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GOOD PRACTICES OF ECOLOGICAL AND SOCIAL TRANSFORMATION IN AFRICA

By Laetitia Dechanet



PREFACE

An idea often starts small. But once it spreads, it can change everything. So where do these good ideas that have the power to make the world a better place stem from? Rarely originating from ministries or planning offices, they are born in local communities, carried by resourceful citizens seeking to improve their daily lives. Faced with the challenges of sustainable development, African civil society has a strong potential to generate new solutions that are usually better suited to respond to local socio-ecological issues since they emanate directly from the populations who experience these problems.

Through this publication, the Heinrich Böll Foundation seeks to promote good practices for ecological and social transformation in Africa. Developed within associations or climate-conscious companies, these citizen initiatives focus on energy transition, agro-ecology, participatory urban development, governance of natural resources and waste management. These experiences show how African countries can shape their ecological transition in a sustainable, fair and participatory manner.

We can all learn a lot. And that is precisely the rationale behind this document, which compiles the good practices identified, encountered or supported throughout the TransformAfrica program. This multi-year program was launched in early 2017 by the Heinrich Böll Foundation to provide sustainable solutions to the numerous social and ecological challenges faced by the people of Africa as a whole. The goal is to create a network of civil society stakeholders and artists from various countries in order to promote a sustainable, fair and participatory socio-ecological transformation in Africa. Over the last four years, the Heinrich Böll Foundation has supported a whole range of innovative, dynamic and participatory initiatives, a selection of which are listed below. These are all strong examples of the importance of not solely leading transformation as a top-down approach, that is, deploying social and environmental policies at a ministry-level, but instead starting from the bottom up by involving all stakeholders.

The active participation of civil society in the debate on social, economic and environmental development models in Morocco and Africa can help ensure broad social support. It is also the only way to identify people's needs as accurately as possible and to implement the right ideas to meet these needs.

We hope that the good practices presented here will provide a source of inspiration to be emulated. This publication is designed as an invitation to civil society stakeholders and decision makers in Morocco and African countries to open the debate on the experiences carried out and to take the example at a high level.

We would like to thank the journalist Laetitia Dechanet for her work in collecting testimonies and writing articles to promote good practices towards the social and ecological transformation in Africa. Enjoy the read!

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ACTING AS AN AGENT OF CHANGE IN YOUR OWN CITY

An urban vegetable garden on the rooftop of the l'Uzine cultural center near Casablanca.

transform
Africa



Today, cities generate 80% of the world's GNP, but also 70% of carbon emissions. At the current rate of urban growth, the number of city dwellers is expected to double by 2050. This means that 7 out of 10 people will live in cities, which will undoubtedly bring upon new challenges on municipalities in the fields of housing, transport, employment, services, and health and, of course, in terms of general life quality. Building sustainable cities and communities is the 11th sustainable development goal of the New United Nations Program on Cities. This goes hand in hand with a participatory approach that aims to turn urban dwellers into agents of change and decision makers of their own environment. Present in several international strategies and laws, this urgent citizen participation was already part of the 21 Agenda, which emerged from the Rio Summit in 1992.

THE MEDINA AS A CULTURAL HOTSPOT

Beginning with an artistic approach to the post-revolution context, the Creative Collective has become a genuine motor for urban development in the Medina of Tunis. The association was established in 2016 and is currently working on over a dozen projects that aim to promote the cultural skills of working-class neighborhoods, using a completely participative approach.

#Participativeurbandevelopment #livingtogether #medina #Tunisia #Tunis



Collaborative design studio El Warcha invites youths from the Tunis Medina to participate in a workshop on urban furniture.

“The idea to begin with was to make the most of the freedom that the post-revolution context offered”, explains designer Dhafer Ben Khalifa when talking about the foundation of the Creative Collective. In the post-Ben-Ali Tunis, the street had become a new space for artistic expression, with artists reclaiming public areas that were once closed off. Initiatives took off over the place. One of which being the light art festival *Interférence* which invites artists from all over the world to complete art residencies in the old Medina, living with the people from the area, and creating works of light that the public can appreciate in the streets when night falls. There is also the collaborative design studio *El Warcha*, which gives young people from the working-class neighborhood Hafsia in the Medina, the opportunity to participate in creating furniture for public spaces, all while helping them think about the idea of the common good. Living together underpins both projects that share something else: their founders are friends who decided to pool their efforts and their networks behind a single associative ideal. This is how the Creative collective was established in April 2016.

None of the association’s members was originally from the Medina, or had any experience with the associative world. Yet, the connections with residents in the Medina happened very spontaneously. “We have a very organic approach”, says Dhafer Ben Khalifa. *“Several members of the Collective decided to live in the Medina after the association had been set up. Over the course of the projects we worked on, a relationship of trust was created. The people come first out of curiosity, talking to us, and then little by little they accepted our presence”*. Not being a native of the neighborhood has brought a new perspective, “We are passionate about making sure that the Medina is not just some old, run-down city. We want it to be a neighborhood full of life that piques the interest of others”. An infectious idea that led to the creation of *Doora Fel Houma* (A walking tour around the neighborhood), a program of guided visits which are far from the usual clichéd and picturesque trips around town. For a year, the Creative Collective provided support to young people from the Medina in creating an alternative circuit, integrating the main historic sites, but more importantly the areas that visitors do not usually get to see. “It might be a little, unassuming café in a back street, a tiny square that is hard to get to, or even the family home of one of the guides”, explains Dhafer Ben Khalifa. In these neighborhoods, often on the margins of society since the large families of the *dars* (traditional homes) left for the north of the city, *Doora Fel Houma* gives the residents of the Medina the chance to promote where they live. “This also corresponds with a request from visitors who want to experience the Medina in a different way, all while staying within a reassuring

framework provided by the presence of young people from the neighborhood to guide them”, emphasizes Dhafer Ben Khalifa who does not hide the difficulties encountered in trying to make this activity work. In particular, those issues intrinsic to working as a guide, which requires the ability to speak many foreign languages, in an area where most local youths have dropped out of school. The challenge is also a financial one: “Over the course of the project, we were able to pay the guides, but now we have to start marketing the tours so that it can be a stable, lucrative business, without which the guides will lose interest”. The Creative Collective can at least be proud of having contributed to shining a spotlight on the path less traveled. “For example, the Medina has become an area where we can consider creating artistic spaces, something that was impossible before”, states Dhafer Ben Khalifa. As evidence of this, the former home of the *El Warcha* workshop now hosts a small, modern restaurant thanks to the new crowd that has started coming to this part of Hafsia.

Today, the Creative Collective is running more than a dozen projects, the latest of which is *Jnina Fel Mdina* (Gardens in the Medina). As its name suggests, it involves bringing residents of the neighborhood together around gardening activities, with a focus on sustainable and participative development. The idea is also to make this part of the city greener. It currently lacks green spaces despite the fact that greenery in Tunis has increased four-fold over the last 25 years. Developed alongside students from INAT (The National Agronomy Institute), the project involves two test sites: the terrace of Dar El Harka, a co-working space that is part of the Creative Collective, and the court in a residential building not far from there. The two spaces hosted “taster days” during which the organizers were able to see the calming effect of gardening on children from the neighborhood, children that are usually a good bit more boisterous. “It was impressive to see just how calm and focused they were”, commented Dhafer Ben Khalifa. Unfortunately, the lockdown caused by the Covid-19 pandemic and the subsequent 3-month closure slowed the Dar El Harka garden project. As for the garden in the court, it was kept alive thanks to the efforts of a volunteer living in the building, but a surprise was waiting for the Creative Collective. “The garden that we had set up there is equipped with a few vegetable beds and a sophisticated hydroponics system (out-of-soil farming). We thought that it was the ideal solution due to the lack of access to soil in the Medina, but in the end, we realized that the residents took greater care of the vegetable beds than the hydroponics system”. It is really important to remain attentive to the feedback from inhabitants since what we think is the best solution is not necessarily the case”, reveals Dhafer Ben Khalifa.

Even if the Creative Collective designs its project based on the needs of the neighborhood and its inhabitants, the team is always careful to give them the time to appropriate the change: *“It enables us to adapt our approach, sometimes even leading to radical changes from the initial idea”*, states Dhafer Ben Khalifa. This has been the case for the Fandek project. It was originally designed to be an apprentice school for artisan jobs, but was not created owing to a lack of enthusiasm from the young people it was meant to teach. Since they were more attracted to digital jobs, the project was completely remodeled to become an associative school for digital art. *“This work involves constantly questioning ourselves. The ideal situation would see the residents of the neighborhood giving their own ideas and we then provide the associative tools, to help them make it a reality”*, hopes Dhafer Ben Khalifa. Integration is in Creative Collective’s DNA, yet its founders are still surprised to see their work labeled as participative urban development. *“It always seems a little curious to us since we see ourselves more like a collective of designers, architects, artists... We just want to do what any creative person would do in the public space, without the limitations imposed prior to the revolution”*, confides Dhafer Ben Khalifa. *“That said, this aspect of urban development is recurrent in our approach so we accept the label and do our best to create something that corresponds to a methodology!”*

The Creative Collective is currently undergoing complete internal restructuring. For the moment the association functions with just one employee but with the support of funds from Tfanen it should be possible to recruit a general coordination team next year. The aim is *“to develop more projects, to increase social mediation skills among coordinators and most importantly to play the role of associative facilitator”* explains Dhafer Ben Khalifa. The Creative Collective has become a genuine incubator for social initiatives within the Tunis Medina. At the end of its first four years, the association is now able to provide an institutional framework, and know-how as well as to play the role of mediator with possible financial backers. *“We get approached more and more frequently by residents of the neighborhood who have an idea for a project but do not know how to get started to create an association, collect funds... Mentalities are changing, and people are starting to understand that they can be actors within their own environment, without waiting for the local or national government”*, celebrates Dhafer Ben Khalifa. He and his friends wanted to become a valuable part of the city but it is really the city that has become a part of them.



Eco'Logic for sustainable design

Calling on the creativity of designers to find solutions to environmental problems is the guiding principle of the *Eco'Logic* project, developed by the Creative Collective with the support of the Heinrich Böll Foundation. After a call for candidates was launched in April 2020 a dozen projects were chosen. The designers behind these projects received financial and logistic aid to create a prototype that would be shown to the wider public. All of the projects were displayed at the start of October in the Mediterranean Centre for the Applied Arts, before going to the exhibition area in Tunis over the second half of November. The exhibition, accompanied by a conference, was designed as a way of creating interaction with the public and of opening up dialogue around how designers can contribute to protecting the environment. The idea is to ensure the projects designed as part of *Eco'Logic* endure to try and foster a genuine momentum around sustainability.



As part of the Jnina Fel Mdina project, a hydroponic vegetable bed was installed inside the court of a residential building.

HAPPINESS IS ON THE ROOF



Sabrina Hakim and Ahmed Latouri created the association "Le Toit en Vert" (The Green Roof) to promote urban gardens.

What if instead of going down to the garden, we went up? This is almost certainly the future for cities, particularly so for megacities like Casablanca where there is no space left on the ground. To reconnect with nature, the association le toit en vert (the Green Roof) has taken a birds-eye view of the issue and set up shop in the cultural center l'Uzine, in the Aïn Sebaâ neighborhood. Skeptics did not believe anything would grow in this industrial quarter of the white city. And yet...

#urbanagriculture, #participativeurbandevelopment #livingtogether #Morocco
#Casablanca



How do we bring nature back into the heart of a city like Casablanca, where the only forest is one of cranes looming over construction sites? On the ruins of slums and old art deco villas, innumerable buildings have sprung up, leaving little space for greenery. In this urban jungle of 3.5 million inhabitants, green spaces represent less than one square meter per person, or six times less than the international average. In the middle of this overcrowded city, there is still a huge, untapped area, bathed in sunlight and far from the exhaust fumes of the roads... The roofs. A genuine opportunity for urban agriculture, thought Sabrina Hakim when she had to find a use for the roof at *l'Uzine*, the cultural center in Aïn Sebaâ where this young freelance video editor regularly works. A true urbanite, Sabrina Hakim had never done any gardening but she felt the need to reconnect with nature. With a few of her friends, she decided to test it out and easily convinced the management at *l'Uzine*.

Starting in 2018, with the first purchases of materials, works got underway thanks to support from the Touria Foundation and Abdelaziz Tazi, the man behind the creation of *l'Uzine*. But an architect friend who came to see their efforts quickly poured cold water on their dreams. It would not be possible to put whatever

they wanted on the roof because there were certain weight limits to respect. A genuine treasure hunt got underway to try and find the original plans of the building where *l'Uzine* was located, a building originally designed to house offices. During this time, a consultancy firm carried out the necessary analysis to identify the load-bearing walls and to design a metal structure that would support the raised beds. It was at this point that Sabrina Hakim met the landscape gardener Ahmed Latouri, a regular at *l'Uzine* who was also born and raised in the neighborhood. He immediately fell in love with the project idea which got a real boost thanks to his expertise. With his extensive knowledge of permaculture, Ahmed Latouri has helped create the right combination of plants and seeds, best adapted to this urban environmentally friendly garden. He is also the one who built the beds, made exclusively out of recycled palettes. "Bringing all of the materials up here wasn't an easy task", remembers Sabrina Hakim, "Just the fact that we were able to carry all of this soil up the stairs was an adventure in itself". In her opinion the greatest challenge remains financial: "If we hadn't had the location right from the start and received a little boost to finance the studies and buy all of the materials, the project would never have been able to reach such a scale".



A User's Guide to Urban Agriculture

Out of the partnership between “Le Toit en vert” and the Heinrich Böll Foundation came the Guide to urban gardening and agriculture thus making this activity accessible to everyone. Filled to the brim with practical help, the 20-page book that has been generously illustrated gives step-by-step information on how to create a vegetable patch. Tools, seeds, planting calendar, replanting, watering, composting... Everything is there to learn how to make your balcony, court or roof a little greener. The guide is available in Arabic and in French on the Foundation's website:
<https://ma.boell.org/fr/2020/09/21/guide-dinitiation-au-jardinage-et-lagriculture-urbaine>

Then the greenery started to take hold, and the first workshops to introduce people to urban agriculture got going. A small group of Saturday gardeners quickly formed, very assiduous in their weekly gatherings. The success is now so great that each week the organizers have to turn people away, since the workshops are limited to 15 people for safety reasons. “When there are new participants, we make sure that the older members show them how to prepare the beds, or a tray to be sown with the seeds...”, explains Sabrina Hakim who insists on the key aspect of transmitting information within the association “*Le Toit en Vert*”, which was officially created in 2019. One of its main missions is to reintroduce ancient types of seeds, “since the majority of usual seeds are hybrids that don't reproduce”, explains Sabrina Hakim who envisages the creation of a network to share organic seeds, as soon as the association has enough stock.

The flowers, herbs and vegetables planted over the seasons are home to many different insects just like the composter that is home to a colony of worms and bugs that “you wonder where they came from”. A small ecosystem has been created on the roof, shutting down those critics who thought that nothing would grow in the industrial quarter with its polluted air. “Our objective is not just to create a garden, but also to recreate some of the biodiversity that has disappeared, especially in cities”, explains Sabrina Hakim. As for knowing whether the air is cleaner on the top of the roof or not, she is convinced: “We do not have the means of conducting real scientific studies, but from what I have read about similar projects abroad, produce from roofs is often of better quality. There are no heavy metals or pesticides that you might find at ground level. For example, the honey produced on the roof of the Opera de Paris is considered among the best honey in France”. What the “Toit en Vert” team has been able to experience is the “real taste” of vegetables and the “incredible” smell of aromatic plants, “completely different from what you find in the markets”. Tasty produce from the garden sometimes appears on the menu of the café in *l'Uzine*. “What is really cool, is to see the chef come onto the roof to choose his herbs”, enthuses Sabrina Hakim, even if harvests are far from guaranteeing self-sufficiency. The roof now has around 20 beds, but they are rather small. “One of the objectives of the association is to launch other projects just dedicated to production, without workshops or visits. We are looking to public schools, orphanages... These kinds of structures do not necessarily have the means of buying good-quality products because they cost too much”. To finance this goal, but also to be able to train young people and create jobs, “Le Toit en Vert” relies on selling its services to private companies. The association offers turnkey solutions, which cover everything from the

works phase through to planting. Fully scalable and adaptable, their services focus on companies or private individuals, and come with the possibility of ongoing maintenance if so desired. “Ideally, we would like to keep an eye on what is done just to ensure that the plants and the vegetables are well looked after. It is really important for us”, assures Sabrina Hakim.

If the association is in ever greater demand from private individuals, companies or structures like activity centers, they are careful not to overstretch: “In the beginning we visited many different places, we went and knocked on people’s doors, but it was discouraging at times. We understood that it was better to develop a single project with a big company so that it would become an example for others so that they say to themselves, why not us? And this has worked well”, explains Sabrina Hakim. By collaborating with large structures, the goal is also to collect enough money

to be able to help smaller structures with challenges like the purchase of materials. “Beyond just installing vegetable patches, our objective is to connect people with each other, to create social links”, states Sabrina Hakim. “If there is a shared vegetable patch on the roof of a building, the neighbors will connect. People who may feel isolated will be able to exchange with each other”. These are the values that “Le Toit en Vert” hopes to share with the largest number of people possible, making the city even greener. If the lockdown caused by the Covid-19 pandemic has slowed down those projects in the pipeline, great progress has already been made. “When people come for the first time to the roof of l’Uzine, they are impressed. They are not expecting to find all of this”, gushes Sabrina Hakim. “They often say to us: ‘It is amazing, we are going to steal the idea.’ And we reply, ‘Yes please! Steal away!’ The greater the number of roofs like ours the better”.


Each week an initiation workshop on gardening is organized on the roof of l’Uzine.



© Chadi Ilias

CURBING THE SCOURGE OF WASTE



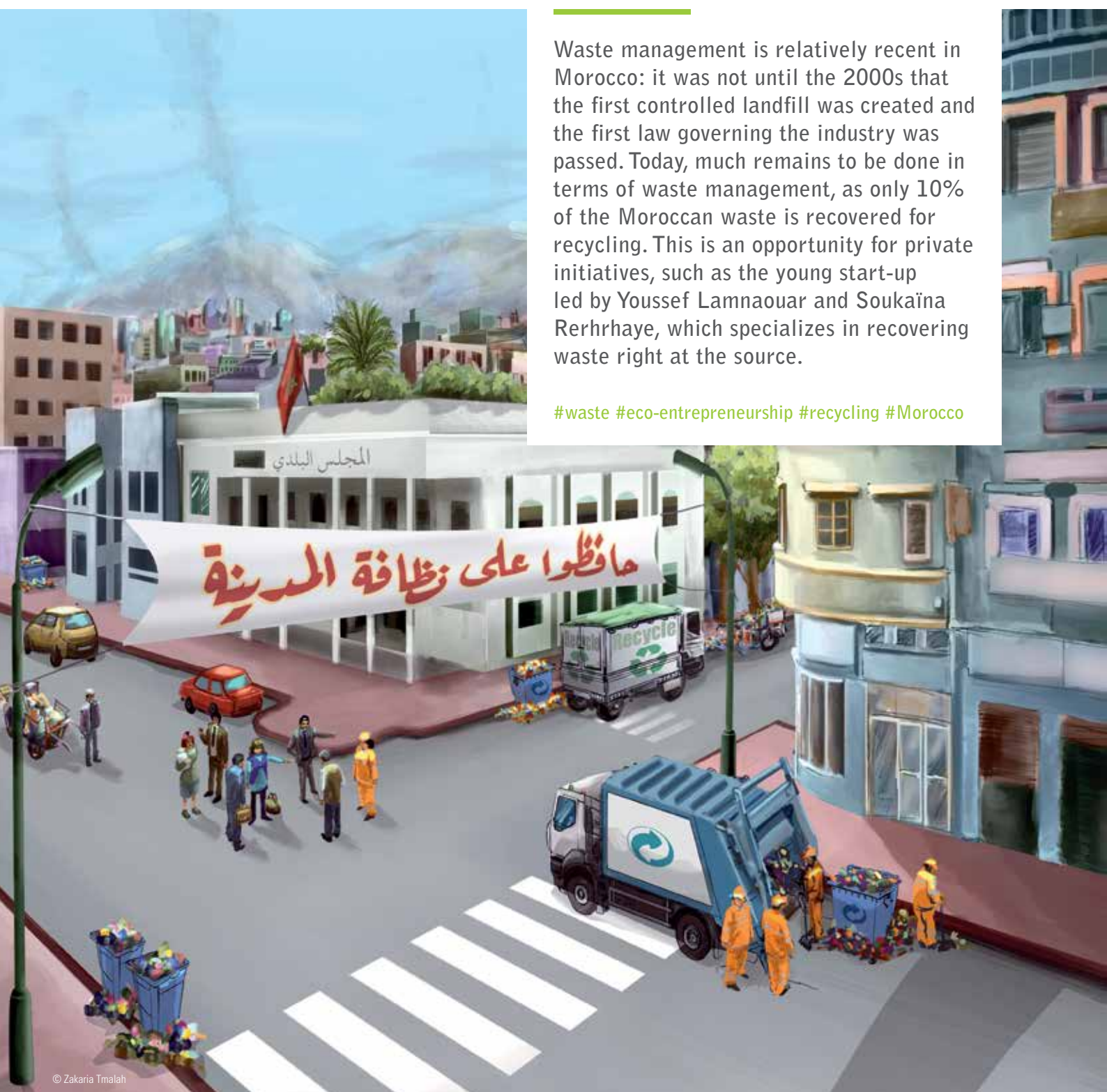


Pollution from household waste is particularly alarming in African countries where municipal collection systems are either very recent or non-existent. The decomposition of waste piling up in uncontrolled landfills leads to emissions of gases that are harmful to the environment and the health of residents. Aware of these problems, but also of the potential economic and social windfall that this emerging industry can bring, some countries have passed laws that promote rational and sustainable waste management. But the legal texts have yet to be implemented into concrete actions. In the meantime, citizens have decided to roll up their sleeves to help curb this scourge, whether by creating an eco-oriented business or simply by setting an example in their daily activities.

TACKLING THE ISSUE AT THE SOURCE

Waste management is relatively recent in Morocco: it was not until the 2000s that the first controlled landfill was created and the first law governing the industry was passed. Today, much remains to be done in terms of waste management, as only 10% of the Moroccan waste is recovered for recycling. This is an opportunity for private initiatives, such as the young start-up led by Youssef Lamnaouar and Soukaïna Rerhrhaye, which specializes in recovering waste right at the source.

#waste #eco-entrepreneurship #recycling #Morocco

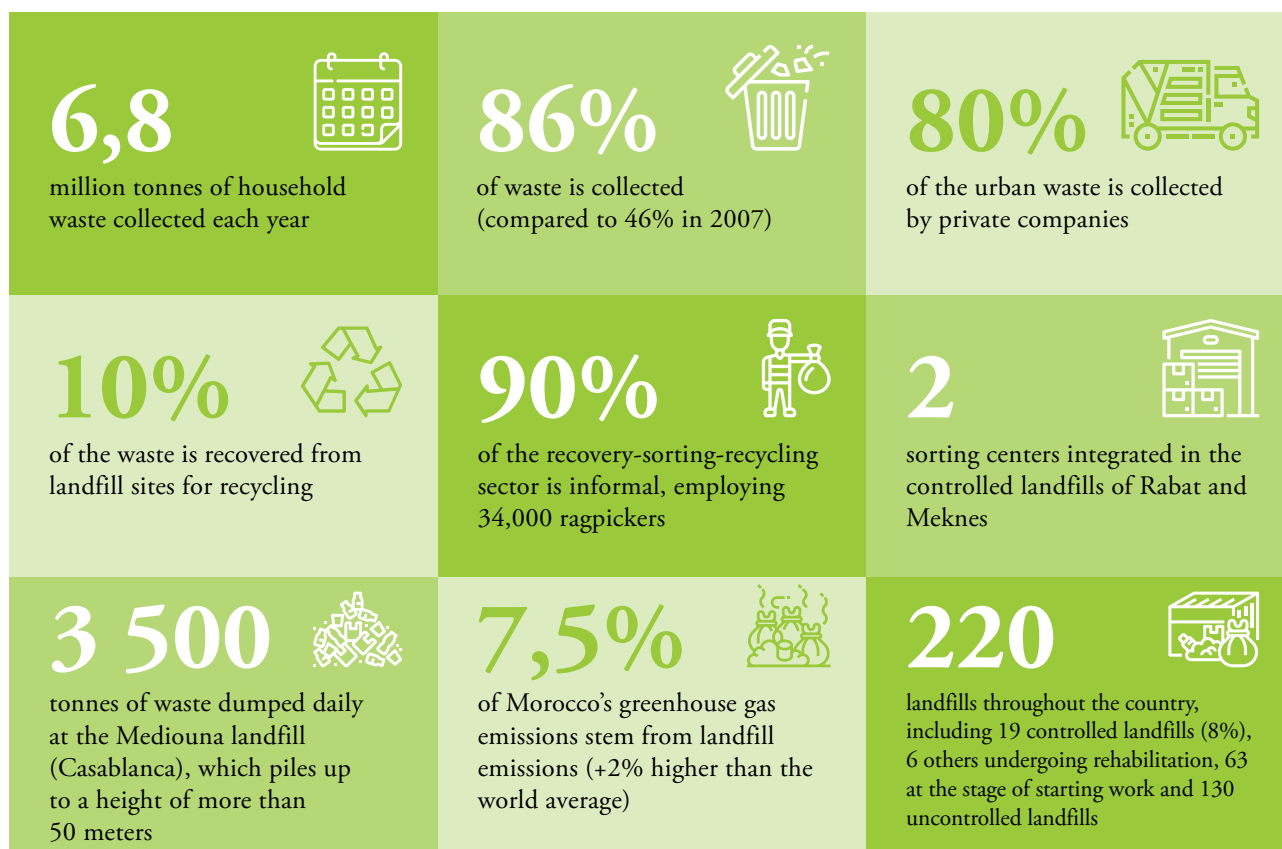


© Zakaria Tmalah

“We started from scratch: as soon as we came up with the idea, we jumped at it, we didn’t wait to save money”, says Youssef Lamnaouar, overflowing with enthusiasm. In April 2019, along with his wife Soukaïna Rerhrhayé, they launched Virtus C.E.L., a start-up specialized in the recovery, sorting and recycling of waste. In order to create a formal structure and circuit in an industry dominated at 90% by the informal sector, this young graduate in environmental engineering decided to turn to patronage to raise the initial seed capital. A year and a half later, he works with about twenty companies from Kénitra to Casablanca, and Rabat. How does it work? Virtus C.E.L. establishes a diagnosis within the partner company to categorize waste, it then provides the site with selective sorting baskets and later recovers their contents. Sorted and compacted, the waste is then transported all over Morocco, to manufacturers who buy it back to transform it into raw material. Plastics, for example, can be used to fuel automotive plants.

“Even if we are a very small start-up, we give ourselves the same means of larger companies”, says Youssef Lamnaouar. With his positive energy right by his side, he plays on all fronts to “make citizens more aware of their responsibility in waste management”. In addition to training the employees of partner companies, Virtus C.E.L. carries out a great deal of awareness-raising work in the media, on social networks and at conferences.

With the help of his small van, which he hopes to soon be able to trade in for a hybrid vehicle, Youssef Lamnaouar collects 2,000 tons of waste per year. “The largest source would come from private individuals”, says the young entrepreneur, who is about to launch a pilot project with 250 households in the Green City of Bouskoura, near Casablanca. Convinced that it is necessary to act without waiting for mentalities to change, he is willing to adapt to the current constraints: “People don’t necessarily have room to store several sorting bins and don’t want to bother, so we’ve designed a single galvanized metal bin where you can mix and match everything that’s recyclable and then we deal with the sorting. The other hurdle to get around is regulation. Law 28-00, which regulates the waste management industry, stipulates that waste belongs to the municipality from the moment it enters the public space. To remain within the law, Virtus C.E.L. has therefore no other choice but to intervene before the garbage is placed on the curb. This upstream collection has an advantage: the waste is in better condition than that recovered at the end of the chain from landfills thereby providing better quality recycled material. Above all, the fact of wide spreading this action at the source helps to relieve the pressure on landfills, which are still far from being under control. Of the country’s 220 landfills, more than half are still uncontrolled dump sites that release powerful greenhouse gases (methane and carbon dioxide) and pollute the soil with leachate (the “juice” from garbage cans).



Since the early 2000s, the management of household waste by delegated companies has helped double the collection rate, but this development has posed new challenges. Even in controlled landfills that meet technical standards for sealing and leachate drainage, landfilling remains the rule. However, this is not a sustainable solution, if only in terms of volume, especially as the law does not force municipalities to sort waste before sending it to the landfill. Not only does this increase the extent of landfill sites, but it is a waste of a resource that could be converted into raw materials. Currently, only 10% of the waste collected is recovered for recycling. Morocco is giving itself ten years to raise this ratio to 20%, according to the objectives of the National Strategy for Waste Reduction and Recovery, launched in 2019. The ambitious goal is to create 25,000 jobs and to contribute to 2% of the national GDP by 2030. To achieve this, the government has every interest in relying on private operators such as Virtus C.E.L. Youssef Lamnaouar has tried to reach out to local officials and the Ministry of the Environment, but his requests have so far gone unanswered. Encouraging selective sorting, separating flows at source and integrating small businesses into this circuit

are three of the “10 key elements for successful solid waste management” written by Mustapha Azaitraoui and Aaziz Ouattmane, and published by the Heinrich Böll Foundation. This guide, designed to provide tools for municipal officials, the private sector and civil society, compiles a series of ideas to support reflection and debate on the issue. Because the volume of waste is growing steadily, thereby increasing the number of collections to be made and the budget of the municipalities, which are solely responsible for the collection, transport, treatment and recovery of household waste. Being fully autonomous, most of them have opted for a delegated management mode: 80% of urban waste collection is carried out by private companies. A choice that is proving to be increasingly expensive and not always suited to the particularities of each city. One of the “10 Keys” is to strengthen the participation of civil society and citizens. The integrated approach makes it possible to adapt to the complexity of the field and to the various stakeholders involved according to the specific scheme of each city: citizens, neighborhood associations, professionals and informal operators.

The civil society, which is rarely involved in waste management at the municipal level, could prove a valuable intermediary in assuming a monitoring role that is not currently taken on by any official body. And also to communicate on environmental issues, to fill in the gap between the people and elected officials. This is all the more necessary as the level of citizen involvement is a prerequisite for the success of waste management, as highlighted in the “10 Keys” guide. Promoting access to and dissemination of environmental information to the general public is paramount. This right to information is enshrined in the Constitution, namely in Law Act 28-00 as well as in the National Charter on the Environment and Sustainable Development passed in 2014. Nevertheless, most citizens remain under informed on the topic. According to a survey carried out by the Heinrich Böll Foundation over a three-week period at the entrance to the large shopping centers in Béni Mellal in 2019, 94% of those questioned said they had no information about how the municipality operated its waste management. However, this is the first step towards change: an informed citizen is more receptive and more aware of the notion of shared responsibility, an absolute precondition for successful waste management.



Source figures: Ministry of Energy, Mines and the Environment and Ministry of the Interior.

The controlled landfill of Oum Azza in Rabat has integrated a sorting center where ragpickers can work as part of the Attawafoq cooperative work.



© Soufyane Fares

On the same principle, the goodwill of citizens is at the heart of waste reduction policies, another key to reducing the volume of waste dumped in landfills. Encouraging consumers not to waste food, to refuse excess packaging, to opt for a bottle deposit system ... these initiatives are all the more necessary as the law does not provide for any method of waste disposal other than incineration and landfill. Nor is there anything about ecodesign, i.e., designing products from renewable resources to move towards a circular economy. For the moment, waste recovery is set out in quantified targets in national plans and strategies, but no specific legislation has been enacted to regulate this approach, which is almost exclusively carried out by workers in the informal sector. Hence the importance of capitalizing on this network to improve waste management: this is another of the “10 Keys” published by the Heinrich Böll Foundation. By 2030, the government also hopes to formalize half of this industry, which accounts for some 34,000 ragpickers, according to the National Strategy for the Reduction and Recovery of Waste. Youssef Lamnaouar is not afraid of competition, and on the contrary, he sees it with a positive outlook: “In our line of business, there’s room for everyone! I am only able to process 2,000 tonnes a year working full time, there could be several of us and it still wouldn’t be enough to cope with the output”.

Waste management in the Law

Law 28-00: passed in 2006, this law is the main frame of reference for waste management and disposal.

Framework Law 99-12: This law passed in 2014 relates to the National Charter for the Environment and Sustainable Development. It provides a framework for legislative and regulatory measures to prevent and combat all forms of pollution.

Institutional Act 113-14: relating to municipalities, it makes sustainable development a reference framework for regional projects and programs. Enacted in 2015, it amends and replaces the 2002 Municipal Charter, which gave municipalities full responsibility for the collection, transport, treatment, recovery and recycling of household waste.

The National Plan for Household Waste (PNDM), developed by the Delegate Ministry for the Environment and the Ministry of the Interior, with the support of the World Bank and German Cooperation (GIZ), is planned over 15 years (2008–2023). It aims in particular to achieve a 90 per cent waste collection rate and to rehabilitate 100 per cent of the landfill sites.

The National Waste Reduction and Recovery Strategy is linked to the PNDM. Launched in 2019, the strategy aims to boost the waste recovery industry by creating 25,000 jobs and making up 2% of the national GDP by 2030. Other objectives include: recycling 20% of household waste, recycling 70% of plastic waste, and achieving a 50% formalization rate for ragpickers.

WASTE BE GONE!

Responsible waste management and environmental protection are enshrined in the Senegalese law, yet many streets and beaches still have the appearance of open dump sites. To try to remedy the situation without having to wait for the government to do something about it, Babacar Thiaw has implemented a “zero waste” approach in his restaurant. He also has the firm intention to act as a role model in hopes that other people will emulate his initiative.

#déchets #protection de l'environnement #initiative citoyenne #Sénégal #Dakar

Inside his “zero waste” restaurant, Babacar Thiaw has designed a specific signage to make his customers well aware of the approach.





© Khalifa Ndiaye

Dakar Burdened by Waste

In a short documentary film produced by the Heinrich Böll Foundation, Senegalese journalist Ibrahima Diedhiou gives a damning account of the poor waste management in Senegal, particularly plastic waste. Produced in Dakar, this film gives the floor to a wide range of speakers who denounce the consequences of this pollution on its citizens' health and the environment.

Watch it on:

https://drive.google.com/file/d/1H2gOx_hkXV6fOLf7wzk6nAbYhk--MuN9/view

One day in 2010, Babacar Thiaw went surfing with friends off the coast of Dakar. That day, the surface of the sea was nothing but a floating pile of trash. It was at that moment that the young man promised himself to act against this scourge as soon as he would graduate. A few years later, with his master's degree in marketing in hand, he took over the management of Copacabana, a family restaurant located on the Yoff Virage beach in Dakar. At the same time, he motivated his friends around him and began to initiate beach clean-up actions, launching petitions for the parking lot next to the beach to stop being used as a dump. "Living in the middle of garbage has become something commonplace in Senegal. Even if people wanted to dispose of their garbage properly, they couldn't, there are simply no garbage cans around. Most of people's waste is piled up in a small neighborhood dump and the garbage truck rarely passes by. We have even heard of truckers asking people for money to come and collect garbage", says Thiaw.

In 2018, this young entrepreneur decided to change his mind: the Copacabana became the first eco-friendly restaurant in the city. No more plastic bottles and straws, coffee pods, disposable paper towels, all replaced by water jugs, bamboo straws, ground coffee, cloth napkins. To minimize unnecessary packaging, the Copacabana serves only juice pressed on site and uses only bulk products, such as sugar. Also, no more plastic bags, Babacar Thiaw has had cloth bags sewn to do the restaurant's groceries. All the organic waste, such as vegetable peelings and coffee grounds, feed the compost which ends up in the small garden at the back of the restaurant, composed mainly of tomato plants. The other waste is sorted in bins and entrusted to a specialized private company, Ciproviz, which carries out a

second sorting and supplies associations, such as a women's cooperative that recycles metals to make pots and pans among other items. "We have almost no waste left, apart from cigarette butts, but that too we should be able to do something with it, we must look for a way to recycle it", Babacar Thiaw hopes. Inside his restaurant, he has disseminated educational panels to communicate on his approach: "What I am doing is negligible when compared to what is being thrown away at the national scale – endless trash – but maybe what I am doing here can serve as a little inspiration to awaken someone else's sensibility in the near future".

The Mbeubeuss landfill in Dakar is one of the largest dumping grounds in the world.



© Khalifa Ndiaye



Plastic Atlas

Plastic pollutes our lives in every possible aspect: in our environment, in our food and in our bodies. And this pollution is only getting worse: **Half of today's plastic has been manufactured since 2005. And if nothing is done to curb this hectic pace, the presence of plastic could increase by another 40% by 2025.** To help raise awareness of the extent of the damage, the Heinrich Böll Foundation has joined forces with the international movement Break Free from Plastic to publish the 'Plastic Atlas' report. A set of figures and data classified by field (environment, health, food, clothing, tourism, industry, etc.) that reflect the urgency to act against this scourge. Because the way things are going, **in 30 years there will be more plastic in the oceans than fish.**

You can download the French version from: <https://sn.boell.org/fr/2020/02/24/atlas-du-plastique-version-senegal>

Of the 2.8 million tonnes of household waste produced each year in Senegal (100 kg per capita), only half is collected by a garbage collection service. In 2015, the Ministry of Local Governance launched the "Zero Waste" program, which is supposed to be implemented at all levels of society: municipalities, neighborhoods, schools... One of the goals was to make Dakar one of the cleanest cities on the continent. But for the time being, the failure of this ambition can be measured with the naked eye: everywhere litter flows into the landscape, giving certain beaches and streets the appearance of open-air dumps. Most of this waste is plastic: bottles, cups, bags... A finding that prompted the Ministry of the Environment to pass a law prohibiting the production, importation, possession, distribution and use of plastic bags under 50 micron-thick. Enacted in 2016, it has never been implemented. The current Minister of the Environment and Sustainable Development, Abdou Karim Sall, acknowledged the ineffectiveness of this law in 2019, promising a new law with an expanded scope. As a result, a new law on the prevention and reduction of the environmental impact of plastic products was enacted in April 2020. But its application is long overdue. *"Three ministers have passed and none of them have been able to enforce the plastics law. Citizens have not been widely sensitized and the manufacturers of this industry have not been fully involved in the process to find alternatives. Customs were supposed to control at the borders, but so far one can question why these plastic bags are still permeating through the Senegalese border. We have to get people to take ownership of this law, if they don't see the point of it, it won't be respected"*, says journalist Ibrahima Diedhiou, author of an awareness-raising video produced with the support of the Heinrich Böll Foundation. It points out that no sorting and collection policy has so far taken into account the protection of health and the environment. This is despite the 2001 Environmental Code, which states that *"waste must be disposed of or recycled in an environmentally sound manner"*. Responsible waste management is also included in the Plan Sénégal Émergent and is the subject of the National Waste Management Program. The legislative and policy framework is in place, yet the unsanitary conditions associated with the pile of waste is only getting worse. *"A visit to the Mbeubeuss dump in Dakar is enough to see that there is no sorting whatsoever and that all the garbage is systematically incinerated, with consequences on the health of the nearby dwellers"*, Ibrahima Diedhiou points out. The toxic fumes emanating from this landfill (one of the largest in the world), as well as the putrefaction smells from the waste, pollute the air and affect the health of the local population. Interviewed by Ibrahima

Diedhiou, Dr. Saliou Thiam says that respiratory infections account for 19% of the reasons for consultation in the health centers near Mbeubeuss. On the coast, shoals of dead fish suffocated by plastic particles are frequently found among the waste in the Bay of Hann, once considered one of the most beautiful in the world, but now the most polluted in Senegal.

Today, hope could come in the form of a \$125 million credit granted by the World Bank to support Senegal's waste management policy. The Project for the Promotion of Integrated Management and Economics of Solid Waste in Senegal (PROMOGED), estimated at US\$295 million, is also financed by the French Development Agency (AFD) and the Spanish Agency for International Development Cooperation (AECID), as well as the Senegalese government and the private sector. While waiting to measure the effects, the manager of the Copacabana restaurant continues to act at his own level: "Everybody expects something from the government, but the government is ourselves. When one starts cleaning, the neighbor across the street usually does the same and it creates a synergy,

maybe tomorrow an association. People should stop asking, 'what can the government do for us?' and instead say, 'what can we do for ourselves?', Babacar Thiaw asserts. But the road to changing mentalities is still long and arduous in a country where three quarters of the population live day to day: I can't ask a parent who is already struggling to feed their family to come and do volunteer beach cleaning", says the young entrepreneur, who admits: "One of my main challenges is to convince the members of my team to follow a vision that is not necessarily theirs to begin with. I have to be behind them all the time". Far from being discouraged, Babacar Thiaw hopes to convince the other restaurant owners in the Yoff area to opt for a more environmentally friendly approach. For the time being, he wants to install bins all along the beach with a regular and efficient pick-up service. A pilot experiment that could inspire other localities. At the age of 35 today, Babacar Thiaw understands very well that to act collectively, you have to start with yourself: "The only thing we can do is lead by example".



Most of the waste that pollutes Senegalese streets and beaches is made of plastic.

© Khalifa Ndiaye

RESPECTING THE SOIL





Agroecology involves letting nature do its work. It is Man who is at the service of the earth and not the other way around, observing and reproducing nature's cycles and synergies. This can involve associating those plants known for protecting each other, fertilizing using natural methods, or protecting soil from erosion through reforestation of different areas... In addition to protecting the environment and the health of those living nearby, agroecology has a genuine and positive social and economic impact on small farmers in Africa. By rejuvenating the fertility of over-exploited soil, it limits the rural exodus, promotes women's empowerment and makes it possible to consider new economic models.

ANCIENT SEEDS, NEW HOPES

Agroecologists before their time, the Jbala people in the Rif Mountains have always cultivated their land carefully respecting the laws of nature. But know-how has been lost, and the official policy of encouraging the use of chemical inputs has taken precedence over tradition. Since 2006, the *Ariaf Kissane* cooperative has brought this heritage back to life and increased the independence of farmers who are reinventing a sustainable economic model.

#agroecology #cooperative #ancientseeds #Morocco #Rif

Souhad Azennoud (on the right) has come back to the land of her ancestors where she started the Ariaf Kissane cooperative with village farmers.



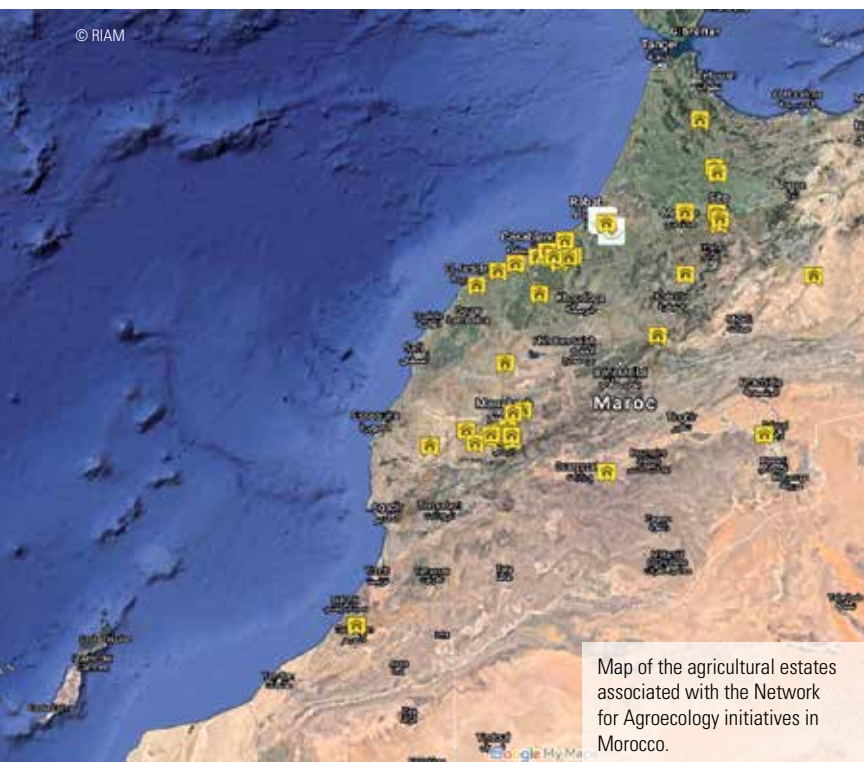
“Look at the richness of the earth!” exudes Souhad Azennoud as she meanders across her farm perched high on a hill in the Rif, halfway between Fez and Chefchaouen. “This land is not plowed. You plant whatever you want and it grows”, assures this biologist who gave up everything to work and walk in the footsteps of her *Jbala* forebears.

Polyculture, clear indicator of the soil’s fertility, is endemic in this area of the mountains where subsistence agriculture is practiced. Among citrus plantations, olive, carob and pomegranate trees, wild medicinal plants grow side by side with leguminous plants and cereals, not forgetting the family garden that provides households with vegetables. When she decided at 40 to quit her managerial job in a multinational agrofood company, Souhad Azennoud thought about the summers of her youth spent on the family farm in Kissane. It was there that she decided to launch her beekeeping project. “My passion for bees is my main motivator. What started everything off was the realization that I can’t stop

a bee from heading off to see my neighbor, so the land around mine has to be organic too”. Very quickly, the village farmers asked her to help set up a cooperative. She convinced them to concentrate on the production of organic olive oil and honey. These products have long shelf lives and are therefore well adapted to this remote enclave where transporting merchandise is difficult to organize. While the Ariaf Kissane cooperative was being set up in 2006, Souhad Azennoud tried different experiments on her own farm, using seeds preserved by her family over centuries. Ideally adapted to their environment, the ancient seeds have a genetic richness that makes them very resistant to climate change and diseases. It is also interesting from an economic point of view. With standard, hybrid seeds you grow plants that don’t yield any seeds and therefore have to purchase new ones every year. Souhad Azennoud quickly realized that “to convince farmers to turn organic, they have to spend the smallest amount of money possible”.

In 2013 when *Terre et Humanisme* launched the programme “*Women seed sellers*” with UN Woman, Kissane was one of the four pilot sites chosen to contribute to saving local seeds. Souhad Azennoud immediately thought about einkorn wheat, the ancestor of wheat, that had been absent from the region for 25 years as it was too difficult to shell. She was able to get her hands on a mechanic shelling machine and distribute her seeds to women in the region. Three years later, the Ariaf Kissane cooperative was able to start putting together packets of its organic einkorn seeds to send off to different places around the country. Yet this success does not hide the obstacles that still need to be overcome. The activity of the cooperative could be threatened by legislation that is distinctly not in its favor. “*We are not able to add the ancient seeds to the official registry*”, explains Souhad Azennoud. “If an industrial leader decided to register them himself this would then mean that we had to pay royalties to use them”. The other obstacle is about convincing farmers who are used to better yields from hybrid seeds. Rachida took three years to make the leap but since then she has had a real surprise: “*My first harvest was better than those from when I planted normal wheat! With the einkorn wheat, I don’t need fertilizer; there are no weeds... So everyone has asked me for some seeds!*”. It has to be said that this year, heavy rains had filled conventional fields with weeds. Since hybrid seeds guarantee greater yields, they are less resistant to bad weather.





Agroecology as a Network

RIAM (The network for agroecology initiatives in Morocco) is a platform for information and exchange. It enables actors committed to this approach to share their practices and enjoy various training programs. Created in 2013, RIAM has been an association since 2015. The network has organized several Regional Forums on sustainable agriculture, which were topped off in 2018 with the first national hearings for the agroecology transition. A participative system of values was also created with the label *Agroécologie Maroc*. This certification based on detailed specifications and a charter written over the course of collective workshops, enables the consumer to identify products that come from environmentally friendly agriculture.

“Agroecology is really the only answer to climate change”, argues Souhad Azennoud who has seen rain become more and more scarce over time. And when the rains do come, they are so strong that they carry away the soil, forcing farmers to leave the land they are no longer able to exploit. To solve this, trenches were dug on the top of hills, enabling rainwater to seep into the ground and feed underground water sources that now no longer dry up. To fight against erosion, 100 to 200 trees are planted each year. “Trees are the only solution to hold this land in place”, emphasizes Souhad Azennoud admiring the magnificent roots on a rocky piece of the countryside. “Look at what nature is able to do, she is the one working the soil”. And to ensure the fertility of these clay soils, which are rich but dense, Souhad Azennoud has started teaching farmers about composting techniques. “People were used to fertilizing with manure, but it is not balanced as it contains 100% nitrogen. It can even create diseases and promote unwanted plants, even if, in my opinion, there is no such thing as an unwanted plant!” When mixed with the earth, compost makes it lighter and facilitates the diffusion of minerals to the plant. Let’s not forget the work accomplished by earthworms that Souhad raises herself with great care and spreads around her land. Letting nature do her work is the *modus operandi* here: “There are many natural recipes for treating plants, but I can assure you that we don’t use them very often as everything is now well-balanced. And when we see a small insect, we tell ourselves that it has to eat too!”.

Today the Ariaf Kissane cooperative has around twenty members. Operating as a sales platform, it was awarded an organic certification in 2013 and approval from ONSSA in 2016. In addition to the olive oil produced since the very start, the cooperative distributes various legumes and cereals, as well as herbs like oregano. In the local area, around thirty families have converted to agroecology and half of the land is now cultivated organically. Over the last few years, three other cooperatives have been created in Kissane, including Al Amraie Al Jabalia, a cooperative of young beekeepers set up on the advice of Souhad Azennoud herself. Five years earlier, its founder had come to ask her to help find work in the city, but she had convinced him otherwise, asking him, ‘why go and get a small salary and pay high rent when you can do wonders here?’ Since there wasn’t any agricultural land available, Souhad Azennoud suggested that he use his father’s land for beehives. ‘Now there is real dynamism around beekeeping thanks to this cooperative. It had the idea of selling locally the materials needed to get started, whereas before you had to go to Taounate or Kenitra. Everyone has invested in one or several hives and since the very first year they have been selling honey,’ celebrates Souhad Azennoud. Really, when you talk about beekeeping you are talking about saving nature: “When farmers have bees, they start to say to themselves that they shouldn’t treat their fields with chemical products”.

Raising awareness among farmers about agroecology to guarantee greater incomes and slow down the rural exodus... If Souhad Azennoud is proud of the progress made, she still sees all that is left to accomplish. In particular, she recognizes the need to make greater efforts to naturally fertilize the soil, improving yields and further developing the economy. 'Organic agriculture remains limited since an organic tomato is more expensive for the consumer than a tomato from the conventional, heavily State-subsidized industry,' explains Souhad Azennoud who found the perfect solution by opening a gastronomic bed and breakfast in the middle of her farm. The idea is to attract tourists to Kissane on the premise of tasting excellent homegrown produce, 'Even if organic agriculture is not profitable, I encourage young people to keep at it as it is the basis of environmentally responsible tourism which could help finance our business.'

15 years ago, when Souhad wanted to leave her comfortable way of life in Casablanca to make honey, everyone around her wanted to dissuade her. *"At the time, everyone thought I was crazy, but the recent Covid-19 lockdown has proven me right"*. The woman, who no longer needs to buy her seeds, was able to give them to those who had been affected by the closure of shops. *"This really put things in perspective"*, explains Souhad. *"It is not money that counts. We already have everything that matters. Producing what we eat is a real pleasure"*.

The Ariaf Kissane cooperative sells its organic einkorn seeds at various points of sale across the country.



© Soufyane Fares



Women and Agroecology

The experience of the Ariaf Kissane cooperative is told in the short film 'Retour à la terre' (Return to the earth), created by the Heinrich Böll Foundation as part of the program 'transformAfrica.' Alongside three other films showing projects in Tunisia, Senegal and in Nigeria, this documentary series focuses on African women and their emancipation through agriculture.

You can watch the documentary on: <https://ma.boell.org/fr/2018/11/29/femmes-et-agro-ecologie-en-afrique>

FARMERS' FEDERATIONS: STRONGER TOGETHER



In Senegal, the Enda Pronat NGO has been helping farming communities convert to agro-ecology since the 1980s. Its "action & research" program is there to help structure the farmers' federations with the aim of improving participatory and sustainable management of natural resources. At the same time, it is conducting national advocacy campaigns to engage the government in a large scale agro-ecological transition.

#agroecology #participatory approach #national advocacy #Senegal

The Senegalese government is now making the promise to subsidize biofertilizers, and that's because Enda Pronat has done a lot to achieve that. This has been part of its advocacy strategy since its launch in 1982. That year, Paul Germain and Abou Thiam, two Canadian and Senegalese researchers respectively, sounded the alarm by publishing a study titled "Pesticides: a threat to Senegal". This alarming publication gave birth to Enda Pronat, which is the agricultural branch of the international NGO Enda (Environment-Development-Action) created in 1972. Its awareness-raising approach with researchers and farmers quickly became an "action & research" program supporting farmers seeking an alternative to the pesticides harmfully impacting their health and their land. Almost 40 years later, the Senegalese government continues to encourage the use of chemical inputs – the only ones that are subsidized – but progress has started to show. *"Our advocacy work resulted in obtaining a grant on biofertilizers between 2009 and 2011. Out of 190 francs per kilo, the government contributed 70 francs. But that stopped because of cabinet shuffles and the presidential shift, we had to start all over again. Today, the Ministry of Agriculture is sending out favorable signals again, we think that organic fertilizers will be subsidized for the next agricultural season"*, hopes Laure Diallo, a project manager at Enda Pronat.

When she began working with farming communities in 1986, Enda Pronat was focusing on the four most affected areas by the use of chemical inputs, that is: Niayes, the middle valley of the Senegal River, the Oriental and the Groundnut Basin. "Women were the first to carry out the experiments because they were more sensitive to the health of their families and children. The economic risk for them was also lower because they were cultivating smaller plots. In Senegal, the men are supposed to bring home money and food, so experimenting with something else constitutes a higher economic risk for them", explains Laure Diallo. But women soon ran into the issue of access to land: "They managed to get men to lend them land, they brought manure and fertilized for 2 or 3 years, but when the land became fertile again, the men took it back", says Laure Diallo. The problem of access to water is also acute for women, who do not always have the means to invest in a well or a pumping system. "We quickly realized that agro-ecology posed not only technical but also organizational problems", says Laure Diallo. To remedy this, Enda Pronat encourages the communities it supports to form farmers' federations. A "village approach" that invites farmers to question together and upstream the issues related to seeds, organic inputs and marketing.

The Ravages of the Green Revolution

During the 1960s, most countries of the South embarked on the "Green Revolution". Funded by the World Bank, the FAO (Food and Agriculture Organization, of the United Nations) and participating countries, this modern agricultural policy aimed at securing food for the world's growing population and reducing poverty. This ambition certainly was noble, but farmers paid a high price ultimately.

Based on the latest scientific discoveries at the time, this sledgehammer-driven "revolution" relied on the use of hybrid seeds and the mass distribution – sometimes free of charge – of chemical pesticides and fertilizers. "In Senegal, these products were introduced along with groundnut and cotton, but without any accompanying measures. The producers, the majority of whom were illiterate, could not read the instructions for use. They used them without masks or gloves, which caused many cases of poisoning from the outset. Sometimes these products are repackaged in other cans, without any instructions or traceability. There's even a whole traffic where pesticides distributed free of charge are repackaged and resold to farmers who don't even know what type of crop these products are intended for", says Laure Diallo, project manager at Enda Pronat. Ten years ago, this Dakar NGO and the FAO analyzed samples of water from the Senegal River to find residues of dozens of products that had been banned by the international community. To date, chemical inputs are still subsidized by the Senegalese government.



The NGO has organized numerous training courses on agro-ecological practices, organizational strengthening, seed production and financing of farmers through the establishment of “mutual societies”, to name but a few. *“After a few years of experimentation, farmers did manage to master the techniques, but could not improve the market value of their products”*, says Laure Diallo. It is indeed difficult to compete with products from conventional agriculture, which give better and faster yields, enabling them to be first on the markets when demand is strong and prices are at their highest. When agro-ecological vegetables arrive on the shelves one to two weeks later, demand has already weakened, and so have prices. This discrepancy is accentuated by cash flow issues: small farmers are forced to sell a first crop to have the means to launch a second production, whereas larger farms can achieve more through speculation. Hence the importance of organizing in association to better manage marketing. Getting together also makes it possible to lobby decision-makers more effectively in securing access to seeds, land and water. The other interest is that these mixed farmers’ federations facilitate communication between men and women, thereby blurring the issues of gender inequality.

Since 1986, Enda Pronat has supported 5 associations, with the aim of eventually promoting their autonomy. The first to express the desire to take off was the Federation of the agro-pastoralists of Diender and Woobin, in Niayes, in 2010. Since then, the NGO has stepped back while maintaining financial support. The main obstacle we haven’t yet managed to overcome is financial empowerment”, admits Laure Diallo. Selling the produce is the main way to generate funds, but organic vegetables, because they are more expensive than average, are only sold in niche markets and the small quantities harvested do not yet allow for economies of scale”. The ones who manage to make the most of the game are the market gardeners, even with traditional merchants: “We have produced agro-ecological onions that can be stored 12 months out of 12, while conventional onions rot after 10 days. Onions, tomatoes and potatoes are the three flagship products whose quality and shelf life are appreciated by retailers, who can store them without risk of waste”, says Laure Diallo. The robustness of agro-ecological products is also what convinces producers to persist in this approach, in addition to the visible benefits to their health and their land. “Ecological seeds are more resilient, as we have seen on field crops, especially millet, on farms that cultivate using only rainwater and have emphasized organic fertilization. When the droughts hit, millet suffered much less for these producers, it was

Taking Action Through the Power of a Network

Enda Pronat shares its experiences with other stakeholders in the region. It is a member of several West African networks such as the Coalition for the Protection of Africa’s Genetic Heritage (COPAGEN), the Global Convergence of Land and Water Struggles, and the Alliance for Agroecology in West Africa (3AO). Enda Pronat is also involved in the Avacim project to promote dryland agroecology, carried out in 7 countries by CARI, an international NGO that has been fighting desertification for 20 years. Similarly, Enda Pronat is part of the European project DeSIRA FAIR, which aims at intensifying agro-ecology to improve the resilience of farmers in the Sahel.

very visible”, says Laure Diallo. Not to mention the savings of fertilizing without the chemical inputs that used to bring production costs up. Nevertheless, this implies accepting a lower yield during the 2 or 3 years of transition. “Only a minority of producers are able to bear this cost, which is why government subsidies are still key”, says Diallo.

In Senegal, where it is customary to say that 70% of the population lives from near or far from agriculture, the agro-ecological transition is a vast undertaking that is included in the objectives of the Plan Sénégal Émergent (PSE). This is an encouraging signal for Enda Pronat, which has been advocating for almost 40 years for healthier and more sustainable food, to the point where it has succeeded in establishing a genuine political dialogue, alone or as part of national coalitions that are able to bring together other civil society stakeholders. This is how the “Agroecological Days” (Journées agroécologiques) came into being, co-organized since 2016 with the Ministry of Agriculture. Enda Pronat has also initiated the establishment of the Impetus for an Agroecological Transition in Senegal (DyTAES) (Dynamique pour une transition agroécologique au Sénégal), which brings together some fifty stakeholders: farmers’ associations, consumers, scientific organizations, elected officials, etc. Together, from the consultations made throughout

the country, they drew up a report to support the agro-ecological transition, which was submitted to the Head of State in January 2020. “Our objective for the coming months is to succeed in setting up a permanent body for dialogue in order to translate the Plan Sénégal Émergent into concrete action programs”, says Laure Diallo. For the biggest challenge faced by the agro-ecological transition, in addition to raising consumer awareness, land grabbing by foreign investors and droughts due

to global warming, is to engage and coordinate all the relevant stakeholders. But Laure Diallo stays confident: “In spite of the difficulties with the agribusiness lobbies, the luck we have compared to other countries in the region is this national unity that we have managed to establish with such a diversity of stakeholders. This is a clear advantage”.

Producers from the village of Yadé in the commune of Keur Moussa, in the Niayes region.



PRESERVING NATURAL RESOURCES





Natural resources are all the resources that nature provides for human activity: that is water, air, soil, raw materials, and animal and plant life. In order to preserve them in the context of a reasoned and sustainable use, there is much to learn from the techniques that our forefathers have forged over the centuries in a balanced relationship with nature. The guiding principle of Natural Justice, which enshrines the right of everyone to fair hearing, especially in interactions with the government, is also a lever for the protection of resources and those who depend on them, such as the indigenous peoples of Africa who are being displaced from their ancestral lands because of the economic activity.

LEARNING FROM THE PAST TO BETTER MANAGE WATER RESOURCES

In an agricultural country like Morocco, water management is a determinant for employment and food security. However, per capita water resources have declined by more than 70% since the 1960s as a result of population growth and urbanization. One way to maintain the balance between supply and demand is to involve citizens, as in the case of the village of Tabesbaste, which has created an association to collectively manage its water resources.

#water management #participatory management #Morocco #oasis #tabesbaste

Why try reinventing new models when the old ones have proven their worth? The populations on the edge of the Sahara have always adapted to drought. Over the centuries, the inhabitants of the oases have developed a precious know-how to manage and rationalize their scarce water resources. An ancestral heritage that continues in the village of Tabesbaste, located 15 km from Tinghir in the Drâa Tafilalet region. Since 1985, this community of nearly 300 families has been organized within the *Tabesbaste Association for Development and Solidarity*, which operates directly inspired by the *jamaâ* (traditional

assembly). “Each of the four factions of the tribe proposed three people to represent them on the board of the association, through a democratic and participatory process that abides by ancestral customs. Today, all decisions prioritize the general interest of the community and banish favoritism and individualism in all its forms”, explains Ali Bounsir, the association’s president. The association manages the collective spaces of the village (water sources, agricultural land, etc.) according to the precepts of *Alorf* customary law which has prevailed for over 5 centuries. With regards to irrigation, a “water right” governs distribution within the tribe: each family is entitled a volume of water proportional to the level of effort they have provided in digging the *khettara*, the underground canal that carries water from the water tables to the oasis. This right to water is passed on from generation to generation and, to avoid any mistake that could pose a source of conflict, the volume of water is calculated in duration: families can irrigate in turns, one after the other, at a fixed time and for a fixed period of time. If there is a conflict, it is dealt with locally – and therefore quickly – by a “tribunal” composed of *Moaayanin* who represent each fraction of the tribe. But recourse is rare. As for drinking water, the association proceeded to an equitable sharing by allocating each family a volume of 3 cubic meters per month. This system of governance works so well that the villagers refused the proposal of the National Drinking Water Board to take over water management in Tabesbaste.

A network of khettaras between Errachidia and Rissani in the region of Drâa Tafilalet.



If ancestral methods have proved their worth, modern times have also brought their share of new problems to solve. For several years, the association has been looking for an answer to the degradation of the oasis' water, polluted by the chemical detergents and bleach used in the traditional wash-house. As this wash-house was located on the *seguia* (open irrigation canal) of the village, the backwash used to wash clothes would flow directly into the cultivated fields. The solution came with the establishment of collective laundries in 5 villages of the Tafilalet region. This project was made possible in collaboration with *L'Eau du désert*, a French NGO, as well as several local associations and the UNDP (United Nations Development Programme), INDH (National Initiative for Human Development), ORMVA (Regional Office for Agricultural Development) and the Tafilalet Oasis Programme. The first of the five laundries was set up in Tabesbaste on the site of the old wash-house. Equipped with modern washing machines, it uses only ecological detergent. The backwash water is conveyed to gray water recycling basins where it is treated through waste stabilization ponds, i.e., layers of gravel planted with plants that enable natural filtration. The purified water is then drained into the *wadi*. "In just one year, we have noticed a gradual depollution of irrigation water and oasis soils, but also a reduction of half of the volume of drinking water consumed in the village, which was used for washing clothes at home. After the success of this project, we are thinking about solutions to improve the liquid sanitation of our village", says Ali Bounsir. Such laundries also have the advantage of freeing women from a major household chore, allowing them to develop other activities. In addition to the two jobs created to manage the laundry, the money collected (at a rate of 10 DH for a 10 kg wash) goes into a "green" fund that finances projects for the women of the village.

This reasoned water management is more necessary than ever in the Tafilalet region, where droughts are only getting longer. And when rains do occur, they fall out of season, affecting crops that have not yet reached maturity, thereby jeopardizing harvests. This is equally true in the rest of the country, which is regularly in a state of "water stress", i.e., when water needs exceed the available volume. The input of surface water (from rainfall, reservoirs, dams, rivers, lakes, oceans, etc.) is insufficient and the silting up of dams further reduces their storage capacity. Soils are eroding faster as a result of deforestation and torrential rains, reducing water retention and thus groundwater recharge. In addition to the consequences of climatic variations, the impact of human activity is far more serious. Water is consumed in excessive quantities and groundwater

Water Treatment, the Other Challenge

In addition to ensuring access to water, the other major challenge for Morocco lies in wastewater treatment. According to the latest general census, an average of 58% of the population is connected to a public sewerage system. However, this service is provided very unevenly throughout the country. 88.5 per cent of urban households are connected, compared with 2.8 per cent in rural areas. And only half of the rural population is equipped with septic tanks. Fifteen years ago, when the National Sanitation Program (*Programme national d'assainissement liquide*, PNA) was launched, less than 8% of wastewater was treated. The objective of the PNA was to bring this volume up to 60% by 2020 and to connect 80% of the urban population to the sewerage system. The mission has been accomplished, but rural areas are still lagging behind.

A modern laundromat has replaced the old wash-house to remedy water pollution by detergents.



© Sabrina Belhouari

is being pumped out abusively, particularly by uncontrolled motor-driven pumps. Not to mention the use of chemical agricultural inputs, waste storage and the disposal of wastewater that deteriorates water quality. Few municipalities have controlled landfills that prevent soil and groundwater pollution through leachate (the liquid that flows from piled up waste), and even fewer have a liquid sewerage system that would otherwise collect, treat and dispose of wastewater (see p. 17).

While Morocco has almost succeeded in ensuring access to drinking water for all (94 per cent of the urban population is connected to the drinking water network and more than 90 per cent in rural areas, compared to 14 per cent in 1990), the biggest challenge remains irrigation. Capturing three quarters of the country's water resources, agriculture accounts for 4 million jobs and contributes to 14% of the national GDP. A rate which, despite drought cycles, has doubled since the 1960s. The stakes are therefore not only economic, but also social, particularly in rural areas: "All our young people, girls and boys, dream of going to Europe for a better future. Getting involved in water and oasis preservation is the least of their worries. This is a reality that discourages us every time we want to propose development projects for the population and the village", says the president of the Tabesbaste Association. In order to meet the growing demand for water, the first response of the government was to build large dams throughout the country – there are currently 145 dams. Initiated in the aftermath

of Independence, this ambitious policy continues to be part of the National Water Strategy (SNE) deployed over the 2010-2030 period. This strategy has entered a second phase focusing on water saving and development, in particular through the National Irrigation Water Saving Programme (PNEEI). In the wake of the Green Morocco Plan (*Plan Maroc Vert*, PMV) launched in 2008 and relying on economical irrigation techniques, one of the priority strategies of the PNEEI is to massively convert farms to drip irrigation, i.e., low-dose irrigation close to the plants' roots. Currently, more than a third of irrigated land is drip-fed. The National Water Strategy also provides for the diversification of resources, such as the desalination of sea water, which has benefited from a legal framework since Law 36-15 on water. Enacted in August 2016, it "sets the rules for integrated, decentralized and participatory management of water resources to guarantee the right of citizens to access to water and for its rational and sustainable use", as stated in article 1. Already in 2014, the European Economic and Social Committee (EESC) published a report along the same lines. Entitled "Governance through the integrated management of water resources in Morocco: a fundamental lever for sustainable development", it underlines the need to adopt a participatory approach to water governance: "an approach under which the selection process for projects [...] is made by local populations [...] as well as civil society stakeholders and water users", the report states. The people of Tabesbaste won't say otherwise.



* This text is a synthesis of the report carried out in the region of Drâa Tafilalet by Sabrina Belhouari, "Water sector in Morocco, why is it necessary to Betting on fair and sustainable governance? ", published in 2019 by the Heinrich Böll Foundation.

Sources figures: Ministry of Public Works, Transport, Logistics and Water, National Water Saving Program in irrigation and the 2014 General Census of Population and Housing (Haut-Commissariat au Plan).



A network of khetaras between Errachidia and Rissani in the region of Drâin Tafilalet.

JUSTICE FOR INDIGENOUS PEOPLES

Specializing in the defense of human rights and the environment in Africa, the African NGO *Natural Justice* provides citizens with the tools they need to defend themselves against their governments. In Kenya, its team of lawyers helps indigenous peoples advocate against decisions that threaten their land, culture or environment.

[#environmental justice](#) [#indigenous peoples](#) [#biodiversity](#) [#Kenya](#)



Protecting resources also means protecting the women and men whose livelihoods directly depend on such resources. These are often minorities and marginalized peoples that the *Natural Justice* NGO has chosen to support since its creation in 2007. That year, two international lawyers, Harry Jonas and Sanjay Kabir Bakivatte, gathered a team of lawyers and legal experts to support the ancestral communities, threatened mainly by expropriation. They gave themselves a mission: “providing the interpretation of international law at the local level and respect for customary law at the national and international levels”. As early as 2008, the NGO developed the concept of a “community protocol”, a tool designed to support ancestral lifestyles that are inherently respectful of biodiversity (see box). Based in Cape Town, South Africa, *Natural Justice*

is currently developing several programs on the continent. In Kenya, where the NGO was set up in 2014 with the financial support of the Heinrich Böll Foundation, indigenous peoples are facing great land tenure insecurity. Most of them are hunter-gatherers (Ogiek, Sengwer, Yaku people...) and pastoralists (Maasäi, Samburu, Turkana, Somali...). According to data from the Ministry of Lands, one million parcels are currently awaiting a land title. While the Constitution and the Community Land Law of 2016 prohibit the disposal of unregistered community land, this does not prevent expropriation for public projects.



“By working directly with local communities, partner community organizations and other institutions, we are pushing for the implementation of the elements of environmental justice enshrined in the Kenyan Constitution: citizen access to information and justice, and participation in decision-making processes”, says Gino Cocchiario, Director of Natural Justice's Nairobi Hub. The focus is more on the increase of major infrastructure projects, mining and industrial projects. This program aims to assist communities experiencing legislative, legal and environmental turmoil - and successfully at that! Kenya's environmental regulatory institutions and the National Environmental Management Authority (NEMA) has issued stop orders for a number of mining and infrastructure projects, says Gino Cocchiario. We also promoted the revocation of project licenses that had been previously approved by public institutions. The Lamu coal-fired power station is a good example of this. Since 2014, Natural Justice has been working with *Save Lamu*, a coalition of some 40 members of local civil society organizations to provide legal aid in connection with projects in the port of Lamu (whose area is a UNESCO World Heritage Site). This government project, which plans to build about twenty port terminals on the country's North Shore, is aimed at relieving congestion in the port of Mombasa. It is part of a broader project to establish a road, rail and pipeline transport corridor linking Lamu to Southern Sudan and Ethiopia. However, this project has had a lasting impact on the small-scale fishing industry, which provides a living for 75% of the inhabitants and involves major population displacements. “We make sure that these projects' promoters act in accordance with the laws of physical planning and the law on the coordination of environmental management”, explains Gino Cocchiario. However, the environmental permit for the Lamu coal-fired power station was canceled by the National Environmental Tribunal.

In parallel, Natural Justice has developed the ‘Traditional Knowledge and Benefit Sharing’ Program, in line with the Nagoya Protocol on Access to Genetic Resources and the “Fair and Equitable Sharing of Benefits Arising out of their Utilization”. Passed in 2010 and ratified by some 100 countries, this treaty provides a legal framework to protect biodiversity and the traditional knowledge that is so closely linked to it. In Kenya, the Nagoya Protocol is of particular relevance to the Endorois community of 60,000 people who have lived in the Lake Bogoria region for three centuries. *Natural Justice* has been working with them since 2016 to recover and enhance the sacred areas related to their cultural and religious practices, and to

help them protect their traditional knowledge. In accordance with its community protocol, the NGO carries out awareness-raising work with the Endorois people to inform them of their rights and ultimately facilitate their demands. Notably about a bacterium discovered in 1984 that produces an enzyme used to fade denim jeans, the exploitation of which still does not benefit the community.

The lawyers and experts at *Natural Justice* are aware that the communities they work with have little knowledge of their fundamental rights. That is why they have developed a legal empowerment program: it consists of creating a network of people legally empowered to solve environmental problems caused by major projects. The aim is to build local capacity and reduce dependence on lawyers and legal experts. Talks are taking place between peoples and lawyers to help the former become aware of their cultural value and to define their rights and obligations with regard to natural resources. In the case of the Port of Lamu-Sudan Southern Ethiopia-Transport Corridor Project (LAPSSET) mentioned above.

Protecting the Biocultural Heritage

At the heart of Natural Justice's approach, the notion of “Community Protocol” has been defined in the framework of the Convention on Biological Diversity adopted in 1992 at the Earth Summit in Rio de Janeiro. The aim is to help communities defend their rights and values, based on customary law as well as national and international laws. The Community protocols thus define the rules on access to genetic resources and related traditional knowledge, as well as the rules regarding the sharing of benefits. The foundation of this arsenal is legal empowerment, whereby a community can strengthen its capacity to apply and enforce existing laws, but in a way that decisions do not undermine the customary laws and age-old traditions.

Nevertheless, much remains to be done to help populations threatened with eviction who are sometimes victims of arbitrary arrests or online harassment through social networks. “The enforcement of environmental laws remains a challenge. Key government institutions are either not responding or are unwilling to fully implement their mandates”, says Cocchiaro. However, some court decisions are now setting precedents, such as the ruling of the African Court on Human and Peoples’ Rights concerning the Ogiek indigenous people living in the Mau forest land. In this 2017 decision, the Court stated that the Kenyan

government violated seven chapters of the Charter and recognized the Ogiek community as “an indigenous forest people who play an important role in forest and natural resource conservation, the Court’s decision legitimizes the community’s right to its ancestral lands and traditional way of life. A victory that Natural Justice can put to good use”.


The role of the Natural Justice NGO is to strengthen the legal autonomy of peoples in order to reduce their dependence on lawyers and other experts.



© Natural Justice

ENERGY: DOING BETTER WITH LESS





Responding to the same level of need while mobilizing fewer resources, such is the key principle of energy efficiency. Overcoming wastefulness and aiming for rationalized consumption habits are at the heart of this approach, which is based on collective goodwill. On a daily basis, this involves simple eco-friendly behaviors: buying energy-efficient household appliances, installing energy-saving light bulbs, etc. Good thermal insulation of buildings and architecture that allows plenty of light to enter also help reduce the bill. Considered the 4th source of energy (after fossil fuels, renewables and nuclear power), energy efficiency is considered the best response to the current environmental challenges according to the International Energy Agency (IEA). Especially in African countries, whose pace of development is increasing the energy needs and dependence on hydrocarbons.

MORE AWARENESS FOR LESS SPENDING

In Morocco, where almost all the energy consumed comes from polluting imported fossil fuels, energy efficiency was made a national priority ten years ago. At the local level, the *Centre info-énergie* (CiE) of Chefchaouen is leading a pioneering action to equip and raise awareness among citizens, but also to support the municipality's environmental policy.

#energy efficiency
#sustainable growth
#local development #Morocco
#Chefchaouen

Sensitize, inform and educate, such is the motto of the Centre info-énergie (CIE) of Chefchaouen. A completely innovative structure in Morocco, whose mission is to “contribute to changing mentalities to be in line with the sustainable development projects of the municipality”, as summarized by its director, Ouail Tabiti. Because in this small town of 42,000 inhabitants, which is located in the Rif Mountains, ecology has been at the heart of local politics for quite some time now. The shift began in 2010, when the town council made a series of commitments to make Chefchaouen an ecological town. Two years later, it was one of the pilot sites of the *Jiha Tinou* (“my region”) territorial program, initiated by the Moroccan Agency for Energy Efficiency (AMEE) to support local initiatives and strengthen the skills of municipalities in the field of energy efficiency. The CIE opened its doors in 2016. Supported by European Union funding, it was initially managed by two local associations, before being integrated into the municipality's Environment Department in 2018.

On its premises, which house a wealth of educational resources, explanatory models and other samples of insulating materials, the CIE welcomes visitors seeking information. It is also equipped with measuring instruments (wattmeters, thermometers, temperature probes, thermal cameras, etc.) that citizens can borrow to carry out their own diagnosis at home. The CIE advises them on thermal, acoustic and lighting comfort, explains how to reduce their electricity and water consumption, and encourages them to turn to solar energy.

Training session at Chefchaouen's CIE.



© CIE Chefchaouen

The same is true of awareness campaigns conducted outdoors, whether on the occasion of municipal holidays, as part of door-to-door campaigns and workshops with schoolchildren, who represent 75% of the target audience for these operations. “Each action is subject to assessment, which allows us to observe a transition rate of about 40% among the targeted households”, emphasizes Ouail Tabiti, who adds that “the CIE does not limit itself to education, it acts in the commune’s strategy by providing it with decision-making tools and proposing environmental actions”. The CIE is in fact piloting the geographic information system for public lighting, which enables the city’s street lights to be geo-referenced and analyzed to better define the target performances and the investments to be prioritized. Of the 4000 street lights in the network, a quarter have been fitted with LED lamps, resulting in a 45% reduction in the electricity bill for the district.

“Public lighting is the biggest consumer after transport, accounting for 10% of the municipal budget”, says Ouail Tabiti. Another tool, the energy management dashboard is a software program that integrates the consumption of electricity, water, diesel and lubricants: this data, once analyzed, makes it possible to identify any anomalies that need to be addressed. In the same vein, a travel plan for the municipal staff has been drawn up and electric bicycles have been acquired. Solar panels have been installed on the various buildings of the municipality, such as the library, and are used to heat the water of the municipal swimming pool, which is now open all year round. Although the CIE’s action is limited by the lack of human resources (the budget provided for in the 2020 Finance Act does not allow communes to recruit new civil servants), it can nevertheless boast of having raised awareness to date among more than 9,000 people, that is nearly a quarter of the population. A success story that is being emulated as two new CIEs are being set up, in Oujda and Tata.

It must be said that the constant increase in energy consumption, linked to the dynamism of the productive sectors and the improved access of citizens to electricity, poses a difficult equation to solve in a country that depends at 90% on the import of polluting fossil fuels. For the time being, the imperatives of productivity continue to outweigh energy efficiency, yet there is much to be gained: in addition to environmental protection, lower energy bills mean greater competitiveness in industry, agriculture and transport, not to

mention the creation of new jobs. This is why Morocco, when drawing the outlines of its National Programme of Priority Actions (PNAP) in 2008, chose to focus on energy efficiency. EE even became a “national priority” according to the terms of the energy strategy adopted in 2009. The stakes are such that a National Energy Efficiency Strategy (SNEE) was specifically defined (see box), so was the legislation. Enacted in 2011, Law 47-09 “aims to increase energy efficiency in the use of energy sources, avoid wastefulness, reduce the burden of energy costs on the national economy and contribute to sustainable development”, states the preamble. Another strong signal, an Agency for the Development of Renewable Energies and Energy Efficiency (ADEREE) was created in 2010, before being renamed the Moroccan Agency for Energy Efficiency (AMEE) in 2016.

Targeted Strategy

In 2017, Morocco defined its National Strategy for Energy Efficiency (SNEE). The objectives set by the National Energy Strategy in 2009 have been revised upwards, but also in the longer term. Since the forecast to reduce the energy bill by 12% in 2020 has failed, the current ambition is to increase this rate to 20% by 2030. Among the actions carried out at the national level over the last ten years, the “Green Mosques” operation launched in 2014 aims to upgrade the energy efficiency of 15,000 mosques: low-energy light bulbs, electricity produced from photovoltaic panels, solar water heaters, etc. In the field of transportation, a renewal of the taxi fleet has been undertaken. Until the end of 2021, the government is subsidizing (via a scrappage incentives) the purchase of new vehicles in order to help curb greenhouse gas emissions. In the agricultural sector, solar pumping is being promoted to replace traditional butane-powered engines. An agreement signed in 2013 between several ministries and the AMEE makes it possible to allocate a subsidy to farmers who wish to invest in this technology.

*Apart from the situational analysis of energy efficiency in Morocco drawn up by the Heinrich Böll Foundation, all the statistics quoted here come from the Ministry of Energy, Mines and the Environment and the Moroccan Energy Efficiency Agency (AMEE).

But Energy Efficiency takes many hands to be effective. Are citizens willing to make these efforts? To find out, the Heinrich Böll Foundation conducted a field survey in 2019. This “Situational analysis of energy efficiency” targeted the Sidi Maârouf District, a former residential area on the outskirts of Casablanca that has undergone major changes over the last twenty years. This mixed-use area is now home of numerous shops, offices, villas, high and medium-rise apartments, as well as low-income residences designed to rehouse former slum dwellers. Some 200 people, constituting a representative sample of these various living areas, were questioned about their electricity consumption, which is the energy most used in households (in Morocco, the per capita consumption rate is increasing by an average of 5% per year). Almost all respondents (81%) say they are ready to adopt new consumption habits. Most are considering choosing their future appliances based on the energy label (i.e. according to consumption characteristics) and support the idea of heating water with solar energy, which is still very uncommon. What the study also shows is that the degree of awareness is proportional to the social level: the inhabitants of the villas and houses seem to identify better what is energy-consuming in their homes. Similarly, citizens with a high standard of living display a better knowledge of the concept of energy efficiency. On the other hand, regardless of their background, all respondents are clear about their own electricity overconsumption. These results, which make it possible to identify information needs, have been supplemented by an

online survey by national and regional associations, which are the main channels of communication with citizens. What emerges mainly from these two studies is the inertia in mentalities: raising awareness remains the biggest challenge of the Moroccan energy transition today.

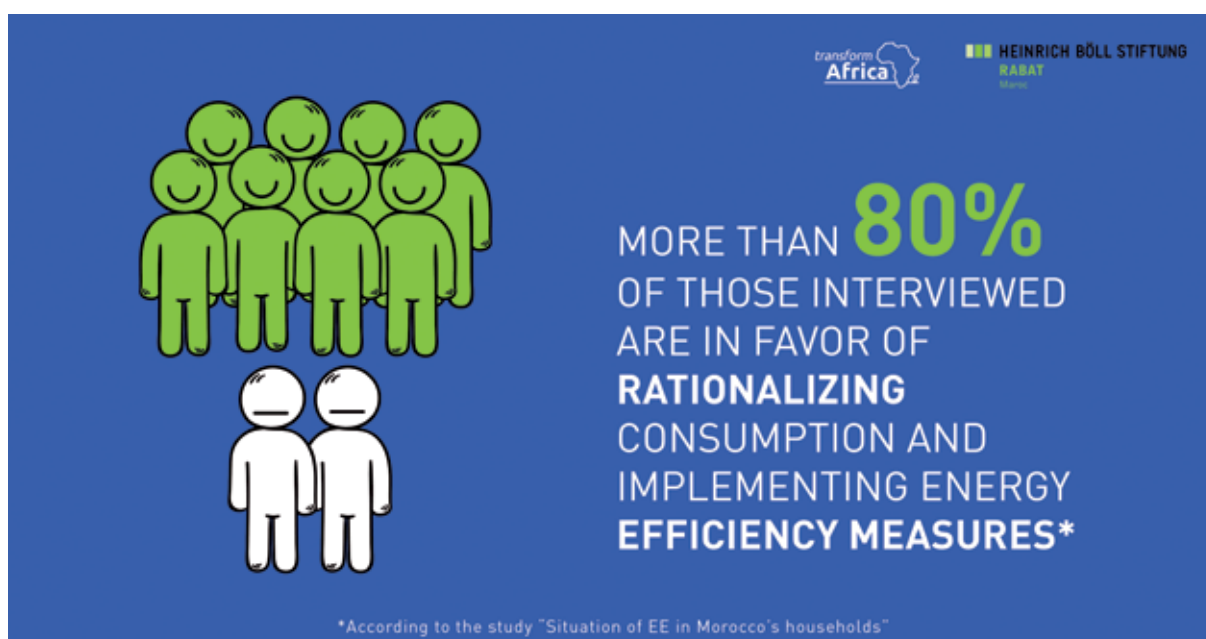
The Hurdles to Energy Efficiency

Citizens and market stakeholders remain cautious about energy efficiency for several reasons:

- lack of means
- fear of hidden costs
- the stakeholders' lack of qualification
- difficulty in accessing information
- delays in the regulations' implementation

Source : *État des lieux de l'efficacité énergétique au Maroc [Situational analysis of energy efficiency in Morocco]*, 2019, Heinrich Böll Foundation. Download it from: <https://ma.boell.org/fr/2020/06/02/un-apercu-de-la-situation-de-lefficacite-energetique-des-menages-au-maroc>

The data collected in the framework of the “Situational analysis of energy efficiency in Morocco” were used to support an awareness campaign conducted by the Heinrich Böll Foundation.



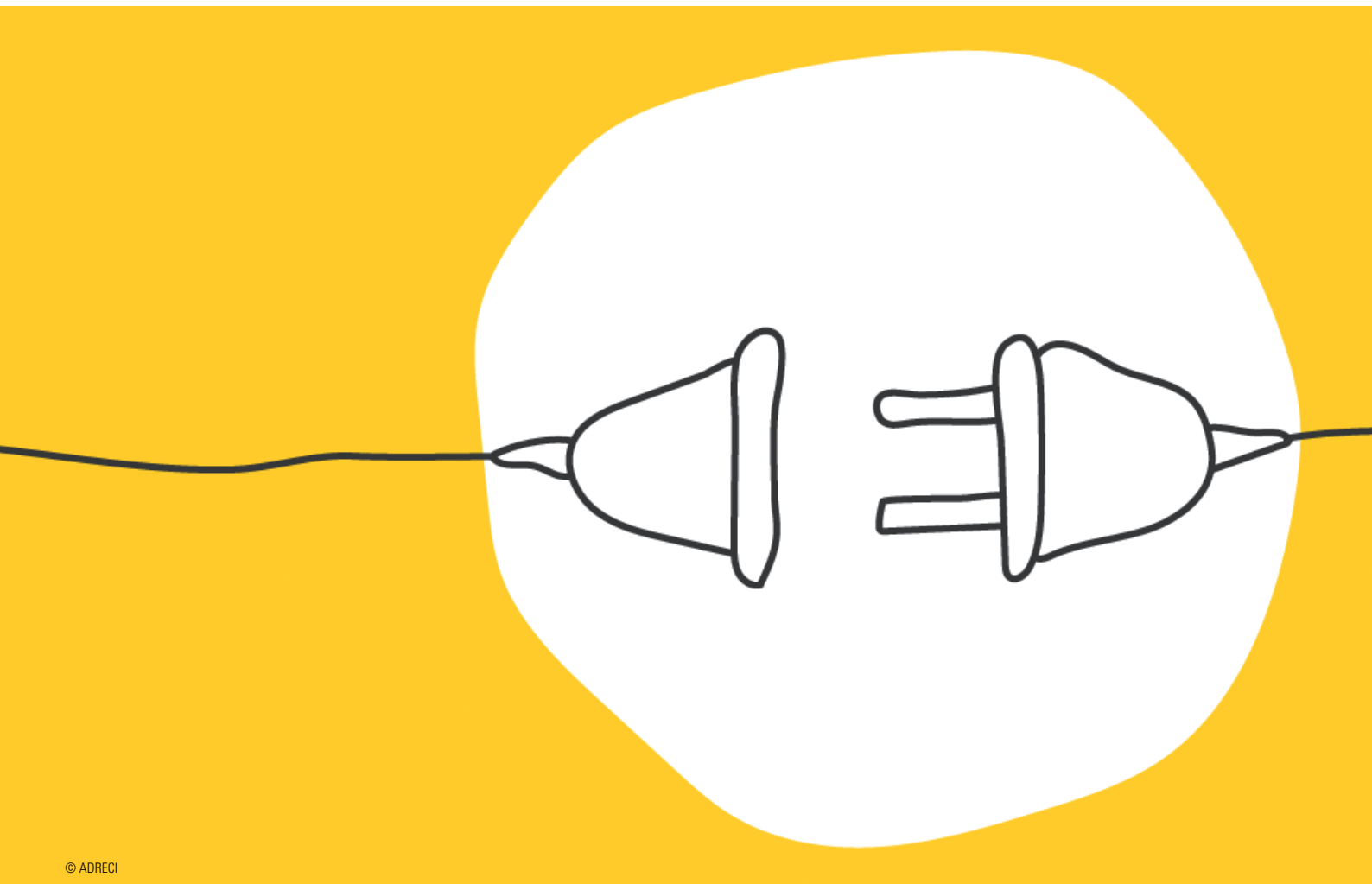


Awareness-raising operation on energy efficiency issues in the streets of Chefchaouen.

TURNING OFF THE LIGHT TO AWAKEN THE COLLECTIVE CONSCIOUSNESS

Unplug is a digital campaign to promote efficient energy consumption practices both at home and in the workplace. Its goal is to build awareness about the impact of energy-inefficient practices and the importance of energy-sart practices and to influence attitudinal and behaviors change among domestic energy users and small-scale traders in Kenya. It thus reduces the gap between the initiatives of the Kenyan state and non-state stakeholders in the fight against global warming and the energy consumption habits of the general population.

#energy efficiency #awareness #Kenya



Great successes rely on small actions.

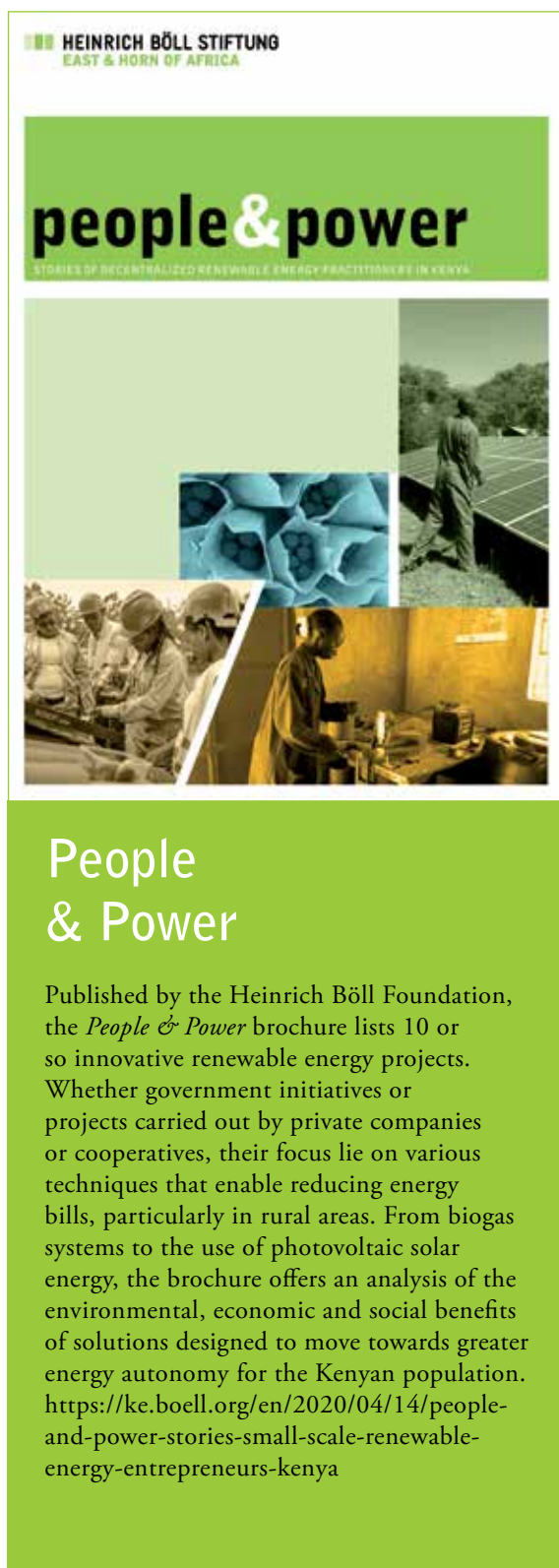
This is the basic idea behind the *Unplug* campaign launched in February 2020 by the Africa Development Resources and Capacities Institute (ADRECI) in partnership with the Heinrich Böll Foundation. Referring to the act of unplugging an electrical appliance, the goal of the digital campaign was to promote the concept of energy efficiency, both in the workplace and at home. Rolled out over two phases of ten weeks each, the campaign initially consisted of targeting audiences with often conflicting concerns, while promoting climate and environmental awareness in order to bring about lasting changes in everyone's behavior. *"We selected the audience on the basis of a study conducted in 2019 and the recommendations from the stakeholder as workshop held in Nairobi in October 2019"*, stated Martin Brown Munene of ADRECI. While the target audiences all use social media to varying degrees, they often have different expectations. Household consumers between the ages of 10 and 25 have little concern about spending, while business leaders

between the ages of 25 and 50 are driven by financial imperatives in their economic and business strategies. On the other end, business leaders between the ages of 20 and 40 are more concerned about reducing energy costs, while employees between the ages of 25 and 50 are more concerned about job security. As for heads of families, between the ages of 25 and 60, they are often torn between controlling expenses and giving their children a better world for their future. There is an urgent need to change energy consumption patterns and daily practices in a sustainable way, especially since electricity remains the most widely used source of energy for domestic tasks, but also the most expensive one. The public expressed concerns about environmental pollution, rising energy bills and/or the depletion of non-renewable energy resources, and 39% of Kenyans say they are looking for solutions to solve their energy issues. Only 10% say they have found and are implementing the "perfect solution" to their energy concerns.

Visual of the "Unplug" campaign launched in February 2020 by the ADRECI.



**little
inactions
add up!**



The Unplug campaign was delivered online and through social media and was based on simple, straightforward incentive messages. Accompanied by easily understandable icons, images and videos, these messages emphasized the benefits of energy efficiency: saving money while preserving the planet and the health of every individual. Martin wished to stress the impact of these small actions such as *“turning off the lights when leaving a room, unplugging devices such as computers, televisions or mobile phones when not in use or when fully charged, turning off the lights when going to bed, etc”*. The most trivial action can have lasting repercussions in both the long and the short term. The “Little Action Symbols” was accompanied by a digital initiative for younger people, “The Little Action Champions”, which encouraged them to take up simple environmental challenges. The experiment was monitored by a real-time analysis of the target audiences’ reactions. *“We expected to reach 500,000 people and so far, we’ve hit roughly 300,000. That is why we intend to expand our campaign in the fall of 2020”*, announced Martin.

In Kenya, where 30% of the population has access to electricity and 68% of energy consumption is still provided by biomass (such as wood burning), the government is working to reduce the cost of energy bills and greenhouse gas emissions. An incentive policy is being actively pursued as part of the Kenya Vision 2030 development plan adopted in 2008, which aims to provide citizens with a high standard of living in a healthy, prosperous and sustainable environment. Individuals are encouraged to switch to LED light bulbs or energy-efficient household and electronic appliances. A regulation of the Energy and Petroleum Regulatory Authority (EPRA), in particular, requires the installation of solar water heaters in residential and commercial premises where consumption exceeds 100 liters of water per day. Similarly, a joint action with the Kenya Power and Lighting Corporation (KPLC) has enabled the number of energy-saving light bulbs distributed by the government to triple in three years, from 1.25 million in 2010 to 3.3 million in 2013. The import of equipment and appliances bearing no energy performance labels has also been stopped. The Kenyan government is also increasing partnerships with public and private institutions to strengthen the policy of raising awareness of energy efficiency issues. In partnership with the Energy Regulatory Commission and the Collaborative Labeling and Standardization Program (CLASP), the Department of Energy launched a campaign on minimum energy performance standards to raise awareness among appliance distributors. Another partnership between the Ministry and the Kenyan Association of Manufacturers (KAM) led to the establishment in 2006 of the Centre for Energy Conservation

and Efficiency (CEEC), which helps companies to identify energy waste processes as well as potential savings. This initiative could save, when compared to the last twelve years, no less than 12 billion KES (Kenyan shilling), that is to say about 1 billion dirhams. Lastly, the project to revive the energy sector provides for a strengthening and upgrading of the electricity distribution system, which has made it possible to extend the low-voltage network to a greater number of households.

However, there are still many obstacles to overcome. Starting with fuel poverty, which concerns those who do not have access to energy sources, or only the most polluting ones, and suffer from high bills that only aggravate their precariousness. Not only does this affect their diet and health, but it also increases the vulnerability of the entire population to climate change as it contributes to maintaining a high rate of greenhouse gas emissions. Government action comes up against the financial argument: switching to more energy-efficient appliances, for example, requires an initial investment that slows down the process. To remedy this, green tax incentives could be put in place. Another obstacle to energy efficiency is the lack of coordination between the various stakeholders and the low level of public awareness. Ideally, a body should be set up to coordinate the various activities in this area, particularly in the context of the New Energy Act enacted in 2019. Subsidizing mandatory energy audits, particularly for major residential projects, strengthening the mission of the MEPS (minimum energy performance standards) implementing agencies and supporting research and development activities could act as a powerful lever for achieving the desired objectives.



About the Study

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