



مؤسسة محمد السادس لحماية البيئة  
FONDATION MOHAMMED VI  
POUR LA PROTECTION DE L'ENVIRONNEMENT

# ANNUAL REPORT



All for the environment

# 2021

“

We are mobilized around many environmental matters, from renewable energies to new forms of transport, via biodiversity. But we won't meet all these challenges as long as environmental protection is not understood to be something natural, obvious, obligatory and vital. I truly believe that the education for sustainable development that brings us together today is a vital goal.

”

Berlin, May 17th, 2021

A few words from **Her Royal Highness Princess Lalla Hasnaa** at the opening of the UNESCO World Conference on Education for Sustainable Development. She spoke a word for the opening session, in which she recalled the importance of education and raising awareness of children, at the heart of the Foundation's mission.





**Her Royal Highness Princess Lalla Hasnaa**

President of the Mohammed VI Foundation  
for Environmental Protection

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## THE FOUNDATION HAS BEEN DEVELOPING A STRONG NETWORK OF INTERNATIONAL COLLABORATION

Over the last decade, the Foundation has built a large international network of partnerships. This international development has given it a special scope, especially in Africa where it is often solicited for its training services.

Now, the Foundation is present in high-level institutions.

- The Foundation has Special Consultative Status with the UN Economic and Social Council (ECOSOC).
- Every year, it takes part in the High-Level Political Forum on sustainable development (HLPF), the central United Nations platform for the follow-up and review of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals.
- It is a partner of UNESCO.
- The Foundation is a consultative member of the United Nations Framework Convention on Climate Change (UNFCCC), which organizes the COP every year.

### UNESCO LEADING THE WAY WITH EDUCATION FOR SUSTAINABLE DEVELOPMENT



UNESCO launched a first Decade of Education for Sustainable Development (2005-2014) followed by a second one (2015-2024).

The Mohammed VI Foundation for Environmental Protection signed up from the very beginning in both these decades. In November 2014, Her Royal Highness was invited as a guest of honor to UNESCO's World Conference on Education for Sustainable Development in Nagoya, Japan, where she made a speech during the opening session.

Since 2016, UNESCO and the Foundation have been bound by a partnership agreement, the primary purpose of which is to take part in the 2015-2030 decade of Education for Sustainable Development and to achieve the SDGs.

In 2021, the Foundation engaged in various initiatives with its partner.

### UNESCO World Conference on Education for Sustainable Development (May 17th to 19th, 2021)

On May 17th, 2021, Her Royal Highness Princess Lalla Hasnaa, president of the Mohammed VI Foundation for Environmental Protection, took part in the launch of the 'ESD for 2030' program at the UNESCO World Conference, via a video message in which she declared, '...Education for Sustainable Development, the theme bringing us together today, is the key to success. For this reason, our Foundation focuses on raising awareness, and training young people on these issues. We believe in sowing the seeds of environmental awareness, which contributes to the emergence of a society that is aware of the natural environment, and capable of adopting appropriate, eco-friendly behavior...'

### UNESCO's Mission 4.7



Target 4.7 of the Sustainable Development Solutions Network (SDSN) is to ensure that, by 2030, all learners acquire the knowledge and skills needed to promote a sustainable world, human rights, gender equality, a culture of peace and non-violence, global citizenship, an appreciation of cultural diversity and of the contribution that culture can make to sustainable development.

UNESCO is tasked with implementing Mission 4.7 around the world. In

Morocco, in 2020, the Ministry of National Education became a member of the High-Level Advisory Group for Mission 4.7 and the Foundation became a member of the Education Task Force.

The Foundation is considered a champion of SDG 4.7 and sustainable development. Its contributions (Global Schools, a side event on resilient Africa in the time of the pandemic) were presented on the website of UNESCO's Mission 4.7.

### UNESCO Prize on Education for Sustainable Development



The Foundation was one of the five members on the independent UNESCO international jury tasked with deciding between candidates nominated by the Director-General of UNESCO for the Prize on Education for Sustainable Development (ESD).

For this edition, the international jury selected a literacy project in Ghana, a program on media for social change in Palestine and an initiative for the protection of indigenous cultures in Peru. They received their USD 50,000 Prize at a ceremony on November 19th, 2021, during the 41st session of the General Conference of UNESCO.

113 nominations had been submitted by the governments of 54 Member States and 8 organizations in official partnership with UNESCO. The main selection criteria were the projects' potential for development, their innovative quality and their ability to embrace all three dimensions of sustainability: economy, society and environment.

### The Intergovernmental Oceanographic Commission of UNESCO

In 2021, the Intergovernmental Oceanographic Commission (IOC) of UNESCO launched its United Nations Decade of Ocean Science for Sustainable Development (2021-2030). Her Royal Highness became its patron while the Mohammed VI Foundation for Environmental Protection is one of the founding members of the alliance tasked with implementing this Decade.

On February 3rd, 2021, when this Decade was launched, Her Royal Highness Princess Lalla Hasnaa paid tribute to the active commitment of His Majesty King Mohammed VI to the environment.

The collaboration between the Foundation and the IOC, which began in 2019, was developed through this Decade of Ocean Science. Joint action was conducted regarding scientific knowledge (Ocean Literacy), building a dialogue with foundations mobilized for the Decade in Denmark, improving youth engagement via the African Youth Climate Hub, and holding planning and exploration workshops on the Mediterranean and the Western Indian Ocean.

The Foundation aspires to launch UNESCO's ocean literacy program at the Hassan II International Center for Environmental Training, with the aim of enhancing the awareness and abilities of teachers and young people, and of developing their knowledge about the oceans and the coasts.

Lastly, it organized the Second Foundations Dialogue Meeting from June 1st to June 3rd, 2022, at the Hassan II International Center for Environmental Training. This dialogue brought participants together to think about the best way to mobilize resources for the key priorities of the Ocean Decade. The second edition of the dialogue is a major milestone before the 2nd UN Conference in Lisbon.

### First International Ocean Decade Conference

Hosted by the German Ministry of Education and Research, in partnership with UNESCO's Intergovernmental Oceanographic Commission (IOC), the first session of the first international decade conference was held on June 1st. The virtual event brought together international experts from various backgrounds including science and research, politics, NGOs, UN agencies, companies and philanthropic foundations. The Foundation took part through a speech delivered by its Secretary General.

The 2nd session is being held in July 2022; the Foundation is using the time in between sessions to work towards achieving the seven outcomes of the Ocean Decade and to 'Create the ocean we want'.

### INTERNATIONAL UNION FOR CONSERVATION OF NATURE (IUCN)



In 2021, the Foundation applied to join two of IUCN's commissions:

- The World Commission of Environmental Law (WCEL), whose role is to advance environmental law to strengthen the legal foundations of conservation of nature and sustainable development. The Foundation is

now the Deputy Chair of the commission.

- The Commission on Education and Communication (CEC), whose priority is to promote change through communication, learning and knowledge. The Foundation represents young people under 35 years old in this commission.

The Foundation took part in the 2020 IUCN World Conservation Congress held from September 3rd to 11th, 2021 in Marseille, organized by the IUCN and the French government. The event, initially scheduled for June 2020, had been postponed due to COVID-19.



The Mohammed VI Foundation for Environmental Protection travelled to Glasgow, in Scotland, from October 31st to November 12th, 2021, to attend COP26. Since 2009, the Foundation has been a member with observer status of the United Nations Framework Convention on Climate Change, which organizes them. As such, it has been taking part since then.

This status entitles it to enter the blue zone, the official zone of the UNFCCC. On November 3rd, it organized, in collaboration with Earthday, which every year promotes Earth Day, an event on climate education and youth empowerment, entitled: the key to meeting our climate and environmental goals.

The Foundation was also active within the Morocco Pavilion with five events concerning the African Green Universities and Youth Education Network, the decarbonization of economic actors, youth, the African Youth Climate Hub Initiative, and the UN Decade of Ocean Science for Sustainable Development (2021-2030), supported by an alliance of which **Her Royal Highness Princess Lalla Hasnaa** is a patron.

Its experts and employees were very active and spoke at many events at the IUCN's Nature Pavilion, at the Francophone Pavilion (Organisation internationale de la Francophonie), and at the EU Pavilion, and participated in Major Economies Forum sessions and Climate Law as well as Governance Day sessions.

# International partnerships

## UNITED NATIONS DEVELOPMENT SYSTEM IN MOROCCO (UNDS)



The Mohammed VI Foundation for Environmental Protection collaborated with the United Nations development system (UNDS) to organize a series of events in Morocco.

- September 8th, 2021: 7th meeting of the working group on climate change made up of the UNDS and its partners. This event was an opportunity to present the UNDS initiative, its various components as well as its role as a member in the Ad Hoc Steering Group of the Youth UNESCO Climate Action Network.
- November 11th, 2021: filming took place at the Hassan II International Center for Environmental Training within the framework of the Youth4climate Initiative, supported by the British Embassy, the Italian Embassy and the British Council. The project sets out to shine a light on 16 young Moroccan leaders and influencers, selected for their ability to inspire the general public and to drive change.
- November 29th, 2021: the Foundation participated in the first session of the national workshop to articulate the Sustainable Development Cooperation Framework (SDCF), on the theme of "inclusive and sustainable economic transformation".
- November 30th, 2021: the Foundation participated in a Round Table: "After COP26, what path for Morocco and its youth towards ecological transition?"

## UN ENVIRONMENT PROGRAMME

Letter of understanding on the African Green Universities and Youth Education Network (AGUYEN).

## PUBLICATIONS

### Good Practices in South South and Triangular Cooperation in LDCs

The Foundation contributed to the publication produced by the United Nations Office for South-South Cooperation (UNOSSC), 'Good Practices in South South and Triangular Cooperation in LDCs: From the Istanbul Programme of Action (IPoA) to Building Forward Better', which was published in 2021.

The Istanbul Programme of Action charts out how the international community intends to support sustainable development in LDCs by developing their productive capacities. A broad range of actors, including donor countries, developing countries, the private sector, civil society, the UN system and international and regional financial institutions must contribute to the implementation of this program.

The United Nations Office for South-South Cooperation (UNOSSC), created in 2001, is currently supporting 91 vulnerable Member States of the United Nations: 47 Least Developed Countries (LDCs), 32 Landlocked Developing Countries (LLDCs) and 38 Small Island Developing States (SIDS).

In Morocco, the Department of Multilateral Cooperation and International Economic Affairs, of the Ministry of Foreign Affairs, African Cooperation and Moroccan Expatriates, is cooperating with the United Nations Office for South-South Cooperation (UNOSSC) to shine a light on Moroccan initiatives with African partner countries.

### Global Education Monitoring Report

UNESCO has been publishing the report, previously known as Education for All Global Monitoring Report, every year since 2002. At COP22, in the presence of Her Royal Highness Princess Lalla Hasnaa, UNESCO launched a new publication of this same report, entitled: 'Planet: Education for environmental sustainability and green growth.' This report serves as a springboard for debate, knowledge sharing and advocacy. It targets public decision-makers, politicians, educational planners, civil society, university research, young people and the media. For the twelfth edition, the Foundation presented its climate change education activities.



# National Agreements

## RENEWAL OF NATIONAL AGREEMENTS

### Ministry of National Education, Pre-school and Sports

**PERIOD** 2021-2024

**DATE OF SIGNATURE** September 24th, 2021

**FIELD** Education for Sustainable Development

Framework agreement including all ESD Projects and Programs: Eco-Schools, Young Reporters for the Environment, Global Schools, African Green Universities and Youth Education Network (AGUYEN) and the regional laboratories for environmental training.

### FMPS (Moroccan Foundation for the Promotion of Preschool Education)

**PERIOD** 2021-2023

**DATE OF SIGNATURE** December 7th, 2021

**FIELD** Education for Sustainable Development

Partnership agreement to promote environmental education in preschool, logical next step in the development of the Eco-Schools program in preschools. A pilot phase will be rolled out in 2021-2022 in the region of Rabat-Salé-Kénitra, training teachers and adapting educational materials.

### AMCI (Moroccan Agency for International Cooperation)

**PERIOD** 2021-2023

**DATE OF SIGNATURE** February 15th, 2021

**FIELD** South-South Cooperation

**HIGHLIGHT** Signing of agreement to promote education for sustainable development in collaboration with the Center, a regional African hub, participation of African students in the African Youth Climate hub, in the Center's workshops, sharing of good practices and networking to contribute to achieving the 17 SDGs.

### DGCT (General Directorate of Local Authorities)

**PERIOD** 2021-2025 (5 years)

**DATE OF SIGNATURE** June 25th, 2021

**FIELD** All the programs of the Foundation

**HIGHLIGHT** implementation of a new partnership, with a special focus on seas and oceans, air and climate, historic gardens and parks, and the Hassan II International Center for Environmental Training to reinforce the capacities of local stakeholders.

Air and Climate partnership agreement with MICEVN (Ministry of Industry, Trade, Green and Digital Economy), MEME (Ministry of Energy, Mines and Environment), AMEE (Moroccan Agency for Energy Efficiency), IMANOR (Moroccan Standards Institute) and CGEM (General Confederation of Moroccan Enterprises)

**PERIOD** 2021-2024

**DATE OF SIGNATURE** July 27th, 2021

**FIELD** Air Climate Program - Decarbonization

**HIGHLIGHT** implementation of joint actions to decarbonize the economy, creation of a task force made up of the main signatories. Update of the Foundation's carbon-balance tool

### Agreement with the Ministry of National Education, Preschool and Sports, and AMEE (Moroccan Agency for Energy Efficiency)

**PERIOD** 2021-2024

**DATE OF SIGNATURE** August 2nd, 2021

**FIELD** Air Climate Program - Voluntary Carbon Offset

**HIGHLIGHT** Transfer of the management of all solar and electrical installations created by the Foundation since the launch of voluntary carbon offsetting operations to the Ministry of Education, which will ensure their servicing and maintenance with the technical support of AMEE (Moroccan Agency for Energy Efficiency).

### Agreement with IRESEN (Research Institute for Solar Energy and New Energies) and the Green Energy Park

**PERIOD** 2021-2024

**DATE OF SIGNATURE** October 14th, 2021

**FIELD** Air Climate Program

**HIGHLIGHT** raising awareness about tackling air pollution, its impact on health and on the climate and the environmentally-responsible behaviors to adopt. There are pilot projects to be developed, such as the electrification of two and three wheelers in Marrakech, the implementation of a charging station monitoring system in Morocco, with a pilot project in the region of Marrakech-Safi. A technical follow-up of the Center's environmental performance is planned. Renewal of Agreements:

### partners of the Air Climate Program - Voluntary Carbon Offset

**PARTNERS** Maroc Telecom - ONEE (National Office of Electricity and Drinking water), ANP (National Ports Agency) - Al Mada Foundation - OCP Group - CDG Foundation

**PERIOD** 2021-2023

**DATE OF SIGNATURE** 2021

**FIELD** Air Climate Program - Voluntary Carbon Offset

**HIGHLIGHT** Partners signing up to the new portfolio of Voluntary Carbon Offset, achieving projects related to saving energy or energy efficiency, renewable energies or carbon sequestration, primarily in disadvantaged geographical areas.

### THE FOUNDATION IS CONNECTED TO PUBLIC BODIES THROUGH ONGOING PARTNERSHIPS

1. DGCT (General Directorate of Local Authorities) (Seas and Oceans Division, Air and Climate Division, Hassan II International Center for Environmental Training, Bouknadel Exotic Gardens, Marrakech Palm Grove, educational trails, technical support.)
2. ONMT (Moroccan National Tourism Office) (Sustainable tourism, Bleu Flag)
3. ONEE (National Office of Electricity and Drinking Water) (Sustainable tourism, Voluntary Carbon Offset),
4. Barid Al Maghrib (Ana Boundif).

# Education for sustainable development



## EDUCATIONAL TOOLS



## Education for sustainable development

# AFRICAN GREEN UNIVERSITIES AND YOUTH EDUCATION NETWORK (AGUYEN)

AGUYEN, the Green Universities program of UNEP was officially launched for Africa in Morocco.

## LAUNCH OF THE AGUYEN NETWORK



March 17th, 2021, AGUYEN (African Green Universities and Youth Education Network) was officially launched by the Foundation in Morocco, in partnership with the United Nations Environment Programme (UNEP), at a session that brought together a blend of 22 universities from eight African countries (Morocco, Tunisia, Mauritania, Côte d'Ivoire, Senegal, Comoros, Kenya, Uganda).

This African Green Universities and Youth Education Network brings together higher education institutions which incorporate the environment, development strategies for climate resilience and low-carbon emissions and aspects of sustainability in their education, training and campus operations. AGUYEN is striving to enhance student engagement with sustainable development.

Participating universities signed a charter of commitment and entered into a close partnership with the Hassan II International Center for Environmental Training.

### Little Book of Green Nudges

At this meeting launching the African Green Universities, the educational tool "The Little Book of Green Nudges" was presented and made available to African universities. It includes a few good habits for a Green Campus, advice for establishing greener study programs, and tools for developing community and student engagement. Other tools, such as the normative framework for sustainable universities and the network's digital platform were also presented to the participants.

The launch allowed for the network to be given momentum. A steering committee was set up. Special focus was placed on youth, balance was sought in the representation of the various African countries, and gender parity was respected.

## Letter of understanding signed with UNEP

A letter of understanding was signed between the Ecosystems Division of the United Nations Environment Programme and the Hassan II International Center for Environmental Training for the African Green Universities and Youth Education. This three-year letter of understanding enables the Center to host the administrative office of the African Green Universities and Youth Education Network and to support it with its training and with the educational tools it will develop.

## AWARENESS AND TRAINING WORKSHOPS

Awareness and training workshops were organized for the African Universities and their students. The goal of these training sessions was to teach the process for achieving a sustainable and environmentally-friendly campus.

The workshops were held across four methodological areas:

Les ateliers se sont déroulés sur quatre espaces méthodologiques :

22/09/2021	▪ 'Implementing a sustainable university" workshop
28/10/2021	▪ Composting workshop
05/11/2021	▪ Workshop on innovative and sustainable initiatives to accelerate margin implementation for the SDGs at COP26

- A first on the fundamentals of the Green Universities program,
- A second for working groups about making campuses environmentally-friendly, making courses green, the impact of environmental education, organic waste, ground fauna, composting...
- The third for debates and discussions,
- The fourth area is for putting various concepts into practice

## Webinars

Several informational and awareness webinars were organized for the universities, the members of the Network Steering Committee, local authorities, NGOs, and coordinators of educational programs for primary and secondary school students.

These webinars that enlisted international experts disseminated knowledge about ecosystem restoration, environmental education, climate action, low-carbon campuses, water and energy efficiency and good habits.

11/06/2021	▪ webinar on ecosystem restoration
21/10/2021	▪ Water and energy efficiency through sustainable solutions
22/09/2021	▪ Universities' leadership role in fighting climate change and introduction of the Race to Zero campaign.

# GLOBAL SCHOOLS MOROCCO, PILOT COUNTRY

This important program wants the Environment to be integrated into school curricula around the world.

## A GLOBAL PROGRAM

The United Nations implemented a global program, Global Schools, to help achieve, through education, the UN's 17 Sustainable Development Goals to which the nations committed by 2030. The program aims to equip young people with 21st-century skills and to develop global citizenship.

Global Schools, an initiative of the Sustainable Development Solutions Network (SDSN), was launched in 2019, with the support of UNESCO's Global Action Programme (GAP) on Education for Sustainable Development (ESD).

It works to integrate the 17 SDGs in school curricula in every country around the world, while opening up to every language and culture. Three localization pilot programs, including one in Morocco, were carried out before it was rolled out globally. The Mohammed VI Foundation for Environmental Protection, a partner of UNESCO, is the organization hosting the project.

By late 2021, seven of the eight work phases had been completed.

## INFORMATION AND TRAINING WORKSHOPS

Training workshops were organized for commissions of educators and inspectors from the two pilot regions of Rabat-Salé-Kénitra and Fès-Meknès :

- February 2nd, 2021: training workshops with pilot primary schools from the Rabat-Salé-Kénitra region.
- February 4th and 5th, 2021: Visits of the pilot primary schools in the Rabat-Salé-Kénitra and Fès-Meknès regions.
- June 4th: Regional workshop on reproducing the pilot



During the field visits to the pilot primary schools of the Rabat-Salé-Kénitra and Fès-Meknès regions, the program creators went to meet the children.

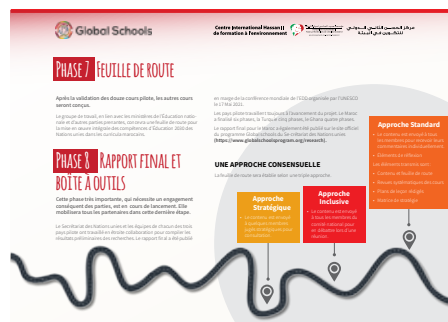


## FINAL REPORT OF THE PILOT PROJECT IN MOROCCO

Morocco, like the two other pilot countries (Turkey and Ghana), presented the results of its national project, which it shared with SDSN.

SDSN and the teams of each of the three pilot countries worked closely to compile the preliminary results of the research. The final report was published alongside the UNESCO World Conference on Education for Sustainable Development held on May 17th, 2021.

The pilot countries are continuing to move forwards with the project by drafting a national, then global roadmap, and by creating a complete toolkit to roll out the program in the country's schools.



An electronic brochure presents and explains the achievements of the Global Schools program in Morocco to partners and third parties.

# Education for sustainable development

## ECO-SCHOOLS

The program continues to raise environmental awareness among many children across Morocco.

In 2021, 2,812 of the 7,700 schools in Morocco were registered with the Eco-Schools program created by the Foundation for Environmental Education (FEE), which the Mohammed VI Foundation for Environmental Protection has been rolling out in Morocco since 2006, in partnership with the Ministry of National Education, Preschool and Sports.

The program helps students better understand their environment, the stakes and the threats, and invites them to take concrete action within their school. The program mobilizes students, teachers and supervisors and also incites young people to raise awareness within their own circles.

### REGIONAL WORKSHOPS FOR THE ACADEMIC YEAR 2020-2021

COVID-19 forced the Eco-Schools program to organize its traditional regional training workshops remotely, by using the digital infrastructure of the Hassan II International Center for Environmental Training. Six workshops were held in February 2021 for Morocco's 12 regional education authorities, in order to reach the largest possible audience while respecting the health restrictions in the country. The morning was devoted to local and regional school coordinators and principals, and the afternoon to students and their teachers.

In total, 1,440 teachers (compared to 230 in 2020) and 1,135 primary school students (compared to 391 in 2020) benefited and were able to find out about the content of the Eco-Schools program.

Six regional workshops were organized for the 12 regions of Morocco

February 10th, 2021	<ul style="list-style-type: none"> <li>Rabat Salé Kénitra</li> <li>Casablanca Settat</li> <li>Guelmim Oued Noun</li> <li>Béni Mellal Khénifra</li> </ul>
February 17th, 2021	<ul style="list-style-type: none"> <li>Tanger-Tétouan Al Hoceima</li> <li>Souss Massa</li> <li>Fès Meknès</li> </ul>
February 24th, 2021	<ul style="list-style-type: none"> <li>Drâa Tafilalet</li> <li>Marrakech Safi</li> <li>Dakhla Oued Eddahab</li> <li>Oriental</li> <li>Laâyoune Sakia El Hamra</li> </ul>

### REGIONAL WORKSHOPS FOR THE ACADEMIC YEAR 2021-2022

Regional workshops for the 2021-2022 edition were launched from December 2021. On December 15th, they concerned the regional education authorities of Rabat-Salé-Kenitra and Casablanca Settat,

And on December 22nd, they were held for the regional education authorities of Marrakech Safi and Béni Mellal Khénifra.

### IMPACT ASSESSMENT OF THE ECO-SCHOOLS PROGRAM ON ITS TARGETS

After 15 years of the Eco-Schools program being rolled out by the Foundation in Morocco, an impact assessment was carried out to assess the impact of the program on the environmental awareness of children and those around them. It looked at students, teachers, principals and communities, as well as the school and its environment.

85% of teachers and principals surveyed noted the program's positive impact on student behavior, and 82% noticed an improvement in their academic achievements. They gained more autonomy, more creativity, and a stronger sense of responsibility and solidarity, and disseminated good habits in their family environment.

The program had an obvious impact on schools, since 73% of teachers and principals surveyed noticed a 26% decrease in their water and electricity bills. 86% noted an improvement in terms of cleanliness (less waste, better sorting and recycling of trash). 75% mentioned an impact on the development of green areas.

Lastly, 77% of principals surveyed said they were satisfied with the involvement of their teachers in the program and with the improvement of the educational approach, and 73% noticed the program's positive impact on the cohesion of the teaching staff within the school.

#### AWARENESS WORKSHOPS

The Hassan II International Center for Environ-

**2812** SCHOOLS WERE REGISTERED WITH THE ECO-SCHOOLS PROGRAM

mental Training carried out workshops to raise awareness targeted at different audiences.

- On November 11th, 2021, it organized an event within its walls on the Eco-Schools program to raise its community's awareness of climate change alongside COP26.
- On November 30th, 2021, the directors of the Rabat Salé Kénitra regional educational authority were trained on the SDGs.
- On December 13th, 2021, the 2021-2022 edition of the Eco-Schools program was launched from a workshop being held both in the center's great hall and online.

### WEBINARS

On February 10th, 2021, the Center took part in UNESCO's 5th workshop on 'Education for sustainable development and the climate emergency: bending the curve for climate change'.

Workshops about networking and twinning Eco-Schools in Morocco and abroad were carried out on June 4th, 2021. Discussions were had online, and good habits were shared.

From October 12th to 14th, the Center reflected with the Eco-Schools network on ways to reduce the gap between registered schools and those that have been awarded a label.

A webinar on 'Innovative approaches for teaching about the environment and sustainable development' was organized on October 27th, 2021 alongside the World Environmental Education Day with the World Environment Education Congress network.

## GREEN FLAG

The deliberations of the national jury for the three levels of award - the Green Flag, the silver certificate and the bronze certificate, as well as for the best practices contest 'Once upon a time there was an Eco-School', were held both physically and remotely, on July 14th and 15th, 2021.

Of the 228 schools that applied for the award, 71 were awarded the Green Flag (three topics tackled), 64 received the silver certificate (two topics tackled), and 84 received the bronze certificate (one topic tackled).

Certificates of encouragement were awarded to principals and coordinators of candidate schools.

### Once upon a time there was my Eco-School

The second edition of the best practices contest brought together 65 schools from 10 regional education authorities.

The jury rewarded eleven, which represented 66 students and 22 teachers.

These laureates received a tablet and a certificate of encouragement.

### Green Flag Regional Ceremonies

The award ceremonies of the Green Flag were held in May 2021.

Organized as in-person events complying with health measures, they were attended by students and teachers, as well local authorities (walis, governors, elected figures...), regional education authority directors, parent associations...



**228** APPLIED FOR THE AWARD

**71** SCHOOLS AWARDED THE GREEN FLAG

## Education for sustainable development

# YOUNG REPORTERS FOR THE ENVIRONMENT

The success of the Foundation's flagship program is undeniable. It is open to young people aged between 11 and 21 years.

Since its roll-out in Morocco in 2002 by the Mohammed VI Foundation for Environmental Protection, supported by the Ministry of National Education, Preschool and Sports, the Young Reporters for the Environment program, thought up by the Foundation for Environmental Education (FEE) and picked up in 44 countries around the World, has involved over 34,000 secondary school students in Morocco.

The Program now engages with secondary schools from twelve regional education authorities in Morocco, both public and private, divided into three age groups: 11-14, 15-18, 19-21.

For the 2020-2021 academic year, 15,000 secondary school students entered the competition through their schools. Under the supervision of their teachers, they carried out journalistic investigations in one of the three competition formats (investigative reporting, photography and video journalism) on the theme suggested for this edition: "Protecting terrestrial and marine biodiversity". The principle of the competition, beyond investigating which enables young people to gain awareness of a problem and to discover journalistic techniques, is to suggest solutions.

This year, 181 written reports, 506 photographic reports and 228 video reports were submitted to the jury for approval, which met on May 4th and 5th at the Hassan II International Center for Environmental Training. The jury awarded a prize to six written reports, six photographic reports and eight video reports. They were awarded their prizes at downsized regional ceremonies, due to the health situation.

## A Fully-Digitalized Program

The center fully digitalized the Young Reporters for the Environment Competition to simplify the work of the participants, organization and jury. This

option proved to be particularly useful during the pandemic, with schools able to participate from start to finish via the dedicated platform. Lastly, the database of the competition results was entirely digitalized, which facilitated candidate searches and the work of the jury.

## Building Capacities

The Center organized a series of training and information webinars for the various targets of the YRE program, on the environment, on the theme of the year and on how to take part in the competition.

- From March 3rd to 5th, 2021: Information and exchange meeting for YRE
- September 30th, 2021: Hybrid information workshop on extending the YRE competition to university students
- October 29th, 2021: Hybrid information workshop on extending the YRE competition to university students
- November 26th, 2021: Hybrid training workshop on the YRE competition theme
- December 16th, 2021: Regional training workshop for the Rabat-Salé-Kénitra region
- December 16th, 2021: Regional training workshop for the Casablanca Settat regional education authority
- December 23rd, 2021: Regional training workshop for the Marrakech-Safi regional education authority
- December 23rd, 2021: Regional training workshop for the Béni Mellal-Khénifra region

## WRITTEN REPORT WINNERS

### Proximity Award

**"Midelt, Drâa Tafilalet, the Al-barki root stock in Boumia, natural force and nutritional value"**

Lycée Moussa Ibn Nassir

Category 15-18 years

### Originality Award

**"Mint of Tiznit: from production to supply"**

Collège Ennour (Tiznit, Souss Massa)

Category 11-14 years

### Heritage Award

**"The Perdicaris Forest, an icon of biodiversity in Tangier"**

Groupe scolaire Banque Populaire

Tangier Asilah (Tangier, Tétouan-Al Hoceima)

Category 15-18 years

### Awareness Award

**"Have you ever breathed the air of Jerada?"**

Collège Ibn Al Haytham (Jerada, Oriental)

Category 15-18 years

### Valorization Award

**"The natural baths of Moulay Ali Charif... medical aquatic wealth yet to be exploited"**

Lycée Houman Al Fatouaqi (Nador, Oriental)

Category 19-21 years

### Awakening Award

**"The daya of dar bouazza, biodiversity in danger"**

Collège Imam Al Ghazali (Casablanca-Settat)

Category 15-18 years



## PHOTO REPORT WINNERS



### Awakening Award

#### “ 100 years to grow... One day to die ”

Lycée Abi Al Abass Essabti  
(Asilah, Tanger-Tétouan-Al Hoceima)  
Category 15-18 years



### Ecological Approach Award

#### “ Ecological Area ”

Lycée Al Iqama  
(Béni Mellal, Béni Mellal Khénifra)  
Category 15-18 years



### Contrast Award

#### “ The last refuge for these aquatic and migratory birds will disappear ”

Collège Ashahid Mohammed Zerkoun (Rabat, Rabat-Salé-Kénitra)  
Category 15-18 years



### National Jury Award

#### “ Make your children a generation that respects the environment ”

Collège Ibn Al Haytham  
(Jerada, Oriental)  
Category 15-18 years



### Shock Photography Award

#### “ And thus the footprints of crime appeared ”

Collège Allal Al Fassi I  
(Nador, Oriental)  
Category 15-18 years



### Awareness Award

#### “ Prickly pear attacked by cochineal ”

Groupe scolaire Génération Annahda  
(Ain Chock, Casablanca Settat)  
Category 15-18 years

## VIDEO REPORT WINNERS

### Ecological Approach Award

#### “ National Park of Souss Massa- culture of biodiversity preservation ”

Collège Ahmad Chaouqi (Agadir Ida Outnane, Souss Massa)  
Category 11-14 years  
<https://www.jeunesreporters.org.ma/fr/palmaresreportagesvideo/>

### Encouragement Award

#### “ Bio news – the marine biodiversity of Casablanca ”

GS Anfa, (Anfa, Casablanca-Settat)  
Category 15-18 years  
<https://www.jeunesreporters.org.ma/fr/palmaresreportagesvideo/>

### Awareness Award

#### “ Biodiversity of freshwater fish ”

Lycée Oulad Hriz  
(Berrechid, Casablanca-Settat)  
Category 15-18 years  
<https://www.jeunesreporters.org.ma/fr/palmaresreportagesvideo/>

### National Jury Award

#### “ Lichens, nature’s little-known plants ”

Lycée Ibn Al Haytham (Chichaoua, Marrakech-Safi)  
Category 19-21 years  
<https://www.jeunesreporters.org.ma/fr/palmaresreportagesvideo/>

### Theme of the Year Award

#### “ Biodiversity ”

GS Jessani (Inezgane Ait Melloul, Souss Massa)  
Category 15-18 years  
<https://www.jeunesreporters.org.ma/fr/palmaresreportagesvideo/>

### Initiative Award

#### “ The oysters of Oualidia- natural wealth and an economic resource ”

Collège Al Oualidia (Sidi Bennour, Casablanca Settat)  
Category 15-18 years  
<https://www.jeunesreporters.org.ma/fr/palmaresreportagesvideo/>

### Valorization Award

#### “ Aromatic plants ”

Lycée Al Moukhtar Soussi  
(Al Haouz, Marrakech Safi)  
Category 19-21 years  
<https://www.jeunesreporters.org.ma/fr/palmaresreportagesvideo/>

### Awakening Award

#### “ The argan tree ”

Collège Al Hassan I (Taroudannt, Souss Massa)  
Category 11-14 years  
<https://www.jeunesreporters.org.ma/fr/palmaresreportagesvideo/>

# Education for sustainable development

## EDUCATIONAL TOOLS

One the missions of the Hassan II International Center for Environmental Training is to provide educational materials for the Foundation’s programs

### ECO-SCHOOLS THEMATIC POSTERS FOR PRESCHOOL



The posters of the seven themes of the Eco-Schools program were adapted to preschool (3-5 years) in close collaboration with the Moroccan Foundation for Promoting Preschool Education.

### TREE OF ECO-FRIENDLY PRACTICES FOR PRESCHOOL



A tree of eco-friendly practices was made from reclaimed wood to display preschool children’s eco-friendly practices and drawings at the end of their visit of the Center.

### ECO-SCHOOLS VIDEOS



The Center created seven videos in motion design for each of the themes of the Eco-Schools program: water, energy, waste, biodiversity, healthy food, solidarity and climate change.

### COMPOSTING GUIDE



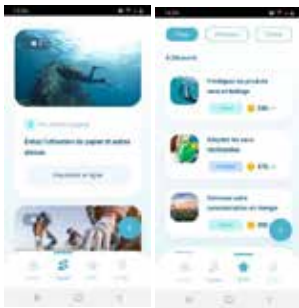
This composting guide was created after composting training organized by the Center. It has been made available to the African Green Universities & Youth Education Network.

### HANDBOOK ON HOW TO BECOME AN ECO-SCHOOL



A handbook for coordinators and teachers was edited by the Center in close collaboration with the jury of the program and regional and provincial coordinators. It is destined to help schools implement the program within their establishments. It explains the program’s concepts and provides scientific and educational references concerning the themes addressed (energy, water, waste, biodiversity, food, solidarity and climate change). Both the digital and printed version will be given to teachers in 2022.

## ANA BOUNDIF APP



An app has been created to support, in particular during the summer, the Ana Boundif website, which was set up in 2020 to raise environmental awareness. The app also aims to build a community that the Foundation will be able to address in the future via social media.

## GHABAT CHBAB EDUCATIONAL PAVILIONS



The ten units of four educational pavilions in Ghabat Chbab in Marrakech were installed in November 2021.

These units were designed by students from the National School of Architecture in Rabat.

## GARDENS EDUCATIONAL TRAIL



The Center launched a competition for ideas for the educational trail in Lahboul open to students at the National School of Architecture in Fes. A visit to scout the gardens was carried out with the students on April 13th, 2021. 32 students in their 4th year then submitted 13 projects. The jury, made up of teachers from the National School of Architecture in Fes, the director of the historic Gardens of Lahboul, the director of the Friends of Lahboul Association and the Foundation's director, deliberated on May 24th, 2021 at the Center, then received the candidates for a five-minute oral presentation delivered by the students on June 4th. Eight units were selected.

## ARABIC TRANSLATION OF THE LITTLE BOOK OF GREEN NUDGES



The Little Book of Green Nudges drawn up by UNEP for green universities was translated from English into Arabic by the Center in collaboration with Ibn Tofail University. It suggests forty environmentally-friendly habits for higher education institutions. Creating an Arabic version of this guide allows for it to be distributed around the Arab world and for the roll-out of the African Green Universities and Youth Education Network program to be sped up.

## AFRICAN GREEN UNIVERSITIES & YOUTH EDUCATION NETWORK DIGITAL PLATFORM



In 2021, the Center launched an internet platform for the African Green Universities and Youth Education Network. The platform is designed for teachers and students. It will raise awareness, train, share and improve good habits, and will enable networking and discussions.

# Seas and Oceans

## BLUE FLAG



## CLEAN BEACHES





## Seas and Oceans

# DECADE OF OCEAN SCIENCE

In 2021, the Seas and Oceans division was integrated in the United Nations' Decade of Ocean Science for Sustainable Development (2021-2030), the objectives of which are included in its flagship programs.

HRH Lalla Hasnaa, President of the Mohammed VI Foundation for Environmental Protection, spoke for the launch of the United Nations Decade of Ocean Science for Sustainable Development 2021-2030, of which she is the godmother of the alliance that carries it. 'We will carry with you this decade of knowledge at the service of our oceans, so that the generations that follow can enjoy it as we ourselves have done,' she declared to the assembly.



A series of seven online conferences were launched in 2021 to announce the objectives of the Decade of Ocean Science.



In 2021, the Foundation officially joined the United Nations' Decade of Ocean Science for Sustainable Development (2021-2030) as a founding member of the Alliance that supports it and for which Her Royal Highness Princess Lalla accepted to become the patron.

The Decade, the goal of which is to provide real-time information on the state of the ocean and to formulate scenarios for a sustainable way forward, is supported by UNESCO's Intergovernmental Oceanographic Commission (IOC) with which the Foundation built a productive relationship.

The decade targets seven outcomes:

1. A **clean ocean** where sources of pollution are identified and reduced or removed.
2. A **healthy and resilient ocean** where marine ecosystems are understood, protected, restored and managed.
3. A **productive ocean** supporting sustainable food supply and a sustainable ocean economy.
4. A **predicted ocean** where society understands and can respond to

changing ocean conditions.

5. A **safe ocean** where life and livelihoods are protected from ocean-related hazards.
6. An **accessible ocean** with open and equitable access to data, information and technology and innovation.
7. An **inspiring and engaging ocean** where society understands and values the ocean in relation to human well-being and sustainable development.

In 2021, the Foundation undertook a series of webinars, in partnership with IOC-UNESCO to present these objectives.

The first Webinar was organized on June 28th, 2021, starting with the theme, 'An accessible ocean'.

In 2021, it worked to implement a dissemination plan for all of these objectives for 2022.

# CLEAN BEACHES

The Clean Beaches program was successfully rolled out for the second year in a row under the constraints of COVID-19. Its track record is almost back to normal.



Although Moroccans were able to return to their beaches, the health measures were nonetheless not forgotten. They were an indispensable condition for accessing the beaches.

The Foundation’s flagship campaign was carried out in the particular context of COVID-19 across 109 beaches. The beaches were accessible to all in 2021, as long as social distancing and protective measures were respected.

The guide to the management of beaches in the context of COVID-19, drawn up by the Foundation in 2020 in collaboration with DGCT (General Directorate of Local Authorities), was once again used as a guidance tool for local actors to manage beaches.

In 2020, 21 of the 105 clean beaches of the program couldn’t be opened to the public throughout the entire summer because of COVID-19.

Preparation: partner workshop

Like in 2020, the Foundation organized ahead of the campaign a technical workshop for partners of the ‘Clean Beaches’ program. This coordination workshop was a time for dialogue and collective thought, and for explaining how the #B7arblaplastic campaign would unfold. It was also an opportunity to come to a clear agreement on shared objectives, mode of operation and appropriate tools, to ensure effective organization of the various initiatives throughout the summer of 2021.

## FLAGSHIP AWARENESS CAMPAIGNS

### #BHARBLAPLASTIC

The 2021 edition was once again focused on fighting plastic pollution in the seas and oceans, with the second edition of the campaign #b7arblaplastic rolled out across all the program’s beaches.

This remarkable initiative to raise awareness was recognized internationally, since it was registered with the Decade for Ocean Science for Sustainable Development (2021-2030) launched by UNESCO’s Intergovernmental

Oceanographic Commission (IOC), in which the Foundation takes part as a founding member of the alliance managing the project around the world. Finally, in 2020, it had already received the best practice in environmental education award presented by FEE from among the 4,425 beaches with the Blue Flag label around the world.

The #bharblaplastic campaign reused the three highlights from the first edition. These included:

1. Mobilizing a million young people over the summer,
2. Undertaking 10,000 initiatives to raise awareness and educate them about sustainable development,
3. Collecting 10 tons of plastic per beach during the summer.
4. A fourth highlight was added in 2021, because #B7arblaplastic 2021 had planned for initiatives to recycle and repurpose the plastic waste collected.

Reprocessing plastic waste collected on beaches is a logical step in a circular economy: having prevented oceans from being polluted by collecting the plastic waste, it is then given new life after being reprocessed in recycling plants that volunteered for this campaign.

Awareness was also raised on social media, which has become unavoidable these days. Posts mobilized the general public, especially young people, around the #b7arblaplastic campaign.

Young people got involved in #B7arblaplastic. Diving associations raised awareness about plastic waste on the ocean floor among young people from the Eco-Schools, Young Reporters for the Environment and the Green Universities Network programs.

The #b7arblaplastic 2021 campaign once again proved to be a genuine success thanks to the commitment of partners and the motivation of participants.

# Seas and Oceans



## Man-Ocean Initiative

The Voluntary Carbon Offset (VCO) program joined forces to eliminate plastic waste and undertook pilot actions with local diving associations, also active in the Lalla Hasnaa Sustainable Coast Awards. **70 professional divers** were mobilized to remove plastic waste from the ocean floor.

## MAN—OCEAN INITIATIVE

The Voluntary Carbon Offset (VCO) program joined forces to eliminate plastic waste and undertook pilot actions with local diving associations, also active in the Lalla Hasnaa Sustainable Coast Awards. These actions were undertaken on six beaches.

This action was undertaken jointly by the Foundation, the Ministry of National Education, Vocational Training, Higher Education and Scientific Research and ONEE (the National Office of Electricity and Drinking Water), in partnership with the ‘Champions Fnideq’ diving association and the Al Marjane diving and water sports association.

These activities benefited 209 Eco-School students and Young Reporters for the Environment and 60 students belonging to the African Green Universities and Youth Education Network. They also received their first scuba diving lessons.

70 professional divers were mobilized at the same time to remove plastic waste from the ocean floor.

## OVERVIEW OF THE CLEAN BEACHES 2021 PROGRAM

Thanks to the support of ministerial departments, the Foundation and its partners were able, like every year, to undertake activities to monitor the bathing water quality, safety, sanitation, and management of beaches and to provide environmental education and awareness.

## BATHING WATER AND SAND QUALITY

The monitoring of bathing water and sand quality is organized by LNESP (National Laboratory for Pollution Studies and Monitoring) of the Department of the Environment of the Ministry of Energy, Mines and the Environment. It is carried out by CEREP/LPEE (Center for Studies and Research on the Environment and Pollution).

The number of beaches whose bathing waters were monitored went from

79 in 2002 to 175 in 2020. 370 stations (87.06%) were declared of microbiological quality in accordance with the requirements of the Moroccan standard NM.03.7.199.

As for the quality of the sand, the Department of the Environment added marine waste to its analyses. 60 beaches spread across 9 coastal areas, of which 23 were along the Mediterranean coast and 37 along the Atlantic coast, were monitored.

To improve monitoring, vulnerability profiles of bathing waters were implemented as per the Moroccan standard NM.03.7.199. 161 profiles were drawn up between 2013 and 2020, of which 26 have already been brought up to standard.

The results of the bathing water quality are published on the website of LNESP (National Laboratory for Pollution Studies and Monitoring) and can be accessed by the general public via the app, iPlages.

## SAFETY

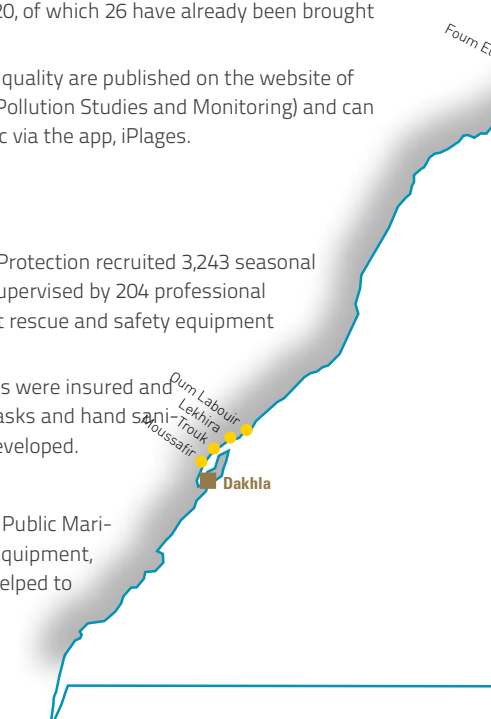
### SWIMMERS' SAFETY

The Directorate General for Civil Protection recruited 3,243 seasonal lifeguard swimmers who were supervised by 204 professional lifeguards. It deployed significant rescue and safety equipment and means on the ground.

The seasonal lifeguard swimmers were insured and tested for COVID-19, received masks and hand sanitizer and had their awareness developed.

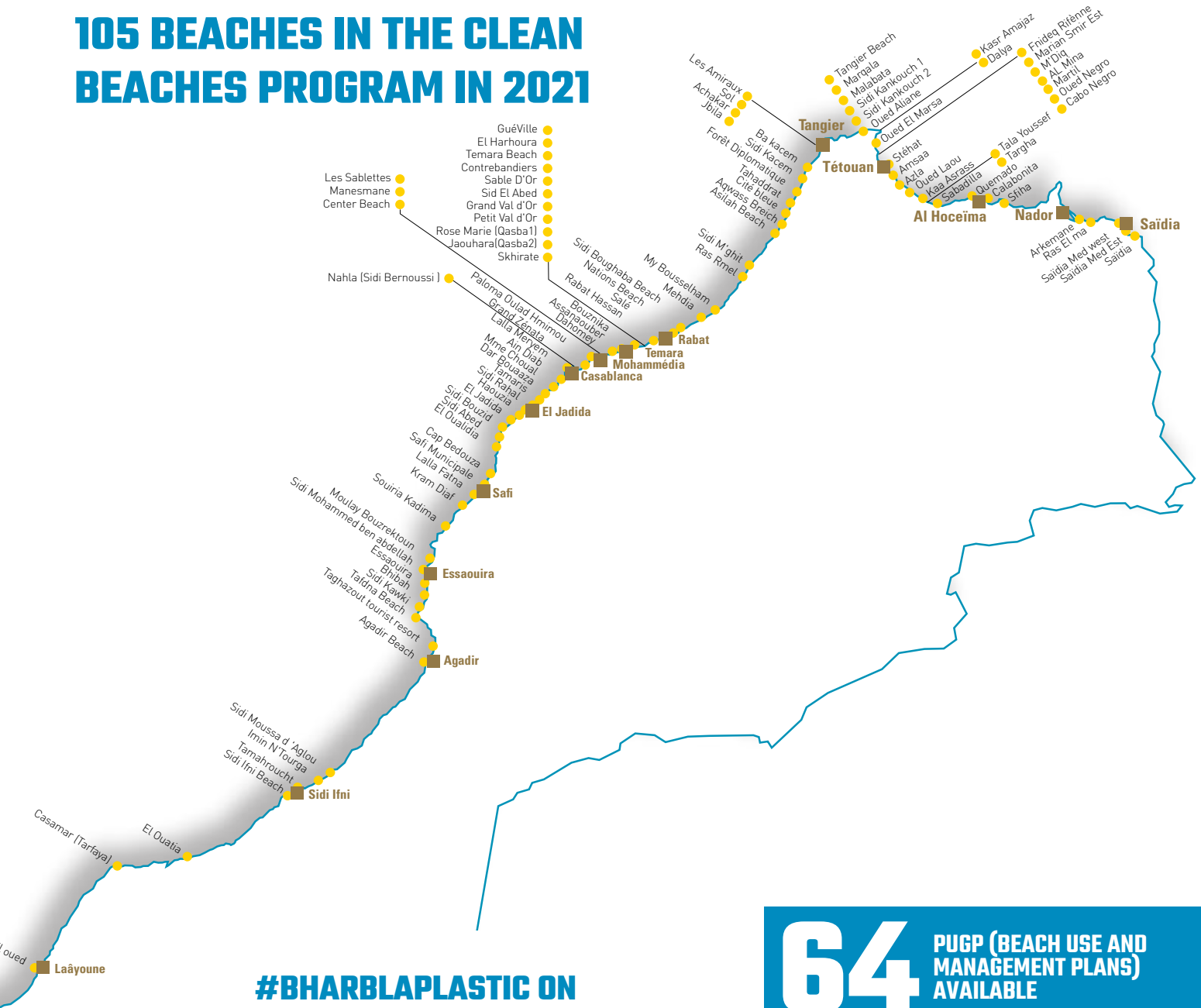
### WATER SAFETY

The Directorate of Ports and the Public Maritime Domain of the Ministry of Equipment, Transport, Logistics and Water helped to mark up 121 beaches in 2021.





# 105 BEACHES IN THE CLEAN BEACHES PROGRAM IN 2021



## #BHARBLAPLASTIC ON SOCIAL MEDIA



### Instagram

73 messages, 14 stories, 55 images, 18 videos reached 2,330,142 people.



### Facebook

81 posts on Facebook reached 17,681,731 people.

**64** PUGP (BEACH USE AND MANAGEMENT PLANS) AVAILABLE

**204** PROFESSIONAL LIFEGUARDS

**3243** SEASONAL LIFEGUARD SWIMMERS

**182** BEACH AGREEMENTS SIGNED (+6 COMPARED TO 2020)

## Seas and Oceans

# THE 4 CHALLENGES OF #BHARBLAPLASTIC

Throughout the summer, the partners mobilized people on vacation to raise their awareness of the growing problem of plastic waste pollution. The initiative raised four challenges, which were all achieved.



### CHALLENGE 1



**521,46 tons**

less plastic across 66 beaches, that is to say **8 tons of plastic** avoided per beach. The amount avoided grew by **35.06 tons** compared to the results of the previous #b7arblaplastic campaign (+7.2%).

### CHALLENGE 2



**61 593 initiatives**

were conducted to raise awareness of plastic pollution and to clean beaches, as well as recreational activities (workshops, entertainment...). The number of initiatives carried out compared to the previous #b7arblaplastic campaign rose by 24.35%, with 12,062 additional initiatives.

### CHALLENGE 3



**1 804 260 young**

people were mobilized (+29% compared to the previous #b7arblaplastic campaign).

### CHALLENGE 4



**38 %**

the percentage of collected waste recycled rose to 38%, a good result for a first experiment.

## HEALTH COVERAGE

This summer 2021, due to the special conditions of Covid-19, the delegations of the Ministry of Health were called for the second consecutive year to place their action under the the guidance of the Walis or the Governors. The circular sent to them in June 2021 called them to coordinate actions relating in particular to the health coverage of beaches with the Civil Protection, the Moroccan Red Crescent and the BCH, in the framework of the Provincial Beaches Commission.

## DEVELOPMENT AND MANAGEMENT

The Directorate of Ports and the Public Maritime Domain of the Ministry of Equipment, Transport, Logistics and Water supports the Clean Beaches program by giving communes access to beaches, which belong to the maritime domain. By June 23rd, 2021, 182 beach agreements had been signed (+6 compared to 2020).

In order to organize beach activities, PUGPs (Beach Use and Management Plans) were implemented. 64 beaches benefited from them. 44 PUGPs were drawn up by the Ministry of Equipment, Transport, Logistics and Water and 20 by communes.

## ENVIRONMENTAL EDUCATION AND AWARENESS

Raising awareness and providing education on the environment and sustainable development is essential to support the efforts of partners on the beaches. Relying on over thirty local associations this year, they raised awareness among vacationers and especially young people throughout

the summer. 61,593 initiatives were undertaken on the ground, mobilizing 1,804,260 young people.

## BEACH MONITORING AND ASSESSMENT

Beach inspections are based on the four Blue Flag categories of criteria: bathing water quality, health and safety, environmental education and environmental management.

The unannounced visits carried out by the National Clean Beaches Committee for the 2021 Clean Beaches program, carried out national and regional assessments. The technical assessment sheets drawn up from these visits provide an overview of the beaches that were open to the public. They highlight the efforts undertaken, the shortcomings detected in terms of equipment, management, hygiene and safety, as well as the implementation of initiatives to raise awareness and provide education on the environment and sustainable development. The results correlate strongly to the means available to the beaches.

- Of the 27 Blue Flag Beaches: no major problem was raised. All the criteria were met throughout the entire summer period.
- Of the 64 sponsored beaches that have an economic partner supporting them, their equipment, maintenance and entertainment was overall satisfactory.
- Of the beaches without a sponsor, which have no economic partner, the management was carried out with the means of communes and it was more difficult to respect the criteria.

# Seas and Oceans

## BLUE FLAG 2021

In the 2021 summer season, the Mohammed VI Foundation for Environmental Protection and the International Foundation for Environmental Education (FEE) awarded the Blue Flag to 27 beaches and marinas.

That's one more beach than the previous year: the communes in charge of the certified beaches kept up their efforts in spite of the health situation in summer 2020 caused by COVID-19.

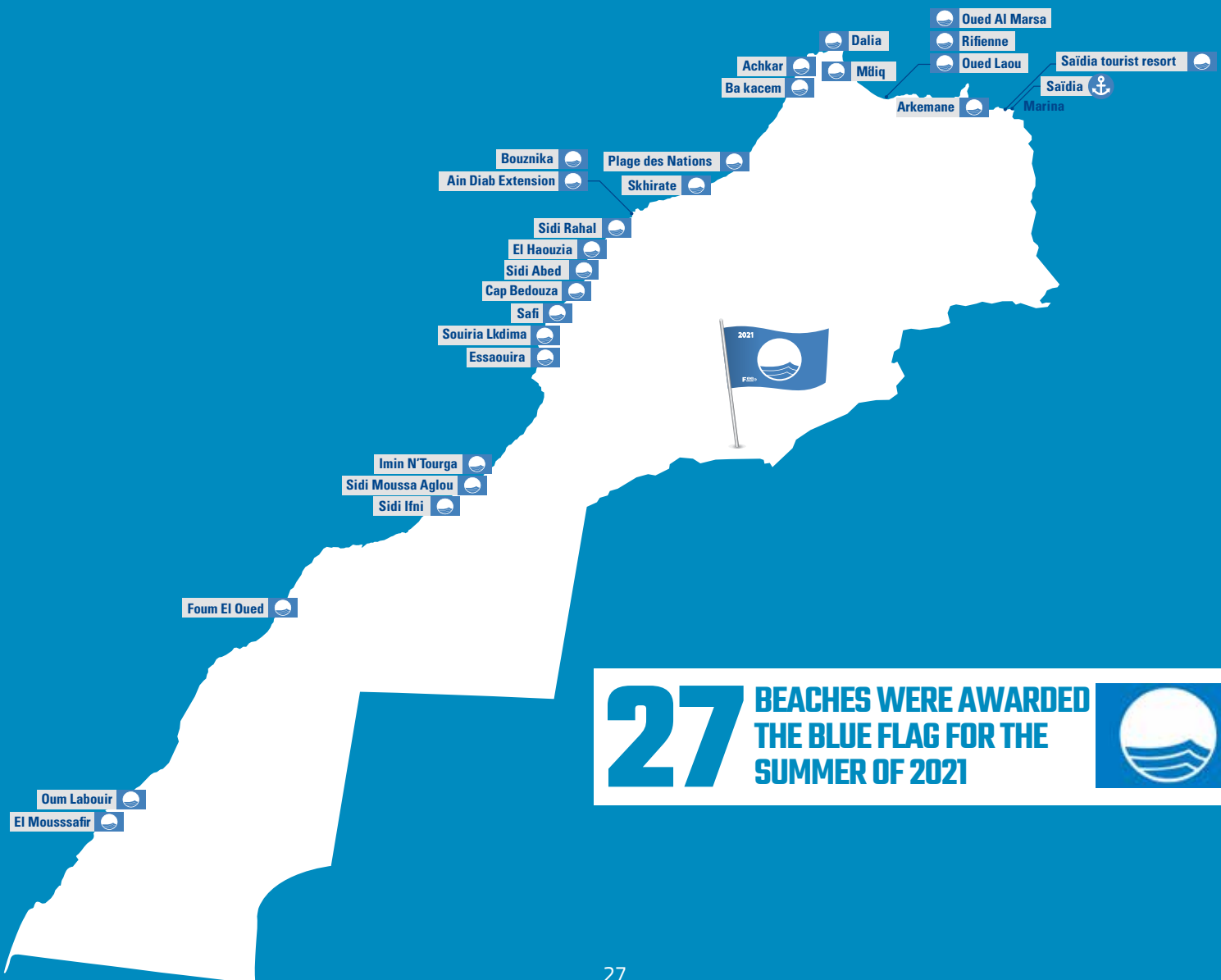
This international label requires not only excellent bathing water quality, but also looks at safety, beach and backshore development, and environmental awareness.

The Blue Flag label leads to an improvement of beach management and prepares communes for additional organizational efforts.

The Foundation provided communes with training or management tools, so that, with the support of the General Directorate of Local Authorities, the relevant ministerial departments and economic partners, they could provide vacationers with a safe environment in which to relax.

Just one marina was awarded the Blue Flag certification, the marina of the tourist resort of Saïdia. The certified marina is a place where marine and environmental protection is a priority. Pleasure boaters have access to careening areas with no discharge into the natural environment, retrieval systems for waste water from boats and special waste recovery areas. Just like communes, Blue Flag marinas offer environmental activities to raise the awareness of pleasure boaters and visitors about the fragility of the environment.

Every year since 2002, the Foundation has been awarding the international Blue Flag label created by the international Foundation for Environmental Education (FEE). It is hoisted on 4,743 beaches and marinas in 47 countries in Europe, Africa, America, the Caribbean or the Pacific. Every year, after the program has carried out extensive preparations and assessments, it is awarded to coastal communes in charge of beach management.



**27 BEACHES WERE AWARDED THE BLUE FLAG FOR THE SUMMER OF 2021**



# *Air and Climate*

30

## **DECARBONIZATION**

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Qualit'Air

Voluntary Carbon Offsetting

Electric mobility

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## **AFRICAN YOUTH CLIMATE HUB**



# Air and Climate

## THE FOUNDATION IS URGING MOBILIZATION FOR DECARBONIZATION

In 2021, the Foundation gave powerful impetus to its commitment to the climate in order to put the national economy on track towards decarbonization.



Whereas the COVID-19 health situation forced meetings to be held remotely, the third high-level meeting was held with participants physically present.

**A**ir and Climate constitute one of the earliest and most productive commitments of the Mohammed VI Foundation for Environmental Protection. Its action served as a laboratory for Morocco and fostered collective awareness about air quality and climate change. This initiative is currently organized by the Air and Climate division, one of the pillars of the Foundation's new strategy for 2020-2030, the 3rd axis of which targets reaching zero carbon emissions by 2050.

In 2021, the Foundation therefore gave the Qualit'Air program fresh impetus. In light of COP26 held in Glasgow in November 2021, where countries were called upon to increase their commitments, the Foundation mobilized its partners to support a transition to carbon neutrality.

A Framework Agreement to decarbonize the Moroccan economy was signed on July 27th, 2021, with the main Moroccan stakeholders :

- The Ministry of Industry and Trade,
- The Ministry of Energy Transition and Sustainable Development,
- AMEE (National Agency for Energy Efficiency),
- IMANOR (Moroccan Standards Institute),

- CGEM (General Confederation of Moroccan Enterprises),
- Mohammed VI Foundation for Environmental Protection.

A Task Force was set up the day after the agreement was signed to move to action. All parties committed to update **the greenhouse gas (GHG) assessment tool**, developed in 2013 with the support of ADEME, as well as **the online CO2 calculator** devoted to transport, so that they could become national reference tools, recognized internationally to support Moroccan actors in this low-carbon transition.

This also involves expanding the Qualit'Air Pact, signed in 2016 with the CGEM alongside COP22 in Marrakech, to civil service, universities and territories, in order for all actors to commit in favor of the climate. The Foundation's Voluntary Carbon Offset scheme, already active with planting trees and providing rural schools with electricity, was expanded to cover renewable energy projects, green mobility and waste management.

The Foundation has begun mobilizing and raising awareness among economic actors about the low-carbon transition, supported by the CGEM and the Embassy of the United Kingdom in Rabat, in light of COP26 in Glasgow..

## OCTOBER 26TH, A HIGH-LEVEL MEETING

Held on the eve of COP26, the high-level meeting held at the Hassan II International Center for Environmental Training, allowed for actors to be mobilized thanks to the presence of key figures.



**Mr. Ryad Mezzour**

Minister of Industry and Trade.



**Ms. Leila Benali**

Minister of Energy Transition and Sustainable Development.



**Mr. Chakib Alj**

President of the CGEM.



**Dr. Andrew Murrison**

British Member of Parliament, British Prime Ministerial Trade Envoy to Morocco.



**H.E. Simon Martin**

British Ambassador to Morocco.

Together, they suggested four meetings to present the Qualit'Air Pact, Morocco's international commitments in favor of the climate, and the campaigns of the United Nations' Framework Convention on Climate Change: 'Race to Zero' and 'Race to Resilience'.

- **The first meeting** to kick things off was held at CGEM headquarters on July 9th, 2021 and was attended by about a hundred participants, in the presence of the President of the CGEM, the British Ambassador to Morocco and the COP26 Ambassador for the Middle-East and Africa region.
- **The second meeting** took place online on September 17th, 2021, and presented the Qualit'Air Pact in detail, how to sign up and the two international COP races: Race to Zero and Race to Resilience.
- **The third meeting** was held on October 26th, 2021, on the eve of COP26 in Glasgow, at the Hassan II International Center for Environmental Training:
  - Mr. Ryad Mezzour, Minister of Industry and Trade,
  - Ms. Leila Benali, Minister of Energy Transition and Sustainable Development,
  - Mr. Chakib Alj, President of the CGEM,

- Dr. Andrew Murrison, British Member of Parliament, British Prime Ministerial Trade Envoy to Morocco and Tunisia,
- H.E. Simon Martin, British Ambassador to Morocco.

Leading Moroccan companies from the industrial, transportation and agricultural sectors expressed their commitment to carbon neutrality at the meeting.

- **The last meeting** was held online on December 13th, 2021 to share company experiences with carbon footprints and decarbonization actions. This mobilization is all the more necessary as the world progresses. The European Union has implemented a Carbon Border Adjustment System, to which Morocco will have to adapt. Just like it will have to meet Article 6 of the Paris Agreement, and aim to implement and oversee cooperation mechanisms between the different actors for a green transition.

# Air and Climate

## TRAINING

The Center's training on Air Quality, destined for members of the national and regional monitoring committees, falls under four themes:

- Air quality and related legal and institutional aspects,
- The link between air quality and climate change,
- Air quality monitoring,
- Atmospheric pollution by sector (industry, town planning, housing and transport).

### Study on Short-Lived Pollutants

The Center organized the presentation of the three phases of the study on atmospheric pollutants with short-lived effects on climate change and health, ordered by Supporting National Planning and Action on SLCPs (SNAP) of the Climate and Clean Air Coalition (CCAC) with the Ministry of Sustainable Development and the UN Environment Programme, at three workshops that were held in March, September and December 2021.

About a hundred people attended this presentation, including 20 in person. An action plan was adopted after this study to combat these pollutants within the framework of Morocco's national strategy for sustainable development and commitments in terms of Nationally-Determined Contributions.

### Climate Funding Training Program

The Foundation launched, in partnership with DGCT, a training program for local authorities. This program is spread across two years (2021–2022). It aims to train local authorities to build investment portfolios for the climate in order to raise relevant funding, whether locally or internationally. The themes, which vary depending on the region, include energy, biodiversity, waste, air quality, mobility, agriculture, water...

It strives to train 600 local stakeholders from the 12 regions of Morocco, that is to say about fifty participants per region (executives, engineers, department heads and technicians from communes, prefectures and regional councils).

It includes:

- webinars to raise environmental awareness and update knowledge about the climate,
- in-person regional practical training workshops lasting two and half days in the 12 regions.

The program was designed throughout the year 2021 and a launching workshop was held on December 7th in the presence of decision-makers and elected officials from the 12 regions. It was immediately followed by two initial workshops:

- Training workshop for the Rabat-Salé-Kénitra region between December

# 7

**NEW STATIONS  
WERE ACQUIRED  
TO REINFORCE THE  
MONITORING NETWORK.**



14th and 16th.

- Training workshop for the Marrakech-Safi region between December 21st and 23rd.

## VOLUNTARY CARBON OFFSET PROGRAM

**24,000  
PALM TREES  
PLANTED**



**1,100  
PALM TREES  
PLANTED**



**40,000 TONS OF CO<sub>2</sub> SEQUESTERED**

### Palm Trees Planted and Rural Schools Provided with Electricity

Since its launch in 2009, the Foundations' Voluntary Carbon Offset program allowed for 40,000 tons of CO<sub>2</sub> to be sequestered by planting 24,000 palm trees and providing 1,100 rural schools with electricity.

In 2021, over 5,000 palm trees were planted and 70 schools were provided with electricity. Ten schools and outbuildings were equipped with solar water heating systems and ten other schools and outbuildings were fitted with LED lighting.

An agreement to transfer the management of facilities installed in rural schools to the Ministry of National Education with the technical support of AMEE was signed.

In 2021, the Foundation decided to expand the projects eligible for its VCO scheme to energy, mobility and waste. It is also directed at companies, administrations and local authorities.

A presentation workshop of the new portfolio of voluntary carbon offset projects was held online in February 2021, with about thirty participants. The results from studying the 10 years of the VCO scheme were produced by the expert tasked with this assessment. The details of the new projects suggested were revealed.

All agreements were renewed on new grounds, and webinars and workshops were organized to raise awareness and inform people about the stakes of decarbonization.



## Solar Mini-Kits Distributed



In 2021, **300 rechargeable and autonomous LED mini-kits with USB ports and other connecting elements** were distributed to school children in rural areas in the El Hajeb and Jerada Provinces. These mini-kits are equipped with torch lights, enabling school children to light up their path to school, with LED bulbs for their reading needs, and with multi-port chargers for all their needs (tablet, cellphone, etc.). They have a battery life of five to six hours after a full charge.

## 500 Digital Tablets Distributed



In 2021, 533 school children from Sidi Slimane and Sidi Kacem, in the regional education authority of Rabat-Salé-Kenitra, received a digital tablet. This is the third year that this campaign has been carried out in partnership with the Ministry of National Education, Preschool and Sports. Since 2020, 1,533 digital tablets were distributed to children in rural schools in remote provinces, which corresponds to a target of 500 tablets per year.

These tablets enabled these students to attend classes remotely during the period of health restrictions caused by the COVID-19 pandemic. They contain the curricula of the Ministry of National Education, Preschool and Sports, as well as the sustainable development awareness-raising and educational content created by the Hassan II International Center for Environmental Training. The tablets are equipped with solar charging kits, a sim card to connect to the internet and a memory card for the lessons.

These tablets can be recharged directly with the solar charging mini-kit, or with the solar panels often fitted to the schools of these students within the framework of the Voluntary Carbon Offset scheme.

## ELECTRIC MOBILITY

Since 2018, the Foundation has been rolling out an electric mobility pilot project in Marrakech, in partnership with IRESEN (the Research Institute for Solar and New Energies) and the Green Energy Park, a testing facility, research center and training platform for solar energy in Ben Guerir. The project aims to begin the long-term replacement of the city's very large fleet of motorcycles and three-wheelers, which run on gasoline, most often a gasoline blend, which is highly-polluting. In this pilot stage, university students were targeted. A regional committee and a technical commission were set up to monitor the project and the local authorities involved.



### Local bikes

Bikes produced by a Moroccan start-up in Tangier will be the ones suggested within the framework of the electric mobility action plan.

# Air and Climate

## AFRICAN YOUTH CLIMATE HUB, A FLOURISHING PROGRAM

The activities of the African Youth Climate Hub are growing. The program fits into the African and global Climate landscape.

The first e-learning module was uploaded.



**A**YCH is an initiative officially launched in New York by Her Royal Highness Lalla Hasnaa at the Climate Action Summit on September 21st, 2019. It is supported by the YOUNGO network, the official children and youth constituency of the UNFCCC, the OCP group and the Mohammed VI Polytechnic University of Ben Guerir.

It is first and foremost an open network, covered by the media, which managed to bring together a community of 10,000 young people on the continent.

It's also a driver of initiatives to strengthen the fight against climate change.

### Incubation Program

AYCH is an initiative officially launched in New York by Her Royal Highness Lalla Hasnaa at the Climate Action Summit of the Secretary-General of the United Nations on September 21st, 2019. It was founded in partnership with the YOUNGO network, the children and youth official constituency of the UNFCCC, the OCP group and the Mohammed VI Polytechnic University of Ben Guerir.

The African Youth Climate Hub relies on a physical component provided by the Hassan II International Center and the Mohammed VI Polytechnic University of Ben Guerir and a digital component which aims to:

1. Facilitate networking and connections, between young people and between generations.
2. Provide concrete support for young people's projects focusing on measurable impact, scalability and reproducibility on the continent and in the world, including in the context of NDCs.
3. Collect, develop and spread the knowledge that we build together with young people, based on the needs, opportunities and skills of young people.

4. Celebrate and highlight young people's stories, leadership and innovation.
5. Collect and provide data about and for young people, and mobilize the public in favor of the climate and important synergies between Agenda 2030 and Agenda 2063.
6. Identify and promote green job and training opportunities for young people, including in the context of fair transition.

### E-learning

Reinforcing the skills and knowledge of young Africans on climate change is one of the main objectives of the African Youth Climate Hub. For that, it implemented an e-learning program in 2021, with a view to build this program together with the youth for whom it is destined. Young people can express their training needs, but also provide expertise.

Three main themes were selected for the first MOOC (Massive Open Online Course) of the e-learning program:

1. Climate knowledge
2. Water consumption and management
3. Renewable energy

The first module on climate knowledge was focused on climate change in Africa. To understand the stakes, this first module offered five lessons:

1. Climate change: myth or reality,
2. Climate change and the SDGs,
3. Climate change and development in Africa,
4. Climate threats in the Sahel,
5. Africa's proactive approach in the face of climate change.

This first module was put on line in October 2021, to be launched at COP26 in Glasgow..

# AYCH AT COP26

Young people supported by AYCH went to COP26 in Glasgow from October 28th to November 12th to take part, as well as to COY16, where they were particularly active, organizing or joining many events.



Workshop organized within the framework of COY16 in partnership with UNESCO's YoU-CAN.



Side Event organized in the Green Zone of COP26 on education for Climate.

Developing young people's capacity to innovate in order to fight climate change and promote sustainable development thanks to climate education - UNESCO's YoU-CAN as organizing partner	Morocco Pavilion – Blue Zone	November 3rd, 2021
Dialogue between the United Nations system and Moroccan youth to identify and implement innovative solutions for climate change	Morocco Pavilion – Blue Zone	November 11th, 2021
Renewable energy and energy efficiency (decarbonization): Supporting economic actors in a low-carbon climate-resilient transition – Ministry of Trade, Industry, Green and Digital Economy, Ministry of Energy, Mines and the Environment as partners	Morocco Pavilion – Blue Zone	November 4th, 2021
Innovative and sustainable initiatives to speed up the implementation of sustainable development goals and to give young people the means to take climate action. UNEP as a partner	Morocco Pavilion – Blue Zone	November 5th, 2021
Promoting investment in ocean science for climate action – UNESCO's Intergovernmental Oceanographic Commission as partner	Morocco Pavilion – Blue Zone	November 6th, 2021
AYCH virtual exhibition	Virtual	October 31st or November 6th, 2021
Linguistic wealth: a challenge for youth climate action? UNESCO YoU-CAN as co-organizer	Francophone Pavilion – Blue Zone	Date
Plenary session co-organized with UNESCO	COY16	Date
Workshop on the engagement of climate-aware African youth	COY16	Date
Youth empowerment and climate education: the key to achieve our climate and environmental goals – co-organized with EARTHDAY.ORG	UNFCCC parallel event zone	November 3rd, 2021

## Cooperations

The visibility and maturity of the program enable it to build and strengthen collaboration. In 2021, three partners were approached :

- The Moroccan Agency for International Cooperation, to make AYCH visible on the Agency's alumni portal.
- UNEP for reinforced cooperation.
- UNESCO, with joint work on three topics: the assessment of UNESCO's strategy to face up to climate change, a report on initiatives and knowledge of climate action in the Arab world, and finally cooperation with the Youth UNESCO Climate Action Network.

## Events organized by AYCH

- IUCN World Conservation Congress — Global Youth Summit (parallel event)
- Official parallel event of the United Nations High-Level Political Forum on Sustainable Development: Education for Sustainable Development, a key lever for an inclusive, equitable and resilient Africa in the COVID-19 and post-COVID-19 pandemic era
- African youth debate — Conference of African youth on climate change

(Side Event)

- Africa Climate Week: from African youth knowledge about the climate to solution-drivers for climate action (Side Event)..

## Events in which AYCH participated

Global Center on Adaptation	▪ Youth call to action on adaptation	January 2021
NDC Partnership	▪ Forum on youth engagement	July 26th, 2021
Mohammed VI Foundation for Environmental Protection	▪ Accessible ocean	June 27th and 28th, 2021
Mohammed VI Foundation for Environmental Protection and Oxford University	▪ In light of COP27: African leadership in global climate action	July 27th, 2021
76th UNGA Climate Summit	▪ Side Event World Youth Group	September 21st, 2021

# Historic gardens and Safe-guarding and Developing the Marrakech Palm Grove

## **SAFEGUARDING AND DEVELOPING THE MARRAKECH PALM GROVE**



## **LAHBOUL GARDEN**



## **GHABAT CHBAB**



## **EXOTIC GARDENS OF BOUKNADEL**





# SAFEGUARDING AND DEVELOPING THE MARRAKECH PALM GROVE

The program has, over fifteen years, halted the decline of the Palm Grove. It strives to sustainably include local populations and to preserve agriculture.



**613,478**  
YOUNG PALMS PLANTED SINCE THE  
START OF THE PROGRAM IN 2007

**S**ince its launch in 2007, there have been many facets to the Marrakech Palm Grove Safeguard and Development program, such as environmental education and awareness-raising, water management, carbon sequestration through planting, the inclusion and galvanization of local populations through agro-ecology, the protection of biodiversity and of resources and sustainable tourism.

This multifaceted initiative, based on the mobilization of local actors, reversed the deterioration of the Palm Grove and slowly but steadily began restoring it. Mindsets have changed due to efforts to raise awareness locally.

Moreover, this local work is in line with the Sustainable Development Goals (specifically goals 1, 4, 8, 12, 13 and 15).

## STRENGTHENING CAPACITIES OF LOCAL COMMUNITIES

In 2021, the program renewed its support of local populations, which had been seriously affected by COVID-19 in 2020. The program continued to support the local population's role in the safeguard of the Palm Grove. It worked to strengthen the capacities of local communities in terms of biodiversity preservation and climate action.

Two types of communities were targeted: palm grove farmers and local actors belonging to the local program monitoring committee. The impact of COVID-19 on tourism restricted the work of the Foundation and of its partners in favor of these communities in 2021.

## Farming Community of the Palm Grove

A series of three capacity-building workshops on sustainable agriculture and the preservation of biodiversity was conducted to relaunch the sustainable agriculture dynamic underway before the pandemic. The themes of this series included:

- The role of biodiversity in an ecosystem to reduce the impact of pests in farming.
- Identifying the main invasive plants of the crops in the Marrakech Palm Grove.
- Using agrobiodiversity against invasive plants.

This series, which was held on a family farm of one of the Palm Grove's farmers, was based on the territorial laboratory of environmental training in the region of Marrakech-Safi, which was used as a pilot in 2021 in the roll-out of the Center's regional laboratories. An expert on health monitoring, food safety and agro-ecological practices was called upon.

The three workshops, which were held on March 31st, April 8th and December 16th, 2021 brought together an average of 23 farmers. The Young Reporters for the Environment attended in order to produce photo and video reports for the 2020-2021 competition of the YRE program, the theme of which was, fittingly, biodiversity.

In the 3rd workshop, farmers from the Marrakech-Safi region who practice permaculture came to share their experiences and exchange good practices.



The agro-ecology program trains farmers and connects them to online resources to learn the trade and sell their produce.

At the end of the series, participants recommended the work helping to sell agricultural products that was started at the beginning of the project be continued, including by developing digital tools. They also requested the adaptation of guides to their literacy level, the promotion of exchanges and the strengthening of the relationship between the cooperative and the agricultural services of the State.

### Local Actors, Members of the Program's Local Committee

An informational workshop to exchange and update knowledge was organized on December 20th, 2021 in Marrakech for about twenty local stakeholders. It was supported by the territorial laboratory of the Hassan II International Center for Environmental Training, and took place in the Marrakech Palm Grove Observatory. Participants were from local authorities, civil service, associations and research.

The workshop was an opportunity to exchange knowledge and to present ecosystems and climate change, as well as the ways to preserve them in Marrakech, including with nature-based solutions.

Participants issued about twenty recommendations, such as conducting studies on the biodiversity of the palm grove, classifying Oulja as a Site of Biological and Ecological Interest and planting palm trees.

## COOPERATIVE

### Marrakech Sustainable City Project with UNDP

UNDP Morocco, within the framework of the partnership signed with the Foundation in 2020, integrated the 'Marrakech Sustainable City' project which begins in 2022, into its program for safeguarding and developing the Marrakech Palm Grove.

This integration involves pertinent actions for the Marrakech Palm Grove and the production of information on repopulating palm groves and on biodiversity.

The Marrakech Sustainable City project is multi-dimensional, addressing biodiversity, pollution, the living environment, greenhouse gases and land restoration.

The possibilities for collaboration were examined at a meeting held on September 23rd, 2021. They primarily concerned support for the classification process of the Award within the framework of Law 22-09 on protected areas, the development of a geographical information system on the Palm Grove, the management of waste and illegal waste dumping, and electric mobility.

# Historic gardens

## MEKNES REDISCOVERS ITS LAHBOUL GARDENS

The splendor and ancient trees of these gardens created in 1906 have been restored.



### RENOVATION FROM TOP TO BOTTOM

In 2022, the inhabitants and visitors of Meknes will rediscover the pleasure of strolling through the Lahboul Gardens, a large area of five hectares at the heart of the city. Its ancient trees and palms provide shade, and it features magnificent terraces built into the slopes of the Oued Boufekrane, giving it the air of a vertical garden. The last terrace, at its lowest point, offers across 400 meters a plunging view over the valley, at the bottom of which the river flows.

This garden, created in 1906, is the 7th to be restored by the Foundation within the framework of its program to Restore Historic Gardens and Parks. The restoration works for this remarkable complex, belonging to the city chosen by Sultan Moulay Ismail as his capital, were spread over five years. They followed the Foundation's cardinal principle in its renovation: respect the place's history and the intentions of its creators. So the meticulous planning of the terraces was respected and reinforced. Their coherent alignment is arranged in tiers parallel to the river and is astonishingly reminiscent of the terrace created in Meudon, of similar length, built in 1690 by André Le Nôtre, a gardener to Louis XIV. This layout lets you appreciate the full length of the valley, while offering diagonal views over a great landscape and the Saiss Plain to the north.

### A PARTNERSHIP INITIATIVE

A renovation agreement was signed on May 9th, 2017 with local institutional partners:

- DGCT (General Directorate of Local Authorities);
- Meknès Prefecture;
- Meknès Commune;
- Regional Council of Fès-Meknès;
- The High Commission for Water and Forests and the Fight against Desertification. The works also involved refurbishing the garden paths, installing fountains and basins, restoring open-air terraces, developing the aviaries, rehabilitating plantations, etc.

### HISTORIC GARDENS RESTORED BY THE FOUNDATION

- Arsat Moulay Abdeslam in Marrakech (2005)
- Bouknadel Exotic Gardens (2005)
- Jnane Sbil in Fès (2010)
- Ermitage in Casablanca (2011)
- Jardin Errahma in Dakhla (2019)
- Lahboul in Meknès (2021)
- Ghabat Chbab (2021)





### Trees

The lines of ancient trees were preserved and enhanced.

### Signage

Signage was entirely rethought and redone.



### Music Pavilion

Located on the big square of the Jacarandas, reminiscent of the historic pavilion, can accommodate little events on music, dance or art.



### Educational Trail

Gardens are always, in the spirit of the Foundation, places to raise awareness about environmental protection. Accordingly, an educational trail is currently being implemented. It is made up of information and awareness points, the design of which was the subject of a competition of ideas launched with students from the National School of Architecture of Fes, the results of which were settled on at the end of 2021. The works will be completed in 2022.



### Games

The games brightening up the garden, like the chess set, turn it into a recreational area.

# Historic gardens

## **GHABAT CHBAB** A RESTORED OLIVE GROVE AT THE HEART OF MARRAKECH



### **160 Hectares of Gardens Restored**

By starting the restoration of Ghabat Chbab, the olive grove of independence, in Marrakech, in 2014, the Foundation was undertaking one of the biggest historic gardens projects it had ever conducted. The area planted in the fifties, after independence, is big: 400 ha. It's no doubt one of the reasons why the urban Commune of Marrakech and the Domains, which were in charge of this big area, found it difficult to maintain. Whereas it was just on the outskirts of the town when it was created, it is now located at its very heart. Local authorities chose to consecrate it as a green area for relaxation, given how attached Marrakshis were to this urban quasi-forest, in which they had gotten used to having picnics (nzaha), taking strolls and doing sport.

### **A Five-Way Agreement**

In 2014, the Mohammed VI Foundation for Environmental Protection signed an agreement with four important partners for the project:

- The urban Commune of Marrakech;
- The Wilaya of Marrakech-Safi;
- The State Domains Directorate;
- DGCT (General Directorate of Local Authorities)..

The partnership enabled the significant funds necessary for restoring such a large area to be mobilized.

In this Saharan town, where aridity makes life hard for plants, the first steps involved preserving the existing olive grove of 120 ha. By restoring or digging wells, fitting them with solar-powered pumps, and creating reservoir basins, as well as a surface and underground irrigation system, it was possible for the olive trees to be safeguarded and put back into production, in order to resume their natural function, to produce olive oil and table olives.

The second part of the project involved closing this vast area and fitting it with sports and relaxation facilities, in order to consolidate its original purpose. The olive grove was also equipped with all the urban furnishings necessary for its visitors to relax, marker signs, solar lighting and the indispensable pergolas and shade structures.

Moreover, the underground irrigation systems created several centuries before were preserved, even though they no longer worked due to the depletion of the water table.

Finally, faithful to its mission of environmental education and awareness-raising, the Foundation created an educational trail to explain the history of the park, its olive trees and Khetaras, and to disseminate a certain number of messages about environmental protection..

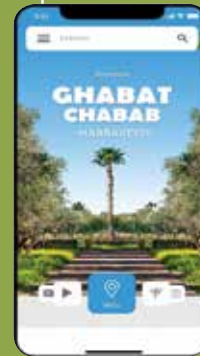
### Educational Trail

The educational trail that raises visitors' environmental awareness was created after a competition with students from the National School of Architecture in Rabat.



### Raising Awareness

A Ghabat Chbab app was developed for smartphones in order to create a visitors' guide to the site and to increase the general public's awareness.



### Olive Grove

1,160 olive trees were planted to recreate the original lines. Olives are harvested and pressed to produce olive oil.



### Relaxation

A 5.7 km walking path was created in the olive orchard, with lit-up areas and signage everywhere to both guide and inform visitors.



### Sport

Ghabat Chbab is traditionally a meeting place for athletic people. Fields have been created, as well as a 2 km sports trail peppered with gym apparatus.

# Historic gardens and Parks

## BOUKNADEL EXOTIC GARDENS



**T**he Foundation has just finished its seventeenth year of managing the Bouknadel Exotic Gardens since restoring and reopening them to the public in 2005. It has been supported in its preservation of this historic heritage by DGCT (General Directorate of Local Authorities), the prefectural council of Salé, the Salé Prefecture and a civil society organization. These three partners are bound to the Foundation through a three-year agreement on the management of the Exotic Gardens, renewed every 3 years.

In 2021, the Exotic Gardens welcomed just 67,310 visitors, 750 of which were children who benefited from 24 guided tours representing 9 schools. The visitor numbers, already impacted by a reduced parking capacity, experienced a sharp decline due to COVID-19.

The pandemic led the Gardens to implement many protective measures for visitors and personnel: registering at the entrance, temperature screening, wearing a mask, hand sanitizer dispensers, tests for the personnel...

### MAINTENANCE AND DEVELOPMENT

The maintenance of the existing infrastructure (irrigation system, lighting system, bridges and walkways, buildings, cabins, pagoda, educational trails and walking paths, the aviary and the vivarium) was carried out like every year in accordance with the specifications set for the conservation and development of the gardens' heritage. The well was cleaned, and its pump and generator were repaired, as well as the water heater. The nursery received a new plastic tunnel. The visitor trails were marked up in both directions (entrance and exit).

The entrance pergola of the Gardens was replaced with a new one. The two bridges in the Brazil Garden were repaired and reinforced with new cables. The trellises of the Congolese Garden were restored. All the buildings of the gardens were repainted. Ponds were cleaned, and the limestone in the fountain basins was removed. Finally, a solar water heater was installed for the personnel, which also received complete work uniforms.


**17**

**THE FOUNDATION HAS BEEN  
MANAGING BOUKNADEL EXOTIC  
GARDENS SINCE 2005, THAT IS TO  
SAY 17 YEARS**

## ECOLOGICAL DISPLAY

Every year, the Gardens further develop their environmental education and awareness-raising. The five interactive kiosks of the educational trail were updated and the equipment was renovated. They present simple everyday eco-gestures to reduce everyone's ecological footprint on the environment.

The educational program offered to school groups and adults was renewed. Increasingly varied activities are offered to visitors: but this year, only the Voluntary Carbon Offset program and the treasure hunt were offered before the COVID-19 lockdown.

The Gardens continue to sort and process the waste they produce and to recycle wastewater.

The bird collection experienced the usual yearly births of mallard ducks, Brazilian teals, mandarin ducks, golden pheasants, common pheasants, budgerigars, lovebirds, diamond doves, cockatiels and finches.

The goldfish, koi carps and mosquitofish, which constitute one of the public's favorite attractions, spawned like they do every year.

The Exotic Gardens' nurseries' abundant production, which surpasses the needs for maintenance, benefits neighboring communes and green areas in schools. The Gardens nonetheless purchased 1,200 flowering plants for the winter season, including 600 chrysanthemums, 300 purslanes and 300 dimorphothecas.

# Appendices

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# Appendices

## BOARD OF DIRECTORS



The Mohammed VI Foundation for Environmental Protection

### President

**Her Royal Highness  
Princess Lalla Hasnaa**

### Executive President

Lahoucine Tijani

### General Secretary

Nouzha Alaoui

### Founding Members

CGEM  
OCP  
Royal Air Maroc  
Bank of Africa - BMCE Bank  
GPBM  
Akwa Group  
Maroc Telecom  
Cooper Pharma  
Shem's  
Al Mada Foundation  
ONE  
ANP  
ONMT  
BCP  
Holmarcom  
Association Professionnelle des Cimentiers du Maroc  
CDG  
Crédit Agricole

### Permanent Members

Ministry of Energy, Mines, Water and Sustainable Development.

Ministry of National Education Vocational Training Higher Education and Scientific Research.

General Directorate of local Authorities (DGCL)



# PARTNERS

- CGEM (General Confederation of Enterprises of Morocco)
- OCP (Cherifian Office of Phosphates)
- ONEE (National Office of Water and Electricity)
- ANP (National Ports Agency)
- Royal Air Maroc
- BMCE Bank
- GPBM
- AKWA Group
- Maroc Telecom
- Cooper Pharma
- Maroclear
- Shem's
- Al Mada Foundation
- ONMT (Moroccan National Office of Tourism)
- Banque Centrale Populaire
- HOLMARCOM Group
- APC (Professional Association of Moroccan Cimentiers)
- DGCL (Directorate General of Local Authorities)
- Ministry of Energy, Mines, Water and the Environment
- Veolia Environnement
- JAMA I Group
- AFD (French Development Agency)
- FFEF (French Facility for Global Environment)
- CGI
- Caisse de Dépôt et de Gestion
- Banque populaire Foundation for Education and Culture
- ANAPEC
- Ministry of National Education
- Agency for the Promotion and Economic and Social Development of the Oriental Region
- LYDEC
- Agency for the Promotion and Economic and Social Development of the prefectures and provinces of the south of the kingdom
- MED Z
- Agency for the Development of the Bouregreg Valley
- Suez Environnement
- Tangier Mediterranean Special Agency
- Al Omrane
- Nestlé Morocco
- Agency for the Promotion and Economic and Social Development of the prefectures and provinces of the north of the kingdom
- UNDP (United Nations Development Program)
- UNEP (United Nations Environment Program)
- Amendis-Tangier
- Amendis-Tetouan
- ONCF (National Railways Office)
- Crédit Agricole du Maroc
- FEE (Foundation for Environmental Education)
- ADEME (Environment and Energy Management Agency)
- ADM (Motorways of Morocco)
- Barid Al Maghreb
- CimENTS du Maroc
- MAMDA-MCMA Group
- ISESCO
- CDG Foundation
- Marchica MED Lagoon Development Company
- GIZ (German Corporation for International Cooperation)
- ADDOHA Group
- ONDA (Moroccan Airports Authority)
- SNEP (National Company of Electrolysis and Petrochemistry)
- AMEE (Moroccan Agency for Energy Efficiency)
- FNSM (National Federation of Scouting Organizations in Morocco)
- Jorf Lasfar Energy Company (TAQA)
- AGNELLI Foundation
- Asment Temara
- BMCE Bank Foundation for Education & Environment
- Marsa Maroc
- FUNCI (Islamic Culture Foundation)
- INRA (National Institute of Agricultural Research)
- Imperial Tobacco Morocco
- REDAL
- Lafarge Morocco
- Prince Albert II of Monaco Foundation
- GPM (Petroleum Group of Morocco)
- HCEFLCD (High Commission for Water, Forests and the Fight against Desertification)
- FOURTOU Foundation
- SNRT (National Society of Television and Broadcasting)
- FRMYV (Royal Moroccan Yachting Federation)
- FMSAR (Moroccan Federation of Insurance and Reinsurance Companies)
- INRH (National Institute of Fisheries Research)
- OFPPT (Office of Vocational Training and Employment Promotion)
- Société Générale
- Theolia
- IsDB (Islamic Development Bank)
- IUCN (International Union for Conservation of Nature)
- UNESCO
- Marrakech Palm Grove Observatory
- ANEL (National Association of Elected Officials from the Coast)
- Netherlands Embassy in Morocco
- Permanent Secretariat of WEEC
- Mediterranean Action Plan
- Conservatoire du Littoral (Coastal Protection Agency)
- AECID (Spanish Agency for International Development Cooperation)
- Secretariat of the United Nations Framework Convention on Climate Change
- Elche Town Hall
- Agrisud International
- Norsys Foundation
- MIOECSDE
- Citibank
- FNIH (National Federation of the Hotel Industry)
- CIH
- BMCI
- Attjariwafabank
- Holcim
- Hassan II Institute of Agriculture and Veterinary Medicine
- Ministry of Equipment, Transport and Logistics
- RMA WATANYA
- Jamain Baco Group
- Vivo Energy Morocco
- ONDE (National Observatory for the Rights of Children)
- "Green Apple" Awards
- AESVT (Moroccan Association of Earth and Life Science Teachers)
- RMC (Rhône Méditerranée Corse Water Agency)
- RADEEMA
- Alcatel
- SDS (Saïdia Development Company)
- ECOSOC (Economic and Social Council)
- FAO (Food and Agriculture Organization)
- ALSTOM Foundation
- Goi Peace Foundation



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