

TA: ESTABLISHMENT OF A CLIMATE CHANGE COMPETENCE CENTRE (4CLIMATE) IN MADAGASCAR



D-1 Mapping International Best Practices

Final Report

July 2017



In association with:



EXECUTIVE SUMMARY

This report includes an exhaustive cartography, and an analytical review of education centres and projects dealing with climate change on an international level in order to drive consideration on establishment of the 4Climate Centre and base recommendations on international best practices. The centres covered by this analysis are: Moroccan Climate Change Competence Centre (4C), Asian Disaster Preparedness Centre (ADPC), the Kumasi Institute of Technology and Environment (KITE), and the Caribbean Community Climate Change Centre (CCCCC). This report contains numerous recommendations that were made during the interviews. They are listed by order of best practice and according to the different features of the Centre (intervention approach, institutional structure, financing, and infrastructure), in the summary table below.

Table 1: Summary of International Recommendations and Best Practices

Best Practices	Features of the Centre				Recommendations
	Intervention	Institutionalisation	Financing	Infrastructure	
Establishing credibility both nationally and internationally	X				Use knowledge and expertise already available in the country to make the Centre an essential climate change (CC) stakeholder. Play an active role in national and international talks on CC in order to promote the Centre's mission and field of activity.
		X			Develop solid partnerships with a wide range of national, regional, and international organisations.
			X		The Centre needs to build a transparent financial structure.
				X	Set the Centre up in an existing building affiliated with a University, in order to create a material link with a recognised institution in the field of CC.
Ensure a powerful political & social ownership of the Centre's mission	X				Communicate results to policy makers and the general public through clear, exhaustive, and transparent documentation. The training needs must be established through an analysis allowing intimate collaboration with the beneficiaries in order to develop their commitment to the Centre.

Best Practices	Features of the Centre				Recommendations
	Intervention	Institutionalisation	Financing	Infrastructure	
		X			<p>The Centre's statutes must be both politically and legally meaningful.</p> <p>The main stakeholders working in the field of adaptation to and mitigation of CC must be involved in the Centre's strategic orientation decisions, such as priority areas.</p> <p>The private sector, civil society, and research institutions should be as involved as the public sector.</p>
Promote incremental development, and ensure the Centre's financial sustainability	X				Adapt existing international level documentation to Madagascar's context rather than create new content. Take advantage of available knowledge and know-how.
		X			<p>Linking up with an existing institution will allow the establishment of the Centre using far less resources than the creation of an entirely new stand-alone structure.</p> <p>Create an institutional and organisational structure that favours linking up with similar foreign centres, thus facilitating the search for funding</p>
			X		Diversify sources of funding to ensure the Centre's durability. Avoid relying strictly on international invitations to tender, since the sector is becoming increasingly competitive. Instead, favour bilateral agreements. Take part in international conferences to promote the Centre.
				X	Favour establishing the Centre in an existing building. The Centre can move to a new building once it has reached a certain size and rests on dependable financial resources.
Consistently target sectors and beneficiaries with national and international priorities	X				<p>Ensure that the mission, programmes, and training requirements meet national, regional, and international priorities regarding CC, and mention this in the Centre's documentation.</p> <p>Ensure a national and international development watch regarding CC.</p>
		X			Involve national stakeholders from many different fields (public, private, civil society and research institutions) in order to remain consistent with their priorities

TABLE OF CONTENTS

INTRODUCTION	1
1 CASE STUDIES OF INTERNATIONAL EXPERIENCES.....	2
1.1 Climate Change Competence Centre in Morocco (4C)	2
1.1.1 General Information	2
1.1.2 Intervention Approach.....	2
1.1.3 Institutional and Operational Structure	4
1.1.4 Development of Educational Programmes	7
1.1.5 Funding Strategy and Sources.....	9
1.1.6 Infrastructure.....	10
1.1.7 Identified Good Practices and Recommendations.....	10
1.2 Asian Disaster Preparedness Centre (ADPC).....	11
1.2.1 General Information	11
1.2.2 Intervention Approach.....	11
1.2.3 Institutional and Operational Structure	13
1.2.4 Development of Educational Programmes	16
1.2.5 Funding Strategy and Sources.....	18
1.2.6 Infrastructure.....	19
1.2.7 Identified Good Practices and Recommendations.....	20
1.3 Kumasi Institute of Technology and Environment (KITE)	21
1.3.1 General Information	21
1.3.2 Intervention Approach.....	21
1.3.3 Institutional and Operational Structure	21
1.3.4 Development of Educational Programmes	23
1.3.5 Funding Strategy and Structure	24
1.3.6 Infrastructure.....	24
1.3.7 Identified Good Practices and Recommendations.....	25
1.4 Caribbean Community Climate Change Centre (CCCCC).....	26
1.4.1 General Information	26
1.4.2 Intervention Approach.....	26
1.4.3 Institutional and Operational Structure	27
1.4.4 Development of Educational Programmes	29
1.4.5 Funding Strategy and Structure	30
1.4.6 Infrastructure.....	31
1.4.7 Identified Good Practices and Recommendations.....	32
CONCLUSION.....	33
APPENDIX I TRAINING PROGRAMME LISTS.....	35

LIST OF TABLES

Table 1: Summary of International Recommendations and Best Practices.....	ii
Table 2: General Information on 4C	2
Table 3: 4C’s Priority Directions	3
Table 4: 4C’s Institutional Bodies	6
Table 5: 4C’s Auditing Entities	7
Table 6: 4C Activities that Facilitate the Dissemination of Knowledge on CC	8
Table 7: General Information on the Asian Disaster Preparedness Centre.....	11
Table 8: ADPC Governance Bodies.....	15
Table 9: Strategic Themes Guiding the ADPC Action	16
Table 10: Non-Exhaustive List of ADPC Financial Backers.....	19
Table 11: General Information on KITE.....	21
Table 12: Role and Responsibilities of KITE’s Decisional Bodies.....	22
Table 13: Executive Council’s Composition.....	23
Table 14: General Information on the CCCCC	26
Table 15: Board of Governors Composition	27
Table 16: Training Programmes Funded by International Financial Backers	36
Table 17: Regional DRM Flagship Training Programme	37

LIST OF FIGURES

Figure 1: 4C's Institutional Structure	4
Figure 2: Four groups involved in 4C	5
Figure 3: 4C’s Priority Sectors.....	8
Figure 4: Spread of 4C’s funding sources	9
Figure 5: Application Phases of the ADPC’s Working Approach	12
Figure 6: ADPC organisational chart.....	14
Figure 7: ADPC funding sources.....	18
Figure 8: KITE’s operational structure	22
Figure 9: KITE’s Priority Sectors	23
Figure 10: CCCCC Organisational Chart	28
Figure 11: CCCCC’s Priority Sectors	29
Figure 12: Lawrence Nicholas Building, the CCCC permanent lodging.....	32

ABBREVIATIONS

4C	Climate Change Competence Centre in Morocco (<i>Centre de compétences changement climatique du Maroc</i>)
4Climate	Expertise Centre on Climate Change in Madagascar
ACC	Adaptation to Climate Change
ADB	Asian Development Bank
ADPC	Asian Disaster Preparedness Centre
ASEAN	Association of South East Asian Nations
BD	Board of Directors
CARICOM	Caribbean Community
CC	Climate Change
CCCCC	Caribbean Community Climate Change Centre
CCI	International Consultative Committee
CDKN	Climate and Development Knowledge Network
CDM	Clean Development Mechanism
CTCN	Climate Technology Centre & Network
DFID	Department for International Development, United Kingdom
DMN	National Directorate of Meteorology (<i>Direction de la Météorologie Nationale</i>)
DNA	Designated National Authority
DRM	Disaster Risk Mitigation
ECC	Climate Change Education for Sustainable Development
EE	Energy Efficiency
FST	Faculty of Science
GCF	Green Climate Fund
GEF	Global Environment Facility
GHG	Greenhouse Gas
GIZ	German Development Bank (<i>Deutsche Gesellschaft für Internationale Zusammenarbeit</i>)
IDB	Inter-American Development Bank
IFI	International Financial Institutions
INSMET	Meteorological Institute of the Republic of Cuba
IOM	International Organisation for Migration
MdE	Moroccan Delegated Ministry Responsible for the Environment (<i>Ministère délégué marocain, chargé de l'Environnement</i>)

MEEF	Ministry of the Environment, Ecology and Forests (<i>Ministère de l'Environnement, de l'Écologie et des Forêts</i>)
MEM	Ministry of Energy, Mines and Sustainable Development (<i>Ministère de l'Énergie, des Mines et du Développement Durable</i>)
MRV	Measuring, Reporting and Verification
MUAT	Ministry of Land Development, Urbanism, Housing and City Policy (<i>Ministère de l'Aménagement du Territoire National, de l'Urbanisme, de l'Habitat et de la Politique de la Ville</i>)
NDC	Nationally Determined Contribution
NDE	National Designated Entity
NGO	Non-Governmental Organisation
OCHA	Office for the Coordination of Humanitarian Affairs
PCCM	Morocco Climate Change Policy (<i>Politique du changement climatique au Maroc</i>)
PIG	Public Interest Group
ppm	parts per million
RCC	Regional Consultative Committee on Disaster Management
RE	Renewable energies
REETA	Renewable Energy and Energy Efficiency Technical Assistance
SAARC	South Asian Association for Regional Cooperation
SDG	Sustainable Development Goals
TA	Technical Assistance
TNA	Training Needs Analysis
UN	United Nations
UNDP	United Nations Development Programme
UN-Environment	United Nations Environment Programme
UNESCO	United Nations organisation responsible for education, science, and culture
UNFCCC	United Nations Framework Convention on Climate Change
UN-HABITAT	United Nations Human Settlements Programme
UNIDO	United Nations Industrial Development Organisation
UNITAR	United Nations Institute for Training and Research
USAID	United States Agency for International Development
USFS	United States Forest Service
WMO	World Meteorological Organisation

INTRODUCTION

Econoler, in collaboration with Baastel, two Canadian organisations working on adaptation to, and the mitigation of climate change (CC), was mandated by the United Nations Industrial Development Organisation (UNIDO), under the stewardship of the Climate Technology Centre & Network (CTCN), to lend a technical hand with the establishment of a Climate Change Competence Centre (4Climate) in Madagascar. Said technical assistance aims to put into place the conditions favourable to the creation of a 4Climate in Madagascar in order to hold awareness and training activities, and in a more general sense, disseminate theoretical and useful information on climate change. Such technical help must allow the team to provide a series of recommendations on the options relevant to the creation and operation of the Centre.

With that in mind, an exhaustive cartography, and an analytical review of education centres and projects dealing with climate change on an international level were requested in order to drive consideration on establishment of the 4Climate, to present lessons learned, and to base recommendations on international best practices. The team started by drawing up a list of 19 international centres or training programmes concerning climate change in order to select five for detailed analysis. That selection was made in close collaboration with the National Designated Entity (NDE), the Ministry of the Environment, Ecology and Forests (MEEF), and the requesting organisation, the Maharitra NGO. Said selection was finalised June 6, 2017 using the following criteria:

- › Host countries whose conditions are similar to those in Madagascar;
- › Targeted areas relevant to predetermined priorities for Madagascar;
- › Diversity of existing educational and training tools;
- › Diversity of funding methods;
- › Availability of data, and access to a trustworthy contact;
- › Availability of proper documentation on the stakes involved, mitigation strategies, and good practices.

Five international experiences were selected for further analysis by collecting data during remote interviews and information retrieval. These include 4C, ADPC, KITE, and CCCCC.

An interview of around one hour was conducted with a senior representative of each organisation. The case studies developed and presented herein for each of the centres or programmes selected allow the presentation of lessons learned and of international best practices recommendations relating to the training centre and to its expertise on climate change, and to prepare for the establishment of the 4Climate in Madagascar.

1 CASE STUDIES OF INTERNATIONAL EXPERIENCES

The case study of each of the four selected centres presented below includes information on the scope of services, educational and training tools used, each centre’s institutional setup and method of operation, identified good practices, and recommendations.

1.1 Climate Change Competence Centre in Morocco (4C)

1.1.1 General Information

The 4C project was driven by Morocco’s ratification in September 2016, of the Paris Agreement. In order to meet the ambitious Greenhouse Gas (GHG) mitigation targets of 42% by 2030, forecast in its Nationally Determined Contribution (NDC), the Government of Morocco is presently attempting to actually include all the relevant national stakeholders. The 4C is thus required to centralise its efforts, and act as a platform for national collaboration and coordination.¹

Table 2: General Information on 4C

Item	Information
Founded	Institutionalised in 2015, founded in 2016
Number of permanent employees	15
Number of volunteers	-
Location (headquarters)	Rabat
Geographical scope	National and regional (Maghreb & Africa)

1.1.2 Intervention Approach

The goal for the creation of the Centre is to act as a platform to reinforce the relevant stakeholders’ competencies in different areas and to disseminate information concerning CC. Creation of the 4C was planned in the Morocco Climate Change Policy (PCCM). This Centre acts as a mentoring and support agency to the Delegated Ministry Responsible for the Environment (ministère délégué marocain, chargé de l’Environnement ([MdE]). The 4C wants to facilitate the spreading of Moroccan scientific know-how, and techniques to Africa and the World. To that end, the Centre’s projects follow three priority directions (See Table 3).

¹ Politique du changement climatique au Maroc (PCCM), March 2014, available online at: <http://www.4c.ma/medias/PCCM%20-%20Politique%20Changement%20Climatique%20Marocaine.pdf>.

Table 3: 4C's Priority Directions

Priority Directions	Goals & Activities
Development of means of mitigation and adaptation for the implementation of the policy on climate	<ul style="list-style-type: none"> › Support the NDC's preparation according to the recommendations of the United Nations Framework Convention on Climate Change (UNFCCC) › Implementation of an institutionalised national GHG inventory system › Sectorial study on the governance of adaptation › Development of adaptation and mitigation tools and approaches adapted to the national and local contexts (MRV systems/ACC indicators) › Creation of a national climate change experts database
Training and reinforcement of capabilities	<ul style="list-style-type: none"> › Training for those in charge at both the national and regional levels in the Ministry of Energy, Mines and Sustainable Development (MEM), and other relevant corporate branches and public agencies. Training also for the private sector, civil society, and educational institutions of all levels. › Training of the Moroccan delegation for the negotiations concerning climate (preparation for the COP22 Marrakech conference, and training of negotiators for the COP23 conference) › Communications and training strategy on CC.
Sharing of experiences, and international discussion	<ul style="list-style-type: none"> › The 4C aims to play a role in South-South cooperation on the African continent within the scope of the Paris Agreement's implementation and in easing the transfer of CC skills beyond Morocco's borders › Support Morocco's participation in the International Climate Talks › Support set up of the Designated National Authority (DNA) and of the implementation entities for the Green Climate Fund (GCF). › Discussions and partnerships with international centres similar to the 4C.

Since its creation, the 4C has not only offered training sessions to different regional stakeholders, but has actively involved itself as an implementation agency for the national CC policy. The Centre also supports the national UNFCCC delegation, and helps the MdE with the reinforcement of capabilities for the different themes of mitigation of, and adaptation to CC.

1.1.3 Institutional and Operational Structure

The 4C was institutionalised by the Statutory Meeting of October 7, 2015 attended by the 48 founding members, including 18 government departments, 14 public research and educational establishments, six private professional groups, and 10 associations representing civil society. It was officially created November 3, 2016 as a Public Interest Group (PIG)² by a joint order of the Moroccan Delegated Ministry Responsible for the Environment and the Ministry of Finance.³ The PIG sits between two schools of thought, that of a public organisation, and that of a non-governmental organisation (NGO). The PIG is governed by three entities, the General Assembly, the Board of Directors (BD), and the Director (Figure 1).

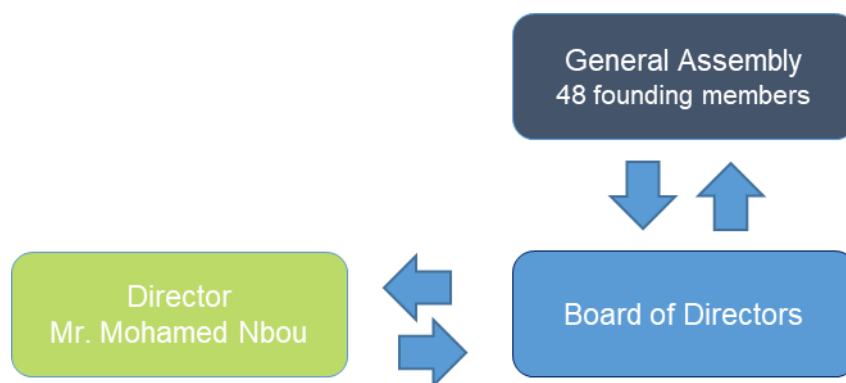


Figure 1: 4C's Institutional Structure⁴

The BD held its first meeting on February 6, 2017, during which it named Mr. Mohamed Nbou, director of CC, Biological Diversity, and the Green Economy in the Department of the Environment and previous Delegated Minister of the Environment, to the position of Director of 4C.

Key stakeholders' involvement

The willingness to involve the key stakeholders in the implementation phase of the Paris Agreement, and meeting the GHG mitigation targets contained in the NDC of Morocco, are at the very heart of 4C's institutional strategy. Those stakeholders are divided into four groups, shown in Figure 2 below. They are the public sector (national and territorial communities), the private sector, civil society, and research and expertise. Each group is represented on the 4C's BD in proportion to the weight of each sector in Morocco.

² According to Law n° 08-00 concerning Public Interest Groups (PIG) in Morocco, the PIG must perform educational, training, research or technological development activities for a limited time on behalf of its members, and also manage on their behalf the required common-interest equipment for those activities. The PIG may not aim to generate a profit.

³ Published in Official Bulletin N° 6514.

⁴ Law n° 08-00 concerning Public Interest Groups (PIG), (OB of June 1, 2000). Available online at: <http://jurismaroc.vraiforum.com/t52-groupements-d-interet-public.htm>.



Figure 2: Four groups involved in 4C⁵

4C Management

Management of the 4C is based on plural governance, since its operation calls upon all of its members. The various decisional and operational bodies of 4C appear in Table 4. The PIG's legal foundations also foresee auditing entities, see Table 5, to ensure the organisation's transparency.

⁵ 4C, The 4C. Available online at: http://www.4c.ma/medias/4c_mindmap_french_small.jpg.

Table 4: 4C's Institutional Bodies

Body	Responsibilities	Composition & Operation
General Assembly (GA)	<p>Plays a key role in the implementation and institutional, operational, and legal operation of 4C for the following responsibilities:</p> <ul style="list-style-type: none"> › Adopt the constitutional convention of 4C as a PIG › Establish the financial contribution of each party › Nominate the members of the BD › Nominate a statutory auditor (SA) for a 4-year term › Present a projected business plan 	<p>Presided over by the delegated Minister in charge of the Environment and made up of the 48 founding members, one for each institution included in the four groups (18 government departments, 14 public research and educational establishments, six private professional groups, and 10 associations representing civil society). The public establishment members of the groups must hold the majority of votes, and rule on the majority of votes held by the members present.</p> <p>Meets at least once a year and no later than the 6th month following the end of the fiscal year, at the BD's request.</p>
Board of Directors	<ul style="list-style-type: none"> › Manage the Centre and decide on its priorities; › Nominate the General Manager; › Define the business plan the funding strategy concerning the financial backers; › Produce an annual report on the Centre's management in order to inform the members of all the Centre's activities during the recently completed fiscal year. 	<p>The BD includes a representative of each of the member organisations. The GA coops all administrations representing the members.</p> <p>The majority of the votes must be held by the group's public establishments</p> <p>The administrators' mandated terms must be part of the agreement, but cannot be greater than 4 years.</p> <p>The administrators can seek a second mandate, and may be removed at any time by the BD.</p>
Director	<ul style="list-style-type: none"> › Ensure the Centre's proper operation under BD management; › Oversee and coordinate development of programmes, management of the Centre's activities, development of partnerships, training programme logistics, etc. › Oversee the validation committee that reviews the nominations received for the experts' database and the files submitted for the virtual library 	<p>The Director, nominated by the BD during the statutory meeting, ensures the Centre's operation under BD management</p>

Table 5: 4C's Auditing Entities

Entity	Responsibilities	Nomination Procedure
Statutory Auditor (SA)	<ul style="list-style-type: none"> › Audit the PIG's value, books, and accounting documents, and its compliance with existing accounting standards; › Audit the concordance with financial statements, of information contained in the BD's management report and in documents sent to members concerning the PIG's assets, its financial state, and its outcomes. 	<p>Nominated by the BD for a 4-year term</p> <p>The SA cannot sit on the BD</p>
Government Commissioner	<ul style="list-style-type: none"> › Take part in General Assemblies, and sit on the PIG's BD; › May order receipt of all documents concerning the group's administration and management, and visit the PIG's installations, in unannounced or other fashion; › Has suspensive veto power of 15 days over decisions that threaten the group's existence or its proper operation. 	<p>Nominated to the PIG by the Finance Minister</p>

Partnerships

4C partners with a wide range of national and international organisations from the private and public sectors, and from civil society in order to develop and drive its training programmes, thus lending it great credibility and legitimacy. There exists a privileged link with Universities in lead regions (Cadi Ayyad, Marrakech, and Faculté des Sciences [Faculty of Science] [FST], Tétouan). As manager of meteorological data, the National Directorate of Meteorology (DMN) is another important partner.

1.1.4 Development of Educational Programmes

4C's business plan identifies three priority directions that govern the development of training and educational programmes:

- 1 Ensure sectional and territorial planning linked to CC priorities;
- 2 Improve bankability of technical assistance projects;
- 3 Develop and disseminate a national measuring, reporting and verification system (MRV).

The following section describes the main steps that 4C has identified for the development of its programmes along the three directions mentioned above.

Ensure access to knowledge and know-how

4C initiates three activities in order to achieve the objectives of knowledge transfer, and development of a national communications strategy concerning CC (Table 6).

Table 6: 4C Activities that Facilitate the Dissemination of Knowledge on CC

Activity	Description
Creation of a CC experts database	One of 4C's very first activities was the creation of a national CC expert database (based both locally and outside Morocco). This database gives the Centre privileged access to vast knowledge and know-how on the adaptation to, and the mitigation of CC in Morocco, which the Centre does not necessarily possess in-house. Local experts may submit their nomination based on their specific fields of expertise through the Centre's internet site, and thus put their specific knowledge at the disposal of its users.
Compilation and development of documentation on CC	4C plays an important role in improving the quality of data on CC by publishing Morocco-specific data. It offers a virtual library for the publication of documents, publications, videos, and photos on CC. The documentation is produced by many sources: <ul style="list-style-type: none"> › Compilation of existing documents on CC in Morocco › Submission of records to the BD by national CC experts › National inventory of GHG emissions for 2010-2014 detailed by sector, and different analysis allowing the establishment of overall results and the proposal of recommendations. › National CC indicators from the sectors of water, agriculture, forestry, and biodiversity.
National CC Development Watch	Implementation of political decisions, technical, regulatory, institutional and organisational positions watch to fight climate change in Morocco. ⁶ 4C will host this watch in the shape of an internet portal updated biannually.

Targeting of sectors, beneficiaries & training needs

The prioritised sectors are closely aligned with national CC policy priorities (specifically the PCCM and CDPNs), and are identified based on the weight of their GHG emissions according to the national inventory of GHG emissions (Figure 3).



Figure 3: 4C's Priority Sectors

As for the beneficiaries, they were mainly identified during the creation of the groups, and the selection of the important organisations that will be part of each of them. 4C also worked to identify which stakeholders played an important role in the implementation of the Paris Agreement. An assessment of the training needs was then completed through participatory workshops involving the different groups of beneficiaries, in order to identify the shortcomings in knowledge and expertise, allowing the development of a pick and mix training programme that could offer a customised response. 4C also has

⁶ PCCM, *loc cit.*

a training guide at its disposal to adapt the discussion on CC to each of its group of beneficiaries, to respond to their needs, for example, the national government talks of CC and GHG mitigation policies when territorial communities are more concerned by socio-economic data on growth, and job creation.

Selection of training methods

4C champions the use of a wide range of adult education training methods, chosen based on programme goals and the target audience. The training approach aims to alternate between theoretical input, analysis of participants' practices and expertise, and the work done by compact groups on specific cases. Appendix I contains detailed information on the main features of a few courses currently offered by the Centre and its partners, the target audience, and the preferred training methods.⁷

1.1.5 Funding Strategy and Sources

The initial funding of 4.5 million Euros dedicated to the establishment of 4C was provided by the Federal Environmental Ministry of Germany in the scope of its International Climate Initiative (IKI BMUB). The GIZ drove support for the establishment of the 4C from September 2013 to December 2017. Today, the Centre's budget is based on two funding sources, membership dues, and the contributions of its financial backers (Figure 4). As a PIG, the Centre's legal structure offers great funding flexibility.

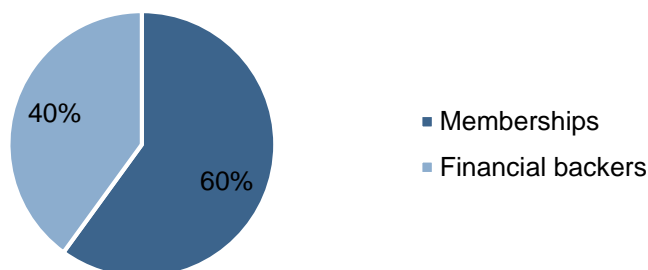


Figure 4: Spread of 4C's funding sources

Membership dues

The members are the organisations that make up the four groups and pay membership dues, of which 4C defines the minimum. This amount varies according to the group (sector). Any national organisation tied to the theme of any of the four groups can willingly submit a request to become a member of the group. In spite of its very recent creation, the Centre is already attracting a great number of organisations

⁷ 4C, 2017 climate change training session catalog. Available online at:
http://www.4c.ma/medias/catalogue_des_formations_en_changement_climatique.pdf.

who want to join as members, and 4C is presently restricting memberships in order to ensure the coherence of its members.

Financial backers

4C answers a pressing need for financial backers in need of a national synergy to channel the financial resources currently spread among the private and public sectors, and civil society. They show a great deal of interest for 4C, which acts as coordination agent for reinforcement efforts of the capabilities pertaining to CC in Morocco. The financial backers are both national and international. On the national level, entities like the General Confederation of Moroccan Enterprises (*Confédération générale des entreprises du Maroc*) and the Ministry of Environment support the Centre by injecting more money than their membership dues call for. Overall, the amounts that these financial backers invest represent about 40% of the Centre's annual budget. On the international level, funds are always invested by private agreements. Among others, 4C is funded by the following organisations: Green Climate Fund, World Bank, European Union, and GIZ.

1.1.6 Infrastructure

4C is established in an existing building (Immeuble Fadaâ Annakhil 1- Espace les Palmiers) in Rabat, which also hosts the Ministry of Land Development, Urbanism, Housing and City Policy (MUAT), and other national organisations.

1.1.7 Identified Good Practices and Recommendations

The following aspects proved to be 4C good practices and should guide the establishment of 4Climate in Madagascar:

- › As a cross-cutting theme, CC must necessarily attract plural national involvement. CC has now belonged to the public sector for far too long by foregoing the private sector and Universities. According to director Mohammed Nbou, the Centre benefits from a great impulse due to its recognition as a key stakeholder for the implementation of the Nation's political will to fight climate change. Thus, a large number of national stakeholders wish to join the Centre, establishing its credibility and recognition, and increasing the organisation's revenue.
- › The activities facilitating access to knowledge and know-how (experts' database and virtual library) allow 4C to establish its credibility and visibility as an authoritative resource by complementing the awareness of the stakes involved for the general public and the relevant stakeholders, and the adaptation and mitigation strategies regarding CC.

1.2 Asian Disaster Preparedness Centre (ADPC)

1.2.1 General Information

The ADPC is an independent regional organisation with more than 30 years of experience in the proactive management of risks related to natural disasters. Of regional importance, the ADPC covers the entire Asia-Pacific Region. It was initially established as part of an international programme that hosted the United Nations Development Programme (UNDP), the Office for the Coordination of Humanitarian Affairs (OCHA), and the International Meteorological Organisation.

Table 7: General Information on the Asian Disaster Preparedness Centre

Item	Information
Founded	1986
Number of permanent employees	150
Number of volunteers	Host trainees from regional Universities
Location (headquarters)	Bangkok, Thailand
Geographical scope	Member States: Afghanistan, Bangladesh*, Bhutan, Brunei, Cambodia*, China, South Korea, Georgia, India, Indonesia, Iran, Jordan, Kazakhstan, Laos*, Malaysia, Maldives, Mongolia, Myanmar*, Nepal, Pakistan, Papua New Guinea, Philippines, Sri Lanka, Thailand, Timor-Leste, and Vietnam* *Country office present

1.2.2 Intervention Approach

The ADPC aims to increase the Asia-Pacific Region's resilience to the effects of climate change and extreme meteorological events through the deployment of disaster risk mitigation (DRM) tools, and by disseminating information and training on the subject.

The ADPC’s portfolio of services includes the reinforcement of capabilities, the integration of the DRM in national and regional development strategies, the improvement of DRM systems, and the analysis of disaster risks in the Asia-Pacific Region. The ADPC’s approach is closely linked to the United Nations' (UN), and the Sendai Framework for Disaster Risk Mitigation 2015-2030’s Sustainable Development Goals (SDG)⁸. It is tailored around three important phases (Figure 5).

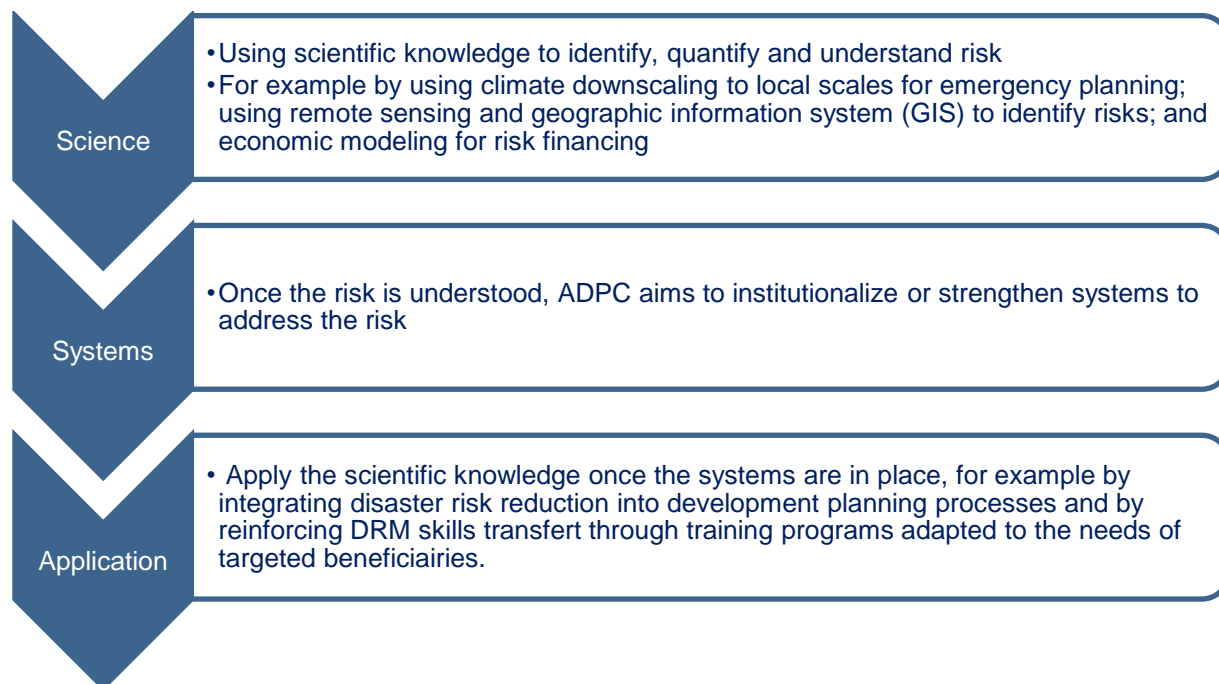


Figure 5: Application Phases of the ADPC’s Working Approach

And finally, the implementation of the training is the last step of a more general process of the fight against CC. The Centre’s scope extends beyond training and is specifically aimed at informing the stakeholders of the stakes involved through conferences, brochures, awareness campaigns and implementation of strategies. The ADPC’s approach also includes an active participation in the discussion and regional cooperation regarding DRM: the ADPC is closely involved in organizing regional conferences on DRM, which allows it to promote its mission to policy makers.

⁸ UN, Sendai Framework for Disaster Risk Mitigation 2015-2030, March 18, 2015, available online at: http://www.unisdr.org/files/43291_frenchsendaiframeworkfordisasterris.pdf.

1.2.3 Institutional and Operational Structure

Initially founded in 1986 as the liaison centre for the Asian Institute of Technology, the ADPC was created as a not-for-profit independent foundation under the laws of Thailand.⁹ In 2005, the ADPC developed an intergovernmental charter executed by its nine founding Countries (Bangladesh, Cambodia, China, India, Nepal, Pakistan, Philippines, Sri Lanka, and Thailand). The charter is still undergoing ratification by the founding member States, following which the ADPC shall obtain intergovernmental organisation status, and said member States will be fully in charge of its BD. This change of governance will certainly facilitate the Centre's funding efforts, since the financial backers will look favourably upon the member States' increased ownership of the Centre.

Governance of the ADPC

The ADPC benefits from a decentralised institutional structure that plays an important role in ensuring its continuity. As shown in Figure 6, the ADPC's governance is ensured by three main bodies: (1) the Board of Directors (BD), assisted by a steering committee, (2) the Regional Consultative Committee on Disaster Management (RCC), and (3) the International Advisory Committee (IAC). Figure 6 features an organisational chart, and a description of each of the governing bodies appears in Table 8. Internal management is handled by two bodies:

- › The executive committee, which is made up of a President (also President of the BD), a Special Advisor, and a General Manager. It creates a liaison between the BD's, RCC's and IAC's decisional bodies, and the General Management.
- › The General Management is administered by the General Manager and his Office, which has five employees (a communications expert, a public relations expert, a technical expert, a senior project manager, and an administrative assistant), and each of the thematic department's managers. The members meet as required, but at least once a month, to oversee the mobilisation of resources and the business development strategy. They direct the thematic activities of departments, which are all autonomous with respect to their activities, budgets, and funding efforts, allowing the ADPC to operate in a decentralised fashion.

⁹ Thai law allows three types of organization registration: corporations, associations, and foundations. Foundations are charitable, not-for-profit organizations that could be called non-governmental organizations. The framework rules and regulations for this type of organization are specified in the Ministerial Regulations, Operation and Registration of the Foundation B.E. 2545 (2002) law. More details on the establishment of a foundation can be found at: <http://www.siam-legal.com/Business-in-Thailand/thailand-foundation.php>.

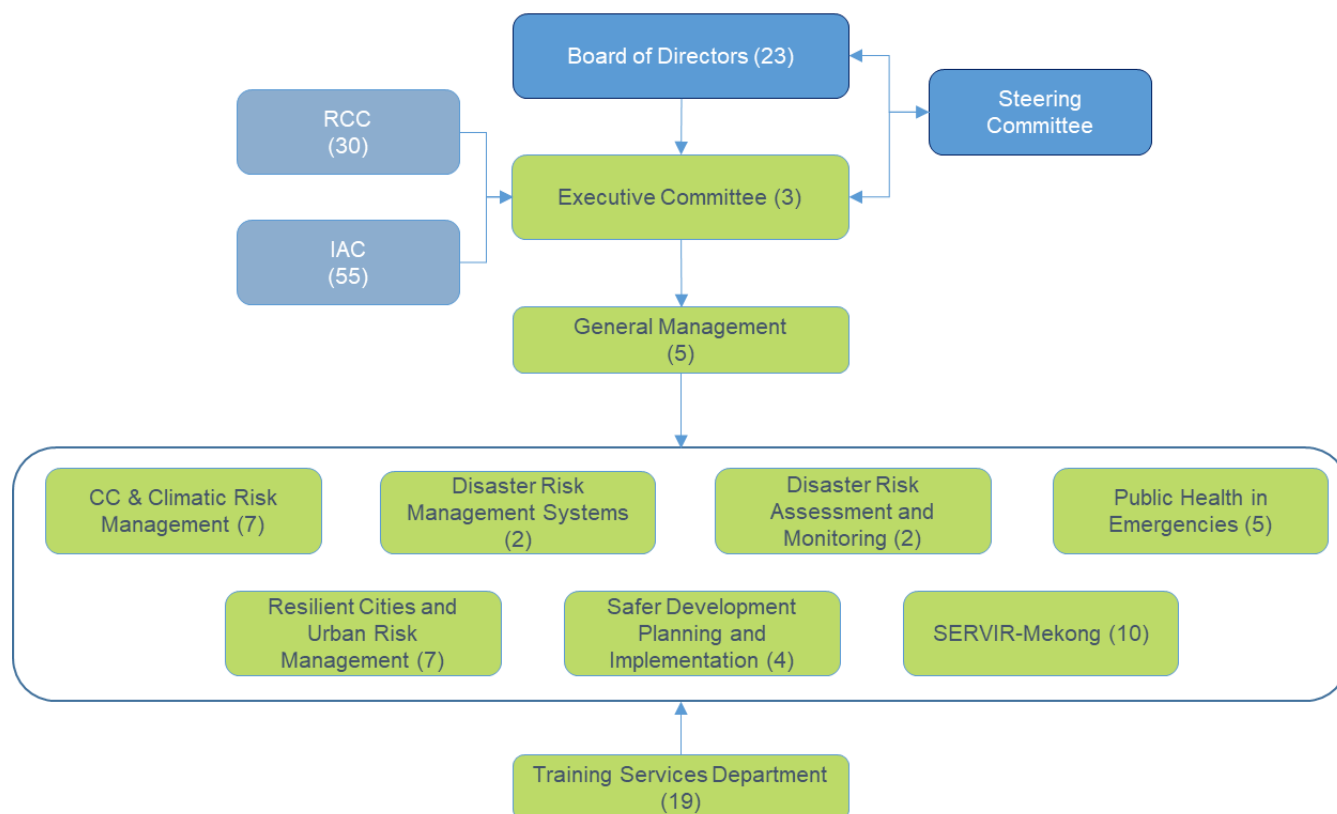


Figure 6: ADPC organisational chart

The Centre’s employees are assigned to the different departments shown in Figure 6.¹⁰ With about twenty employees from six countries, the training department is the largest. The team is made up of a department manager, capability development experts, project managers, and technical experts.

¹⁰ The number in brackets is the number of employees indicated on the website on the consultation date (2017-07-05). It helps to estimate the size, but does not necessarily reflect the actual up to date number of employees in each department. <http://www.adpc.net/igo/contents/ourteam/aboutus-ourteam.asp#sthash.ldz1j23x.dpbs>.

Table 8: ADPC Governance Bodies

Body	Responsibility	Composition and Operation
Board of Directors (BD)	<ul style="list-style-type: none"> › Manage and oversee the Centre’s activities; › Establish regulations and ensure that resolutions are executed; › Nominate subcommittees to accomplish specific activities under the BD’s management. 	<p>The ADPC’s BD is led by Prof. Krasae Chanawongse, and is made up of 23 members, including ambassadors extraordinary and plenipotentiary deployed in Thailand (Australia, Bangladesh, China, Denmark, France, India, Japan, Norway, Netherlands, Pakistan, Philippines, United Kingdom, Sri Lanka, Sweden, and Vietnam), and representatives of the government of Thailand and of the Asian Institute of Technology. After ratification of the ADPC’s intergovernmental charter, the member States will be the ones sitting on the BD.</p> <p>The members are elected for three-year terms and will meet at least once a year.</p>
Steering Committee	<ul style="list-style-type: none"> › Provide tangible support to the Centre’s general management; › Provide a strategic direction within the framework of the ADPC’s intergovernmental charter. 	<p>Members are both provided and nominated by the BD, and meet 2 to 3 times per year.</p>
Regional Consultative Committee on Disaster Management (RCC)	<ul style="list-style-type: none"> › Provide a consultative mechanism for the development of RCC strategies; › Promote regional level cooperation programmes between member countries; › Provide a discussion and exchange platform. 	<p>32 members from 26 countries, including the governmental representatives of the national disaster management offices throughout the Asia-Pacific Region.</p> <p>The members meet on an annual basis.</p>
International Advisory Committee (IAC)	<ul style="list-style-type: none"> › Provide a strategic direction on the DRM’s main themes, and support the ADPC’s mission and goals. 	<p>55 members from 18 countries, including policy makers, recognised DRM applied scientists, and research fellows.</p>

Partnerships

Close collaboration between regional organisations, development agencies, local, national and regional governments, governmental and non-governmental organisations, and financial backers is absolutely essential to the realisation of the ADPC’s mission, and requires being at the very heart of the organisation’s institutional structure. In 2016, the ADPC established 65 new partnerships and executed a great number of agreements-in-principal. This network not only ensures the Centre’s legitimacy and credibility, it also helps promote it in the Asia-Pacific Region and beyond.

1.2.4 Development of Educational Programmes

The ADPC identifies itself as one of the main training and CC expertise reinforcement resources in the Asia-Pacific Region. The section below describes the main steps identified for the development of such programmes.

Dissemination of knowledge and know-how

The ADPC develops content in order to disseminate information on the stakes involved and DRM strategies in the Asia-Pacific Region. It particularly develops national case studies and technical reports, which are all available for public consultation on its website.

Targeting of sectors, beneficiaries and training needs

The ADPC’s strategy for the 2020 outlook also defined six strategic themes that guide the Centre’s actions (Table 9). Transverse themes are added to this: gender and diversity, poverty and means of subsistence, and regional cooperation.

Table 9: Strategic Themes Guiding the ADPC Action

No.	Strategic Theme	Brief Description
1	Risk Governance	Ensure that the development policies and practices include measures to mitigate the disaster and climate risks
2	Urban Resilience	Reinforce urban players’ capabilities of preparation, responsiveness, and adaptation to extreme meteorological events
3	Climactic Resilience	Guides the Centre’s efforts toward improving the Asia-Pacific Region’s resilience to climate change
4	Health Hazard Management	Adapt and improve health services in order to respond to emergencies due to natural disasters
5	Emergency Response Planning	Prepare governments, emergency response organisations, and communities to respond correctly to climactic emergencies
6	Robust Recovery	Help governments, citizens, and the private sector to quickly and efficiently rebuild following disasters.

The ADPC has an internal methodology for training needs analysis (TNA) to entirely assess the beneficiaries' gaps in knowledge and expertise. According to context, the ADPC can use or any combination of the following methods of analysis:

- › Subject analysis;
- › Simple survey to assess level of capability;
- › Interviews; and
- › Group thematic discussions.

Training Programmes and Methods

The ADPC simultaneously manages two types of training programmes: the regional flagship programme and the initiatives funded by financial backers.

Regional DRM flagship training programme

The APDC has managed a programme of regional training workshops since its very foundation in 1986. The duration of such workshops varies according to subject. For example, the *6th Regional Training Course on Nutrition in Emergencies* takes 11 days, while other training courses are shorter (between 1 and 5 days). Entirely independent and self-funded, this programme gives excellent results, since it appropriately meets the exact needs of the targeted beneficiaries without having to meet the international financial backers' agenda. The programme is funded by the participants' fees (approx. USD 2,000 for a one-week course). Table 17 of Appendix I contains a detailed list of available courses along with their related beneficiaries, duration, and cost.

Training programmes funded by financial backers

Most of the ADPC's training programmes are funded by international financial backers and are part of the consulting services implemented in the region, such as those of the Association of Southeast Asian Nations (ASEAN), of *Channel Research*, of the South Asian Association for Regional Cooperation (SAARC), and the US Forest Service (USFS).

Training methods

The ADPC recommends using a combination of training techniques adapted to adults, that focus on interactive presentations, group exercises, simulation of DRM scenarios, peer learning events, on-site and institutional visits, educational games, guest speaker presentations, documentary presentations, case studies and sharing of best practices, collective brainstorming, etc.

1.2.5 Funding Strategy and Sources

The Centre’s budget relies on three main sources of funds, tuition paid by participants in regional workshops, direct funding of programmes, and international invitations to tender (Figure 7). The ADPC decided to forego contributions from its member States in order to avoid having them dictate its agenda’s direction.

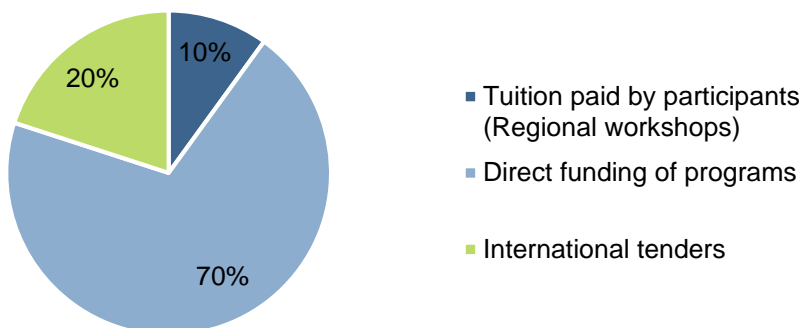


Figure 7: ADPC funding sources¹¹

The bulk of the ADPC funds are generated by programmes developed by bilateral and multilateral development agencies based on the member States’ needs (Table 10), for which the Centre is then mandate to implement. Another, smaller, part is generated by international invitations to tender, but because of strong international competition, this is not a preferred funding method. Finally, a very small part of the revenue is generated by the tuition paid by the participants in regional workshops, revenue solely used for the annual implementation of the Regional DRM flagship training programme.

¹¹ Econoler Interview, June 2017. Please note that this detail is a summary estimation of the interviewed representative, and must not be considered the organization’s official figures.

Table 10: Non-Exhaustive List of ADPC Financial Backers

Type of Financial Backer	Organisations Funding the ADPC
International and Regional Organisations	<ul style="list-style-type: none"> › World Bank › UN-Environment › International Organisation for Migration (IOM) › World Meteorological Organisation (WMO) › Asian Development Bank (ADB) › United Nations Human Settlements Programme (UN-HABITAT)
Foreign Governments and Bilateral Development Agencies	<ul style="list-style-type: none"> › Royal Norwegian Ministry of Foreign Affairs › Department for International Development (DFID) of the United Kingdom › United States Agency for International Development (USAID) › <i>Japan International Cooperation Agency (JICA)</i> › GIZ › Government of Canada
Philanthropic Organisations	<ul style="list-style-type: none"> › <i>Thomson Reuters Foundation</i> › <i>Bill and Melinda Gates Foundation</i> › <i>Margaret A. Cargill Foundation</i> › <i>Rockefeller Foundation</i>

1.2.6 Infrastructure

Originally, the Centre was part of the *Asian Institute of Technology*. The ADPC had its own department in the University and depended entirely on the University. In the middle of the 90s, the Centre became independent, rented and moved to a downtown office, closer to its financial backers and its partner organisations. The ADPC in no way excludes a future move into its own building.

1.2.7 Identified Good Practices and Recommendations

The following aspects proved to be the ADPC's good practices that should guide the establishment of 4Climate in Madagascar:

- › The ADPC directs its activities toward international development and DRM strategies, which affords it international notoriety and facilitates its funding efforts. The Centre's annual report refers to it continually in order to position its efforts in a more general framework.
- › Obtaining undeniable credibility and becoming a reliable CC source at both the regional and international levels is essential. To that end, we must join with development banks, universities, governments, and other partners with an existing good reputation in the field, and we must do this at the earliest stages of the Centre's development process.
- › The new Centre must favour incremental development. As a matter of fact, many similar institutions in the region were forced to close shop after only a few years due to a speedy development and a lack of means to fuel their ambitions.
- › Although Mr. Sisira Kumara, head of the training department, suggests creating CC content adapted to Madagascar's national situation, he also suggests the frequent use of existing content to avoid committing too many human and financial resources to it.

1.3 Kumasi Institute of Technology and Environment (KITE)

1.3.1 General Information

The Kumasi Institute of Technology and Environment (KITE) is a not-for-profit organisation that acts as a key player in the fields of energy, technologies, and the environment in the ten regions of Ghana, and in West Africa.

Table 11: General Information on KITE

Item	Information
Founded	1996
Number of permanent employees	14
Number of volunteers	2 Canadians, 3 months per year (Engineers Without Borders [Canada])
Location (headquarters)	Accra, Ghana
Geographical scope	National and regional (Ghana, Kumasi and West Africa, ECOWAS)

1.3.2 Intervention Approach

KITE's mission is to promote the provisioning and efficient use of energy resources, and environmental and technological services to help poor communities in Africa by means of the reinforcement of capabilities, research, the justification of policies and the implementation of projects. The set goal is to improve the sustainability and productivity of communities in order to hasten the accomplishment of SDG and ensure the stable economic growth of the targeted countries.

All of the services offered by KITE meet the needs a wide target audience, specifically contractors, politicians, local citizens, and financial institutions. The organisation seeks to meet the needs of beneficiaries through the creation of adapted methodologies based on participatory appraisals of such needs, as well as the implementation of training and advisory projects.

1.3.3 Institutional and Operational Structure

KITE's institutional structure is made up of three decisional and operational bodies: (1) the Executive Council, (2) the Chief Executive Officer, and (3) the Departmental "Allies". Figure 8 illustrates KITE's internal structure, the General Management's composition, and the employee coordination, divided into two categories: project managers and research managers. Their roles and responsibilities are listed in

Table 12, and the General Management's composition appears in Table 13.



Figure 8: KITE's operational structure

Table 12: Role and Responsibilities of KITE's Decisional Bodies

Decisional Body	Roles and Responsibilities
Executive Council	Made up of independent professionals from the energy and climate fields, the Executive Council recommends the NGO's strategic orientations.
General Management	Overseen by a General Manager, the GD also includes a Programme Manager, and a Financial and Administrative Head. It is responsible for the organisation's daily activities, programme management, and the coordination of two teams of employees: 1) the research managers, responsible for business development, invitation to tender monitoring and response, data collection and analysis, and the mapping of CC-specific initiatives in neighbouring jurisdictions, and 2) the project managers, responsible for the management and coordination of projects, and the communication of results to the main players.
Departmental "Allies"	KITE has developed solid working relationships with a great number of departmental representatives and public agencies that play an important role in the field of CC. The NGO has designated "Allies" who are charged with 1) representing KITE in their respective departments, 2) move the organisation's priorities and agenda forward, 3) disseminate information on KITE's areas for action, and 4) advise the departments and agencies on KITE's potential involvement in supporting governmental efforts by avoiding duplication.

Table 13: Executive Council’s Composition

Position	Name	Profession
President	Ms. Theresa Osei Tutu	International Consultant, Founder and Director of THLRC Ghana Ltd, a company that provides consultation and expertise development services
Member	Prof. Daniel Incoom	Head of the Planning Department at the Kwame Nkrumah University of Science and Technology
Member	Prof. Chris Gordon	Head of the Institute for Environment and Sanitation Studies of University of Ghana
Member	Dr. Rose Mensah-Kutin	Head of <i>ABANTU Development’s</i> regional office, an organisation that promotes women’s rights
Member	Prof. Sulemana Al-Hassan	Professor in the department of Mining Engineering of the University of Mines and Technology, Tarkwa

1.3.4 Development of Educational Programmes

Targeting of Sectors, Beneficiaries & Training Needs

KITE prioritises three sectors, which orient its intervention approach toward training as shown in the figure below.



Figure 9: KITE’s Priority Sectors

The training beneficiaries are selected based on these three priority sectors, and are quite diversified (citizens, contractors, entrepreneurs, policy makers, government officials, farmers, civil society, etc.). The NGO has developed its own methodology for the analysis of training needs, based on a participatory method, involving close interaction with the beneficiaries, and the organisation of theme-specific discussion groups. KITE underlines the importance of adapting the methodology to the situation and to local needs.

Methods, Assessment Processes & Training Tools

This section presents the training methods and tools. Appendix I contains a non-exhaustive list of recent and current KITE projects.

Training methods

KITE's preferred training methods are the ones that favour a robust interaction between beneficiaries. Their programmes will generally use a combination of theoretical approaches through interactive courses, followed by training activities that favour a participatory approach, such as on-site training, demonstrations on the use of equipment, etc. They previously implemented a large transcontinental online programme (between Africa and Latin America), and do not recommend this approach, as it creates a certain distance between the trainers and the trainees, and contributes nothing to achieving the desired results. KITE also bases itself on internationally recognised methods, and adopted the UNEP-Risoe Centre's methodology for the creation of clean development mechanism (CDM) projects and their pertinent training.

Assessment process

The assessment process is also essential for providing feedback, to ensure that the programme achieves its goals, and to improve their programmes going forward. To this end, the NGO proceeds to a systematic pre and post-project assessment. The assessment process is also essential to the promotion of the Centre's results to policy makers.

Training tools

Many different educational tools are used to facilitate the beneficiaries' training. A few are listed below:

- › Manuals including many graphics, tables, and images to facilitate the grasp and popularisation of complex themes;
- › CDM investment guide for the Department of the Environment (available online);
- › Social networks (especially Facebook) in the aim of sharing tools and running awareness campaigns.

1.3.5 Funding Strategy and Structure

The NGO is entirely funded through international invitations to tender, and receives no funding from the Government of Ghana or from other national public agencies. With the aim of becoming proactive, General Management is presently developing a new business development strategy.

1.3.6 Infrastructure

In order to be closer to both the Ministries and its national partners, KITE is established in an existing building in downtown Accra.

1.3.7 Identified Good Practices and Recommendations

The following aspects proved to be the KITE's good practices that should guide the establishment of 4Climate in Madagascar:

- › KITE's BD and general management are working hard to keep policy makers informed of every project implemented by the organisation, from initiation to assessment. Their commitment and recognition are absolutely essential for the NGO to have any impact. They have therefore developed a communications strategy with the pertinent departments.
- › Develop a funding strategy that specifically incorporates financial institutions.

1.4 Caribbean Community Climate Change Centre (CCCCC)

The United Nations Framework Convention on Climate Change (UNFCCC) recognises the CCCCC as the focal point of the CC stakes in the Caribbean, and by the United Nations Institute for Training and Research (UNITAR) as a centre of excellence.

1.4.1 General Information

The CCCCC was born from the reflection that a piecemeal approach to the international financial backers' initiatives would not be able to meet the urgent adaptation needs to CC in the Caribbean, and that a long-term approach was needed.

Table 14: General Information on the CCCCC

Item	Information
Founded	2005
Number of permanent employees	15
Number of volunteers	-
Location (headquarters)	Belmopan, Belize
Geographical scope	Members of the CARICOM community: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Sainte Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago

1.4.2 Intervention Approach

The CCCCC is established to act upon CC's most pressing impacts on the ecosystem of the Caribbean, including: sea-level rise, coral bleaching, ocean acidification, storms and hurricanes, droughts and floods. The CCCCC's suggested approach is exhaustive and holistic, and far exceeds the fields of training and awareness-raising. It is based on five main foundations:

- 1 Creation of content and dissemination of information on climate change using the basic *Clearinghouse* database tool available on the Centre's website;¹²
- 2 Development of curriculum, training programmes, and awareness;
- 3 Development and implementation of international consultation projects;
- 4 Framing of CC advice aimed at policy makers; and
- 5 Implementation and management of quick CC warning systems, specifically the Coral Reef Early Warning System (CREWS).

¹² Clearinghouse database, available online:

http://clearinghouse.caribbeanclimate.bz/?db_type=0&country=&collection=V501&s=§or=&topic.

1.4.3 Institutional and Operational Structure

A strong political push allowed the implementation of the Centre that operates like a legal entity approved by the Heads of State of the Caribbean community (CARICOM). The CCCCC by-laws were defined by CARICOM's Legal Counsel, and approved in September 2001. Therefore, the Centre acts as a CARICOM execution agency, and is managed by the Board of Governors selected by the council of ministers nominated by the CARICOM's Heads of State. Many organisations are represented in the board, thus ensuring that the main players can be heard (Table 15).

Table 15: Board of Governors Composition

Name	Organisation Represented
Chairman - Dr. Leonard Nurse	Government of Barbados
Ms. Cheryl Dixon	<i>Caribbean Development Bank</i>
Mr. Gregory McGuire	Petroleum Industry
Dr. Douglas Slater	CARICOM Secretariat
Ms. Amanda Charles	Tourism Organisation
Ms. Helen Royer	Government of Dominica
Rear-Admiral (Retd) Gary A R Best	Government of Guyana
Mr. Sylvester Clauzel	Government of Sainte Lucia
Dr. John Charlery	University of the West Indies
Dr. Colin Young	Government of Belize
Ms. Martha Guerra	Insurance Association of the Caribbean

The CCCCC's daily activities are monitored by an upper management team composed of:

- › Dr. Kenrick Leslie (Executive Director);
- › Dr. Ulric Trotz (Assistant Director and Science Advisor);
- › Mr. Carlos Fuller (Regional and International Liaison Officer).

Figure 10 features an organisational chart of each of the departments, and their number of employees.

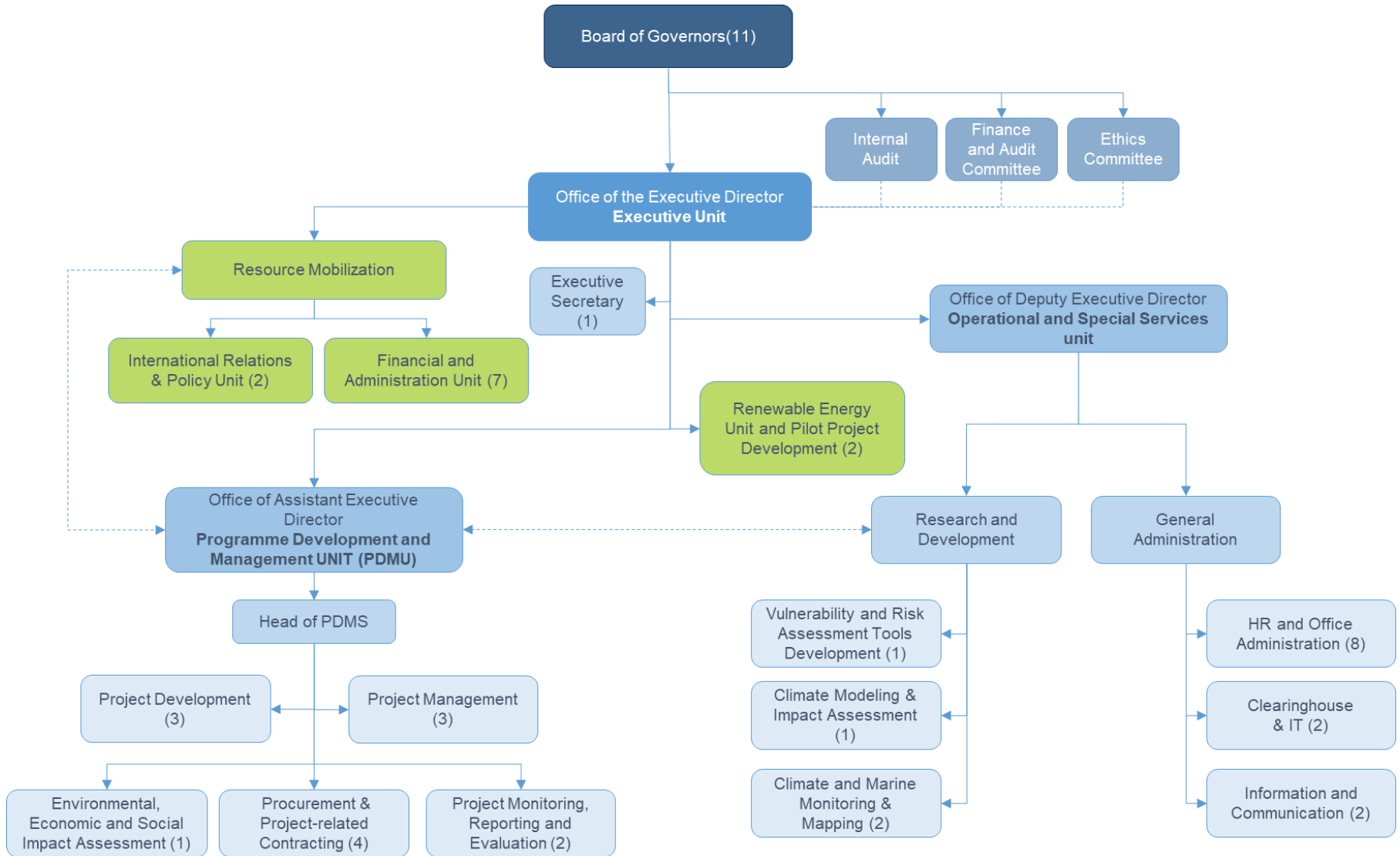


Figure 10: CCCCC Organisational Chart

Partnerships

The Centre also works in close collaboration with other key organisations in the area, mainly with the *Caribbean Regional Climate Centre*, hosted by the *Caribbean Institute for Meteorology and Hydrology*. Partnerships with international organisations and institutions have also been established, allowing the transfer of expertise, and the sharing of tools and methods of analysis.

1.4.4 Development of Educational Programmes

This section aims to analyse two of the CCCCC's foundational activities relevant to the implementation of 4Climate, 1) the creation of training content, and 2) the dissemination of information on the programmes and methods used to drive the training and awareness-raising activities on CC.

Creation of Training Content and Dissemination of Knowledge

The CCCCC acts as a research and analysis centre, and as a player in the dissemination of information on the stakes of CC. Two activities are essential to achieving this goal:

- › **The Clearinghouse**¹³ database includes books, videos, regional and international strategies, project reports, scientific studies and articles, all published online on a monthly basis. Launched in 2010, this tool quickly expanded to include 3,830 documents by September 2013. The target audience includes the press, citizens, project implementation teams, governments, and partner organisations. It downloads an average of 8,500 documents per month.
- › **Climate forecasts and models:** in collaboration with the Meteorological Institute of the Republic of Cuba (INSMET)¹⁴, the CCCCC is actively committed to the development of climate models and forecasts for the Caribbean, using PRECIS software provided by the UK-based Hadley Centre.

Targeting of Sectors, Beneficiaries and Training Needs

The CCCCC's strategic plan for the 2021 outlook identifies 5 priority sectors that dictate its activities (Figure 11).



Figure 11: CCCCC's Priority Sectors

¹³ CCCCC, Regional Clearinghouse Database. Available online: http://clearinghouse.caribbeanclimate.bz/?db_type=Climate%20Model&country=&collection=V501&s=§or=&topic.

¹⁴ INSMET's official website: <http://www.insmet.cu/asp/genesis.asp?TBO=PLANTILLAS&TB1=INICIAL>.

Training and Awareness-Raising Programmes and Methods

The three CCCCC initiatives listed below are a good illustration of the Centre's orientation regarding training programmes and methods. Appendix I contains a more detailed list of the CCCCC's training programmes. The Centre occasionally uses international consulting firms to manage the training programmes.

- › **Community projects:** by implementing adaptation projects in at-risk communities, the CCCCC seeks to accelerate civic involvement in the fight against CC, and change behaviours by using a participatory process that integrates communities as partners. The CCCCC's projects are mainly aimed at the health, tourism, agricultural, and renewable energy industries. Moreover, the CCCCC has a network of available experts for every stage of project development and implementation.
- › **Launch of a CC educational initiative:** as part of the COP15 conference of December 2009, the CCCCC launched the "1.5 to stay alive" campaign whose mission includes 2 main components:
 - Take part in the international discussion on CC by arguing on a world scale for a level of GHG emissions no greater than 350 parts per million (ppm) in order to stabilise global warming;
 - Raise the awareness of CARICOM citizens to the impact of climate change on their means of subsistence, by mainly targeting youth.
- › **Online training programme on renewable energy (RE) and energy efficiency (EE)¹⁵:** launched as part of the GIZ Renewable Energy and Energy Efficiency Technical Assistance (REETA) programme, it aims to improve the technical knowledge linked to sustainable energy (mainly bioenergy). The tools used include technical reference manuals, training modules (including PowerPoint and video presentations), along with exercises and exams.

1.4.5 Funding Strategy and Structure

Initially, the CCCCC was funded by the Global Environment Facility (GEF) to the tune of USD 5.6 million. At the time the CCCCC was founded, it was decided that the CARICOM States would not fund the Centre, rather, they would exchange know-how by providing personnel and technical assistance. In 2004, the CCCCC embarked on a promotional campaign aimed at overseas governments, to diversify its funding. In so doing, it received much bilateral support, both in funding and personnel, specifically from Australia, Greece, Italy, and the Commonwealth Secretariat.

¹⁵ CCCCC, Online Bioenergy Course, official website: <http://caribbeanclimate.bz/online-bioenergy-course/online-bioenergy-course.html>.

Today, the CCCCC is financially independent and has a detailed business plan to ensure the Centre's financial continuity. The fact that the CCCCC acts as a CARICOM execution agency lends it the great legitimacy and recognition that facilitate access to grants. The Centre is also fully transparent and has a well-established accounting structure, as demonstrated by its Policy on fraud¹⁶ and its online complaint mechanism¹⁷.

Green Climate Fund Certification

The Green Climate Fund (GCF) certified the CCCCC as a regional execution agency, the first in the area, on July 9, 2015. It now acts as an interface for the management of GCF funding in Caribbean countries that are unable to coordinate the requests of national focal points.

Recipients of grants from regional and international organisations

The CCCCC receives grants from regional, bilateral, and international financial institutions (IFI): its team of experts has a solid expertise in project development and the drafting of grant requests.

- › Global Environment Facility;
- › World Bank;
- › Department for International Development (DFID) of the United Kingdom;
- › Climate and Development Knowledge Network (CDKN);
- › Inter-American Development Bank (IDB);
- › United Nations Agencies (UNESCO, UN-Environment);
- › GIZ REETA.

1.4.6 Infrastructure

Initially lodged in University of Belize facilities, the CCCCC now occupies its own premises in the Lawrence Nicholas Building, Belmopan (Figure 12).

¹⁶ Caribbean Community Climate Change Centre (CCCCC) Antifraud and Corruption Statement, October 27, 2014, available online: <http://dms.caribbeanclimate.bz/M-Files/openfile.aspx?obitype=0&docid=6066>.

¹⁷ CCCCC Complaints' official website: <http://caribbeanclimate.bz/complaints/complaints.html>.



Figure 12: Lawrence Nicholas Building, the CCC permanent lodging

1.4.7 Identified Good Practices and Recommendations

The following aspects proved to be the CCCCC's good practices and should guide the establishment of 4Climate in Madagascar:

- › The CCCCC opted for an incremental development that allowed it to gradually grow with no financial risks;
- › It has a well-established legal and operational structure, and transparent internal processes;
- › It is seen as a regional source of information and reference in the field of CC, which lends it both credibility and notoriety;
- › The policy makers are deeply committed to and involved in the BD, which was planned at the time of the Centre's creation;
- › Having by-laws and articles of association is important for the official recognition of the Centre by many different players and to establish its legitimacy.
- › The programme development and management unit allows the centralised management of the programme portfolio, which produces greater synergy between the programmes themselves, and between the development and management of programmes.

CONCLUSION

By executing an exhaustive international level mapping and analytical review of the centres and the educational projects on climate change, this report allows us to issue recommendations that favour an efficient and strategic implementation of 4CLIMATE in Madagascar. The best practices outlined during the interviews with the four centres are presented and summarised below. They will need to be considered in relation with the main aspects of the Centre's implementation: 1) the area of intervention (prioritisation of sectors, methodologies, and training programmes), 2) institutionalisation, 3) funding strategy, and 4) choice of infrastructure.

Establishing Credibility

In order to fulfill its mission of education and awareness-raising, the Centre must become an authoritative source on climate change and sustainable development. To that end, the activities favouring access to knowledge and know-how allow the establishment of the Centre's credibility and visibility, and its participation in regional and international forums for dialogue. The development of partnerships with regional and international organisations (development banks, educational and research institutions, international organisations, etc.) should also be favoured during the initial stages of the Centre's establishment process. In conclusion, partnering with an already recognised and well-established national CC institution (for example, a national technical committee, a University or a research centre) helps lend the Centre credibility at the time of its founding. It is strongly recommended that the Centre be initially set up in an existing building, affiliated to an existing institution, in order to establish a material link with such institution.

Ensure Powerful Political and Social Ownership of the Centre's Mission

As a cross-cutting theme, CC must necessarily attract plural and diversified national involvement. The private sector, civil society, and research institutions should therefore be as involved as the public sector. The involvement of key national players in the Centre's institutional structure (especially by sitting on the Board of Directors), the continuous and transparent communication of the Centre's findings to policy makers, and the use of an interactive methodology for the analysis of the beneficiaries' training needs all help shape the Centre's credibility, and ensure its political and social ownership.

Promote Incremental Development, and Ensure the Centre's Financial Sustainability

One of the obstacles facing new training centres is their ambition for rapid growth, and having to shut down due to insufficient means. The 4CLIMATE Centre should therefore favour incremental development that will allow it to grow gradually while protecting its human and financial resources. For example, by adapting existing international level documentation to Madagascar's context rather than create all-new content, and by exploiting knowledge and know-how already available in Madagascar. Partnering the Centre with an already well established and functional institution, and setting it up in an existing building are also aspects that should be favoured. To ensure the Centre's financial continuity,

the business plan must be based on reliable and diversified funding sources, favouring bilateral agreements and avoiding all sole dependence on highly competitive international invitations to tender. Taking part in international conferences is a great way of promoting the Centre to potential financial backers.

Consistently Target Sectors and Beneficiaries with National and International Priorities

The Centre must ensure that the mission, programmes, and training requirements meet national, regional, and international priorities regarding CC, and mention this in all of the Centre's documentation. This will favour funding efforts aimed at international and governmental organisations. It is therefore necessary to implement a national and international CC development watch in order to give direction to the Centre's activities. The involvement of national key players from various fields in the prioritisation of fields and the identification of training needs will also ensure consistency with national CC goals.

APPENDIX I TRAINING PROGRAMME LISTS

This appendix provides detailed information on the training programmes disseminated by each of the target centres, specifically the types of training and their goals, beneficiaries, and training methods.

CLIMATE CHANGE COMPETENCE CENTRE IN MOROCCO (4C)

Theme	Type of Training and Goal	Target Audience	Preferred Training Methods
Agriculture and CC	Training section integrated into the university degree course that aims to understand the effects of CC on agriculture, and adaptation strategies, including intelligent agriculture	Technicians, agronomy engineers, and managers in the agricultural industry	Active and participatory andragogy aimed at alternating between theoretical input, practical analysis, and participants' experiences, and the work in small groups on specific cases.
	Reinforcement through the ACC of the rural players' capabilities in order to increase their resilience	Agricultural cooperatives, regional product promotion associations, women's cooperatives, etc.	Modular approach including presentations, participatory exercises, and group discussions. Hands-on assignments in consideration of the target audience's exact needs.
	Explore permaculture and organic farming as agricultural alternatives favouring the development of a sustainable industry.	Engineers, farmers, NGOs	Presentations, interactive discussions, farm visits
CC and air pollution	Mentor national companies and institutions toward a better understanding of the GHG emissions and ambient atmospheres related to their environmental performance	Private sector professionals Territorial community and public sector engineers, technicians, leaders, etc.	Presentations, videoconferences, videos, case studies (group discussions), and pollutant dispersion simulations using 3D software.
CC mitigation	Energy efficiency – buildings. Allow the design of energy-efficient buildings.	Building heat economy engineers, architects, and technicians	Project-based learning Presentation of case studies developed in Moroccan buildings, use of specific software.
General CC training	Initiate the public to the general CC theme, many different training courses available on: CC-sensitive governance, CC mitigation, UNFCCC mechanisms, adaptation to CC in the Moroccan context, territorial approach to CC	Private sector officials, NGO members, students, etc.	Presentations, video demonstrations, discussions, questions/answers, furthering knowledge on points of interest Direct coaching and virtual learning follow-up (1 week)

Theme	Type of Training and Goal	Target Audience	Preferred Training Methods
Integration of the ACC in planning	Training on the ACC's systemic approaches to making a policy, programme or project more resilient to CC	Planning professionals in the fields affected by CC.	Training based on the CC integration model in planning developed by the OECD and GIZ. Customised training, presentations, discussions and group work, use of the CRISTAL project planning and management tool ¹⁸ .

ASIAN DISASTER PREPAREDNESS CENTRE

The ADPC offers training programmes as part of projects funded by international financial backers (Table 16), and through its regional flagship DRM training programme (Table 17).

Table 16: Training Programmes Funded by International Financial Backers

Type of Training	Example of Programmes (2015-2016) ¹⁹
Thematic training aimed at players touched by the effects of CC	Training of farming communities in order to integrate the RCC's and ACC's interventions in their agricultural practices (Sri Lanka, Nepal, and Thailand). "iPrepare Business": training unit specifically dedicated to the private sector
Training programmes targeting social groups	ADPC's flagship programme, National and International level DRM Initiatives in Asia, ensures the training of both men and women to integrate the gender equality perspective in the scope of the project. Mentoring of young citizens in the Asia-Pacific Region in order to give them leadership skills and help them become agents of change in disaster risk mitigation within their own community, specifically through information and communication technologies (ICT).
Regional thematic training workshops	Regional policy makers involved in the development of policies linked to the resilience of coastal communities
Training programmes aimed at the main RCC players	Train journalists on the creation of media content linked to climactic resilience, and help them understand the different dimensions of information processing and journalistic techniques Train local humanitarian organisations in quick and efficient disaster response
Training aimed at governments	Institutional support and training for the establishment of assessment and natural disaster response committees within governmental bodies (Bangladesh and Thailand)

¹⁸ International Institute for Sustainable Development (ISDD), User Manual, July, 2009. Available online: http://portailqualite.acodev.be/fr/system/files/node/327/cristal_manuel_fr.pdf.

¹⁹ ADPC, Annual Report 2016, January 5, 2017. Available online: <http://www.adpc.net/igo/contents/Publications/Default.asp>.

Table 17: Regional DRM Flagship Training Programme

Programme	Beneficiaries	Term	Cost per Person
Disaster training course	Government officials in charge of disaster management, institutes and other organisations in charge of disseminating knowledge on disasters, and people involved in the coordination disaster management activities.	3 weeks	USD 2,775
Regional training course on community disaster mitigation in an ever-changing environment	Local governmental departments, NGOs, INGOs, UN agencies, FICR, and the private sector.	2 weeks	USD 2,275
Training course on flood disaster risk management	Professionals working with flood disaster risks: deciders, national and local elected and nominated officers, development and planning authorities, aquatic and flood control engineers, professionals, officials in charge of urban planning, housing, public works and water resources, developers, emergency response personnel, UN and other international agencies, and NGO's working on disaster mitigation.	2 weeks	USD 2,275
Training course on disaster risk mitigation within the national development process	All of the participants who work or will work in organisations where spatial information is used or deemed useful in disaster risk management or in the mitigation of such	2 weeks	USD 2,275
Training course on the communication of disaster risks	The course is specialised in the targeting of people involved in disaster planning, and management and education in the case of a disaster	3 days	USD 1,075
Training course on gender equity and disaster risk mitigation	Project personnel, governmental and non-governmental partners	3 days	USD 1,075
Training course on mitigating urban vulnerability to earthquakes	People preoccupied by vulnerability to earthquakes, deciders, national and local elected and nominated officers, development and planning authorities, those in charge of urban planning, private real estate developers, emergency personnel, response organisations, and UN, NGO, and other international organisation representatives	2 weeks	USD 2,275
Training course on CC risk management	Managers, deciders, experts and researchers professionally involved in risk and climate change management, public and civic sectors, Universities, national organisations, governmental organisations, and NGOs	2 weeks	€ 6,600

Programme	Beneficiaries	Term	Cost per Person
Training course on the Minimum Initial Service for Sexual and Reproductive Health	Medical, paramedical, and non-medical personnel of the numerous organisations that provide services tied to minimal initial service	5 days	USD 1,575
Training course on the preparation and response to hospital emergencies	Health care personnel	5 days	USD 2,000
Training course on public health during complex emergency situations	Health care personnel	2 weeks	USD 2,575

KUMASI INSTITUTE OF TECHNOLOGY AND ENVIRONMENT

Theme	Type of Training and Goal	Target Audience	Preferred Training Methods
Rural Energy Poverty	Installation and operation of multifunction platforms for the generation of the energy needed for income-generating activities	200 female entrepreneurs from the rice and grain processing field	Participatory approach to teach the installation and operating methods of multifunction platforms Theoretical inputs for the transfer of business development, market study, and micro- and small business management capabilities Beneficiary literacy services
	Distribution and use of efficient cooking stoves programme	Households using obsolete cooking technologies (mostly women)	Awareness campaign adapted to women, underlining the environmental and health advantages of using improved cooking stoves. Hands-on approach allowing the beneficiaries to develop their ability to assemble and use exhaust hoods. Beneficiary literacy services
	Rural Energy Supply and Use Programme (RESUP) to expedite the development and delivery of modern energy services essential to rural areas by focusing on bioenergetic raw materials	Energy providers and rural community households	Promotion campaigns focusing on foreign energy resources, specifically bioenergetic raw materials. Interactive training and demonstration on the use of efficient production equipment and on the steps for end use.

Theme	Type of Training and Goal	Target Audience	Preferred Training Methods
Sustainable development	Energy and environmental programme that uses the sharing of knowledge and the transfer of technologies to aid the development and use of environmentally friendly technologies	Peri-urban, and rural communities	<p>Promotion campaigns on and demonstration of the advantages of sustainable, efficient use of renewable and non-renewable energy.</p> <p>Awareness-raising and communication campaign to ensure the involvement of communities and institutions in behaviour modification, and deter all actions that expedite environmental deterioration.</p> <p>Organisation of expertise-transfer workshops focused on local citizens from the private and public sectors, affording access to opportunities, technological tools, financial resources, and knowledge by acting as an auxiliary source for socio-economic development funding.</p>
Mitigation of Climate Change	Development of capabilities for the clean development mechanisms (CDM) used to establish a GHG emissions mitigation project that complies with national sustainable development goals	Policy makers, private sector	<p>Organisation of national workshops for the development of beneficiaries' technical CDM capabilities, and the development and implementation of such projects.</p> <p>Execution of an awareness-raising campaign on a climate change and CDM website.</p> <p>Development of a national support guide aimed at CDM investors.</p>

CARIBBEAN COMMUNITY CLIMATE CHANGE CENTRE

Programme	Beneficiaries	Documents and Methods
Training on the assessment of capabilities and vulnerability in the Caribbean	Government departments and agencies, INGOs, development agencies	Assessment manuals, PowerPoint presentations, field visits, group activities
Reinforcement of capabilities for the use of a coastal information system	Universities and research centres in three pilot countries (Barbados, Grenada, and Jamaica)	Theoretical training in data collection and automation, satellite imagery, system used in decision-making Support for the implementation of geographical information systems in Universities and research centres
CARIWIG project: develop capabilities and knowledge on the effects of CC on the weather	Policy makers, governmental departments and agencies	Provide relevant local data on meteorological phenomena produced by climate change. Support the development of networks with international research centres. Implementation of an online system to conduct environmental studies
International collaboration programme for coral management in a CC context (Caribbean, Australia)	Coral reef managers and policy makers relevant to the field of marine management.	Theoretical training on and support for the development of an action plan on coral reef management Implementation of intercountry collaborative projects focused on the exchange of information and team learning. Implementation of an online portal focusing on information exchange.



ECONOLER