties (22nd session in Marrakech, Nov. 2016)
INS	Institut National de la Statistique
LTDH	Ligue Tunisienne des Droits de l'Homme
MENA	Middle East and North Africa
MW	Mega Watt
NDC	Nationally Determined Contribution
NGO	Non-governmental organisation
SDG	Sustainable Development Goals
STEG	Société Tunisienne de l'Electricité et du Gaz
TND	Tunisian Dinar
TSP	Tunisian Solar Plan
UGTT	Union Générale Tunisienne du Travail
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change (of 1992)
WBGU	Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen

■ Introduction

Ecological problems represent a significant challenge for the environmental and social situation in Tunisia, even though Tunisia is less concerned by climate-induced ecological challenges than other MENA countries and the neighbouring Sahel region. However, water shortage is predicted to become significantly problematic from 2025 onwards. First cuts in the water services already occurred in 2013 due to water shortages. Climate change and growing urbanisation are intensifying the water problem: growing water consumption by the urban population combines with growing water demands by the industry and agriculture. Along with the urbanisation processes, demographic and economic developments, energy demand is significantly increasing, too. Desertification concerns in particular the poorer regions in the South of Tunisia, and the stronger seasonal changes concern all regions in terms of changing and unpredictable rain resources, meteorological disturbances and severe weather. Biodiversity is threatened by chemical waste, for instance in the Gulf of Gabès region, and in terms of agricultural and industrial pollution. Major social problems include unemployment, social exclusion, regional imbalances and corruption.

Tunisia has ratified the UN framework convention on climate change in 1993, and the Kyoto protocol in 2002. The participation in the COP22 in Morocco in November 2016, and the ratification of the Paris Agreement in October 2016 illustrate the political will of the current Tunisian government to define sustainable development and anti-climate change measures as part of the political agenda. The Tunisian development plan (2016-2020) includes objectives on green economy and sustainable development (such as the reduction of energy consumption by 30% before 2030, the reduction of greenhouse gas, environment protection), but concrete measures still need to be defined and implemented. Awareness for climate change and environmental challenges has increased in Tunisia over the past decade, and is more present in the media and public debate. But, in general, policies continue to be conceived and implemented with a top-down approach. The inclusion of citizens and NGOs in the decision-making process remains limited, which is amongst other reasons due to the small progress in terms of decentralisation. A political and societal debate on a new development model has started, but significant decisions have not yet been made. Proposals concerning a mid- and/or long-term sustainable and ecological development pronounced by the different political parties remain often rather vague. There exist some smaller ecological projects that are developing since about a decade, and even more intensively since 2011, as for instance in the field of ecological tourism (eco farms, eco trails) or in terms of production of agricultural bio products. But these kinds of projects remain small and rare, and are not part of a broader, coordinated initiative or governmental strategy. Some efforts have been realised, partially with support of the international community, in terms of improving the water distribution infrastructure, economising the use of water and managing water resources. Tunisia has also an ambitious renewable energies programme, including the extension of wind and solar energy production and consumption. But these kinds of decisions are generally taken without a greater involvement of the local population or civil society actors.

The definitions and understanding of the Sustainable Development Goals (SDGs) and Climate Treaty – currently representing the most important processes with regard to social-ecological transformation – as defined by the official governmental discourse and international organisations (see e.g. WBGU 2016) are partially different from the definitions, understanding and perceptions by civil society actors. But in general and according to themselves, the Tunisian civil society organisations' understanding of "social-ecological transformation" is closer to the international community than to the national ministries and policy-makers. In terms of values, norms and narratives, the transition towards low carbon energy regime is a major objective, but part of a more holistic, comprehensive picture and approach of social ecology. The valorisation of natural resources, more equal access to water and land, and the constitutional anchorage of natural resources as common property are in the foreground. Concrete policy instruments



for the implementation of the UN 2030 Agenda for Sustainable Development in Tunisia are still under development, including a review of data collection methods, an improvement of the follow-up and review process. Adopted in September 2015, the 17 SDGs and the 2030 Agenda are in force since 1 January 2016, and should be implemented by all countries until 2030 in order to end all forms of poverty, fight inequalities and tackle climate change. These international processes are helpful in the sense that ecological awareness and knowledge in Tunisia are increasing, that the Tunisian authorities are more challenged to advance the implementation of the 2030 Agenda, and that civil society and local initiatives receive more international solidarity and recognition.

The paper presents a **brief overview on the scientific literature** on the topic of social and ecological transformation in Tunisia (section 1), on the current situation of social and ecological transformation in Tunisia, **major challenges, debated topics** and the **impact of these challenges** on economic growth and social coherence in Tunisia (section 2), analyses **regulations and policy frameworks** (section 3), identifies **relevant political actors** and their objectives, discourses, and strategies and their role in the decision-making processes (section 4), and discusses **proposals for alternative socio-ecological solutions** leading to a sustainable and just economy (section 5).

■ I. Brief review on scientific literature and approaches of social and ecological transformation in Tunisia

Recent discourses stress the planetary dimension and increase of the social and ecological crisis due to the negative effects of capitalism on nature and people, and propose instead to learn from nature when **developing resilient socio-ecological systems** (Magdoff/Williams 2017). The sustainable management of natural resources needs to be accompanied by processes of social learning (Pahl-Wostl/Hare 2014). One major track to develop alternative socio-ecological systems is to transform existing energy regimes via socio-ecological transition and to reduce climate change. **Socio-ecological transitions** are defined as transitions between two different societal energy regimes and co-dependent ecological changes, meaning sources and dominating conversion technologies of energy (Fischer-Kowalski et al 2012). Historically, the major transition was from agrarian regimes into fossil fuel based industrial and energy regimes, reaching an energetic and material stabilization phase, while currently, some global societies started the next stage of transition **away from fossil fuel towards solar and other low carbon energy sources** (Fischer-Kowalski et al 2012). These transition processes happen in a **wider context of social change** including transitions of political and/or economic models, demographic developments or urbanisation processes.

Since 2011, **Tunisia** is going through a profound political and institutional transition process (Mühlberger 2017, Redissi 2016, Schäfer 2015, M'Rad 2015) which opens up a window of opportunity to simultaneously push forward the social and ecological transformation and to deepen the interconnectedness of these processes. In Tunisia, the partial transition from agrarian to fossil fuel based industrial regime happened in the 1970ies (discovery of oil), but agriculture remained significant and oil resources limited. Since the years 2000, and even more intensively since the Tunisian revolution of 2011, efforts to push forward the transition towards a renewable energy regime have been intensified, but are still far from being broadly implemented. Most of the scientific analysis focus on the energy transition, on the economic and technological dimension, while the political, social, ecological or geographical dimensions are less explored, although the political role of the dominating energy actor, the Société Tunisienne de l'Electricité et du Gaz (STEG), is for instance strongly relevant (Rocher/Verdeil 2013) for understanding the Tunisian energy regime. The literature on social and ecological transformation explores specific sub-themes, approaches, actors

or regions, as for instance the historical importance of **the oasis**, particularly in southern Tunisia, their changing character and the need to develop new typologies (Veyrac-Ben Ahmed/Abdedayem 2017), or the potential of the **mountain areas** in the northwest region for human development, by implementing a **green infrastructure approach** (Madyouni 2013). The social impact of ecological transformation has for instance been analysed in the debate on contested concepts such as "green economy" or "greening of jobs", but does rarely go beyond the issue of potential job creation. The wider and deeper social impact of ecological transformation in Tunisia still needs to be explored.

■ II. Challenges and debates of social and ecological transformation in Tunisia

Central **social challenges** include social exclusion, unemployment (15% general unemployment, 30-40% youth unemployment), social injustice, regional imbalances, and corruption. The monopolisation by elites of the access to water, land and mining resources and the deprivation of the rural population are part of these challenges, too. These are mainly due to the legacy of the former Ben Ali regime, but also to the socio-economic crisis since 2011, and the missing assertiveness of the numerous changing governments since 2011 (seven governments in only six years). Central **ecological challenges** include limited natural resources, the energy transition, pollution and waste, water scarcity, unequal access to land and water, negative impacts of agriculture and industry, threatened biodiversity and impacts of climate change. The interconnectedness of both ecological and social dimensions becomes particularly visible with regard to those economic sectors or industrial production processes having a negative impact on the environment and climate (such as the textile sector, mass tourism, the pharmaceutical industry or agri-food industries).¹ These sectors are important employment sectors, and there are still no convincing alternative solutions how they could be transformed in a socially and ecologically sustainable manner. The textile sector is, for instance, one of the most important and one of the oldest economic sectors of the Tunisian economy and a major employer. In particular women who represent the majority of the employees in the textile sector often suffer from difficult working conditions (e.g. long hours, inaccessible production objectives, products harmful to health, low wages). So far, there exist no concrete reform approaches how these working conditions could be socially and ecologically transformed without jeopardising the existing jobs.

Energy transition

As an oil-importing country, Tunisia depends to 90% on oil and gas from Algeria and Libya. The few existing oil and gas fields (mainly in the south) are exploited by international and Tunisian-international companies. Due to the overall progressing development of the country (despite the fact that Tunisia was recently downgraded from an upper middle income economy to a lower middle income economy by the World Bank), the energy demand is constantly rising, in particular among the urban middle classes. At the same time prices are rising and the daily life has become more difficult for many. For instance, since 2011, the electricity tariffs have increased by 10%.² One of the major energy consumption factors is air conditioning. The great heat during summer time leads to important records in terms of air conditioning, increasing the already high energy consumption (e.g. 4025 MW in August 2017 on one

1 AfDB/OECD/UNDP (2017): African Economic outlook, Tunisia 2017: The around 5590 industrial enterprises are mainly present in the agri-food (25.4%), textiles and clothing (25.1%), and the mechanical, metallurgical and chemical industries (22.5%), accounting for 73% of Tunisia's industry. Tunis: AfDB.

2 Achourouk, 20.6.2014.



day). More investments and support for residential photovoltaic use could allow to better respond to the high energy demands during summer time at mid-day. In particular, investments in the production of solar boilers, insulation measures in buildings, installations of photovoltaic systems in private homes could be amortized in a reasonable time period (GIZ 2012:4) and reduce the costs of air-conditioning.

The Tunisian authorities are committed, in the framework of the Tunisian Solar Plan (TSP), to an energy transition and intend to increase the share of renewable energies within the energy mix, in order to reduce the energy dependency from third parties and from changing oil prices. Today, renewable energies represent about 4% of the energy mix. Important sites are amongst other the wind energy parks in Sidi Daoud (Cap-Bon) and in Bizerte. The objective of the **“Tunisian Renewable Energy Action Plan 2030”**, based on the energy law of 2015 (loi n°12, 11.5.2015), is to strengthen both the national fossil and renewable energy resources, and to reach 30% of the electricity production from renewable energy resources by 2030 (by installing 1000 MW in a first phase 2017-2020 and 1250 MW in a second phase 2021-2030).³ The target is also to save energy by 17% during the period 2016-2020. **Energy politics** represent a contentious political issue in Tunisia, due to the diverging interests of the involved actors. The dominating energy actor remains the state owned energy company STEG. The STEG continues to reject privatisation, which is considered to put the company at risk, while private investors are looking for more competition (Rocher/Verdeil 2013: 294). Access to energy has also a strong political meaning in Tunisia and is connected to the pride in national self-sufficiency, national integration and access to material modernity (Rocher/Verdeil 2013: 294). Since the Tunisian revolution, critics about the STEG have increased. Those actors who contest the STEG monopoly or defend other global visions, based on ecology, are unable to impose their visions and thus focus the debate on issues such as the cost of transition (emphasizing the declining cost of renewable solutions against rising subsidies) (Rocher/Verdeil 2013: 294).

Since 2011, there have been multiple protests, sit-ins, strikes and demonstrations within and around different oil and gas sites in the south. Different international and Tunisian-international oil and gas exploitation companies threatened to stop their production and/or to leave the country, as the exploitation process was interrupted too often by strikes and sit-ins (e.g. the Italian-Tunisian company Sitep in Tataouine). Political parties such as Al Irada (of former president Moncef Marzouki) are asking for a nationalisation of the Tunisian oil resources and its exploitation. In 2017, there have been numerous conflicts, sit-ins and demonstrations about the oil fields of El Faouar (gouveronate Kebili), which are exploited by the Canadian firm Winstar, and in El Kamour (Tataouine).⁴ The demonstrators were asking for taking-up of the work again and for a payment of their salaries of the last months (during the production suspension due to street blockades and protests). The trade union Union Générale Tunisienne du Travail (UGTT) and health and education unions supported the demonstrators and their action. The local populations living close to the oil sites have the feeling that they do not benefit sufficiently from the profit of oil exploitation: and they are asking for a more jobs, better payments and improved working conditions. Next to this kind of social conflicts, the struggles concern the property and profit of the natural resources (oil, gas, phosphate). The exploitation rights and exploitation conditions need to be redefined.

³ <http://www.rcreee.org/news/tunisia-announces-renewable-energy-action-plan-2030> (25.8.2017).

⁴ The youth unemployment is particularly high in these regions. The situation has calmed down, but these young people are still waiting for the development of their region and for perspectives. Many are very disappointed from and distrustful towards the state and ready to mobilise anytime.

Environment, Pollution, Natural Resources

Two major examples of contentious problems in terms of ecological impact are related to the phosphate extraction in the mining basin of Gafsa, and the chemical industry in Gabès.

In **Gafsa**, pollution threatens the environment. Moreover, the local population is concerned by unemployment and unequal transfer of profits, resulting from the natural resources in their region, exploited by the state-owned Company of Phosphate Gafsa (CPG). One of the major natural resources of Tunisia is phosphate (4th most important producing country worldwide). The phosphate extraction and export is one of the most important industrial sectors of the Tunisian economy. Already in the past there have been social conflicts in the phosphate exploitation areas at different occasions (e.g. 2008). More recently, Gafsa was also one of the hotspots during the Tunisian revolution. Since then, the production was often interrupted for months.

In **Gabès**, the phosphogypsum and other acid waste and the exhaustion of the groundwater storage destroyed the golf and the maritime oasis (area of Chenini) over the years. This maritime oasis represents an environmental rarity as it is the only maritime oasis worldwide, which is threatened to disappear. The public enterprise “Groupe Chimique Tunisien (GCT)” takes away the water from the oasis, pollutes the air, the water, the ground and the sea. Fauna and flora have been progressively destroyed since 40 years. This ecological problem negatively impacts on the local fishers (exhausted fish stocks), on the health of the local population (high cancer rates and other diseases), on the palm grove (missing water) and on tourism (decline). This example illustrates how the destruction of the environment also destroys the possibilities of local development.

Similar problems exist in Sfax, where due to the **chemical industry**, the island or archipelago of **Kerkennah** (governorate Sfax) is suffering from pollution, caused by the nearby extraction of hydrocarbons. The chemical industry does not respect the ecological norms and there is no systematic control or consequent penalty by the state. In 2016, the coasts of Kerkennah were polluted by oil and industrial waste coming from the maritime oil platforms. This sort of accident harms not only the ecological environment of the island but also tourism and thus the financial existence of the local population.

Climate Change and Water Scarcity

Water resources in Tunisia are limited. Tunisia’s climate is “Mediterranean” in the North and “Saharian” in the South (semi-arid to arid in $\frac{3}{4}$ of the country). The rainfall disparity is characterised by great irregularity, from 1200 mm in the North (3% of the country) to less than 50 mm in the South (40% of the country). The average annual rainfall is 220 mm, which means 36 billion m³/year.⁵ Aridity is a natural and frequent phenomenon in Tunisia (2-4 dry years for 1-2 rainy years). There is a deficit in water resources. Tunisia belongs to those countries that will have an extremely high water stress by 2040.⁶ Desertification is advancing in the South. 75% of the population uses groundwater as its main source of drinking water. But water shortages are also due to intensive water consumption in certain economic sectors, such as tourism, textile or agriculture. This is particularly challenging as these economic sectors are among those employing high numbers of people. Tunisia is fairly advanced in water resource planning and management and its scarce hydraulic resources are almost entirely mobilised (Chahed/Besbes/Hamdane 2010).

⁵ <http://www.leaders.com.tn/article/22807-la-tunisie-est-elle-menacee-de-secheresse> (23.8.2017).

⁶ http://www.wri.org/sites/default/files/uploads/water_stress_world_map_large.jpg (23.8.2017).



Unequal Access to Water and Land

Access to land and water represents an important local challenge. State owned federal properties are those that were confiscated during colonisation times and re-appropriated by the state after Tunisia's independence. In 2017, the state continues to implement a centralised model and either denies the access to these properties to civil society initiatives (such as local social entrepreneurship projects) or privileges private operators using this land exclusively searching for profit. Small peasants are marginalised by the agricultural policy, and the right to land is not implemented. Civil society organisations demand a more just and re-balanced repartition on a national level of these profits, and a more just and transparent access to land and water.

Agriculture

One of the major problems in the agricultural system is the intensive use of water for the production of fruits, vegetables and flowers (most of which are destined to export), despite the limited water resources. Tunisia exports different alimentation products, but also depends on alimentation imports at the same time. 60 to 70% of the wheat is imported despite the fact that wheat could be cultivated in Tunisia to a greater extent.⁷

In Djerba for instance, with the end of the oasis agricultural system, already in the 1970ies, problems of water supply for agriculture emerged. Consequently water resources declined and today valuable ground water is used for agriculture.⁸ In the case of olive oil, which is the most important agricultural export product (3rd most important olive oil exporting country worldwide), the links between dietary patterns, trade and land use become visible: the olive (oil) production is increasingly industrialised, landscapes are increasingly converted into olive monocultures, and environmental pressures are increasing.

But beyond this olive oil problematic, it is most of all the excessive intensification and mechanisation of agriculture that was not always adapted to the local geographical and social conditions from the past until present times. The extensive use of pesticides, insecticides, and chemical fertilizer, as well as the mining exploitation of the limited hydraulic resources led to a quality degradation of the grounds, chemical pollution of the water and the land, exhaustion of resources, salinization of groundwater reservoirs and a progressive dispossession of the production means of the small peasants and thus of their food security.⁹ This is also the case for instance in Sidi Bouzid which is one of the most important agricultural areas in Tunisia. Here, investments into agri-food industries come from the coastal areas, but the area of Sidi Bouzid itself and the local population living there, profit very little from these investments.

⁷ A civil society initiative is trying to revalorise local wheat grains and cultivation in Douze and Tozeur, by sensitising the local peasants, and by combating against the use of imported hybrid seeds.

⁸ http://www.huffpostmaghreb.com/habib-ayeb/lecologie-en-tunisie-entr_b_9304348.html

⁹ http://www.huffpostmaghreb.com/habib-ayeb/lecologie-en-tunisie-entr_b_9304348.html

Biodiversity

The mountainous regions in the Northwest of Tunisia are rich, but fragile ecosystems, where the antagonism between biodiversity conservation and human development becomes visible (Madyouni 2013). People living in these areas are suffering from underdevelopment and remoteness. Infrastructure development negatively impacts on the biodiversity of these regions, but green infrastructure (GI) spatial planning could benefit both natural and human systems (Madyouni 2013) as it considers existent natural processes and conditions. Green infrastructure provides approaches to solve climatic challenges, including components such as more biodiversity. Next to infrastructure development, during the summer period 2017, severe forest fires, due to arson, destroyed significant tree population and houses in these regions in the North and Northwest (e.g. Mont Lahrech, governorate Beja; several suspicious persons were arrested in August 2017), thus concerning nature and the local population. Another example of destroyed biodiversity in terms of flora and fauna is the Golf of Gabès (see paragraph on "Environment, Pollution, Natural Resources").

Current Societal and Ecological Debates

Next to climate change, current societal and ecological debates turn amongst other around smart city concepts, waste management and the social dimension of development.

Since 2011, different conferences on the topic of the **future of the city ("smart city")** took place. Hereby, the debate includes reflections on the future development of cities and urbanism from an environmental and sustainable development perspective, but also on digitalisation processes.

Waste management is a major topic in the media and public debate since 2011, and continues to be a problem since then. The waste management challenge does not only concern the visible waste problem in the public space all over the country, but also problems related to the public cleansing services, garbage incineration, recycling and waste recovery. In addition, industrial and agricultural waste represents a major problem. The quality of waste collection, the treatment and the elimination have deteriorated since 2011. Tunisia produces yearly about 2 - 3,5 million tons of household garbage; recyclable waste is estimated to 1 million tons per year, but only about 50% of the produced waste is eliminated in controlled waste landfills (GIZ 2014).

The central problem in terms of **social dimension of development** remains high youth unemployment. **Unemployment** was one of the major triggers of the Tunisian revolution. But those who actively protested in 2011, who participated in sit-ins, street blockades or hunger strikes are in the meantime strongly disappointed about the results of the Tunisian revolution. In many cases these former protesters received nothing more than a precarious job, often in construction sites of development projects.¹⁰ But this kind of temporary, little paid, precarious job opportunities do not resolve the structural unemployment problem nor provide any mid- or long-term perspectives for the young generation (Schäfer 2018).

¹⁰ These kind of jobs are often little paid with about 200 TND, which is about 80 EUR per month; <http://ccfd-terresolidaire.org/infos/developpement/en-tunisie-les-5816> (15.8.2017).



■ 3. Regulations and policy frameworks

The “success” of the Ben Ali economic growth model was not only pushed forward at the expense of the poorer population, but also at the expense of the environmental exploitation of the country’s resources and accommodation with negative pollution impacts. Since 2011, the political framework conditions have fundamentally changed, with the establishment of the Second Republic, free elections, new institutions, political freedoms and party pluralism (Mühlberger 2017, Redissi 2016, Schäfer 2015, M’Rad 2015).

The new constitution of 26 January 2014 guarantees for the first time the **right to a good climate and a balanced environment**: „The right to water shall be guaranteed. The conservation and rational use of water is a duty of the state and of society “ (Art. 44), and to a clean environment (Art. 45): „The state guarantees the right to a healthy and balanced environment and the right to participate in the protection of the climate. The state shall provide the necessary means to eradicate pollution of the environment.”¹¹ This means, that the two articles also include the right to sustainable development and to basic services such as sanitation, access to clean drinking water and waste management. However, Art. 44 and 45 still need to be concretised through a comprehensive judicial framework by the parliament Assemblée des Représentants du Peuple (ARP). For instance, environmental rights’ violations or crimes are not sanctioned or penalised, and data on sanitation and environmental issues are not yet transparently published or accessible. Some smaller environmental measures have started to be tackled such as the interdiction of plastic bags in large supermarkets since 2016/2017.¹² Before, 1 billion plastic bags were used per year, and they often end up in the sea or in the soil. However, smaller shops and supermarkets continue to use plastic bags.

Tunisia has ratified the **UN framework convention on climate change** in 1993, and the Kyoto protocol in 2002. Tunisia signed the Paris Agreement (maintaining the global warming under 2°C) in April 2016, ratified it in October 2016, and participated in the COP22 in Morocco in November 2016. Tunisia has contributed to identifying and elaborating the 2030 Sustainable Development Goals (17 SDGs), adopted in 2015 by the UN General Assembly, through organising a national consultation in 2016, in cooperation with the UN organisations in Tunisia (mainly UNDP), and through participating in the Open Working Group on the 2030 Agenda. The SDGs are progressively integrated into the Tunisian national Development Plan (2016-2020). UNDP supported Tunisia’s participation in the COP22 in Marrakech in November 2016. A delegation of parliamentarians, representatives of public institutions, of the private sector, civil society and the media participated, under the direction of Prime Minister Youssef Chahed, and the Minister of local Affairs and Environment Riadh Mouakhar. The objectives of Tunisia’s participation were the presentation of the national sustainable development policies, the support of public and private projects, and the exploration of potential opportunities of financing, technological transfer and capacity building. In December 2016, the Tunisian government and the UN signed an assistance agreement for the implementation and the follow-up evaluation process of the SDGs. The “Nationally Determined Contribution (NDC)”, which is the programme with measures reducing CO2 emissions before 2030, was submitted by Tunisia to the Secretariat of the UN Framework Convention on Climate Change (CCNUCC) in September 2015. **Three axes are prioritised** in this process by Tunisia: strengthen the national and local capacities in the coastal zones facing climate change, the energy transition for a low-carbon development, and the national development plan as an engine for a Tunisian economy with low emissions and resilient towards climate change.

¹¹ The Constitution of the Tunisian Republic, adopted on 26 January 2014. Translation by UNDP and IDEA.

¹² It is rather an agreement between the state and large shopping malls and super markets, such as Monoprix, than a formal interdiction.

With regard to state initiatives and policy frameworks, **the social and ecological responsibility of firms**, represents another challenge. In the past, there have been some attempts to advance regulations on the social responsibility of firms. The social responsibility of firms started to become an issue in the context of the implementation of the Free Trade Agreement with the EU since 1995; in particular the export firms increasingly started to engage with international norms of certification and address quality, ecological and social aspects (Koleva/Gherib 2012). But compared to international standards, the respect of social and ecological norms remains little developed in numerous firms. According to the firms themselves, this can be explained by missing pressure from the state, missing information and missing knowledge/control of existing or appropriate tools (Koleva/Gherib 2012). Tools of social responsibility are for instance: lending money, credit or aid to the employees during holidays, study opportunities, pilgrimage, improvement of security and hygiene working conditions, or the combat against waste of resources. However, the practical implementation of social and ecological dimensions of social responsibility often remains informal and is not systematically integrated into the strategies of firms (Koleva/Gherib 2012). There is for instance an important deficit in terms of life-long learning opportunities, including social-ecological knowledge, for employees in the majority of public and private companies.

■ 4. Political actors, their objectives, discourses and strategies

Ecological and social transformation is mainly a topic of some involved state actors and civil society organisations. The state should act as an organising body, and in a socially and ecologically responsible manner. Significant matters of the social and ecological transformation take place or should take place on the local and community level. Therefore the outcome of the local elections will be important for fostering further social and ecological transformation. The municipalities elections, postponed several times and currently planned for March 2018, are expected to provide more local consolidation to the democratic transition process. In terms of an ecological strategy the (about 210) political parties are lacking convincing concepts, and are consequently criticized by civil society organisations.¹³ They criticise in particular the fact that the different targets of the Agenda 2030 are not implemented.

After the Tunisian revolution the number of civil society organisations rapidly increased, but many of these NGOs did not survive or disappeared. With regard to the social and ecological transformation, there was no common strategy or joint mobilisation of NGOs in the post-revolutionary phase. This was amongst other due to the lack of experience, but also because other topics were more in the foreground (e.g. civil society mobilisation against the Troika government in 2013). In the meantime there exist some attempts among social and ecological NGOs to join forces. A **first congress of social movements** took place in March 2017 after a cycle of thematic regional meetings, (in Nabeul), bringing together about 100 associations, to debate about an alternative economic and social development model.¹⁴ Among the major organising NGOs were the Comité catholique contre la faim et pour le développement (**CCFD-Terre Solidaire**) and the **Forum Tunisien pour le Droits économiques et sociaux (FTDES)**. The latter is not only committed to structure the social movements’ cooperation on a national level, but also the founder of a social Tunisian observatory (in 2013), and co-organiser of the World Social Forum in Tunis in 2013.¹⁵ The FTDES already

¹³ The small Green Party and the Front Populaire are particularly concerned by the social and ecological transformation, but according to the interviewed civil society actors, they are not a driving force and remain limited to their theoretical discourse.

¹⁴ <http://ccfd-teresolidaire.org/infos/developpement/en-tunisie-les-5816> (15.8.2017).

¹⁵ <http://ccfd-teresolidaire.org/projets/mediterranee/tunisie/creation-d-un-4371> (15.8.2017).



existed before 2011, has a long experience in social activism and played an active role in the Tunisian revolution. It brings together for instance the Comité de Soutien aux Populations du Bassin Minier (Redeyef), the Comité de Soutien aux Femmes travaillant dans les usines de textile, members of the Ligue Tunisienne des Droits de l'Homme (LTDH) and members of the UGTT.¹⁶

Major topics of those NGOs that participated in the first congress are: the mobilisation of the unemployed higher education graduates (Union des Diplômés Chômeurs) for more qualified job creation, professional perspectives and better working conditions, but also local protests against industrial pollution, conflicts on water distribution, workers' rights in the private sector, and the formalisation of precarious jobs. The congress allowed for intensifying the information exchange and creating links between different local actions. It also took into account developing a better coordination and a common dynamic, and to define a unifying framework, based on the principles of horizontal decision-making, democracy, inclusive participation, and independence of the NGOs. The fact was stressed that the environmental engagement should be realised by popular mobilisation, and thus in alliance with the local population and local actors.¹⁷ The **final declaration of the social movements' congress** highlights the interconnectedness between the social question and ecological justice.¹⁸ The declaration criticises public policies, public and private firms, as well as multinationals (active in hydrocarbons, shale gas extraction) as being responsible for the pollution in the triangle of phosphate (Gafsa - Sfax - Gabès) and demands a more equal and just access to (clean quality) water and land.

For NGOs like **CCFD-Terre Solidaire** or **Nomad08**, the **access to land and water is one of the major local concerns**, while the collective **Stop Pollution** is mainly committed to save the Golf of Gabès. The association **Zero Waste Tunisie** or "Tunisie Recyclage" (founded in 2014) is committed to reduce the production of waste, to recycle, to re-utilise, to shopping without packaging and to composting. This NGO led for instance an anti-wastefulness campaign during Ramadan 2016 in order to raise awareness for the 30% of food which is thrown away after the *iftar*, and went into schools to sensitise children and pupils. According to the Institut National de la Statistique (INS), every Tunisian citizen loses every month about 68 TND by food wastefulness which represents 18% of the average citizen's alimentation budget.¹⁹ These NGOs and others criticise the state for refusing negotiations with social movements. They are blaming the state for trying to divide them, for instance by offering jobs or personal solutions to leading activists, or for trying to criminalise the social movements by suing them in court. However, many NGOs do not only miss dialogue channels with the state, but also support from the population: The ecological transformation remains a minority concern.

The only issue that raises the attention of a greater number of people is the issue of poor waste management, as here most citizens are concerned by this problem on a daily basis. However, these concerns do often not go beyond the personal interest, and the public system of waste separation is not functioning at all. A form of urban post-revolutionary environmentalism developed, produced by the higher and middle classes that feel daily aggressed by the visible and immediate pollution, but that does not really address the substantial ecological problems in a more comprehensive and fundamental manner (Ayeb 2016).²⁰ Simultaneously, poorer population fringes continue to be

exposed to invisible environmental and health risks, as for instance in popular areas in the periphery of Tunis, due to insufficient sanitation (Saida Mannoubia, Mellassine, Sidi Hassine, lac Sijoumi), or the population living close to the pharmaceutical industrial sites in Gabès (suffering from cancer and other diseases). A more structural and substantial approach is needed, addressing these ecological problems, including a critical revision of the agricultural and industrial policies, and going beyond the simple waste problem (Ayeb 2016).

■ 5. Conclusion: Proposals for alternative socio-ecological solutions leading to a sustainable and just economy

The current **development model**, which is in continuation of that of the pre-revolutionary period, negatively impacts on the natural resources and on the living conditions of the population. Under the Ben Ali regime the development model was mainly focussed on economic growth and export industries, while environmental and social conditions and consequences have been neglected. New **development policies** should rather aim at social growth, based on social ecology and the intensified development of renewable energies, than exclusively at economic growth. They should for instance target the protection of natural resources by defining them as "common goods" in the constitution, the protection of small peasant's work, the securing of access to agricultural resources, water and land for small (and in particular female) peasants, as well as an overtaxation on the use of hydraulic resources for speculative productions (Ayeb 2017). Further approaches and proposals to redefine the development policies include a systematic penalty for polluters, an environmental tax in the tourism sector, free drinking water for all (average daily needs of about 50 litre/person) and tariffing beyond this consumption, or the development of the public transport in line with environmental respect (Ayeb 2017). For this kind of fundamental re-orientation of the development policies an ambitious, comprehensive, visible and proactive ecological social project would be necessary, which is not the case among the currently existing ecological political parties in Tunisia (Ayeb 2017). In order to address the major social challenges such as youth unemployment, social exclusion, and regional imbalances related to the above-mentioned ecological problems, the Tunisian public policy needs to rethink its economic and industrial policy, as well as its social and employment policy (Schäfer 2018).

With regard to the **energy transition**, Tunisia already invests in the development of the renewable energy sector, but a comprehensive energy strategy could be useful, as well as a stronger encouragement of local and private household energy production and a gradual increase of the private sector in the electricity market. However, alternative solutions could for instance include a more intensified transition away from fossil fuel use towards more renewables energies, and a change of production and consumption habits, away from energy- and materials-intensive products towards services enhancing human resources and capacities (Kowalski et al 2012). The consumption of animal based products could be reduced by a change of the dietary habits. An institutional shift towards low-maintenance infrastructures and reduced energy consumption could be implemented through efficiency increase and energy saving. The use of raw materials could be reduced through efficiency increase, recycling, reduced consumption, re-designing, avoiding waste and waste mining (Kowalski et al 2012).

The **dialogue between the state and the social movements on the local level** might intensify after the local elections planned for March 2018. So far, NGOs are often blaming the state for being absent on the local level. Decisions are often delayed until a minister shows up on the ground, which does not often happen. Some NGOs also made positive cooperation experiences with local authorities (e.g. provisional mayor), depending however on

16 <http://ccfd-terresolidaire.org/projets/mediterranee/tunisie/creation-d-un-4371> (15.8.2017).

17 <http://www.tunivisions.net/71632/article/declaration-des-mouvements-socio-environnementaux-en-tunisie.tnv> (16.8.2017).

18 <http://www.tunivisions.net/71632/article/declaration-des-mouvements-socio-environnementaux-en-tunisie.tnv> (16.8.2017).

19 <https://nawaat.org/portail/2017/04/07/et-si-on-reduisait-nos-dechets/>

20 http://www.huffpostmaghreb.com/habib-ayeb/lecologie-en-tunisie-entr_b_9304348.html (25.8.2017).



personal relations, and these provisional representatives have little power of decision.²¹ But one must also take into consideration that currently the civil society is rather recomposing itself, and the private economic sector is searching for a new social compromise. For instance increasing the social responsibility of firms, based on more participation, needs an implication of the state and a new repartition of tasks and responsibilities between the state and the companies in favour of sustainable development (Koleva/Gherib 2012). But in order to implement such a new repartition of tasks, state regulations and laws need to be adopted, too. According to the final declaration of the social movements' congress of 2017, the development model needs to be redefined on the basis of an understanding that social justice cannot exist without environmental justice.²² The socio-ecological NGOs are asking for a stronger political will of the government, for a new legislative framework that concretises Art. 44 and Art. 45 of the constitution, and they are asking for a systematic and consistent penalty of environmental crimes. These NGOs more or less agree with the understanding of the shared responsibility between generations, the importance of a new state and civic understanding of "common goods", and the state's shaping responsibility, as for instance defined by the German scientific advisory council "Wissenschaftlicher Beirat der Bundesregierung Globale Umweltveränderungen (WBGU)" (WBGU 2017: 6-7). According to the civil society organisations, sensitisation campaigns are not sufficient. The practical and concrete means and instruments to implement for instance sustainable waste management are simply missing. Although citizens are motivated, the system of waste separation is not functioning, due to lacking waste recovery.

Therefore civil society organisations are asking for a more comprehensive governmental strategy, based on social ecology.

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Mandated by : Fondation Heinrich Böll
Afrique du Nord - RABAT
Author : Isabel Schäfer
Printing and design : Grapho pub (November 2017)

 **HEINRICH BÖLL STIFTUNG**
AFRIQUE DU NORD RABAT
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