

Environment Directorate

Environment Policy Committee

Working Party on Environmental Performance

Promoting environmental democracy in Morocco

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Abbreviations and acronyms

UNECE	United Nations Economic Commission for Europe
CNEDD	Charte nationale de l'environnement et du développement durable - National charter for the environment and sustainable development
CRMEF	Centre régional des métiers de l'éducation et de la formation - Regional centre for education and training
DPSIR	Drivers, pressures, state, impact and response
EIA	Environmental impact assessment
SEA	Strategic environmental assessment
HCP	Haut-Commissariat au plan - Higher Planning Commission
LAWF	Law and Water Forum
SDG	Sustainable Development Goal
OGP	Open Government Partnership
OECD	Organisation for Economic Co-operation and Development
ONEDD	Observatoire national de l'environnement et du développement durable - National Monitoring Centre for the Environment and Sustainable Development
NGO	Non-governmental organisation
OREDD	Observatoires régionaux de l'environnement et du développement durable – Regional Monitoring Centre for the Environment and Sustainable Development
PRTR	Pollutant Release and Transfer Register
SIREDD	Systèmes d'information régionaux sur l'environnement et le développement durable – Regional Information Systems for the Environment and Sustainable Development
SNDD	Stratégie nationale de développement durable – National Sustainable Development Strategy

Summary, assessment and recommendations

A significant opportunity to promote environmental democracy

1. The promotion of good governance in the 2011 Constitution gave a substantial boost to open government reforms in Morocco, leading to numerous initiatives concerning transparency, integrity and citizen participation that were designed to support effective and accountable public action. This undertaking was further marked in 2018 by Morocco's decision to join the Open Government Partnership and to adhere to the Open Government Recommendation of the Organisation for Economic Co-operation and Development. These conditions provide a significant opportunity for rigorously advancing the development and implementation of policies relating to environmental democracy. The environment is referred to in the *revised National Action Plan of Open Government Morocco* of 27 September 2019 (the Action Plan), Commitment 5 of which establishes a mechanism for environmental data sharing. Several initiatives are already underway on access to environmental information as well as on public participation in environmental decision making and environmental education.

Progress in access to information despite implementation challenges

2. Since 2011, Moroccan citizens have a constitutional right to access information held by public bodies. Law No. 31-13 on the right to access information adopted in February 2018 entered into force in March 2020. Framework Law No. 99-12 on the National Charter for the Environment and Sustainable Development (CNEDD - Charte Nationale de l'Environnement et du Développement Durable) reinforces this right with regard to the environment, granting every citizen the right of access to reliable and relevant environmental information. Nevertheless, the regime for obtaining access to information is still being developed, making it difficult to assess. The Bali Guidelines for the Development of National Legislation on Access to Information, Public Participation and Access to Justice in Environmental Matters (Bali Guidelines) are an important potential resource for providing inputs into the formulation of implementing decrees for the environmental regime with regard to, for example, the interpretation of exceptions to the right to information and the level of detail of information to be provided upon request.

3. The Department of Environment in the Ministry of Energy, Mines and Environment (the Department of Environment) is carrying out important work to comply with the proactive publication provisions of the new regime, such as disclosing as much information as possible by all available means, in particular electronically. Concerning the commitment in the Action Plan to establish a mechanism for environmental data sharing, Regional Information Systems for the Environment and Sustainable Development (SIREDD - Systèmes d'Information Régionaux sur l'Environnement et le Développement Durable) are in place in three regions and are being deployed in nine others. There are plans to open a national portal to the public in 2022 in order to address problems of access to information at the national and regional levels.

4. However, there are several challenges facing the implementation of the SIREDD, including capacity building for regional partners and data modelling and aggregation, which are important in facilitating the production and gathering of information at the regional level. At present, the SIREDD are targeting a total of over 400 indicators, which is very ambitious and complicates the production and

gathering of information at the regional level. Morocco publishes reports on the state of the environment at the national and regional levels, and the SIREDD should help both facilitate their preparation and increase their frequency. Additional measures could be considered to this end. Access to information on environmental behaviour and environmental impacts of companies remains limited; Morocco does not yet have a public pollutant release and transfer register.

Increasing public consultation remains a priority

5. Public participation is enshrined as a "defining criterion" for the development and implementation of policies, strategies, programmes and action plans in the CNEDD. The government, regions and other local and regional authorities commit to ensuring the participation of the population and non-governmental organisations (NGOs) in environmental decision making. However, increasing public consultation remains a priority in Morocco. The current environmental impact assessment (EIA) system provides for a public inquiry for each project subject to an EIA, but it faces some serious challenges, such as regulatory limitations on the information to be included in the public consultation file, lack of accountability for taking into account the comments and proposals of the population concerned, and sporadic use of inquiries. There is also the impact of difficulties related to the process as a whole (omission of several categories in the list of projects subject to EIA, insufficient importance attached to the analysis of alternatives, including the "zero alternative", lack of a critical threshold for projects subject to EIA). A bill designed to revise the current law on EIA and introduce strategic environmental assessment (SEA) has been submitted to parliament for consideration and adoption, but it will not in itself address the issue of public participation in the decision-making process. Accordingly, forthcoming implementing decrees represent an important opportunity to adopt good practices regarding public involvement in both SEA and EIA.

6. A centralised site hosted by the Government's General Secretariat guarantees the transparency of preliminary drafts of environmental laws and regulations and invites the public to comment on them, but proactive measures are needed to promote public involvement in developing legislation, which remains low. Even though civil society is heavily involved in environmental education, participation by associations in decision-making needs to be increased.

A wealth of activity in environmental education but a lack of vocational training

7. Building eco-citizenship through educational, awareness-raising and communication programmes is one of the strategic priorities of the National Sustainable Development Strategy (SNDD - Stratégie nationale de développement durable), which provides for a comprehensive set of measures to this end. The extent of the planned measures reflects work in progress, even if there is already a wealth of activity in environmental education. Environmental education programmes remain extracurricular due to the lack of a formal basis in the policy orientation and planning documents for national education (and in keeping with the mandate of the Directorate responsible for "school life", which deals with environmental education and sustainable development in the Ministry of National Education). This separation from the formal curriculum prevents thorough and systematic integration of environmental education into training cycles. It also risks hampering the ambition and systematic implementation of the measures referred to in the SNDD.

8. The Department of Environment conducts training for facilitators of environmental clubs in schools, but there is no in-service training to promote environmental integration in schools. This aspect also seems to be missing from the training of future teachers provided by Regional Centres for Education and Training, which hinders the implementation of existing measures. More generally, there are no training initiatives in environment-related professions. The SNDD identifies several ways to strengthen communication programmes and develop the use of information and communication technologies to raise public awareness of environmental protection. These measures appear to constitute a sound basis for further progress in this area. It is also important to institutionalise environmental aspects of higher education.

Box 1. Recommendations

Access to environmental information

- Use the Bali Guidelines and international good practices to support the implementation of the regime for accessing to environmental information.
- Give priority to building capacity of regional partners and the public consistent with Bali Guideline number 7, ensure sufficient funding to raise public awareness on the right to access environmental information, optimise the use and operation of the SIREDD and facilitate access to information held by regional partners.
- Review the possible modelling and aggregation of indicators included in the SIREDD to facilitate the production and gathering of information at the regional level, comparison between regions and the use of indicators in decision making.
- Strengthen the availability and quality assurance of data compiled within the framework of the SIREDD and put in place standard validation procedures in close collaboration with data producers based on good international practice.
- Increase the frequency of reports on the state of the environment, expand the information available online, focus analysis on priority sectors and topics, use a reduced number of key indicators that are easy to update and make it possible to communicate more regularly on the main trends.
- Consider creating a pollutant release and transfer register and attaching it to the SIREDD to promote access to information on environmental behaviour and impacts of economic entities.
- Consider adhering to the OECD's consolidated Recommendation on environmental information and reporting (after its planned adoption in December 2020).

Public participation in environmental decision making

- Ensure that the principles set out in the Bali Guidelines, such as providing maximum information, informing the public of the account taken of its comments and proposals, proactively seeking public participation and ensuring genuine public input (possibility of analysing alternatives, including non-implementation of projects), are reflected in implementing decrees of the law being drafted to introduce SEA and revise the EIA regime.
- Pursue the update of the list of projects subject to EIA as provided for under the draft law and exclude from the process small projects with little environmental impact so as to extend potential public influence in environmental assessment and make public participation more effective and meaningful.
- Take proactive steps to promote public participation in the preparation of environmental laws, including administrative measures (appointing an entity responsible for enhancing stakeholder input into environmental decisions) and substantive measures (organising public debates, seminars and other forms consultation).
- Pursue efforts to build capacities and processes for the participation of associations in decision making as provided for in the SNDD, building on close collaboration with civil society in environmental education. To begin with, complete the proposed creation of a database identifying associations working in the field of the environment.

Environmental education

- Pursue formal integration of environmental education into the strategic planning of the national education system (including higher education) to better implant and develop environmental

education programmes in the curricula, and improve prospects for collaboration between the Department of Environment and the Ministry of National Education.

- Provide regular and ongoing training to eco-facilitators to ensure the quality and relevance of environmental education in environmental clubs.
- Pursue the integration of environmental education into the basic training of future teachers in Regional Centres for Education and Training.
- Continue to strengthen and update preliminary training initiatives in environment-related professions to ensure a nationwide concerted approach and better implant environmental issues in vocational training.
- Pursue implementation of the measures laid out in the SNDD to strengthen communication plans and programmes and develop the use of information and communication technologies.
- Examine the possibility of strengthening and expanding activities of NGOs in the field of environmental education and awareness raising in view of the current fruitful collaboration in this area.

Introduction

9. Morocco, a member of the Open Government Partnership (OGP) since April 2018¹, is working to implement 18 commitments to transparency, integrity and citizen participation within the framework of its *revised National Action Plan of Open Government Morocco* of 27 September 2019 (the Action Plan) (Ministère de la Réforme de l'administration et de la Fonction publique du Maroc, 2019^[1]). Commitment 5 of the Action Plan targets, in terms of access to information, “establishing a mechanism for environmental data sharing (SIREDD)”. Commitment 5 is the only one to refer clearly to the environmental component, but other commitments are also relevant, such as Commitment 4 “Increasing the publication and reuse of open data”. Several commitments on “Citizen participation” could also be used to strengthen environmental democracy in Morocco.

10. The OECD supports Morocco in the implementation of its open government reforms within the framework of the MENA-OECD Governance Programme (OECD, 2019^[2]). The G7 Deauville Partnership project of support for open government in order to build confidence in the Moroccan administration has several objectives, including support for increased co-operation between the authorities and civil society in the implementation and monitoring of the Action Plan, including through an OECD review on public participation in environmental decision making. The present report responds to this objective. It aims to support the development and implementation of environmental democracy policies in Morocco.

11. Along with access to information, environmental education is a key factor in ensuring effective public participation in environmental decision-making. Accordingly, this report examines three aspects of environmental democracy: access to environmental information, public participation, and environmental education². All three are regularly mentioned in OECD Environmental Performance Reviews (OECD, 2019^[3])³. The assessment in this report is carried out in reference to good practices cited in these reviews and of the more general experience of OECD countries in terms of environmental information.

12. Morocco recognizes the procedural rights of access to information and public participation in environmental decision-making processes in accordance with Principle 10 of the 1992 Rio Declaration on Environment and Development (United Nations, 1992^[4]). According to Principle 10, “environmental issues are best handled with the participation of all concerned citizens”. Accordingly, each individual should have appropriate access to information concerning the environment that is held by public authorities, to help among other things to “facilitate and encourage public awareness and participation”. Each individual should also have the opportunity to participate in decision-making processes.

¹ The OGP brings together countries, local governments and civil society to “promote accountable, responsive and inclusive governance” (<https://www.opengovpartnership.org/about/>, accessed on 17 October 2019). Every two years, OGP members submit an Action Plan that is “the product of a co-creation process in which government and civil society define ambitious commitments to foster transparency, accountability and inclusion”.

² Access to justice, which is another key principle of environmental democracy, is not covered in the present report.

³ OECD Environmental Performance Reviews support countries' progress towards their environmental and sustainable development objectives.

13. In the final document of the Rio+20 Summit, “The Future We Want” (United Nations, 2012^[5]), countries reaffirmed Principle 10 and its relevance at all levels of government. Strengthening the expression of environmental procedural rights in laws and policies allows for more efficient mobilisation of public support for sound environmental management. It also provides a means of taking better account of public needs and strengthening the credibility of commitments and the effectiveness of measures taken. The Bali Guidelines set out internationally recognised good practices designed to assist governments in the implementation of Principle 10 into national (and, where appropriate, subnational) law (UNEP, 2010^[6])⁴. They underpin the assessment in the present report.

14. Since April 2018, Morocco has also adhered to the 2017 Recommendation of the OECD Council on Open Government [[OECD/LEGAL/0438](#)]. The purpose of this Recommendation is to help governments to implement their open government strategies and initiatives more effectively and to enhance their impact on citizens’ lives. It determines key elements of open government strategies and initiatives, including with regard to the provision of information and data and stakeholder involvement. The Recommendation also supports the present review, as does the information gathered during two missions to Rabat on 6 May and 26-27 November 2019. The analysis is completed by literature research. The report puts forward several options for strengthening environmental democracy in Morocco, including with respect to the Action Plan for 2018-2020. It also identifies possible priorities for the next Action Plan for 2020-2022.

⁴ The Bali Guidelines, which are not legally binding, were adopted in 2010 at the 11th special session of the Governing Council of the United Nations Environment Programme/Global Ministerial Environment Forum held in Bali, Indonesia. The Aarhus Convention on Access to Information, Public Participation in Decision Making and Access to Justice in Environmental Matters is another international framework designed to strengthen procedural environmental democracy and to apply Principle 10 of the Rio Declaration. It is legally binding and applicable to members of the United Nations Economic Commission for Europe (UNECE), but all UN member countries are free to adhere to it.

Access to environmental information

15. One third of the commitments in Morocco's Action Plan address the issue of access to information, thus reflecting the importance placed by the authorities on making more comprehensive progress in this area (Ministère de la Réforme de l'administration et de la Fonction publique du Maroc, 2019^[1])⁵. Beyond its inherent value as a procedural right, access to information is essential for public participation in decision-making processes, thus giving initiatives designed to strengthen access to information a dual value. The Recommendation of the OECD Council on Open Government recommends that adherents proactively make available clear, complete, timely, reliable and relevant public sector data and information that is free of charge, available in an open and non-proprietary machine-readable format, easy to find, understand, use and reuse, and disseminated through a multi-channel approach (paragraph II.7). Adherents should also co-ordinate, through appropriate institutional mechanisms, open government strategies and initiatives – horizontally and vertically across the government – to ensure that they are aligned with, and contribute to, all relevant socio-economic objectives (paragraph II.4). Bali Guidelines 1 to 7 (Table 1) refer to access to information with regard to the environment, notably specific requests for information (guidelines 1 to 3) and collection and dissemination of information in a broad sense by governments (guidelines 4 à 6).

⁵ Commitment 1 concerns increasing public awareness about the right of access to information. Commitment 2 targets designating and training of information officers within public agencies and institutions. Commitment 3 is to establish administrative bodies in charge of archives and training of trainers on archives management. Commitments 4 and 5 are referred to above.

Table 1. Bali Guidelines on access to information

Guideline	Subject	Components
1	Access to environmental information held by public authorities	Affordable, effective and timely access to environmental information held by public authorities Access upon request, without having to prove legal or other interest Access for any natural or legal person
2	Scope of information to put in the public domain	Information about environmental quality, environmental impacts on health and factors that influence them Information about relevant legislation and policy Advice about how to obtain information Other information as appropriate
3	Specific grounds on which a request for information can be refused	Clear definition in national law of specific grounds on which a request for environmental information can be refused The grounds for refusal are to be interpreted narrowly, taking into account the public interest served by disclosure
4	State responsibility for collecting and updating information	Regular collection and updating of relevant environmental information, including information on environmental performance and compliance by operators Establishment of relevant systems to ensure an adequate flow of information about proposed and existing activities that may significantly affect the environment
5	Dissemination of information on the state of the environment	States should periodically prepare and disseminate up-to-date information on the state of the environment, including information on its quality and on pressures on the environment Gathering and dissemination of information at reasonable intervals
6	Dissemination of information in the event of an imminent threat of harm	In the event of an imminent threat of harm to human health or the environment, States should ensure that all information that would enable the public to take measures to prevent such harm is disseminated Immediate dissemination
7	Capacity building	Provide means for and encourage effective capacity-building to facilitate effective access to information Capacity building among public authorities and the public

Source: (UNEP, 2010^[6]).

Legal and institutional framework for access to information

16. According to the 2011 Constitution (Article 27), all Moroccan citizens have the right to access information held by the public administration, the elected institutions and the bodies invested with missions of public service. This represents a major step forward in terms of being both a formal and statutory guarantee of this right as well as a yardstick of the wider reform to the legal and institutional framework governing access to information (Canavaggio, Perrine. Balafrei, 2011^[7]). Framework Law No. 99-12 on the CNEDD reinforces this constitutional right with regard to the environment. According to Article 3 thereof, every citizen has a right to access reliable and relevant environmental information. The government must therefore ensure that appropriate structures and mechanisms are in place for the collection, use and dissemination of data and information on the state of the environment (Article 24).

17. There is no specific legal framework for access to information on the environment. Law 13-31 on the right to access information stipulates the scope of application of constitutional law. It has been partially in force since March 2019, but some of its items (those related to measures for proactive publication of information) only come into effect in 2020, which provides the institutions concerned with a longer transition period (and acknowledges the significant changes ushered in by the law). Implementing decrees of the

law are also being prepared. Accordingly, the system of access to information remains in development, including with regards to the environment.

18. The Bali Guidelines could help strengthen the preparation and implementation of implementing decrees of the regime for the environment (Table 1). For example, under Law No. 31-13, the institution receiving a request for information has 20 working days upon receipt of the request to respond, but under several circumstances this can be extended “by a similar amount of time” (institution unable to supply the requested information within the time provided, a request for a large amount of information, need for prior consultation with a third party) (Article 16). These extensions can also apply to urgent requests, i.e. “when it is necessary to obtain information in order to protect the life or security or freedom of individuals” (Article 17).⁶ A 2009 decree on air quality provides for immediate dissemination of information to the public in the event of imminent danger to health, in accordance with Bali Guideline 6.

19. Law No. 31-13 specifies exceptions to the right of access to information (Chapter II) provided for in Article 27 of the Constitution⁷. There are many exceptions, including information which if disclosed would be detrimental to industrial property rights, copyright and related rights, to the principles of free, fair and legal competition, and to private initiative. Failure to comply with these provisions is tantamount to a breach of professional secrecy under Article 446 of the Criminal Code (Article 28), which could encourage a broad interpretation of the said provisions. Bali Guideline 3 stipulates that exceptions to the right of access to information are to be interpreted narrowly, taking into account the public interest served by disclosure. The Aarhus Convention imposes such an obligation on members of the United Nations Economic Commission for Europe (UNECE) and other adherents (Box 2).

Box 2. Interpretation of exceptions to the right to information in the Aarhus Convention

Article 4 of the Aarhus Convention provides for several exceptions to access to environmental information, for example if it would adversely affect intellectual property rights trade secrets. However, it is specified that these exceptions should be interpreted “in a restrictive way” taking into account the public interest served by disclosure. The Convention does not clarify how to take into account the public interest; according to the Court of Justice of the European Union, this question should be addressed on a case-by-case basis (UNEP, 2015^[8]). That said, adherents are expected to guide their authorities in the implementation of the principle in order to encourage its uniform application (UNECE, 2014^[9]). Information concerning emissions into the environment is considered to be a separate category (“the aforementioned grounds for refusal shall be interpreted [...] taking into account whether the information requested relates to emissions into the environment”, Article 4.4) and it is clear that the Convention prioritises its disclosure. The exception for trade secrets specifies that information on emissions which is relevant for environmental protection shall be disclosed.

20. One of the missions of the Department of Environment is to put in place structures for gathering environmental data and information and observing and monitoring the state of the environment at the national level. The Department has launched a study for preparing a blueprint of the information system. It is also pursuing the same mission at the regional level in collaboration with relevant departments, in

⁶ Even if, outside of these reasons for extension, the timeframe for responding to urgent requests is three days.

⁷ Article 27 of the Constitution provides for the possibility of limiting the right to access information by law in order to protect “all which concerns national defence, the internal and external security of the State, and the private life of individuals”, to prevent infringement on the fundamental freedoms and rights set out in the Constitution and to protect sources of information and “domains clearly determined by law”.

accordance with Framework Law No. 99-12 on the National Charter for the Environment and Sustainable Development which provides for a role for the regions and other local authorities in terms of access to environmental information⁸.

21. Within the Department of Environment, it is the Education and Communication Division and the National Monitoring Centre for the Environment and Sustainable Development (ONEDD - Observatoire national de l'environnement et du développement durable) that are most involved. The former includes an Information and Outreach Service and Documentation and Orientation Service. The latter has an Environmental Database Service and a State of the Environment Monitoring Service. A specific unit on access to information has been created on the Department's website, which includes a request for information form and links to information that is published proactively and regularly updated. The Department began using this unit to process citizens' requests for information in March 2020.

22. The Regional Monitoring Centres for the Environment and Sustainable Development (OREDD - Observatoires régionaux de l'environnement et du développement durable) reinforce the ONEDD's vision in the field through a partnership between regional governments, local authorities, economic operators and other stakeholders such as research institutions and NGOs (ONEDD, s.d.^[10]). Thematic committees created by gubernatorial order help streamline information gathering and ensure the quality and reliability thereof in different areas (water and wastewater, air and climate change, waste management). The implementation of the right of access to information will also require good co-ordination with other ministries in possession of environmental information.

23. The Higher Planning Commission (HCP - Haut-Commissariat au plan) also plays a role regarding access to environmental information in its role of the national statistical agency. Indicators for the environment, but also for mining, energy and fisheries are readily available on its website (Haut-Commissariat au Plan, s.d.^[11]).

Collecting, updating and disseminating information

24. The consequence of making environmental information publically available and finding ways of increasing the utility to stakeholders of this information is to reduce the need for specific requests for information. Law No. 31-13 on the right to access information provides for disclosure of a maximum amount of information by all possible publication channels, in particular electronic (including national data portals). The institutions concerned need to take appropriate measures for managing and updating information. The Department of Environment is working hard to comply with the proactive publication measures provided for by the law (updating information on the Department's website, consolidating co-operation mechanisms internally and with the regions, organising training sessions, etc.).

25. The creation of SIREDD is one of the Department's major initiatives. They represent a mechanism for environmental data sharing referred to in Commitment 5 of the Action Plan. ONEDD and OREDD have been working together on establishing SIREDD since 2011 in a move to address the problems of access to information encountered at the regional level during the preparation of reports on the state of the environment at this level (lack of a dynamic regional platform and non-institutionalisation of the regional information and data exchange networks) (Ministère de la Réforme de l'administration et de la Fonction publique du Maroc, 2019^[11]). Accordingly, the purpose of SIREDD is to encourage the distribution and regular updating of environmental information along with capacity building for members of the regional network for collecting and exchanging data and information (ONEDD, 2019^[12]). These objectives are in

⁸ The latter undertake to guarantee access to information on local environmental protection and sustainable development in their areas (Article 20). Collaboration with the SIREDD (see below) provides a practical example of this collaboration.

line with Bali Guideline 4 and paragraph II.4 of the Recommendation of the OECD Council on Open Government. There are also plans to implement decision support and technology monitoring tools for environmental management and protection.

26. The Action Plan provides for indicators to assess the impact of Commitment 5, including the number of SIREDD put in place and the number of regional information exchange networks formalised by ministerial order. SIREDD are already in place in the regions of Souss-Massa, Tanger-Tetouan-Al Hoceïma and Béni Mellal-Khénifra. Nine other systems are currently being developed. The three existing SIREDD are not yet available to the public online. The aim is to regroup the SIREDD on a national portal hosted on the website of the Department of Environment in 2021 to facilitate the aggregation and dissemination of information as well as to encourage the regions to deliver input into the indicators that concern them by facilitating comparisons between regions. Government orders on exchange of environmental information and data have been adopted in all twelve regions.

27. According to an internal government update on the overall progress being made in meeting the commitments of the Action Plan, Commitment 5 is one of the best performers out of the six commitments concerning access to information, with a completion rate of 86% (Ministère de l'Économie, des Finances et de la Réforme de l'administration du Maroc, 2019^[13]). Nonetheless, on 27 November 2019 in Rabat it was revealed in a seminar on environmental information organised within the framework of the project that several challenges still needed to be overcome, including the need to strengthen staff capacity and expertise at the regional level⁹, to improve access to information held by regional partners and to integrate quality assurance and data validation into data flow management¹⁰. Other challenges included the need to update basic data repositories of SIREDD to reflect the reorganisation of the administrative borders in 2015, to produce missing data (on climate change, risk areas, etc.) and the actual use of indicators in decision making.

28. SIREDD have 10 modules, including climate change and sustainable development goals (SDG) which are new themes. They contain a very large number of items, with sub-modules, over 400 indicators¹¹ – which is very ambitious – and several features (simple analysis, cross-analysis, spatiotemporal monitoring, geo-cataloguing). Opting for a more limited series of indicators with a view to providing an insight into environmental changes in the regions (rather than a comprehensive review) could make it easier to produce and gather information at the regional level, to draw comparisons between regions, and to use indicators in decision making. The OECD's environmental and green growth indicators are examples of indicators designed to help assess and compare different jurisdictions (Box 3). Other data designed to highlight regional issues could then be added to this common core. Work to this end has been carried out with the regions to establish indicators to include in SIREDD spatial and decisional dashboards, but the modelling and aggregation of data remain a challenge. The Department of Environment is also currently reviewing the list of indicators in order to support the implementation of the SDG.

⁹ For example, in areas such as data processing and analysis, and emerging topics such as the circular economy.

¹⁰ At present, data quality depends on appointing one contact point per partner to input the region's data directly into the national platform under the supervision of the heads of the OREDD. However, the quantity of data remains low.

¹¹ The process of establishing the list was based, among others, on the international benchmarking analysis of partners such as the Arab League, the United Nations Commission on Sustainable Development and the European Environment Agency.

Box 3. OECD environmental and green growth indicators

The OECD has developed several sets of harmonised indicators to help countries monitor, assess and compare their progress. The core set of environmental indicators, developed in the early 1990s, helps to assess countries' environmental performance. The set of green growth indicators, designed in 2010-11, helps to integrate the environmental and economic dimensions of sustainable development and to identify the development opportunities offered by this integration. The main indicators are regularly updated and used in OECD work. Most of them are aligned with the indicators for monitoring sustainable development goals.

A pragmatic approach

The approach adopted is pragmatic and enjoys consensus among Member countries. The measurement frameworks are based on the pressure-state-response (PSR) model, combined with the principles of environmental accounting. Indicators are selected according to three criteria: their political relevance, analytical robustness and measurability.

In order to have easily manageable sets that perform their function well, a distinction is made between core/key indicators (limited number, key aspects, "dashboard"), supplementary indicators (additional details, complementary or more specific aspects) and contextual indicators (aspects for interpreting indicators).

A policy-driven approach: the case of green growth indicators

The green growth indicators are structured to answer four questions at the heart of the debates on green growth and sustainable development:

- Are we becoming more efficient in using natural resources and environmental services? (productivity and usability indicators: climate, energy, materials, water)
- Is the natural asset base of our economies maintained? (indicators relating to the use and preservation of natural resources, including biodiversity)
- Does greening growth generate benefits for people? (quality of life and well-being indicators)
- How does greening the economy generate opportunities for growth and development? (indicators relating to the policies and measures implemented)

Source: (OECD, s.d.[14])

According to the OECD, the indicators have **two major functions**:

- They reduce the number of measurements and parameters that normally would be required to give an exact presentation of a situation.

As a consequence, the size of an indicator set and the level of detail contained in the set need to be limited. A set with a large number of indicators will tend to clutter the overview it is meant to provide.

- They simplify the communication process by which the results of measurement are provided to the user.

Due to this simplification and adaptation to user needs, indicators may not always meet strict scientific demands to demonstrate causal chains. Indicators should therefore be regarded as an expression of "the best knowledge available".

29. The Department of Environment has an Environmental Resource Centre, which is open to external visitors. It is currently computerising its collection of documents so as to facilitate online document research. Similarly, it is currently rethinking the physical layout of the Centre with a view to attracting more visitors. The Centre also monitors and posts online and via email press articles on the environment and sustainable development.

30. Morocco still does not have a pollutant release and transfer register (PRTR),¹² although the region of Tanger-Tétouan-Al Hoceïma tried to put one in place. Other countries, such as Chile for example, have recently modernised their PRTR by creating a one-window system for reporting relevant data, which now covers over 20 000 facilities reporting on 132 pollutants, and incorporating an information system that covers the generation and disposal of all non-hazardous waste. The latter initiative could be of particular interest for Morocco, which has yet to create an information system on waste¹³. Chile uses the PRTR to generate periodic reports on local environmental impacts and has connected it to the tax agency's database to correlate pollution release and production information, in an innovative practice allowing data verification (OECD/ECLAC, 2017_[15]).

Publications

31. The most recent report on the state of the environment dates back to 2015, with two previous reports in 2001 and 2010. What differentiates the latest report from the other two is that it uses a driver-pressure-state-impact-response (DPSIR) framework, in line with good practice in OECD countries. The report focuses on five areas (water; soil; air and atmosphere; coastline and marine environments; and terrestrial biodiversity) and also addresses the issue of waste management. It gives an insight into changes in the environment and the country's development, environmental governance (key environmental policies, administrative and institutional organisation, legal and regulatory framework) and international agreements and co-operation. It also considers scenarios for 2030. A fourth report is planned for 2020 that will also cover SDG and the SNDD in addition to the topics in the 2015 report.

32. The preparation of a series of reports on the state of the environment at the regional level was launched in 2009. These reports have also adopted the DPSIR framework and present the social, natural and economic profile of the regions along with the state of the environment and environmental trends, and the priority environmental protection actions. They are available on the ONEDD website with other related outputs (summaries, communication tools) (ONEDD, s.d._[10]). The reports serve as a basis for regional actions plans on the future of the environment, which are also available on the Department of Environment's website. The idea is that SIREDD are used to inform the regional reports. Other measures could also be envisaged.

33. New Zealand, for example, produces reports on the state of the environment every three years, as well as a report every six months on one of the five environmental domains (air, climate, freshwater, land and marine issues). In this way, at least one "domain report" is published every three years for each domain (OECD, 2017_[16]). Chile produces state of the environment reports every four years, and a shorter annual document covering 71 national and regional indicators (OECD/ECLAC, 2017_[15]). The "State of the Environment" page on the website of the Swedish Environmental Protection Agency provides links to databases of many environmental authorities at all administrative levels (OECD, 2015_[17]). In the Netherlands, the report on the balance of the living environment ("Balans van de Leefomgeving") has a high political profile as it is presented to Parliament; it is also supported by a dedicated website with forward-looking indicators comparing expected developments to quantifiable policy objectives (OECD, 2016_[18]).

34. In 2014, a report on sustainable development indicators in Morocco was published to examine the progress made by the country in this area through 56 indicators (Ministère délégué auprès du Ministre de

¹² A PRTR is a national database or inventory of chemicals or pollutants released to air, water and soil, and the treatment of hazardous and non-hazardous waste.

¹³ This was one of the challenges addressed at the environmental information seminar organised on 27 November within the framework of this project.

l'Énergie, des Mines, de l'Eau et de l'Environnement du Maroc, chargé de l'Environnement, 2014^[19]). The 2014 report was the fourth in a series (after issues in 2003, 2006 and 2011) and also the last, as the Department now gives priority to SDG indicators. Other reports and documents are available on the Department of Environment's website, including sector plans, reports on the monitoring of bathing water quality and reports related to the United Nations Framework Convention on Climate Change.

35. On two occasions in the past, the HCP produced compendiums of environmental statistics, but the most recent one dates back to 2006. Some of the HCP's sector or thematic studies covered environmental topics, such as the "forward-looking reflection" studies on energy and agriculture in 2030 or sustainable management of natural resources and biodiversity, but they also date back to the previous decade.

Public participation in environmental decision making

36. The Recommendation of the OECD Council on Open Government recommends that adherents grant all stakeholders equal and fair opportunities to be informed and consulted, and actively engage them in all phases of the policy-cycle and service design and delivery; and that this should be done with adequate time and at minimal cost (paragraph II.8). Increasing public participation has benefits for the population, and also for the government as it adds resources and information to the decision-making process, and can develop public support and help avoid conflicts over the decision (UNEP, 2015^[8]). Bali Guidelines 8 to 14 support countries in the development of national legislation on public participation in environmental decision making (Table 2) (UNEP, 2010^[6]). This principle is enshrined as a "defining criterion" in the CNEDD for the development and implementation of policies, strategies, programmes and action plans for both the government and local authorities. The government, regions and other local authorities are committed to guaranteeing public participation in decision making. The SNDD includes the principles of stakeholder participation and engagement as guiding principles in accordance with the CNEDD (Kingdom of Morocco, 2017^[20]).

Table 2. Bali Guidelines on public participation

Guideline	Subject	Components
8	Public participation	Ensure opportunities for early and effective public participation Inform of opportunities to participate at an early stage of decision making process Include the public affected or likely to be affected by, or having an interest in the environmental decision making, such as NGOs promoting environmental protection and meeting any requirements under national law
9	Obligation for States to act proactively	States must make efforts to seek proactively public participation in a transparent and consultative manner Ensure that an adequate opportunity is given to express views
10	Provision of information	Ensure that all information relevant is made available, in an objective, understandable, timely and effective manner Provide information to the members of the public concerned
11	Taking account of comments of the public	Ensure that due account is taken of the comments of the public in the decision-making process Ensure that the decisions are made public
12	Participation in the review process	Ensure that the public are able to participate in any review process carried out where previously unconsidered environmentally significant issues or circumstances have arisen Participation to the extent that circumstances permit
13	Participation in the preparation of laws and policies	Ensure public input into the preparation of laws that might have a significant effect on the environment and into the preparation of policies, plans and programmes relating to the environment Ensure this input at an appropriate stage
14	Capacity building	Provide means to promote public participation Include environmental education and awareness raising

Source: (UNEP, 2010^[6]).

Environmental impact assessment and strategic environmental assessment

37. Law No. 12-03 on environmental impact assessment (2003) provides for a public inquiry for each project subject to an EIA, in order to allow the population affected to gain an understanding of the potential environmental consequences and to elicit their observations and proposals (Article 9). The said observations and proposals are “taken into consideration” during the EIA. An implementing decree sets out procedures for organising and conducting the inquiry¹⁴ and envisages a case file in three parts intended for the public: firstly, a fact sheet on the main technical characteristics of the project; secondly, a summary of positive and negative environmental impacts of the project and measures planned to remove, reduce or offset such impacts; and lastly, a map designating boundaries of the expected impact area of the project. This file is available to the public throughout the duration of the inquiry (20 days), as is a register for recording observations and suggestions concerning the project. Once the inquiry has been completed, the inquiry commission prepares a report based on observations made by the population affected. The report is sent to the chair of the relevant environmental impact assessment board, which is either the national committee or a regional committee depending on the cost and nature of the project in question¹⁵.

38. The public inquiry system has been in place formally since 2008¹⁶ and faces significant challenges. To date, the use of public enquiries remains sporadic (UNECE, 2014^[21]). Although observations and proposals from the affected public need to be taken into consideration in the EIA under Law No. 12-03 and the public inquiry report (the register of comments) is publically available, there is no obligation to account for their acceptance or rejection. It is therefore difficult to ensure effectiveness of public participation in EIA, which runs counter to Bali Guideline 11¹⁷. In addition, the information to be included in the public case file remains limited (fact sheet, summary) and only provides a partial view of technical characteristics and potential negative impacts of the project, whereas the international standard is to provide as much information as possible (Bali Guideline 10)¹⁸.

39. Significant shortcomings in EIA procedures more generally also have an impact on public involvement in EIA. A number of development projects escape from the EIA procedure due to the fact that several relevant project types are not included in the EIA screening project list (between 10% and 20% according to UNECE) (UNECE, 2014^[21])¹⁹. The fact that the screening list is laid down in Law No. 12-03 makes it difficult to update. There is no emphasis on analysing alternative solutions to proposed projects,

¹⁴ Decree No. 2-04-564 of 4 November 2008.

¹⁵ The national environmental impact assessment board is responsible for reviewing EIAs with an investment threshold in excess of MAD 200 million, while regional impact assessment boards are responsible for EIAs when the investment is lower. The national board is also responsible for projects involving more than one region and transboundary projects.

¹⁶ An EIA process was put in place after Law No. 12-03 was adopted in 2003 despite the lack of enabling texts until 2008.

¹⁷ The Czech Republic offers an example of good practice in this case. The procedure provides for a public hearing if dissenting comments on the EIA report are submitted. The competent authority has an obligation to consider all comments received and to provide a justification for those that are not accepted.

¹⁸ In Korea, for example, an extensive information and services network supports the EIA procedure. The country ensures the transparency of the process via an EIA Support System that provides EIA-related information to the project proponent, the local authority and the public (OECD, 2017^[43]).

¹⁹ The examples given by UNECE are oil and gas pipelines, water supply schemes, wind energy parks and quarries other than for sand/gravel.

and the specified timeframes for assessment are short²⁰. These shortcomings reduce the potential scope for public influence in the environmental assessment of projects, as well as the effectiveness of EIA as an environmental management tool. At the same time, the law does not specify a critical threshold for projects subject to EIA, meaning that projects with a substantial potential environmental impact are on an equal footing with projects that present less of a risk, which seems ineffective.

40. A law to introduce SEA into the national legislation has been in preparation since 2017; it will also be used to revise Law No. 12-03 on EIA so as to, among others, update the EIA screening project list and, for small projects with little effect on the environment, replace EIA with impact statements²¹. These changes are anticipated in the CNEDD (Article 8). Nonetheless, the issue of public participation will not be addressed in the law per se. Accordingly, the system of public inquiries for EIA will be maintained in its current form. The public's role in SEA also remains to be defined in future implementing decrees.

41. International best practices could provide some useful input into this process. In Denmark, for example, public participation in environmental matters is excellent, due largely to the presence of an ombudsman of Parliament, a citizens' watchdog, who assesses and issues opinions on the authorities' application of legislation in this area (OECD, 2019^[22]). In the Canadian province of British Columbia, the environmental assessment process includes two public comment periods: on the draft application and on the accepted one. In addition, the project proponent and/or the British Columbia Environmental Assessment Office may hold community information sessions, and substantial project information is made publicly available (OECD, 2017^[23]). Under Australian legislation, all documents related to EIA must be published, including those related to the type of assessment chosen, and the draft and final assessments (OECD, 2019^[24]).

Public participation in the development of legislation, policies and programmes

42. The government's General Secretariat hosts a website that brings together draft laws and regulations to inform and gather comments from the public, including with regard to the environment (Kingdom of Morocco, 2019^[25]). This site ensures that texts are transparent, but it is not supported by proactive measures to encourage public participation in developing environmental laws. This may impede the use of the available procedures. There were very few reactions, for example, to Law No. 12-03 on environmental impact assessments. Under Bali Guideline 9, States must make efforts to proactively seek public participation.

43. Measures to this end exist in several OECD countries. In Latvia, for example, environmental authorities have a legal obligation to encourage public participation (OECD, 2019^[26]). In the Netherlands, the Participation Directorate of the Ministry of Infrastructure and Environment is dedicated solely to stakeholder contribution in environmental policy-making (OECD, 2016^[18]). The Office of Best Practice Regulation in Australia ensures that public consultation is thorough and that the government takes comments into consideration before reaching a decision (OECD, 2019^[24]). In Poland, draft acts are provided to interested entities, including public authorities, trade unions, business associations and NGOs, with requests for comments; consultations are organised with representatives of local governments, and

²⁰ For example, the 2008 decree setting out conditions for a public inquiry stipulates a duration of 20 days, with 8 days given to the inquiry commission at the end of the inquiry to submit the report to the chair of the relevant environmental impact assessment board.

²¹ The text of the bill tabled in the Office of the House of Representatives on 26 March 2019 is available [online](#) in Arabic.

NGOs are invited to participate in the legislative work of parliamentary subcommittees. Other forms of consultation are often used, such as public debates and seminars (OECD, 2015^[27]).

44. Concerning policies and programmes, the SNDD was the subject of broad consultation with stakeholders from the public sector, civil society and the private sector in order to forge an "integrating and unifying" project to advance sustainable development in Morocco (Kingdom of Morocco, 2017^[20]). This is consistent with the emphasis placed in the CNEDD on public participation as a defining criterion for the development and implementation of policies and programmes by the State.

Involvement of NGOs

45. The CNEDD makes formal use of civil society associations to integrate the public into the environmental decision-making process; Article 22 of the CNEDD requires them to contribute to improving public participation in decision making, objective 11 of the SNDD is to strengthen capacity of associations and the processes of their participation in decision making (measures 11.1 and 11.4). The SNDD calls for the creation of a database identifying associations working in the environmental field. This remains work in progress, but the Department of Environment enjoys close co-operation with civil society in the field of environmental education, which could serve as a basis for closer links in decision making as well (see below). The Department also organises workshops to gather views of NGO on texts under development. The OECD's environmental performance reviews present several solutions for involving civil society (Box 4).

Box 4. Involving civil society in environmental decision making

In New Zealand, the Land And Water Forum (LAWF) brings together environmental NGOs and several other stakeholders with the aim of developing a shared vision among all those with an interest in water through stakeholder-led collaboration. The LAWF was instrumental in the development of the National Policy Statement (NPS) for Freshwater Management and continues to produce reports and recommendations on water management (OECD, 2017^[16]).

In Latvia, there is a positive and constructive relationship with environmental NGOs. Twelve consultative bodies have been established to engage NGOs and other stakeholders in various policy areas. One of the most prominent is the Environment Consultative Council that brings together representatives of environmental NGOs to participate in the development of policies and legislation. It has 20 members who are rotated annually; its meetings are open to other NGOs. NGOs also receive project-based funding from the Environmental Protection Fund (OECD, 2019^[26]).

In France, the Grenelle Forum established “five-party governance” bringing together central government, elected officials, businesses, trade unions and NGOs. This participatory approach has been adopted in France’s annual environmental conferences and institutionalised through the National Ecological Transition Council (OECD, 2016^[28]).

In Brazil, the National Environment Conference was established as a national forum to enhance civil society participation in the discussion and definition of the main elements of Brazil’s sustainable development policies. Delegates to the national conference are selected at state conferences, with gender parity and allocation of 40% of seats to NGOs and social movements. Conference discussions have led to the development of environment-related action plans and laws (OECD, 2016^[29]).

In Sweden, environmental NGOs play a decisive role in the environmental permitting process by contributing their expertise and challenging both operators and permitting authorities to justify their positions. The government provides them with substantial financial support. Under a new planning and building act, NGOs obtained a strengthened right to be heard on matters related to local plans with a significant environmental impact. NGOs are also important stakeholders in the design and implementation of Sweden’s environmental quality objective system, which determines the country’s ambitions in terms of sustainable development (OECD, 2015^[17]).

In Poland, environmental NGOs have a right to representation on the supervisory boards of the National Fund for Environmental Protection and Water Management and the regional funds. They are also represented on advisory bodies such as the National Environmental Protection Council (OECD, 2015^[27]).

Environmental education

46. Bali Guidelines 7 and 14 refer to the role of capacity building, environmental education and awareness raising to promote access to information and public participation in decision making (Tables 1 and 2). The National Action Plan of Open Government also acknowledges this role in terms of access to information (Ministère de la Réforme de l'administration et de la Fonction publique du Maroc, 2019_[11])²². Under Article 17 of the CNEDD, the culture of environmental protection and sustainable development must be an integral part of curricula in education and training systems and training programmes. Accordingly, strengthening eco-citizenship through education, awareness raising and communication programmes is one of the strategic thrusts of the SNDD (Kingdom of Morocco, 2017_[20]).

47. The SNDD identifies several measures to promote education for sustainable development to strengthen communication plans and programmes and improve awareness of sustainable development issues among citizens (Tables 3 and 4). These measures form a comprehensive and ambitious package, targeting the governance of education and teaching programmes at all levels, teacher training, outreach actions across regions, use of social networks, etc. This ambition is all the more praiseworthy against the backdrop of an education system with learning outcomes that are still quite low compared to other countries of the region (Maghnouj et al., 2018_[30]) (OECD, 2018_[31])²³.

Environmental education in schools and teacher training

48. The scope of measures called for in the SNDD (Table 3)²⁴ shows that education for sustainable development remains work in progress in Morocco, even if there is already a lot going on in this area. One of the measures in the SNDD is to put in place a system for co-ordinating education for sustainable development programmes (measure 125.7). The Education and Communication Division within the Department of Environment is responsible for strengthening environmental and sustainable development education at academic and extracurricular level via its Educational Programme Service²⁵. In the Ministry of National Education, Vocational Training, Higher Education and Scientific Research (Ministry of National Education), it is the School Life Directorate that is competent in the area of environmental education. Collaboration between the two ministries is ensured by framework agreements since 2009, with the most recent signed in 2017. Agreements also guarantee co-operation in this area between the Ministry of National Education and other stakeholders, including NGOs (Mohammed VI Foundation for Environmental Protection, Association of Life and Earth Science Teachers, Society for the Protection of Animals and Nature, etc.) and organisations at the regional level.

²² Commitment 1 aims at increasing public awareness about the right of access to information. Commitment 2 notably provides for training information officers within public agencies and institutions. Commitment 3 includes the objective of training trainers on archives management.

²³ Morocco has a high "school dropout" rate, especially in rural areas and among girls. The strategic "Vision 2030 for Education" aims to improve the quality of education and promote learning that benefits all students (OECD, 2018_[31]).

²⁴ Objective 125.

²⁵ The Division also has a Documentation and Orientation Service and an Information and Outreach Service.

Table 3. Measures in the SNDD to encourage education for sustainable development

Measure	Subject	Monitoring and outcome indicators
125.1	Develop education programmes for sustainable development, particularly for children and young people in different areas (schools, youth centres, summer camps, etc.)	
125.2	Integrate more actively the issue of sustainable development into educational curricula (primary, secondary, higher education and vocational training).	
125.3	Training teachers and eco-facilitators in sustainable development issues.	I125.1 Number of eco-facilitators trained
125.4	Engage schools in sustainable development approaches to make them a place where sustainable development is applied, demonstrated and implemented (sustainable waste management at school level, integration of renewable energies, etc.)	I125.2 Number of educational establishments committed to sustainable development approaches
125.5	Create activities and teaching materials adapted to the education for sustainable development of children and young people.	
125.6	Encourage research in the field of education for sustainable development.	I125.3 Number of research projects in the field of education for sustainable development
125.7	Put in place a system for co-ordinating education for sustainable development programmes.	I125.4 Implementation date of the co-ordination system

Source: (Kingdom of Morocco, 2017^[32])

49. The longstanding collaboration between the Department of Environment and the Ministry of National Education through inter-ministerial agreements has not yet resulted in concrete and detailed measures being integrated into the policy orientation and planning of the national education system, like the strategic "Vision 2030 for Education" plan for 2030. The SNDD nevertheless places an emphasis on the development of programmes for environmental and sustainable development education, and their more active inclusion in teaching curricula (measures 125.1, 125.2, 125.5, Table 3). The National charter for education and training refers to the acquisition of the fundamentals of environmental protection in primary education and the introduction to basic concepts of environmental science in lower secondary education.

50. There are nevertheless many education programmes for the environment and sustainable development (Box 6). On the whole, they are optional, as they were integrated into extracurricular programmes and not in the formal curriculum, which reflects their absence from the policy orientation documents of the national education system (as well as from the mandate of the School Life Directorate)²⁶. Accordingly, the focus is placed on strengthening the existing teaching body rather than on developing environmental management education programmes as such. This state of affairs risks complicating the fulfilment of SNDD objectives in this area. The OECD Environmental Performance Reviews highlight the experience of several countries with regard to the formal integration of environmental education into the policy orientations and projects of the national education system (Box 5).

²⁶ The Ministry of National Education was invited to the information meetings within the framework of this project but did not attend.

Box 5. Integration of environmental education into education policy documents

In France, environmental education has a strong legal basis. As early as 2004, the Ministry of Education launched a process to roll out sustainable development education, backed by a 2007 circular and the Grenelle II Law in 2010 providing for integration of sustainable development into all school subjects. Education about the environment and sustainable development was also included in the Education Code in 2013 (OECD, 2016^[28]).

In Chile, The 2009 General Law on Education stipulated that the education system should encourage respect for the environment and promote sustainability. The National Education Policy for Sustainable Development adopted the same year has led to the creation of several initiatives to address environmental education and awareness in the country, in particular creation of a National System of Environmental Certification of Educational Establishments. This voluntary programme for all early childhood education, primary and secondary schools accredited by the Ministry of Education focuses on environmental management and community relations (OECD/ECLAC, 2017^[15]).

In Australia, federal and state frameworks for early childhood education provide guidance on teaching environmental protection and socially responsible behaviour. New South Wales has an environmental policy for public schools from kindergarten to the end of primary school, and sustainability is one of the three mandatory cross-curriculum priorities. In South Australia, environmental education is enshrined in curricula from early years until middle school, and the state's environmental agency has developed core indicators to track schools' progress in environmental education (OECD, 2019^[24]).

In the Czech Republic, the State Programme for Environmental Education and Public Awareness and its action plan provide for environmental education as part of the general curricula at all education levels, from primary to post-secondary. As a result, around 80% of primary schools have a co-ordinator for environmental education to develop environmental targets for the school and organise activities (OECD, 2018^[33]).

In Hungary, several areas of learning in the National Core Curriculum deal with environmental protection and sustainability, and there are several optional teaching manuals on environmental issues (OECD, 2018^[34]).

51. Environmental clubs (Box 6) represent an important but not fully effective mechanism for ensuring systematic integration of environmental education into the curricula. Curriculum “overload” can make extracurricular activities sporadic and infrequent due to lack of time. In addition, a lack of training and formal supervision of teachers seems to hamper the functioning of the clubs, despite efforts of the Department of Environment to build capacity of eco-facilitators. Cherai et al. (2017) observe that the integration of environmental education into training cycles is still in its infancy, despite the importance given to the clubs by teachers.

Box 6. Programmes for environmental and sustainable development education in Morocco

Since 2017, the Department of Environment in partnership with the Ministry of National Education has been conducting a pilot programme in six schools in the Casablanca-Settat region for applying and demonstrating sustainable development. Consistent with measure 125.4 of the SNDD, the project involves developing green spaces and installing solar panels, rainwater harvesting systems, waste sorting systems and irrigation water saving systems. The project is still in the implementation phase, but there are already plans to replicate it in other regions. It is supported by the Italian government.

Collaboration between the Department of Environment and the Ministry of National Education began in 2009 with a programme for the environmental upgrading of rural schools in two parts that was both practical (creation of water and sanitation infrastructures) and educational (incorporation of the issue of environmental protection into the syllabi of the schools concerned). The second part took the form of the creation of environment clubs in schools, which was accompanied by the distribution of computer and audio-visual equipment as well as educational and communication materials such as documentary films, brochures and reference works. Another area of the programme also focused on training eco-facilitators (Ministère de l'Énergie, des Mines et de l'Environnement du Maroc, s.d.^[35]).

Between 2009 and 2017, around 350 clubs were set up in different regions, with the aim of creating a national network. In addition to those put in place in schools, clubs were also created in youth centres (80 clubs), women's centres (20 clubs, in Meknes) and NGOs (50 clubs). The Ministry of Youth and Sports, the Mohammed VI Foundation for Environmental Protection, and the Association of Life and Earth Science Teachers were also project partners. Around 85% of schools have at least one environment club.

Since 2006, the Eco-Schools initiative launched by the Mohammed VI Foundation for Environmental Protection enables students and school stakeholders to build a specific environmental project within their school setting. Around 1 925 schools are currently enrolled in the programme, which is also consistent with measure 125.4 of the SNDD (Mohammed VI Foundation for Environmental Protection, s.d.^[36]).

The Department of Environment makes a constant effort to produce educational materials such as teaching guides and booklets, as provided for in measure 125.5 of the SNDD. Innovative materials have been developed, such as a 3D educational simulator on waste sorting. Another set on biodiversity is being prepared.

Lastly, several universities offer postgraduate studies in environment and sustainable development (measure 125.6 of the SNDD on educational research).

52. Measure 125.3 of the SNDD is aimed at training teachers and eco-facilitators about sustainable development issues. Since 2009, the Department of Environment has put in place a training programme to build the capacities of the facilitators of environment clubs based on the organisation of around 40 workshops. The training course comprises theoretical and practical components. The theoretical component presents information on different environmental issues at the national and local levels such as waste, air pollution, vegetation cover and deforestation, desertification and biodiversity. The second part focuses on the development and application of practical materials such as teaching guides. Nearly 2 500 eco-facilitators across all the regions have benefited from the training (Ministère de l'Énergie, des Mines et de l'Environnement du Maroc, s.d.^[35]). There is no continuous training to promote environmental integration in schools. In theory, the Regional Centres for Education and Training (CRMEF - Centres régionaux des métiers de l'éducation et de la formation) provide basic training on environmental and sustainable development education for future teachers. In practice, however, this aspect seems to be absent from the CRMEF training offer (Cherai et al., 2017^[37]). Greece recently created education centres for sustainable development that, among other things, which will be used, to ensure the in-service training of teachers (OECD, 2020 (forthcoming)^[38]).

53. In 2014 and 2015, conscious as it was of the lack of a consistent approach, the Department of Environment in collaboration with the German Agency for International Cooperation developed a training strategy for environment-related jobs/professions, with a view to establishing national guidelines for a system of environmental training. The aim of the initiative was to create a training system that would integrate sector-related issues (air, water and wastewater, renewable energies, etc.) and cross-cutting issues (monitoring and observation, management, environmental law and economics, etc.), and focus on traditional, emerging and cross-cutting environmental professions (UNECE, 2014^[21]). It does not look as if there was follow-up to this project. Another clean tech project, in collaboration with the World Bank, promotes the creation of green enterprises through annual competitions, winners of which receive technical, financial and project management training. Elsewhere, Australia recently launched a review to ensure that vocational education programmes related to environmental regulation and policies respond to industry needs (OECD, 2019^[24]). Switzerland has also tried to include environmental aspects more systematically in vocational and professional education and training for around one thousand skill types (OECD, 2017^[39]).

Awareness campaigns

54. In the SNDD, objectives 126 (Strengthen communication plans and programmes around various issues of sustainable development) and 127 (Develop the use of information and communication technologies to raise citizens' awareness of sustainable development issues) provide for several measures (Table 4): communication plans around different environmental issues, enhanced outreach, use of social media, creation of an awareness and education portal. The Department of Environment has already launched a series of initiatives to raise awareness of environmental issues and conservation, which is a good starting point for achieving the ambition of the SNDD (Box 7).

Table 4. SNDD measures for strengthening communication plans and programmes

Measure	Subject	Monitoring and outcome indicators
126.1	Develop and implement communication plans around various environmental and sustainable development issues, with an emphasis on regional and local specificities and ensuring the diversification of actions and media targeting all stakeholders (decision-makers, elected officials, economic operators, NGOs, media) and all populations.	I126: Launch date for the development and implementation of communication plans
126.2	Strengthen local outreach undertaken by associations and local authorities.	
127.1	Set up a portal for environmental and sustainable development awareness and education.	I127: Implementation date of the portal for environmental awareness and education
127.2	Make greater use of social media, particularly to raise awareness among the youngest members of society.	

Source: (Kingdom of Morocco, 2017^[32])

Box 7. Initiatives to raise awareness of environmental issues and conservation

Since 2015, the Department of Environment has opened an education area at its headquarters in Rabat that is designed to instil in children and young people an environmental culture and to promote positive behaviour in favour of the national ecological heritage. It is equipped with educational resources and computer and audio-visual equipment for conducting environmental education sessions. Every year, the centre welcomes some 1 200 primary school pupils (Ministère de l'Énergie, des Mines et de l'Environnement du Maroc, 2015^[40]).

Five mobile units dedicated to raising awareness and environmental education (Green Caravans) allow the Department of Environment to disseminate educational documentaries and distribute materials promoting eco-citizenship in different regions, including in youth centres and summer camps (Ministère de l'Énergie, des Mines et de l'Environnement du Maroc, s.d.^[41]).

Two national surveys on people's perceptions of environmental issues have been carried out, one in 2010 to support the development of the CNEDD and another in 2013 to help better target the Department of Environment's communication and awareness-raising programmes.

The Department conducts audio-visual awareness raising campaigns on various topics, such as waste management and water and energy use, and posts corresponding videos on its website. A Facebook page helps disseminate information on these campaigns and events²⁷. The Department also takes advantage of more *ad hoc* opportunities to conduct awareness campaigns, for example by hosting a stand at environment-related trade fairs such as the International Agricultural Show in Paris, Ener Event, Photovoltaica and the Forum de la Mer. It organises the "Pollutec Maroc" trade fair, which is aimed at professionals and is dedicated to environmental equipment, technologies and services.

With regard to strengthening outreach initiatives, the department finances associations in the context of calls for proposals to carry out environmental restoration projects or to help mobilise other local players. It also organises training on improving the management of NGOs.

The Association of Life and Earth Science Teachers manages a network of 18 Environmental Education Centres throughout Morocco. Its objective is to raise public awareness of environmental challenges by organising conferences, training sessions, workshops and excursions.

Initiatives are underway to increase the number of journalists working on the environment. A National Charter on the Media, Environment and Sustainable Development was established in 2018. It is a voluntary partnership designed to strengthen the impact of the media in terms of environmental protection. The Department of Environment has also established an informal network of media correspondents in environmental issues to assist the department in publicising its activities and disseminating environmental information. At least once a year, the department organises a training session for journalists in the regions in order to support this network.

The Young Reporters for the Environment initiative, backed by the Mohammed VI Foundation for Environmental Protection, is designed for young people between the ages of 11 and 21. Its aim is to raise awareness of environmental issues and sustainable development through the practice of written and photographic journalism.

²⁷ www.facebook.com/SEDDMAROC/

References

- Canavaggio, Perrine. Balafrei, A. (2011), *Vers un droit d'accès à l'information publique : les avancées récentes des normes et des pratiques*, UNESCO, Rabat. [7]
- Cherai, B. et al. (2017), « Les clubs d'environnement dans les établissements scolaires au Maroc : une voie prometteuse pour l'ancrage de l'éducation à l'environnement », *European Scientific Journal, ESJ*, vol. 13/13, p. 337, <http://dx.doi.org/10.19044/esj.2017.v13n13p337>. [37]
- Haut-Commissariat au Plan (s.d.), *BDS*, <http://bds.hcp.ma/indicators/17> (consulté le 6 janvier 2020). [11]
- Kingdom of Morocco (2019), *Legislation*, <http://www.sgg.gov.ma/Legislation.aspx> (consulté le 9 décembre 2019). [25]
- Kingdom of Morocco (2017), *Projet de Stratégie nationale de développement durable 2030, Rapport final*, https://www.environnement.gov.ma/PDFs/publication/Rapport_Strat%C3%A9gie_Nationale_DD_juin2017_Mai%202017_Web.pdf (consulté le 19 novembre 2019). [32]
- Kingdom of Morocco (2017), *Stratégie nationale de développement durable (SNDD) 2030 Résumé Exécutif*, https://www.environnement.gov.ma/PDFs/publication/Synthese-SNDD_FR.pdf (consulté le 18 novembre 2019). [20]
- Maghnouj, S. et al. (2018), *Examens de l'OCDE du cadre d'évaluation de l'éducation : Maroc*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264301832-fr>. [30]
- Ministère de la Réforme de l'administration et de la Fonction publique du Maroc (2019), *National Action Plan of Open Government Morocco 2018 - 2020*, <http://www.gouvernement-ouvert.ma/fr/documentation> (consulté le 21 octobre 2019). [1]
- Ministère de l'Économie, des Finances et de la Réforme de l'administration du Maroc (2019), *Open Government Morocco*, <http://www.mmsp.gov.ma/fr/decline.aspx?m=5&r=382> (consulté le 29 octobre 2019). [13]
- Ministère de l'Énergie, des Mines et de l'Environnement du Maroc (2015), *Inauguration de l'espace d'éducation à l'environnement et au développement durable au sein du Ministère*, <http://www.environnement.gov.ma/fr/133-a-la-une/818-inauguration-de-l-espace-d-education-a-l-environnement-et-au-developpement-durable-au-sein-du-ministere> (consulté le 12 décembre 2019). [40]
- Ministère de l'Énergie, des Mines et de l'Environnement du Maroc (s.d.), *Les Unités mobiles de sensibilisation et d'éducation à l'environnement « Caravanes Vertes »*, <https://www.environnement.gov.ma/fr/82-educom/397-caravane-de-l-environnement> (consulté le 12 décembre 2019). [41]

- Ministère de l'Énergie, des Mines et de l'Environnement du Maroc (s.d.), *Programme d'éducation à l'environnement et au développement durable*, <http://www.environnement.gov.ma/fr/124-strategies-programmes/programmes-et-projets/853-programme-d-education-a-l-environnement-et-au-developpement-durable?showall=1&limitstart=> (consulté le 11 décembre 2019). [35]
- Ministère délégué auprès du Ministre de l'Énergie, des Mines, de l'Eau et de l'Environnement du Maroc, chargé de l'Environnement (2014), *Indicateurs du développement durable au Maroc*, http://environnement.gov.ma/PDFs/Rapport_national_IDD_2014.pdf (consulté le 7 janvier 2020). [19]
- Mohammed VI Foundation for Environmental Protection (s.d.), *Education environnementale : Eco-écoles*, <http://www.fm6e.org/fr/-eco-ecoles/introduction.html> (consulté le 11 décembre 2019). [36]
- OCDE (2017), *Recommandation du Conseil sur le Gouvernement Ouvert*, OECD/LEGAL/0438. [42]
- OECD (2019), *Governance - Organisation for Economic Co-operation and Development*, <http://www.oecd.org/mena/governance/> (consulté le 21 octobre 2019). [2]
- OECD (2019), *OECD Environmental Performance Reviews*, <http://www.oecd.org/environment/country-reviews/> (consulté le 21 octobre 2019). [3]
- OECD (2019), *OECD Environmental Performance Reviews: Australia 2019 (Abridged version in French)*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/31d92b08-fr>. [24]
- OECD (2019), *OECD Environmental Performance Reviews: Denmark 2019 (Abridged version in French)*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/1bef0e90-fr>. [22]
- OECD (2019), *OECD Environmental Performance Reviews: Latvia 2019 (Abridged version)*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/2cb03cdd-en>. [26]
- OECD (2018), *Examen multidimensionnel du Maroc (Volume 2) : Analyse approfondie et recommandations*, Les voies de développement, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264298699-fr>. [31]
- OECD (2018), *OECD Environmental Performance Reviews: Czech Republic 2018 (Abridged version in French)*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264306882-fr>. [33]
- OECD (2018), *OECD Environmental Performance Reviews: Hungary 2018 (Abridged version in French)*, OECD Environmental Performance Reviews, OECD Publication, Paris, <https://dx.doi.org/10.1787/9789264306721-fr>. [34]
- OECD (2017), *OECD Environmental Performance Reviews: Canada 2017*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264283244-fr>. [23]

- OECD (2017), *OECD Environmental Performance Reviews: Korea 2017 (Abridged version in French)*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264277793-fr>. [43]
- OECD (2017), *OECD Environmental Performance Reviews: New Zealand 2017 (Abridged version in French)*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264277809-fr>. [16]
- OECD (2017), *OECD Environmental Performance Reviews: Switzerland 2017*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264279674-en>. [39]
- OECD (2016), *OECD Environmental Performance Reviews: Brazil 2015*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264240094-en>. [29]
- OECD (2016), *OECD Environmental Performance Reviews: France 2016*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264252714-en>. [28]
- OECD (2016), *OECD Environmental Performance Reviews: The Netherlands 2015*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264240056-en>. [18]
- OECD (2015), *OECD Environmental Performance Reviews: Poland 2015*, OECD Environmental Performance Reviews, OECD publishing, Paris, <https://doi.org/10.1787/9789264227385-en>. [27]
- OECD (2015), *OECD Environmental Performance Reviews: Sweden 2014*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264213715-en>. [17]
- OECD (s.d.), *Green Growth Indicators*, <http://www.oecd.org/greengrowth/green-growth-indicators/> (consulté le 9 février 2020). [14]
- OECD (2020 (forthcoming)), *OECD Environmental Performance Reviews: Greece 2020*. [38]
- OECD/ECLAC (2017), *OECD Environmental Performance Reviews: Chile 2016 (Abridged version in French)*, OECD Environmental Performance Reviews, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264269163-fr>. [15]
- ONEDD (2019), *Mise en place des Systèmes d'information sur l'environnement et le développement durable*, http://www.gouvernement-ouvert.ma/files/PlanAction_Maroc_OGP%20VF.pdf (consulté le 21 octobre 2019). [12]
- ONEDD (s.d.), *SIREDD*, <https://onedd.ma/siredd/> (consulté le 6 janvier 2020). [10]
- UNECE (2014), *Environmental Performance Review of Morocco*, ECE/CEP/170, UNECE, Geneva. [21]
- UNECE (2014), *The Aarhus Convention An Implementation Guide*, https://www.unece.org/fileadmin/DAM/env/pp/Publications/Aarhus_Implementation_Guide_interactive_eng.pdf (consulté le 17 janvier 2020). [9]
- UNEP (2015), *Putting Rio Principle 10 into Action: An Implementation Guide*, United Nations Environment Programme, <http://www.unenvironment.org/resources/publication/bali-guideline-implementation-guide> (consulté le 28 octobre 2019). [8]

- UNEP (2010), *Proceedings of the Governing Council/Global Ministerial Environment Forum at its eleventh special session*, [6]
<https://wedocs.unep.org/bitstream/handle/20.500.11822/11333/K1060433-Proceedings-final.pdf?sequence=1&isAllowed=y> (consulté le 21 octobre 2019).
- United Nations (2012), *The Future We Want*, A/CONF.216/L.1, [5]
https://rio20.un.org/sites/rio20.un.org/files/a-conf.216l-1_english.pdf.pdf (consulté le 21 octobre 2019).
- United Nations (1992), *Rio declaration on environment and development*, A/CONF.151/26 (Vol. I), [4]
https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf (consulté le 21 octobre 2019).