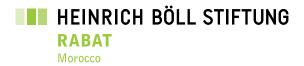






Memorandum for a Just and Sustainable Socio-Ecological Transformation in Africa

By Thomas Blanchet







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I. Introduction: from TransformAfrica to the Memorandum

This memorandum is the result of a multi-year programme on sustainable, just and participatory socio-ecological transformations in Morocco and Africa, launched in 2017 by the Moroccan office of the Heinrich Böll Foundation, and dubbed *TransformAfrica*. The aim of this programme is to contribute to the development and support of different activities to promote socio-ecological transformations in different African countries (namely Morocco, Tunisia, Senegal, South Africa, Kenya, Nigeria). The different projects of the programme are the result of collaborations between actors from various professional backgrounds (civil society, artists, scientists, administration, journalists, policy makers, citizens), but who all share the conviction that alternative solutions to the current mode of economic development are urgently needed. These projects thus aim to promote alternative solutions in different sectors that are particularly affected by socio-ecological changes (natural resource management, energy transition, agriculture, waste management, participatory urban development).

Through these various collaborative projects, the *TransformAfrica* programme aims to raise awareness of socio-ecological issues and to make the voices of those most affected by the consequences of climate change heard by political decision-makers. The deliverables generated within the framework of this programme are largely greatly vary in terms of both purpose and form. In addition to the numerous reports dealing with energy efficiency, sustainable water management or household waste, the programme has also produced various educational documentaries and short films, worked with illustrators and photographers, and organised various workshops and training sessions, e.g. for journalists or actors working on participatory urban development issues. The programme is also intended to be a transnational platform for exchange and learning between experts and activists from different regions of Africa, who work on specific aspects of the socio-ecological transformation process and want to contribute to advancing the debate and to influence political decisions in this field.



This memorandum¹ aims to compile the key results of the activities carried out through the *TransformAfrica* programme, and to summarise the main arguments that emerged from the discussions with the programme's stakeholders for just, ecological, and sustainable transformations. Finally, based on feedback from the different projects of the programme and beyond, this memorandum aims to develop a set of recommendations for political decision-makers and civil society to promote the implementation of socio-ecological transformations.

2. What is a just, sustainable, and participatory socio-ecological transformation?

The concept of socio-ecological transformation can generally be defined as a fundamental change, not only in social relations but also in the relationship between society and the natural environment, in such a way as to contribute sustainably to social well-being and to the preservation of natural ecosystems (Pereira et al., 2015; Blythe et al., 2018: 1208; Hölscher et al., 2018: 1; Shah et al. (2018)). For instance, an energy transition towards a system based on decentralised renewable energy production would not only contribute to a reduction in CO2 emissions but also possibly to the democratisation of access to energy and to combatting energy poverty. The circular economy also represents a promising field combining environmental protection (recycling) and the creation of new local economic sectors.

In contrast to the notion of resilience – defined as the capacity of a natural system to resist changes within its ecosystem (Holling, 1973) – or the notion of adaptation – referring to a rather incremental adjustment to reduce the negative effects of climate change – socio-ecological transformations are proactively driven by actors who want to contribute to a more egalitarian and environmentally friendly model of society. Thus, these transformations generally involve a questioning of established political systems and economic models, and require profound changes in the practices, beliefs and values of all actors in society, including those with an interest in maintaining the current system.

This memorandum is based on a document review consisting of articles from scientific journals, specialised newspapers and reports, and expertise related to socio-ecological transformations in Africa, as well as six interviews conducted with various experts (civil society, researchers, entrepreneurs, etc.) acting in the field of socio-ecological transformations in different African countries.

Not every socio-ecological transformation is necessarily just and participatory, and certain socio-ecological changes can even induce negative effects for certain segments of the population, thus threatening the sustainability of the desired transformations (Bennett et al., 2019). A just socio-ecological transformation would, therefore, require that the rights, needs, visions, knowledge, histories, cultures and ways of different groups, including local people, are taken into account (recognition justice), that the participation and inclusion of these different groups in the decision-making process is made possible (procedural justice), and that the redistribution of potential benefits and inconveniences is dispensed fairly (distributive justice).

The main purpose of this memorandum is, therefore, to show that a just and sustainable socio-ecological transformation must be participatory if it is to have a positive impact on humanity and on the environment. Such a transformation must take into account the interests and needs of the different groups involved in this process on an equal footing, not only by enabling them to participate actively in decision-making, but also by ensuring an equitable redistribution of the benefits. This is the only way to ensure that socio-ecological transformations will benefit the maximum number of people in the long run.

3. Ecological degradation and social tensions: common issues in different African countries

LAfrica faces the double challenge of fighting climate change, on the one hand, while trying to pursue economic development, on the other. The continent, both the richest in natural resources and the poorest in economic terms (Ramdoo, 2019), is currently the most affected by socio-ecological changes. Notwithstanding significant discrepancies from one country or region to another, particularly in terms of intensity, the vast majority of African countries still face similar problems affecting both the natural environment and the different sections of society.



3.1. Ecological changes

"Over the past decade, climate change and extreme weather events have caused unprecedented damage in African countries, destroying infrastructure, threatening economic activity and ending jobs. The most visible manifestations are droughts in Southern Africa, floods in West Africa, and the desertification of entire regions of the Maghreb." (Gueye, 2019).

These natural phenomena, which originate mainly from climate change and deregulation, have a major impact on man and nature. They aggravate droughts, contributing to the increase in desertification in certain regions (Hamndou and Requier-Desjardins, 2008) and the reduction of water reserves. In Morocco, for example, the south of the country, especially the Drâa-Tafilalet region, is the most affected by water shortages (Belhouari, 2019). In Kenya, it is the Ewaso Ng'iro watershed area that is subject to recurrent water shortage problems (Providoli et al., 2019: 31). These droughts also impact on biodiversity, posing an increasing danger to fauna and flora, namely through the increase in forest fires. Such phenomena have been observed, for example, in the Namib desert (Foden et al., 2007) or in Morocco with "the reduction in forest cover and biodiversity, particularly of endemic species such as the argan tree" (El Jamea, 2017: 6). These changes may also be the cause of chain reactions creating pressure on both nature and man. A recent example is that of locust invasions in East Africa (Kenya, Somalia, Eritrea, Ethiopia, Uganda, South Sudan and Djibouti), originating in the warming of the Indian Ocean and having disastrous consequences for biodiversity² and food security in the affected regions.

^{2.} https://www.fauna-flora.org/news/locust-invasion-threatens-wildlife-and-livelihoods-in-kenya (Accessed on 29.06.2020)

3.2. Changes induced by human activity

Environmental degradation is exacerbated by human activity, which is intensifying in part due to population growth in many African countries. Such degradation can take different forms, such as:

Overexploitation of natural resources: Given that Africa is the richest continent in terms of natural resources, many of its resources (hydraulic, halieutic, vegetal, animal, forest, etc.) are subject to overexploitation by different actors with often divergent interests (Providoli et al., 2019: 12). As Weber and Partzsch (2018: 5) observe in the case of deforestation, such overexploitation not only leads to conflicts and tensions within populations but also contributes to soil degradation, biodiversity loss, an increase in the rate of CO2 in the atmosphere and ocean acidification.

Pollution of natural ecosystems: These pollutions can be industrial or individual in nature. The extraction and transformation of phosphate in Tunisia, as is the case in the regions of Gafsa and Gabès, or in Morocco contributes to air pollution and lung diseases among local populations (Houdret et al., 2018). At the individual level, household waste, and in particular plastic waste, is a big problem, especially in large cities where the high population density complicates its management. The case of the Agbogbloshie landfill near Accra, where large amounts of electronic waste sorted by the local population are piled up in very dangerous sanitary conditions, is indicative of the problems associated with waste recycling (Sinopoli, 2018). Finally, the use of pesticides in industrial agriculture also contributes to the deterioration of soils and the reduction of production yields (Moyo and Peirera; 2019:8).

The production of fossil fuels, especially for electricity: As one of the main catalysts of economic and social development, it contributes significantly to the production of greenhouse gases. The extraction of fossil resources, such as oil, coal or uranium, also strongly affects ecosystems and local populations, as does coal mining in South Africa (Overy, 2019). While the African continent contributes 19% to the production of fossil fuels, its population consumes only 3.2% of the world's primary energy (Cantoni and Musso, 2017:9).



3.3. Socially significant environmental changes

These degradations generally go hand in hand with an economic development model, imported from the countries of the North, based essentially on a logic of unlimited GDP growth (Raworth, 2017: 217) and short-term returns, and associated with poor public governance practices. Various examples are indicative of the environmental and social damage generated by this dynamic, such as the implementation of large infrastructure projects supposed to support economic development, sometimes at the expense of the environment and local populations.

"A major problem in many African countries is the hasty development of their economies. For example, they build huge infrastructures (pipelines, etc...) without taking into account the interests of the neighbouring populations (...). Such is the case of the Lapsset project, a mega project that will connect several African countries via railway lines in order to open up these countries and support their economic development. Unfortunately, no impact study has yet been carried out." (Interview, Project Officer, Natural Justice, 11.06.2020).

This economic development often benefits large companies that seek to prevent any changes that could jeopardise their activity and reduce their profit margins. For example, the transition to renewable energy in South Africa has come up against the interests of the state-owned energy distribution company ESKOM and its huge investment in coal (Overy, 2019). The use, sometimes forced, of pesticides and genetically modified organisms (GMOs) in agriculture is also indicative of this problem. Another extreme case is the clash, leading to physical conflicts in Senegal, between multinationals of the food industry and farmers over the appropriation of agricultural land (Mateso, 2017).

In many countries, companies often benefit from a weak regulatory framework and the complicity of many policy makers, which is a real obstacle to the implementation of good governance practices (Jacquemot, 2010). Institutions weakness and the banalization of corruption, whose consequences are felt on a daily basis, exacerbate social tensions and pressures on the environment. In the end, it is often the most marginalised communities and groups that are most affected by these degradations (Adger, 2003). Differentiated impacts can therefore be observed according to geography (urban/rural difference), gender (man/woman difference), generations (youths and old people being more affected), and socio-economic conditions (the poor being the most affected). Drinking water and food security are two sectors subject to significant social tensions. In Morocco's Ouarzazate region, for example, water supply strategies vary according to social classes, with the more privileged opting for bottled mineral water while the poorest "travel to the outskirts of Ouarzazate to bring back drinking water from wells" (El Jamea, 2018:9).

Finally, environmental degradation and pressure on natural resources also contribute to the weakening of sectors and businesses depending on these natural resources. This is the case in Tunisia where, in certain poorer areas, many jobs dependent on natural resources and the environment (tourism, fishing, textiles, agriculture) are threatened by water stress and pollution caused by the chemical industry, with the latter becoming the only sector with employment opportunities (Schäfer, 2017: 12-13). Without an adaptation of more environmentally friendly production methods, the economic fabric and employment prospects of certain regions are therefore seriously threatened in the long term.

4. Current solutions and their limitations

In the face of increasing environmental degradation and social injustice, a number of measures have been put in place by various African governments. However, these measures are relatively limited in scope as they do not challenge the balance of power between the different stakeholders and thus prevent a profound socio-ecological transformation. Moreover, these measures do not necessarily anticipate all the potential consequences of these changes for the populations.



4.1. The limitations of socio-ecological public policies

Many African governments have therefore decided to react politically to growing socioecological problems by setting ambitious targets, launching support programmes, or strengthening regulation to limit the socio-environmental impacts of economic development. For example, the Tunisian development plan (2016- 2020) includes green economy and sustainable development objectives (Schäfer, 2017: 6). With the Green Morocco Plan or the strategy for the development of rural and mountain areas, Morocco intends to combat climate change and social inequalities (El Jamea, 2017: 12). Through its 2014 White Paper, South Africa "has a considerable policy framework for climate change" which defines "South Africa's vision for climate action" (Brown et al., 2017: 26-27). Finally, some countries have established environmental monitoring agencies, such as Kenya, which in 2002 established the National Environmental Management Authority (NEMA).

However, many observers pointed out the problem of the concrete implementation of these programmes. By addressing problems only superficially or by addressing only certain aspects (e.g. just the environmental aspects without a social component), these policy measures would not be transformative enough and would not meet the various commitments and objectives set out, for example, in the Paris Agreement (Brown et al., 2017: 26). Such policies would only address 'visible' socio-ecological problems and would primarily seek to obtain capital from international companies or institutions (Brown et al., 2017; Saheli, 2017). Here again, the corruption of political elites seems to be a central obstacle to effective socio-ecological policies in many countries (Interview, Project Officer, Natural Justice, 11.06.2020; Researcher, German Development Institute, 17.06.2020). This problem has also been identified as one of the main barriers to achieving certain sustainable development goals in Africa (Ajulor, 2018).

"But in the case of the coal-fired power plant in Lamu, there were major shortcomings in the socio-environmental impact assessment certificate, as the project's impact on the climate had not been taken into account. The problem is that NEMA is not doing what it was commissioned to do. Natural Justice is there to push them to do their job. For example, when people commissioned to carry out impact assessments are in reality just copying and pasting other reports and NEMA still publishes the certificate." (Interview, Project Officer, Natural Justice, 11.06.2020). The implementation of effective measures also seems to be compromised by certain problems of public governance. In addition to problems of delegation between the different levels of state representation, there are also dysfunctions linked to the overlapping of competences between different ministries insofar as, very often, socio-ecological problems do not fall within the competence of a single ministry (Interview, former member, The Economic, Social, and Environmental Council of Morocco, 15.06.2020).

While citizens and civil society are at the heart of socio-ecological issues and their participation remains essential for the implementation of sustainable solutions, these actors do not yet seem to be perceived by political decision- makers as key interlocutors in the management of these problems. The lack of inclusion of the various stakeholders, particularly civil society and part of the local population, in the implementation of these policies contributes to producing sub-optimal results. On the one hand, there is a lack of awareness among the population about socio-ecological problems and issues. Thus "only communities heavily affected by the consequences of climate change plan and implement measures to cope with them and develop their own resilience" (El Jamea, 2017: 6). On the other hand, these programmes and policies take little or no account of people's real needs.

"Citizens express themselves in relation to the good or bad choices of certain projects but not in relation to solutions. The problem is that citizens are not sufficiently involved in the debates on different projects (e.g. choice of sites, choice of technologies, etc.). It is not part of the culture here to involve and inform citizens on political choices and decisions. In general, technical studies are carried out, then there is consultation between elected representatives and the ministries concerned, and then we communicate to citizens to tell them this is what is going to happen." (Interview, former member, Economic, Social and Environmental Council of Morocco, 15.06.2020).



4.2. Technological solutions cannot solve everything

In order to deal with various socio-ecological problems, some African governments often opt for technical solutions, proposed by large companies and many international institutions, which, in reality, contribute to worsening the situation. This logic of modernisation, arguing that any problem can be solved by a technological solution (Rosner, 2004), is difficult to apply in the case of socio-ecological systems due to their complex and unreformable nature. "A surgical intervention or replacement created from an engineering mindset of nature can only fail when nature does not work like a machine" (Azghari, 2019 : 18).

In this respect, the agriculture and energy sectors reveal the technological limitations as a remedy for socio-ecological problems. In the case of agriculture, a sector coveted by the agro-food multinationals, some technological solutions, such as genetically modified organisms or chemical fertilisers, have already been deployed, with the support of governments and international institutions such as the World Bank or the Food and Agriculture Organisation of the United Nations (FAO), in order to increase crop profitability and combat food supply problems in a standardised manner (Belay, 2019: 13). By arguing that Africa's population is growing and that farmers will not be able to feed everyone, agribusinesses are legitimising their technical solutions that give them higher yields at the expense of the environment as well as the local populations and their know-how (Belay, 2019: 14; Witt, 2019: 24). These technological solutions have significant consequences of social (disappearance of small farms and local agricultural knowledge) and ecological (soil impoverishment and impact on biodiversity and ecosystem balance) nature. Large companies and international institutions use these consequences to justify their solutions, which lie at the root of the problem, thus creating a vicious circle that is difficult to break.

"Unfortunately, there has been a change in practices with mechanisation, deforestation, pesticides etc.... These practices based on cash crops have disastrous effects on the environment and people, and result in significant environmental degradation, desertification, increased drought. They are also paralleled by a rise in the population that increasingly demands natural resources. This situation justifies the discourse of the multinationals that short- term results are needed in order to meet the needs of growing populations. Big groups exert pressure to establish their revenue model by showing that African farmers are not able to feed the population." (Interview, Board Member, Enda Third World, 16.06.2020).

Another sector particularly prone to technological solutions is the energy sector, which is itself at the heart of climate change issues (Sarewitz and Nelson, 2008: 872). Some African countries have embarked on an ambitious programme of transition to renewable energy. Morocco, for example, has set itself the goal of providing 52% of its installed electricity capacity from renewables by 2030 (Karmouni, 2016: 26). This strategy has notably been made concrete through the construction of solar power plants within the Noor-Ouarzazate complex extending over more than 3,000 ha. While these projects contribute to the decarbonisation of the Moroccan energy system based on a technological choice, they do not sufficiently involve civil society (El Jamea et al., 2017) and their consequences may be marked by strong social segregation (Maisterra, 2016: 26).

Without an ambitious social policy to accompany it, the development of renewable technologies is not adequate to address the problem of unequal access to energy and the problems of energy insecurity (Brown et al., 2017: 20). Likewise, the idea of being able to solve the energy problem only by the production of renewable energies is an important barrier to the development of a culture of energy efficiency (Barradi, 2019: 44), showing thus that an investment in energy efficiency and energy saving awareness programs is essential for the implementation of profound transformations in this sector.

4.3. Solutions are still heavily dependent on international institutions

Finding solutions to socio-ecological problems still largely depends on international institutions which help financially or politically support the establishment of numerous projects and programs in different African countries. These international institutions, particularly the World Bank and the International Monetary Fund, have been the drivers of the forced economic opening of various African countries in the name of economic growth, which led to the degradation and privatization of public services, such as water services (Goldman, 2007), and the growing impoverishment of African societies (Saheli, 2017; 12).



These institutions have progressively developed and integrated safeguard mechanisms and policies to take into account social and environmental issues in the development and management of their projects. These mechanisms allow for ensuring that certain ecological and social standards are observed and that consultation processes between the various stakeholders are taking place. However, these mechanisms have been criticised for not being able to take into account the interests of vulnerable populations and ensure their adequate protection throughout the project life cycle (Lucci et al., 2019: 23).

Taking into account more seriously the interests of the countries of the South and their populations in international trade is therefore a prerequisite for the implementation of profound socio-ecological transformations. To this end, governments, as well as civil society, must actively participate in the exchanges with international institutions or companies. As Weber and Partzsch (2019) demonstrated with the case of deforestation, if the cooperation between NGOs and multinationals can be successful in developing innovative solutions, NGOs can find themselves influenced by the economic discourse carried by multinational institutions and companies, justifying the plundering of natural resources in the name of economic growth, and helping to reproduce the power relations in place.

"We must stop thinking about our development model based on the concerns of the North. Our interests are secondary to the countries of the North because we are dependent on them." (Interview, Board Member, Enda Tiers Third World, 16.06.2020).

5. Recommendations for more just, sustainable, and participatory socio-ecological transformations in Africa

While a number of the measures put in place to respond to socio-ecological problems help to maintain existing power relations, various initiatives within *TransformAfrica* and beyond are working to show that a fairer, more participatory and more sustainable - citizen-oriented - alternative model is not only possible but necessary. To this end, it is essential to create favourable conditions for the implementation of a bottom-up transformation in which citizens are the real actors of change. In the following section, we offer African decision-makers some key elements essential to achieve such a transformation.

5.1. Taking into account the interest of local communities in socio-ecological transformation projects

A more just and redistributive socio-ecological transformation can only be achieved if the interests of all stakeholders, especially the most vulnerable thereof, are taken into account (Blythe et al., 2018: 1213). Therefore, it is necessary to keep the populations informed but also to develop their skills in various fields so as to enable them to participate actively in the transformation process.

5.1.1. Keeping local populations informed about socio-ecological issues

Facilitating the access of local communities and populations to information is a necessary initial step in taking into account their interests in the processes of socio-ecological transformations. "Only citizens who are aware of the availability, quality and use of natural resources can debate, make informed decisions, and claim their rights", state Houdret et al (2018: 1). It is therefore necessary to help the populations to better understand the socio-ecological issues not only by



keeping them informed of the various projects and their positive and negative consequences, but also by offering them the tools to better understand the published information. This step is essential for responsible environmental governance that can help reduce the negative effects on populations and ease the resulting social tensions (Houdret et al., 2018). "The access of the general public to environmental information consolidates awareness of environmental issues, the free exchange of ideas, a more effective participation in decision-making and, ultimately, the development of a sense of shared responsibility" (Ouatmane and Azaitraoui, 2020: 10).

To this end, awareness campaigns on socio-ecological issues must be developed, in cooperation with civil society or local universities. As shown by various awareness-raising projects undertaken by the Heinrich Böll Foundation in the fields of waste in Morocco and Senegal and in the fields of energy efficiency in Morocco and Kenya, the role of citizens, including all social classes, is crucial in the implementation of coherent and effective national environmental strategies. The openness of populations to awareness raising and changes in practices varies greatly depending on the territories, particularly urban/rural areas (Ouatmane and Azaitraoui, 2020) and socio- economic conditions (Brown et al., 2020), which makes of a general and standardised awareness raising policy relatively obsolete. Thus, civil society must play a central role in raising awareness and informing populations of socio- ecological issues in order to empower the latter and support national strategies on the ground (Barradi, 2019: 36). This awareness can come not only through surveys and polls, but also through the use of different digital media, or even through art (Hawkins et al., 2015).

"The citizen must ensure his civic and political responsibility, defend his rights and values through his civic activity. The values of sobriety must be instilled in him and he must learn to overlook profit and comfort. (...). The public authorities must give themselves the chance to review their development model." (Interview, former member, the Economic, Social and Environmental Council of Morocco, 15.06.2020).

RECOMMENDATIONS 1:

- Facilitate access to environmental information for the population, for example by setting up public awareness and information campaigns and using language accessible to all, in order to make citizens more aware of socio-ecological issues.
- Establish effective communication between the different state levels in order to ensure the proper dissemination of information on socio-ecological issues among the local and national levels.
- Encourage public authorities to collect and analyse social and environmental data that will enable them to better control the social and environmental impacts of certain projects on local populations.

5.1.2. Supporting the learning of marginalised populations of socio-ecological transformations

If people want to better understand the socio-ecological challenges, it is necessary to offer them a universal and good education, as stipulated by the fourth Sustainable Development Goal. This will notably involve the continuation and improvement of literacy programmes, but also the implementation of educational and training programmes at different levels that take into account socio-ecological issues (El Jamea, 2017; Ouatmane and Azaitraoui, 2020). Such programmes would provide people with the tools to act more responsibly. In this respect, the Energy Information Centre created in 2014 in the commune of Chefchaouen is an interesting example of awareness raising and education on energy saving issues.

Supporting learning and skill development targeting marginalised populations would also help reduce social inequalities in the face of socio-ecological change. Developing learning in key areas related to socio-ecological change, such as renewable energy, waste management, or agriculture, would not only preserve sustainable skills that respect local ecosystems, but also open up new opportunities for marginalised people such as women and youth in rural areas. This is the



case, for example, of the Institute for Vocational Training in Renewable Energies and Energy Efficiency, which opened in Oudja in 2015 and welcomes around 60 young people, more than half of whom are women. Another example is the volunteering programme proposed by ADRECI in Kenya as part of the UNPLUG campaign on energy efficiency at home and at work.

RECOMMENDATIONS 2:

- Support in cooperation with universities or organised civil society the development of new education and learning programmes related to environmental issues, thus enabling people to assimilate new tools for environmental management and providing new opportunities for marginalised people.
- Strengthen the role of civil society as a trainer and multiplier in socio-ecological fields, through funding and cooperation.
- Develop aspects related to socio-ecological issues in education programmes, particularly in secondary and higher education and apprenticeships.

5.1.3. Strengthening the capability and skills of local communities

In order to be able to participate in the transformation process, to become real stakeholders, and to make their voices heard, citizens and local communities need to acquire different skills. Therefore, local communities need support at several technical, legal, organisational and political levels. In some cases, professionals working in NGOs are put at the disposition of the communities to help them become real actors of change and to assert their interests compared with other stakeholders. In the case of the Natural Justice Association, it is often lawyers and jurists who will make them aware of their rights and show them the procedures to follow in order to enforce them.

"Our approach is paralegal. We look for people in the community who meet certain criteria. We recruit them, make them competent for the project, and train them so that they can subsequently help the community. They need to understand the potential impact of the project on their community and how to handle a complaint. Our approach can be considered successful once the local community no longer needs our help. This was for example the case of a coastal community in Kenya." (Interview, Project Officer, Natural Justice, 11.06.2020).

In other cases, such as the Action Aid programmes in Nigeria, the aim is to train women in rural communities to organise themselves into agricultural cooperatives. Through such a programme, they have been able to improve their productivity, gain access to loans and therefore to land, and finally defend their interests before other stakeholders, including local authorities (Nwokoye, 2019: 50). In other cases, it is the people in drylands who have learned to become aware of the socio-ecological issues and thus to better manage their water while respecting the interests of other users and avoiding conflicts (Provilodi et al., 2019: 36). In the long run, it is a matter of local communities making their voices heard by political decision-makers and gaining legitimacy among the various stakeholders. To this end, it is necessary to create favourable conditions for the definition, implementation and evaluation of more participatory environmental and social policies and to involve citizens and civil society through a process of co-production of public policies.

"The problem is that the state thinks for the communities. The problem is that the state thinks what it does for the communities is what the communities want it to do for them. But this is not the case and we have to make the state aware of this and make sure that the voice of the communities is heard. Meaningful participation means seeking answers from local communities and asking them what they think." (Interview, Project Officer, Natural Justice, 11.06.2020).



RECOMMENDATIONS 3:

- Mobilise citizens in an inclusive way in political decision-making processes or in projects directly affecting them, through different consultative or participatory instruments.
- Bring up information from citizens, including marginalised people, and integrate it into decision-making processes related to socio-ecological transformations.
- Empower citizens through the acquisition of skills necessary for their participation in such projects.

5.2. Recognising the leading role of women in socio- ecological transformations

While women are subject to strong discrimination compared to men, particularly in terms of access to education or land, they are also the first to suffer the consequences of ecological degradation. Yet, women play a central role in the socio-ecological transformations within African countries. Being in charge of the family and of managing household affairs, they have an important responsibility in the education of children and are the main catalysts for the sustainable dissemination of new waste management or energy sobriety habits. They are also central agents of change within local communities.

"Women in rural areas play a central role in the water sector, as they are in charge of water supply. Thus, they are committed and are the driving force for change. We can see this in southern Morocco. They build relations with the associations and push their husbands to get involved." (Interview, researcher, German Development Institute, 17.06.2020).

"To understand the role that women play or can play in projects of socioecological transformation, it is important to know how African societies function and the role of women in the family. Women play a central role within the family farm and generally fight for the community and not for their own interests. They generally have a family vision in land management and think in terms of generations, and therefore fight so that their sons and daughters always have access to land." (Interview, Board Member, Enda Third World, 16.06.2020).

In order to make better use of their specific vision, knowledge, and skills in socio-ecological transformations, policy-makers should seek to minimise discrimination against women (Moyo and Peirera, 2019: 8), including through setting out legal frameworks that do not discriminate against women. The law on collective land sharing in Morocco is an interesting case in point, where women's associations have been fighting for several years for a more egalitarian legal framework (Sammouni and Belghazi, 2020). In addition, there is a need to raise awareness and "build the capacity of women, but also of men, to grasp and accept the role that women can play in this process, as allies and not competitors. If you just build women's capacities, it doesn't work. Therefore, change has to take place at the community level." (Interview, Board Member, Enda Third World, 16.06.2020).

RECOMMENDATIONS 4:

- Recognise the knowledge and role of women within communities, making them key players in developing solutions for climate change adaptation.
- Work to support the involvement and participation of women in socioecological projects, in particular through an overhaul of legal frameworks, raising awareness of socio-ecological issues, and a constant effort to include women in all stages of environmental projects.



5.3. Supporting the development of sustainable solutions adapted to local contexts

In contrast to the different technological solutions, those developed within the *TransformAfrica* programme come up with sustainable solutions at the local level that not only address environmental problems but also contribute to the reduction of poverty and social inequalities. Such an approach, which takes into account local contexts and interests, also makes it possible on a larger scale to achieve more convincing and sustainable results than standardised approaches implemented unvaryingly throughout a country.

5.3.1. Encouraging local experimentation

Civil society has a strong potential to generate new solutions for sustainable development. These solutions are generally better adapted to local socio- ecological problems since they originate from situations directly experienced by the local community (Seyfang and Smith, 2007). For example, the Green Roof initiative, launched in 2019 in Casablanca and aimed at planting collective gardens on the roofs of the city, is intended to respond to the lack of access to green spaces in Casablanca for part of the population, particularly the less well-off. This initiative has helped to raise awareness of urban agriculture (Green Roof, 2020). In the long term, this initiative could also represent an alternative solution to air conditioning in order to respond to the heat waves in urban areas (Viguié et al., 2020; Sonday, 2019: 31). Local agro-ecological techniques (Azghari, 2019: 19; HBS, 2019) make it possible to carry out agriculture that is more in line with local contexts while strengthening farmers' independence from multinationals. Even though the initial costs may be higher and returns may take longer to come, there is a need to experiment with local conditions by leveraging local traditional knowledge. Thus, in the South of Morocco, ancestral water management structures based on customary law coexist with innovative experiments, such as the establishment of a collective laundry or "aquifer groundwater contracts" (Belhouari, 2019). Policy makers should therefore support innovation from the bottom by removing potential administrative barriers and creating a favourable context for experimentation.

"Field experiments are an important tool for advancing socio-ecological transformations. However, as long as there is no political support, it leads nowhere." (Interview, Board Member, Enda Third World, 16.06.2020).

In order to stimulate experimentation and innovation from below, in particular by encouraging people to work collaboratively on a problem and try to define solutions to it, several instruments can be deployed. Governments could support the deployment of such instruments financially or materially.

"For example, mini-hackathons are organised in some regions of Morocco so that people not only identify a problem but also find solutions to it. Instruments from business are used to solve social problems. (...). We give them the means to think and propose solutions and to accompany them in the implementation of these solutions. So we try to work on how to make citizens actors of change by providing them with tools." (Interview, Board member, Moroccan Centre for Social Innovation, 12.06.2020).

RECOMMENDATIONS 5:

- Support field initiatives and local experiments in order to obtain solutions to socio-ecological problems that are more adapted to the different local contexts and whose positive effects will be felt in a more sustainable way on the local populations.
- Provide financial or human resources, infrastructure, or space to develop new ideas or experiment.
- Establish networks to facilitate horizontal exchanges between professionals on good practices implemented in the different regions.



5.3.2. Stimulating ecological and social entrepreneurship

In order to support the development of sustainable solutions to socio-ecological problems, the various African countries should stimulate social and ecological entrepreneurship. The aim here is to bring together and create synergies between the worlds of enterprise and the associative worlds, following the example of the Moroccan Centre for Social Innovation which has contributed to the development of numerous social enterprises, notably to provide electricity to geographically marginalised populations, or to strengthen the skills of medical students to improve services within hospitals.

"Political advocacy and awareness-raising are not antithetical to entrepreneurial action - quite the contrary. There are many synergies and if, for example, one develops a business model for a social problem that is valid and economically sustainable, this can only make political advocacy more legitimate. And we know that if we present an economically viable solution to a government, it will more easily agree to change." (Interview, Board member, Moroccan Centre for Social Innovation, 12.06.2020).

For this, it is necessary to develop an ecosystem conducive to the development of such projects in order to maximise their economic, social, and environmental impacts, and to create jobs. This requires the creation of an adequate legal framework to facilitate the development of innovations, as well as structural financial support to enable, through the implementation of programmes supporting young entrepreneurs or the creation of meeting spaces, actors of the social and solidarity economy to meet and set up new innovative projects.

RECOMMENDATIONS 6:

- Recognise the importance of ecological and social entrepreneurship not only for economic growth for the implementation of sustainable socio- ecological transformations and support of these enterprises in their development.
- Develop an institutional framework that enables the development of new investment opportunities and facilitates the creation of social and environmental enterprises.

5.3.3. Provide a framework for scaling up these various local initiatives

Any innovation that has proved its worth at the local level should be able to spread to other cities or countries. To this end, these local initiatives should be able to benefit from public support. This does not only require financial support, but also the inclusion of certain initiatives in government programmes.

"There is also the problem of scaling up solutions, which is also linked to funding. Even if a project is viable, it remains difficult, without funding, to scale up the project so that it develops beyond the local level. As a result, in general, most initiatives remain small." (Interview, Board member, Moroccan Centre for Social Innovation, 12.06.2020).

"It is necessary for scaling-up to happen in order to convince and therefore to try to show the results at levels higher than the level of experimentation." (Interview, Board Member, Enda Third World, 16.06.2020).

In Tunisia, for example, "there are smaller ecological projects which have been developing for about ten years, and even more intensively since 2011, for example in the field of ecological tourism (eco-farms, ecological hiking itineraries) or in the production of organic agricultural products. But these types of projects are small, fairly infrequent, and do not fit into a more comprehensive coordinated government initiative or strategy." (Schäfer, 2017: 7). In order to increase their chances of developing beyond the local level, these initiatives should be able to take advantage of fairer conditions of competition, preventing power games, collusion between political and economic spheres, and corruption. In addition to state support, these initiatives can rely on the media to publicise the results of their experimentation and attract the attention of the political spheres.



RECOMMENDATIONS 7:

- Support any initiative that has proved its worth at the local level in its scaling up process, for example as part of exchange programmes between localities or partnerships between actors from different regions.
- Facilitate contact with potential investors or support in the promotion of their projects in order to ensure the sustainability and dissemination of these good practices.

5.4. Foster cross-sectoral and international cooperation and exchange between public decision-makers and civil society

In order to achieve a socio-ecological transition, cooperation between the state, business, academia, civil society, and the natural environment seems imperative (Carayannis et al., 2012). Thus, changing the power relations among stakeholders also implies reviewing their respective roles within the process. As Azghari (2019:20) shows in the case of agro-ecology, successful transformation also implies reviewing the economic model of large agribusinesses and offering them an alternative market to pesticides and GMOs. Brown et al (2017) have also shown that shifting from coal to renewable energy also means rethinking employment opportunities in the regions concerned. The case of a Natural Justice project in northern Kenya shows that local communities and large companies can work together for more socio-ecologically sound economic development:

"We also have a project run by an oil company, Tullow, in northern Kenya, in an arid, pastoral area where an oil field has been discovered. They have started to extract oil, created a lot of waste that has been dumped into the wild, and used a lot of water to the detriment of local communities. And in this case, we managed to create a partnership between the company and the local communities." (Interview, Project Officer, Natural Justice, 11.06.2020).

While such cooperation is possible and desirable, states could tighten regulations on corporate social responsibility in order to support cooperation projects between businesses and civil society (Schäfer, 2017: 14). Cooperation between local communities and universities is also essential. On the one hand, it helps legitimise the results of field experiments, especially vis-à-vis policy makers. On the other hand, local communities play an increasingly essential role in the production, collection, and output of data for scientific projects related to socio-ecological transformations (Providoli et al., 2019 : 71).

Finally, cooperation and dialogue between state actors and civil society is also essential in order to bring the ideas (even criticisms) and concerns of local initiatives to political decision-makers. It is the responsibility of policy makers here to promote the participation of civil society, even of those who do not necessarily share the same opinion.

Several observers stressed the role of states and international financial institutions in developing a multi-stakeholder exchange platform for long-term dialogue and sharing common socio-ecological problems and solutions across countries and sectors (Brown et al., 2017: 13). These multi-sector and multi- stakeholder platforms would make it possible to break down a silo mentality specific to each sector, bring up certain problems, pool knowledge, exchange experiences and, ultimately, strengthen cooperation between African countries. Finally, it is necessary to support civil society networking in the different African countries so that they can exchange ideas and share their experience. The institutionalisation of such a network could be supported either by international institutions or by individual states.

RECOMMENDATIONS 8:

- Maintain open dialogue with civil society actors and facilitate cooperation between civil society and business.
- Support networking and international exchange of citizens' initiatives so that they can benefit from experience sharing.
- Set up a multi-sector and multi-actor platform to facilitate knowledge sharing and networking among actors from different sectors and countries.



6. Conclusion: Vision for a just, participatory and sustainable transformation

While some transformative experiments have already been initiated in various African countries, this Memorandum shows that we are still far from having systematically put in place a process of profound change centred on citizens and natural resources, and where economic is at the service of the latter and not the other way round. In order to achieve a participatory, just, and sustainable socioecological transformation, certain criteria need to be taken into account:

- Consider whether the interests of all stakeholders have been taken into account in an equitable manner. It is therefore necessary to consider whether all relevant stakeholders, especially marginal populations, have been heard through deliberative processes that allow everyone to express their interests in meaningful way from the outset of the process.
- Anticipate the social, ecological, and economic impact of the transformations on the various stakeholders and ensure that the negative or positive repercussions of these transformations are redistributed equitably among the stakeholders. It is also a question here of taking into account the potentially undesirable impacts of these transformations.
- Think about change in the long term, either by putting it on political agendas or developing an economic model that allows these initiatives to move beyond the experimental stage. It is only by sustaining these initiatives within the socio-ecological system that in-depth transformations can take place.

Beyond these different criteria, it is the system of economic development that needs to be radically restructured. The various testimonies and documents collected for this memorandum have shown some paths to follow in order to deeply modify this system and go beyond the current strategies that allow maintaining the usual economic activities by greening them a little. An in-depth transformation implies moving away from a model of globalisation centred on markets, profits, and large companies and refocusing on local producers and consumers, users, and citizens (Seidel and Ben-Zev, 2019: 5). For this to happen, it is therefore appropriate to fall back on local and regional production and shorten the chain of distribution (Paech, 2012). Such transformations are highly political and involve not only the responsibility of all citizens, who must adopt new values of restrain and frugality, but also the responsibility of the political decision-makers who must orchestrate this transformative process and curb the actions of big business.



List of actors interviewed for the survey

- Project Officer, Natural Justice (Kenya), 11.06.2020
- Board member, Moroccan Centre for Social Innovation, 12.06.2020
- Former member, Economic, Social, and Environmental Council of Morocco, 15.06.2020
- Board Member, Enda Third World (Senegal), 16.06.2020
- Researcher, German Development Institute, 17.06.2020
- Director, International Environmental Policy Division, Heinrich Böll Foundation, 18.06.2020

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About the study

This publication presents a memorandum of recommendations resulting from the multiannual programme on sustainable, just, and participatory socio-ecological transformations in Morocco and Africa. It is part of the "TransformAfrica: Towards Ecological and Social Transformation in Africa" programme, with the support of the Heinrich Böll Foundation – Rabat.

Author: Thomas Blanchet - Nexus Publisher: Heinrich-Böll-Stiftung Rabat - Morocco Coordination: Soufyane Fares Date of Publication: November 2020 Translation: Babel Media Design and Printing: Napalm



Published by the Heinrich-Böll-Stiftung Rabat – Morocco, 2020.

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