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STRATEGIC PLAN FOR THE ESTABLISHMENT OF A REGIONAL CLIMATE CENTRE IN CENTRAL AFRICA

**African Ministerial Conference on Meteorology
(AMCOMET)**

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Strategic Plan for the Establishment of a Regional Climate Centre (RCC) in Central Africa

1. Introduction

This document describes the approach for the establishment of a Regional Climate Centre (RCC) for Central Africa as a specialized institution of the Economic Community of Central African States (ECCAS).

Mindful that weather and climate phenomena and processes recognize no political boundaries, an RCC represents an integrated approach, a regional institutional framework to support the activities of the NMHSs of WMO Member States in a given region; with a view to strengthening their capacity to provide national users with high-quality climate services.

The establishment of the Regional Climate Centre of Central Africa (CA-RCC) marks the culmination of a series of meetings, including the First Conference of Ministers Responsible for Meteorology in Africa, held in Nairobi (Kenya) in April 2010, the Fifteenth Session of the Regional Association I (Africa) (RA I), held in November 2010 in Marrakesh (Morocco) and the Addis Ababa support meeting for the implementation of the Global Framework for Climate Services (GFCS) in Africa (September 2012). It is designed to meet the need for reliable climate information and services that can help reduce vulnerability to climate change and promote climate resilience in connection with the development-related investments of the countries of the Central African sub-region, such as Angola, Burundi, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of the Congo (DRC), Equatorial Guinea, Gabon and São Tomé and Príncipe.

2. Background

Central Africa experiences climate anomalies and extreme weather events, which have a major socio-economic and environmental impact. The 2007 IPCC report indicates that extreme weather events will be more likely in the 21st century, with disastrous consequences if mitigation and adaptation measures are not taken now.

At the Eighth Ordinary Session of the Assembly of the African Union in 2007, strong concerns were expressed as to the vulnerability of Africa's socio-economic sectors and production systems in the face of climate variability and change. Many stressed the need to improve tools for analysing climate change data in order to provide credible information and incorporate climate adaptation measures into decision-making processes.

The ministers and heads of delegation, in the Declaration issued at the close of the First Conference of Ministers Responsible for Meteorology in Africa, held in Nairobi (Kenya) in April 2010, agreed to *“establish the African Ministerial Conference on Meteorology (AMCOMET) as a high-level mechanism for the development of meteorology and its applications”* and to *“establish with the support of WMO and partners a sub-regional structure for climate monitoring and adaptation to climate change for sustainable development in Central Africa”*.

In the light of the many-sided challenges relating to climate variability and change facing virtually all African countries, the fifteenth session of RA I, held in Marrakesh (Morocco) in November 2010, agreed to set up RCCs in all of the Regional Economic Communities. On this occasion, RA I entrusted ACMAD, which has a pan-African mandate, with the role of coordinating all RCCs on the continent under the name of RCC-Africa.

At the Fifth Central African Climate Outlook Forum, (PRESAC-5), held in Yaoundé (Cameroon) in September 2011, the need for rapid implementation of the decisions of AMCOMET and RA I regarding RCCs in Africa was clearly understood and supported by all participants, who included national and international specialists on climate issues, experts from the United Nations International Strategy for Disaster Reduction (UNISDR), and representatives from WMO, ACMAD and ECCAS.

In the Libreville Ministerial Declaration of June 2012 on the strategy for risk prevention, disaster management and climate change adaptation and the disaster preparedness and response plan of action for Central Africa, the ministers and heads of delegation responsible for disaster prevention and

management in the ECCAS Member States, basing themselves on the conclusions of a series of multi-sectorial meetings, undertook “to establish up a regional climate centre in Central Africa”.

In the Addis Ababa Declaration in support of the implementation of the Global Framework for Climate Services (GFCS) in Africa (September 2012), representatives of the African Union Commission (AUC), the Regional Economic Communities (CEMAC, ECOWAS, IOC, IGAD, SADC) and the Secretariat of the African, Caribbean and Pacific (ACP Secretariat) Group of States, on the invitation of the Minister of Water and Energy of the Federal Democratic Republic of Ethiopia, in the presence of the representatives of the World Meteorological Organization (WMO), the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), the United Nations Economic Commission for Africa (UN-ECA), the African Centre for Meteorological Application for Development (ACMAD) and the European Union (EU), solemnly agreed to “provide support to CEMAC and IOC in the establishment of Regional Climate Centres in the Central African and Indian Ocean regions”.

On the basis of the decision taken during the Second Session of AMCOMET, held in Zimbabwe in October 2012, and following several informal consultations, it was agreed that concerted efforts should be made jointly with ECCAS, whose mandate is primarily focused on the promotion, integration and harmonization of socio-economic development policies at sub-regional level, in order both to highlight the requisite technical and organizational aspects for the establishment of an RCC in Central Africa and develop the necessary strategies for its designation as a WMO RCC.

3. Role of the RCC of Central Africa

WMO RCCs are centres of excellence that create regional climate products including long-range forecasts that support regional and national climate activities and thereby strengthen the capacity of WMO Members in a given region to provide national users with tried-and-tested climate services.

All WMO RCCs must meet certain mandatory functions defined by WMO and comply with the elements of guidance published by the WMO Commission for Climatology for technical climate issues and by the WMO Commission for Basic Systems for operation. In addition to the mandatory functions, the services provided by WMO RCCs encompass other, highly recommended functions, all defined and specified in Part II of the WMO Manual on the Global Data-Processing System (GDPS), under designation criteria, and may include other functions in addition to those required by the region.

In informal consultations, a consensus emerged to not only place the regional climate centre for Africa under the auspices of the ECCAS and to designate it as the RCC for Central Africa but above all to make it a specialized ECCAS body. In this connection, and in accordance with ECCAS’s fields of intervention, special emphasis should be placed on generalized risk management in the sub-region.

Likewise, to ensure participatory development and better mainstreaming of climate-related information into the implementation of investment projects, there is a need to encourage users of climate services and other development partner institutions to become involved in data collection and product development.

To qualify for designation as a WMO Regional Climate Centre, the RCC of Central Africa must be able to provide, inter alia, the activities relating to the mandatory functions of all WMO RCCs:

- Operational long-range forecasting activities (both dynamic and static, on a time frame ranging from one month to two years, depending on regional needs):
 - Interpret and evaluate long-term forecasts prepared by the global production centres (some of which may be obtained through the main centres for long-range forecast multi-model ensembles – see supplement II.12 in Part II of the WMO Manual on the Global Data-Processing System (GDPS); rely on the Standardized Verification System for Long-range Forecasts (see supplement II.8); communicate relevant information to RCC users; and provide the global production centres with feedback; and
 - Evaluate the use made of the products and services provided by the RCCs on the basis of the feedback provided by RCC users.

- Operational climate surveillance activities:
 - Prepare climate diagnoses, including analyses of climate variability and extremes, at the sub-regional level;
 - Develop a baseline climatology for the sub-region; and
 - Introduce a climate monitoring system.
- Operational data services, in support of long-range operational forecasting and climate monitoring:
 - Develop sets of sub-regional climate data subject to quality control, preferably in the form of data at grid-points; and
 - Provide basic climate and archival services, when NHMSs so request.
- Training in the use of RCC operational products and services:
 - Provide information on the methodologies and specifications relating to mandatory RCC products along with guidelines on their use; and
 - Coordinate training activities for interpreting and using mandatory RCC products.

In the operational framework, each activity to be carried out should be broken down into specific products to be supplied on a regular basis, with strict adherence to the frequency of updating for each product. When RCC activities are executed, due consideration should always be given to the obligation to comply with the standards of the WMO Information System and to respect the principles of the WMO Communities as regards the exchange of data and products.

4. Structure of the RCC of Central Africa

The establishment of an RCC in Central Africa in particular and in each Economic Community in Africa in general comes in response to the difficulties which the individual National Meteorological and Hydrological Services (NMHSs) in the area face in fulfilling their mission and providing national users with high-quality climate services. The RCC of Central Africa has the distinctive feature of being a WMO RCC in the making. Consequently, its structure must be consistent with the organizational framework of WMO RCCs.

WMO RCCs may be organized in two ways: for a given region, their functions may be performed by a single (multifunctional) centre, or these functions may be divided up between several centres – or nodes – of a WMO RCC network.

In order to define the structure of the RCC of Central Africa and ensure its sustainability, the comparative analysis of the two options took the following factors into consideration:

- Availability in terms of:
 - Basic infrastructure (a sufficient number of suitable premises equipped with essential basic resources such as water, electricity, air conditioning, etc.);
 - Suitable IT facilities (for processing data, running global models and scenarios, archiving, etc.);
 - Communication media (information management system, satellite data receiving system, website);
 - The necessary human resources (technical support staff, scientific staff, administrative staff); and
 - Facilities for mobilizing outside scientific expertise and contributions from stakeholders and partners.

Certain management competences of WMO RCCs have also been factored in to facilitate the choice of the likely structure, in particular those which stipulate that:

- The competences of the WMO RCCs are intrinsically regional and neither encroach upon nor replace national competences; and
- The main clients of WMO RCCs are National Meteorological and Hydrological Services (NMHSs) and the other WMO RCCs in the region and neighbouring areas as well as the international bodies recognized by the competent WMO Regional Council (RC).

The following table shows the strengths and weaknesses of each organizational mode.

Organizational structure	Drawbacks (weak points)	Advantages (strong points)
Multi-functional RCC	<ul style="list-style-type: none"> – Infrastructural means are difficult to identify – More financial means must be mobilized – Scientific and technical staff must be beefed up 	<ul style="list-style-type: none"> – Synergy of action in a single pole – Technical means are optimized – Information is centralized – It is easier to mobilize outside scientific expertise and secure contributions from stakeholders and partners – Easy to supervise activities
Networked RCC	<ul style="list-style-type: none"> – Dispersion of energy and poles for concentrating information – Duplication of technical means – Harder to secure outside support – Harder to coordinate activities 	<ul style="list-style-type: none"> – Infrastructural means are easier to identify – Possible to take advantages of means available to the NMS

Regardless of the organizational mode chosen, solutions will have to be found to overcome shortcomings. At this stage, thought should be given to available means for implementation and to political will.

4.1 Option 1: A multifunctional RCC

Depending on the means available, one could:

- Envision creating a centre of excellence from scratch; or
- Consider using an existing centre which could be turned into an RCC, thereby taking advantage, at least in the start-up phase, of the framework for operations and possibly the available material and technical infrastructures.

4.2 Option 2: A networked RCC

Also depending on the means available, one could:

- Envision creating from scratch a specialized, fully equipped centre with a clear mandate in conjunction with an RCC in a pre-established network; or
- Consider taking advantage of existing centres, given that embedding a specialized centre in a National Meteorological Centre (NMC) could be a temporary solution in the start-up phase. The NMC's material and technical infrastructures could serve both structures. Here as well, special

emphasis should be placed on defining missions and specifying fields of competence in order to ensure smooth coexistence.

5. Functioning

5.1 Prerequisites

In order to host an RCC and perform the functions assigned to it as per the standards specified in the WMO Manual on the Global Data-Processing System as a pilot centre or designated centre, any pilot centre or group of centres needs:

- 1) Clear internal terms of reference as well as clear terms of reference from the host country and the competent WMO Regional Council to carry out and pursue coherent, high-quality climate activities for the benefit of a given region or sub-region; and
- 2) Suitable resources to establish and sustainably operate the centre, in particular the basic material infrastructure (a sufficient number of suitable premises equipped with the essential basic resources such as water, electricity, air conditioning, office furniture, etc.), suitable IT facilities (for data processing, modelling, archiving, etc.), communication media (information management system, satellite data reception system, website, etc.), the necessary human resources (technical support staff, scientific staff, administrative staff, etc.). The quality and nature of these resources will depend on a number of factors, such as the scope of the programme to be executed and the size of the area to be covered.

5.2 Institutional framework

5.2.1 Protocol establishing the RCC of Central Africa

The internal terms of reference of the new structure must be clearly defined by a Protocol establishing the Regional Climate Centre of Central Africa and its adoption as a specialized institution of the Economic Community of Central African States/Central African Economic and Monetary Community (ECCAS/CAEMC).

This key document, which will serve as the Centre's Statutes, must be signed by all of the representatives of Member States. The Protocol specifies the aims of the Centre, its operational structure, its functioning, its staffing, its funding sources and its partnerships.

5.2.2 Headquarters agreement

The Centre's external terms of reference must be clearly defined by a Headquarters Agreement covering the RCC between the host country and ECCAS/CEMAC.

This document spells out the legal framework for the Centre's operation in the host country.

5.3 Infrastructural framework

5.3.1 Basic material infrastructure

The Centre must have clean, fully-equipped premises in an appropriate setting.

In order to ensure a rapid start-up for the Centre, it would be desirable for the host country to make available to the centre, either permanently or on a temporary basis, a sufficient number of secure, easily accessible premises. These premises must be supplied with water and electricity and be equipped with a reliable telecommunications system. Office furniture may be procured over time, as need be.

5.3.2 Technical infrastructure

In addition to the system for information and communication and the one for satellite data reception, the centre must have adequate high-quality IT resources that meet its needs.

5.3.3 Funding

The funding sources for the centre, which will have to be spelled out in the Protocol establishing the RCC, shall come from:

- Member States' assessed contributions;
- Voluntary and/or special contributions;
- Subsidies, donations and bequests;
- Contributions from cooperation partners;
- Payment for services rendered; and
- Other funding sources which may be approved by the ECCAS.

In the case at hand and as a basis for the RCC's functioning, contributions by stakeholders are key to the centre's survival. Payment of assessed contributions by Member States is essential for mobilizing outside resources and expertise of all kinds.

In order to ensure the long-term functioning of the RCC, the centre must have a funding system based on an effective resource mobilization mechanism.

6. Resource mobilization strategy

This mobilization, which is the heart of the matter, concerns the infrastructural, institutional, human and financial resources to be identified.

6.1 Infrastructural resources

As noted above under "Prerequisites" (5.1.2), for setting up the RCC and ensuring its long-term functioning, appropriate resources are required, in particular the basic material infrastructure (a sufficient number of secure, easily accessible premises, supplied with such essential basic resources as water, electricity, air conditioning and office furniture), sufficient IT equipment (for data processing, modelling, archiving, etc.), means of communication (information management system, satellite data reception system, Web page, etc.).

As far as the basic infrastructure is concerned, thought should be given to equipping the centre or nodes with generators to cope with the frequent power outages in the sub-region. For environmental and cost reasons, any opportunities to use renewable energy should be seized.

With regard to equipment:

- Good use should be made of existing tools (such as the satellite data reception system installed as part of the Puma and/or AMESD projects, which plays a key role in developing the necessary risk management products, especially in the sub-region), supplementing them as need be; and
- Special attention should be given to equipment quality in the case of procurement.

6.2 Institutional resources

The host country (countries) and WMO RA I must provide clear terms of reference so that the centre may conduct and pursue coherent, high-quality climate activities which benefit the sub-region.

Concrete steps must be taken to derive maximum benefit from partners' institutional support.

6.3 Human resources

A memorandum of understanding between the stakeholders, especially the member countries, for the making available and secondment of primarily technical and scientific personnel, could help meet the centre's needs.

Given its status as a specialized institution, the RCC of Central Africa would follow ECCAS regulations with regard to staff recruitment and pay.

As the main climate research platform for the sub-region, the centre would be manned by permanent staff and project staff.

ACMAD's experience with mobilizing scientific and technical expertise could be exploited to ensure the sustainability of the centre's activities. Partnerships for the exchange of specialists and expertise could be concluded with the other centres.

6.4 Financial resources

In order to facilitate the mobilization of financial resources for the functioning of the centre, whose structure remains to be defined, the RCC of Central Africa, given its status as a specialized institution, would rely on ECCAS and CAEMC, which are the main intergovernmental cooperation organizations for the sub-region.

In its efforts to secure funding for its activities, it is clear that the RCC will have to develop effective resource mobilization strategies with a view to deriving maximum benefit, in addition to contributions from countries, WMO and its partners and known potential partners (ADB, WB, EU, etc.), from the various multilateral funding mechanisms, bilateral, sub-regional and regional development institutions and multilateral development banks.

It is understood that Members' contributions constitute the RCC's primary funding source, as funds from development partners are merely complementary. Payment of assessed contributions by Member States is essential to ensure the proper functioning of the centre.

7. Implementation stages

To be designated as a WMO RCC, after the launch period (start-up phase), there must be a successful demonstration (demonstration phase), after which the centre of excellence reaches the maturity phase.

7.1 Start-up phase

This phase begins when the Centre's Director is appointed.

During this phase, which may last two or even three years, the framework for operations is created, the structural bases are laid, the goals assigned to the centre are evaluated and clarified, partners are mobilized and consortia of technical, scientific and financial partners are developed.

Also during this phase, needs are clearly identified and appropriate strategies are designed. This phase corresponds to a trial period, which paves the way for the demonstration stage.

7.2 Demonstration phase

During this period, the aim is to prepare the ground for a WMO centre for excellence, build synergies for action between the RCC, NMHSs and development partners, and lay the foundations for the elaboration of a plan of action to meet the goals set. The services provided during this phase are evaluated on a regular basis, with methods readjusted as necessary.

7.3 Services

- Establishment of a sub-regional database as a priority;
- Appropriation of the process for seasonal climate forecasting (PRESAC);

- Sub-regional climate monitoring;
- Preparation of various forecasts at the sub-regional level;
- Preparation of sets of sub-regional climate data;
- Exploitation and evaluation of global models;
- Management of climate risk; Provision of early warnings in the framework of disaster risk management; Development of a website for product dissemination; and
- Organization of training workshops for NMHSs (on product use, database establishment and maintenance, interpretation of PLEs, etc.).

7.3.1 Production strategy

- Take advantage of all competencies available in the sub-region;
- Benefit from the experience of the other regional centres like ICPAC, ACMAD and all research centres and universities conducting climate research on the continent; and
- Explore the opportunities provided by many research centres in Europe (such as UNESCO'S International Centre for Theoretical Physics in Trieste, Italy), in the Americas (African Desk, IRICS at Columbia University, New York, USA), Asia and elsewhere, and where climate research on Africa is conducted.

7.3.2 Maturity phase

After a successful demonstration phase, the centre must both consolidate its gains and develop a strategic action plan to overcome shortcomings and take due account of the specificities of the sub-region:

- Weather and climate applications for various sectors of development (agriculture, health, water resource management, energy, etc.);
- Climate risk monitoring and management; and
- Research on climate and development, etc.

8. Recommendations

R1. After evaluation of national needs and capacities to provide/use the products and services of an RCC and based on an analysis of the various consultations with both stakeholders and some potential partners, to ensure the successful establishment of an RCC in Central Africa, it would be desirable to emphasize synergy of action as regards the organizational mode and to opt for a multifunctional centre.

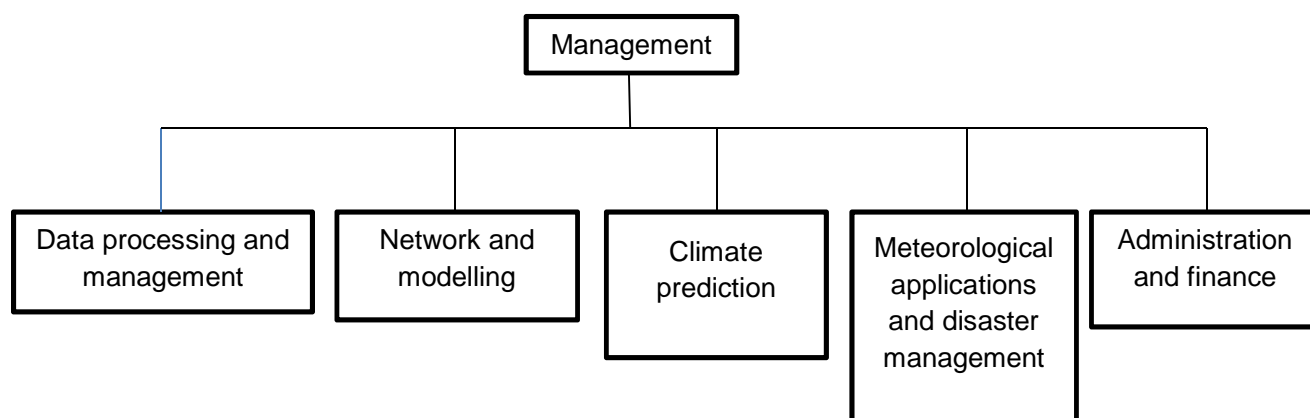
R2. Central Africa is the only Regional Economic Community in Africa that lacks such a facility. Therefore, to enable the Centre to begin its activities, it is desirable that the host country agrees to provide, on a temporary or permanent basis, the basic infrastructure (adequate premises in a user-friendly, secure and easily-accessible setting, fitted with the necessary equipment and adequate computer and communication tools).

R3. In order to maximize the opportunities for support to NMHSs which ECCAS and CAEMC offer, it would be desirable, while maintaining the status of an ECCAS/CAEMC specialized institution, to change the name to Central Africa Climate Prediction and Applications Centre, abbreviated as CA-CPAC.

R4. The proposed structure of the RCC of Central Africa, at its inception and during the demonstration phase, should consist of a management office and five departments (Data processing and management, Network and modelling, Climate prediction, Meteorological applications and disaster management, and Administration and finance).

9. Organizational Staffing and Procurement Plan

Draft Flowchart for the Demonstration Period



9.1 Defining posts and needs

Services	Functions	Staff	Office equipment
Management	Supervision and coordination	1 Director P1 1 secretary 1 librarian	3 desktop PCs 1 laptop, 1 all-in-one 1 projector
Administration and finance	Personnel and equipment management, accounting	1 Administrator P3 1 accountant 1 driver 1 warehouse clerk 1 cleaning person 1 security guard	2 desktop PCs
Data processing and management	Training for NMHSs in data collection, archiving, exchange and management, sharing of data processing methods, regional data networking and database administration	1 Head of Service P2 1 expert database administrator P3	1 server 2 desktop PCs 1 laptop 2 storage disks
Network and modelling	NWP capacity-building, evaluation and adaptation of models, downscaling, attempts to develop regional models	1 NWP expert Head of Service P2 1 telecommunication network and system expert P3	2 desktop PCs 1 information and telecommunication system, 1 satellite data reception system
Climate forecasting	Long-term forecasting, appropriation of the PRESAC	1 Head of Service P2 1 forecasting	2 desktop PCs 2 PCs for data

	process, exploitation of global climate models and scenarios, various regional climate statistics	engineer P3	processing
Meteorological applications and disaster management	Development of climate applications in various development sectors, monitoring and mapping of disasters and climate risks associated with impacts on specific sectors and vulnerability analyses; joint research on climate risk reduction issues	1 Head of Service P2 1 risk management expert P3	2 desktop PCs 1 all-in-one

9.2 Staff recruitment plan for the first four years

Position	Yr 1	Yr 2	Yr 3	Yr 4	No. Yr 5
Director P1	1				1
Heads of technical services P2		4			4
Engineers/Experts/Administrator P3			5		5
Secretary	1				1
Accountant	1				1
Librarian				1	1
Driver	1				1
Warehouse clerkr		1			1
Cleaning person	1				1
Security guard	1				1
Total	6	5	5	1	17

9.3 Number of employees for the first five years

Position	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Director P1	1	1	1	1	1
Heads of technical services P2		4	4	4	4
Engineers/Experts/Administrator P3			5	5	5
Secretary	1	1	1	1	1
Accountant	1	1	1	1	1
Librarian				1	1
Driver	1	1	1	1	1

Warehouse clerk		1	1	1	1
Cleaning person	1	1	1	1	1
Security guard	1	1	1	1	1
Total	6	11	16	17	17

9.4 Procurement plan for IT and telecommunication equipment

Article	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	No. Yr 5
Desktop PC	3	4	5	1		13
Laptop	1	1		1		3
All-in-one	1		1		1	3
Projector	1			1		2
PC for data processing		1	1			2
Server		1	1			2
PC archiving system/server		1				1
Storage disk			1	1		2
Information and telecom system		1				1
Satellite data reception system		1				1
Various processing softwares	20%	20%	20%	20%	20%	1
5KVA UPS		5	2			7
1KVA UPS	3	4	5	1		13

9.5 Types and characteristics of IT and telecommunication tools

Article	Description
Desktop PC	Desktop : Processor: core i7, frequency: 2.4 GHz or more RAM: 4 Go or more, hard drive: 1To or more
	Desktop PC: Processor: core i7, frequency: 2.4 GHz or more 4 Go of RAM; hard drive: 2 To, graphic card 21" dual display
PC server	Personal Computer (PC) server: Processor: core i7 or more, frequency: 2.4 GHz or more RAM: 8 Go, hard drive: 2To or more
Database server	High Performance Computing Server (HPC server): Processor: minimum 8 cores, preferably 12; Frequency: minimum 2.0Ghz, preferably 2.4Ghz; RAM: minimum 32GB, preferably 64GB;

	RAID technology storage: minimum 16 disques or more.
High-performance computer	High Performance Computing Cluster (HPC server): 12 cores; Frequency: minimum 2.0Ghz, preferably 2.4Ghz; RAM: minimum 32GB, preferably 64GB; Hard drive: 2 TB each x 16 disks or more.
Laptop	Processor: core i7, frequency: 2.4 GHz or more RAM: 4 Go or more, hard drive: 1To or more
Uninterrupted power supply (UPS)	SMART UPS On-line 01 KVA, 220 V
Uninterrupted power supply (UPS)	SMART UPS On-line 05 KVA, 220 V
All-in-one	A3/A4 paper format
Storage disks	USB external disk drive, capacity 1 TO or more
	USB external disk drive, capacity 2 TO or more
Projector	- Native resolution: 1920 x 1080 - 16/9 - 2000 ANSI Lumens – Contrast: 10000[+]
Regional climate models	PRECIS from UK MET Office RegCM4.1 from ICTP
Software	Scanning software with license
	Image library management software
Application software	RAMADDA/THREDDS climate database management system
Statistical software	MatLab version R2012a or more recent
	SYSTAT software Version 13
Cartographical analysis software	ArcGIS for Server Version 10, advanced version
	ArcGIS for Desktop Version 10
	SURFER GRID Version 10
Compilers	• Fortran 77, • Standard Fortran 90, • ANSI C, • C ++
Satellite data reception system	Identical to the one installed by Telespazio France as part of the supply contract AMESD EuropeAid/128227/D/SUP/ET
Information and telecommunication system	Based on a PC server (WEB, MAIL, FTP), processor: core i7 or more, frequency: 2.4 GHz or more RAM: 8 Go, hard drive: 2 X 1To or more of RAID, and a VSAT Internet connection with Wimax support.

NB: Compilers and many other types of software may be available free of charge

Evaluation of a five-day PRESAC workshop

(bringing together a meteorologist, a hydrologist, a facilitator and representatives from two application sectors per country)

N°	Expenditure item	No.	UP	Qty	Amount
1	Plane ticket	40	400 000	1	16 000 000
2	Per diem facilitators	4	120 000	7	3 360 000
3	Per diem participants	45	90 000	7	28 350 000
4	Per diem participants host country	15	25 000	5	1 875 000
5	Secretary	1	30 000	7	210 000
6	Meeting room rental	2	150 000	5	1 500 000
7	Office rental	2	50 000	7	700 000
8	Liaison vehicles	3	80 000	7	1 680 000
9	Coffee breaks	60	2 000	9	1 080 000
10	Luncheon hosted	60	12 000	1	720 000
11	Dinner hosted	60	20 000	1	1 200 000
12	Sundry logistics and unforeseen expenses	1	1 325 000	1	1 325 000
TOTAL					58 000 000

9.6 Evaluation of the operating budget for the first five years

This evaluation is conducted in accordance with the foregoing elements contained in the programme for organizing staffing and procuring equipment

Year 1:

Recruitment of a Director, followed rapidly by an accountant, a secretary, a driver, a security guard and a cleaning person

Year 2:

Recruitment of the four heads of technical services and a warehouse clerk

Year 3:

Recruitment of an administrator responsible for administrative and financial matters and of four engineers / experts for the four technical services

Year 4:

Recruitment of a librarian. Plans for equipment procurement meet the needs of each service and the staff recruitment programme. Equipment depreciation is covered under IT maintenance

Wage assessment is based on the ECCAS staff salary scale, especially for senior staff (P1, P2, P3), with annual staged increases of 10%.

It should be noted that during the operational phase, the RCC-CA shall be manned by permanent employees and project staff.

9.7 Summary of the operating budget (5 years) (in thousands of FCFA)

No.	Budget line	Year 1	Year 2	Year 3	Year 4	Year 5
1	Current expenses	21 000	24 000	32 000	32 000	32 000
2	Annual wages	70 702	238 728	435 920	484 772	533 249
3	Various activities (meetings, seminars)	150 000	175 000	200 000	225 000	225 000
4	Technical means	33 156	1778 888	53 871	42 347	34 960
5	Logistics	51 000	77 000	45 000	37 000	42 000
TOTAL		325 858	693 616	766 791	821 119	867 209

Total: 3,474,593,137 FCFA (€ 5,296,636) for the first five years.

10. Draft Operating Budget for the first five years (in FCFA)

RCC-CA: Draft operating budget for the first five years in FCFA																
Budget line	Item	Year 1			Year 2			Year 3			Year 4			Year 5		
		Qty	UP	Amount (FCFA)	Qty	UP	Amount (FCFA)	Qty	UP	Amount (FCFA)	Qty	UP	Amount (FCFA)	Qty	UP	Amount (FCFA)
Current expenses	Premises rental (yr)	1			1	0	0	1	0	0	1	0	0	1	0	0
	Consumables (yr)	1	6,000,000	6,000,000	1	8,000,000	8,000,000	1	15,000,000	15,000,000	1	15,000,000	15,000,000	1	15,000,000	15,000,000
	Electricity and water (yr)	1	3,000,000	3,000,000	1	4,000,000	4,000,000	1	5,000,000	5,000,000	1	5,000,000	5,000,000	1	5,000,000	5,000,000
	Télécommunicatioun (yr)	1	12,000,000	12,000,000	1	12,000,000	12,000,000	1	12,000,000	12,000,000	1	12,000,000	12,000,000	1	12,000,000	12,000,000
	SUB-TOTAL 1			21,000,000			24,000,000			32,000,000			32,000,000			32,000,000
Annual wages	Director P1	1	47,319,420	47,319,420	1	52,051,362	52,051,362	1	57,256,498	57,256,498	1	62,982,148	62,982,148	1	69,280,363	69,280,363
	Heads of services P2	0			4	37,542,804	150,171,216	4	41,297,084	165,188,338	4	45,426,793	181,707,171	4	49,969,472	199,877,888
	Eng/Expert/Administrator P3	0			0			5	33,013,056	165,065,280	5	36,314,362	181,571,808	5	39,945,798	199,728,989
	Secretary	1	5,010,000	5,010,000	1	5,511,000	5,511,000	1	6,062,100	6,062,100	1	6,668,310	6,668,310	1	7,335,141	7,335,141
	Accountant	1	5,010,000	5,010,000	1	5,511,000	5,511,000	1	6,062,100	6,062,100	1	6,668,310	6,668,310	1	7,335,141	7,335,141
	Librarian	0			0			0			1	5,010,000	5,010,000	1	5,511,000	5,511,000
	Driver	1	3,756,000	3,756,000	1	4,131,600	4,131,600	1	4,544,760	4,544,760	1	4,999,236	4,999,236	1	5,499,160	5,499,160
	Warehouse clerk	0			1	3,120,000	3,120,000	1	3,432,000	3,432,000	1	3,775,200	3,775,200	1	4,152,720	4,152,720
	Cleaning person	1	3,120,000	3,120,000	1	3,432,000	3,432,000	1	3,775,200	3,775,200	1	4,152,720	4,152,720	1	4,567,992	4,567,992
	Security guard	1	3,120,000	3,120,000	1	3,432,000	3,432,000	1	3,775,200	3,775,200	1	4,152,720	4,152,720	1	4,567,992	4,567,992
	Tot wages			67,335,420			227,360,178			415,161,476			461,687,623			507,856,386
	Health security (5% Tot wages)			3,366,771			11,368,009			20,758,074			23,084,381			25,392,819
	SUB-TOTAL 2			70,702,191			238,728,187			435,919,550			484,772,005			533,249,205
Various activities	Various meetings, seminars, workshops, travel	1	150,000,000	150,000,000	1	175,000,000	175,000,000	1	200,000,000	200,000,000	1	225,000,000	225,000,000	1	225,000,000	225,000,000
SUB-TOTAL 3			150,000,000			175,000,000			200,000,000			225,000,000			225,000,000	
Technical means	Desktop PC	3	829,000	2,487,000	4	829,000	3,316,000	5	829,000	4,145,000	1	829,000	829,000	0	829,000	0
	Laptop	1	1,340,000	1,340,000	1	1,340,000	1,340,000	0	1,340,000	0	1	1,340,000	1,340,000	0	1,340,000	0
	All-in-one	1	1,960,000	1,960,000	0	1,960,000	0	1	1,960,000	1,960,000	0	1,960,000	0	1	1,960,000	1,960,000
	Projector	1	769,000	769,000	0	769,000	0	0	769,000	0	1	769,000	769,000	0	769,000	0
	PC for data processing	0	1,340,000	0	1	1,340,000	1,340,000	1	1,340,000	1,340,000	0	1,340,000	0	0	1,340,000	0
	Server	0	4,567,000	0	1	4,567,000	4,567,000	1	4,567,000	4,567,000	0	4,567,000	0	0	4,567,000	0
	PC filing system/server	0	18,900,000	0	1	18,900,000	18,900,000	0	18,900,000	0	0	18,900,000	0	0	18,900,000	0
	Storage disk	0	209,000	0	0	209,000	0	1	209,000	209,000	1	209,000	209,000	0	209,000	0
	Info and telecom system	0	30,000,000	0	1	30,000,000	30,000,000	0	30,000,000	0	0	30,000,000	0	0	30,000,000	0
	Data reception system	0	60,000,000	0	1	60,000,000	60,000,000	0	60,000,000	0	0	60,000,000	0	0	60,000,000	0
	Various processing softwares	0.2	90,000,000	18,000,000	0.2	90,000,000	18,000,000	0.2	90,000,000	18,000,000	0.2	90,000,000	18,000,000	0.2	90,000,000	18,000,000
	5KVA UPS	0	6,325,000	0	5	6,325,000	31,625,000	2	6,325,000	12,650,000	0	6,325,000	0	0	6,325,000	0
	1KVA UPS	3	1,200,000	3,600,000	4	1,200,000	4,800,000	5	1,200,000	6,000,000	1	1,200,000	1,200,000	0	1,200,000	0
	IT maintenance	1	5,000,000	5,000,000	1	5,000,000	5,000,000	1	5,000,000	5,000,000	1	20,000,000	20,000,000	1	15,000,000	15,000,000
SUB-TOTAL 4			33,156,000			178,888,000			53,871,000			42,347,000			34,960,000	
Logistics	Office equipment	1	15,000,000	15,000,000	1	20,000,000	20,000,000	1	15,000,000	15,000,000	1	5,000,000	5,000,000	1	5,000,000	5,000,000
	35 KVA generator	0	0	0	1	15,000,000	15,000,000	0	0	0						
	SUV or other liaison vehicle	1	25,000,000	25,000,000	1	25,000,000	25,000,000	1	12,000,000	12,000,000	1	12,000,000	12,000,000	1	12,000,000	12,000,000
	Fuel	1	5,000,000	5,000,000	1	10,000,000	10,000,000	1	10,000,000	10,000,000	1	10,000,000	10,000,000	1	10,000,000	10,000,000
	Minor repairs/Maintenance	1	5,000,000	5,000,000	1	5,000,000	5,000,000	1	5,000,000	5,000,000	1	5,000,000	5,000,000	1	5,000,000	5,000,000
	Vehicle maintenance	1	1,000,000	1,000,000	1	2,000,000	2,000,000	1	3,000,000	3,000,000	1	5,000,000	5,000,000	1	10,000,000	10,000,000
SUB-TOTAL 5			51,000,000			77,000,000			45,000,000			37,000,000			42,000,000	
GRAND TOTAL			325,858,191			693,616,187			766,790,550			821,119,005			867,209,205	

NB: The assumption when drawing up this budget was that the host country would provide the premises for the RCC. Expenses linked to the annual rental estimated at more than 50,000,000 FCFA have not been included in this budget.