



SCIENCE GRANTING COUNCILS INITIATIVE IN SUB-SAHARAN AFRICA STRENGTHENING PARTNERSHIPS AMONG AFRICA'S SCIENCE GRANTING COUNCILS AND THE PRIVATE SECTOR

A BASELINE ASSESSMENT OF PUBLIC – PRIVATE PARTNERSHIPS IN RESEARCH AND SCIENTIFIC
COOPERATION IN IVORY COAST

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Contents

Executive summary.....	3
1. Introduction and objectives of the baseline survey.....	4
2. Methodology.....	4
3. The state of research collaboration facilitated by Programme d'Appui Stratégique à la Recherche Scientifique (PASRES) In Ivory Coast	5
3.1 Collaboration between the SGC, the Private Sector and the Academia.....	5
3.2 Collaborations between Researchers and the Private sector.....	7
3.3 State of collaborations with other SGCs	8
4. Factors constraining and enabling collaboration and Knowledge transfer between SGCs and the Private Sector in Ivory Coast.....	8
5.1 SGC Capacities and Capabilities	8
5. Recommendations	8

Executive summary

The baseline study was conducted under the Science Granting Councils Initiative (SGCI) to examine factors that constrain public private sector partnerships as well as scientific collaboration among SGCs and between SGCs and other science system actors. The study was conducted in November 2017, covering five institutions drawn from the science system actors and other stakeholders in Ivory Coast.

On the state of collaborations in Ivory Coast, the study found a developing collaboration between the SGC and the private sector, a significant collaboration between the private sector and the researchers and no official collaborations between the SGC and other SGCs. The SGC as part of its collaborating efforts with researchers and the academia, supports relevant scientific research by providing funding to numerous research projects in Ivory Coast, provides training and capacity building workshops for student researchers, researchers and teachers in Ivory Coast.

The study found out that although the SGC has a staff strength of nine (9) but it is made up of graduates from varying fields. Then also, the SGC has a scientific council which draws expertise from varied fields that manages all scientific issues and also serves as advisory committee to the SGC.

The study also found lack of national and regional laws to back and encourage transnational collaborations, low interest in the research findings by the private sector, unnecessary rivalry and lack of trust amongst some countries as the main constraints to the collaboration and knowledge transfer between the SGC and the private Sector and among SGCs.

The survey recommended, among others, the enactment of laws by Ivory Coast and the regional bodies to back and encourage national and transnational research collaborations respectively. Ivory Coast and its neighbouring countries must find common grounds of interest and encourage collaborations of transfer of knowledge in these areas.

1. Introduction and objectives of the baseline survey

The Science Granting Councils Initiative (SGCI) is a 5-year initiative, which seeks to strengthen the capacities of science granting councils (SGC) in sub-Saharan Africa (SSA) in order to support research and evidence-based policies that will contribute to economic and social development. The objective of the SGCI is to strengthen the ability of Science Granting Councils to:

- i. Manage research;
- ii. Design and monitor research programmes based on the use of robust science, technology and innovation (STI) indicators;
- iii. Support knowledge exchange with the private sector; and
- iv. Establish partnerships between Science Granting Councils and other science system actors.

Theme 3 of the SGCI project, entitled ‘Strengthening partnerships among Africa’s science granting councils and the private sector’, aims to contribute to the third objective outlined above. One of the activities under this project is carrying out baseline studies in the 15 participating African countries of the SGCI. This study summarizes the findings of a baseline survey conducted in Ivory Coast from November 6, 2017 to November 10, 2017 to evaluate the state of collaborations amongst the Science Granting Council (SGC), researchers, the private sector and other SGCs (Public private partnerships, PPPs) and international collaboration of the Ivory Coast SGC with other SGCs.

The specific objectives of the study were:

- i. Articulate the factors that constrain or promote PPPs, Scientific collaboration and Knowledge Transfer.
- ii. Gather information on the SGC’s capacity needs and skills gaps for collaboration with other organizations, especially the SGC; and supporting research - productive sectors linkages.
- iii. Review the legal and policy frameworks and environment under which SGCs operate (Institutional and National) in so far as support to PPP and CP is concerned.

In the context of this baseline study PPP refers to a publicly-funded research collaboration among research and higher education organizations, such as universities, public funding agencies, such as Science Granting Councils (SGCs) and industry or private sector actors within a particular national context. International collaboration of an SGC refers to a formal research partnership agreement that an SGC under study has established or started negotiations with other SGCs or international actors at the time of this baseline study.

2. Methodology

Using the snowballing mechanism, five institutions were drawn from the science system actors and other stakeholders for the survey. This was partly for convenience, that is, the availability, willingness and reachability of respondents within the time limits and partly to enable researcher discretion, that is, interesting and fitting stories within the overall context of the SGCI and theme three (3). The semi-structured interview guide designed by ACT Consortium was used to elicit responses from respondents.

The institutions selected are listed as follows (see also Appendix 2 for some details about this organisations):

- i. Programme d'Appui Stratégique à la Recherche Scientifique (PASRES), the SGC of Ivory Coast, served as the primary respondent.
- ii. La Confédération Générale des Entreprises de Côte d'Ivoire (CGECI), the professional association of Industries, served as the private sector respondent.
- iii. The National Centre for Floristics (CNF), a centre in the University Felix Houphouet Boigny, served as the respondent for the Researchers in Universities.
- iv. L'Institut de recherche pour le développement (IRD), a research institute in Ivory Coast, served as a respondent for other research organisations.
- v. Ministry of Higher Education and Scientific Research of Ivory Coast

3. The state of research collaboration facilitated by Programme d'Appui Stratégique à la Recherche Scientifique (PASRES) In Ivory Coast

The study found several collaborations amongst the Science Granting Council and the science system actors. These collaborations have been listed below.

3.1 Collaboration between the SGC, the Private Sector and the Academia

The SGC is of the view of that, the current level of collaboration is poor, but there are currently new structures being implemented by PASRES that are likely to ensure future sustainable collaboration between the two parties.

The structure being implemented by PASRES currently is to inform industry of the findings of research through special conferences being organised for CGECI members and collaborative efforts are made to implement the findings. This is a move away from the situation where the conference was organised in the universities after new findings were to be presented to the public. The targeted audience usually are the entrepreneurs, private companies, all those who can use the results of the research.

PASRES again, as part of their collaborating efforts with researchers and the academia, supports relevant scientific research by providing funding to numerous research projects in Ivory Coast (Table 1).

Table 1: Statistics relating to the status of Projects financed by PASRES (2008-2017)

Progress status	Number of projects	Percentage
Projects completed	62	34%
Ongoing projects	117	62%
Suspended or cancelled projects	03	2%
Projects subject to permanent funding cessation	03	2%
Total	185	100%

At the moment, PASRES provides funding to the following category of researchers;

- i. Research professors and researchers carrying a research project.
- ii. Students holding a master's degree, an engineering degree, a DEA or the equivalent of diploma and wishing to pursue doctoral studies.
- iii. Institutes or Research Centres
- iv. Other natural or legal persons with projects likely to have a beneficial impact on poverty reduction in Côte d'Ivoire and sustainable development.

PASRES also provides training and capacity building workshops for student researchers, researchers and teachers in Ivory Coast. Table 2 exhibits the summary of trainings provided by PASRES in the last two years.

Table 2: Summary of Training by PASRES 2015-2017

Order	Year	Female	Male	Total
1	2015	34	87	121
2	2016	68	186	254
3	2017	13	68	81
Total		115	341	456
Rate (%)		25.2	74.8	100

Then also, the private sector and other research institutions are well represented on PASRES organs of operations (Steering Committee and the Scientific Council) which is exhibited in Table 3. The Steering Committee (SC) is the decision-making body of PASRES. It determines the general policy of the PASRES and rules on all matters falling within its object. In particular, the SC validates the appointment of the Executive Secretary (SE) and the members of the Scientific Council (SC). In addition, it decides on the financing of research projects and approves the management procedures. The Steering Committee is composed of representatives of project leaders, and a representative of the Ministry of Economy and Finance who is a central member of the bodies of 'Le Fonds Ivoir-Suisse de Développement Economique et social'(FISDES), and a representative of the private sector representative (to reflect the strategic importance of public-private partnership in scientific research). The President of the Scientific Council and the Executive Secretary are observer members. A total of 7 members, including 5 members with voting rights, and 2 observer members without voting rights. The Steering Committee consolidates and validate the assignment details of the various bodies at PASRES.

Table 3: Composition of the Steering Committee of PASRES

Institution	Representative	Function on the Committe
MESRS Côte d'Ivoire	Représentant désigné par le Ministre	Président

SER Suisse	Directeur de la « Leading House »	Vice Président
CSRS (Côte d'Ivoire & Suisse)	Directeur du CSRS	Vice Président Délégué
Ministère Economie et Finances Côte d'Ivoire	Représentant désigné par le Ministre	Membre
Secteur privé en Côte d'Ivoire	Représentant du privé (Patronat)	Membre
Secrétariat Exécutif	Secrétaire Exécutif	Membre observateur, assure le secrétariat
Conseil Scientifique	Président du CS	Membre observateur, resource

The Scientific Council is the advisory body of PASRES. It defines the topics targeted for each call for applications and it decides on the research proposals submitted, in relation to their scientific quality, their feasibility and their relevance for the fight against poverty. It transmits its recommendations to the Steering Committee.

There is also a representative of the private sector on this committee which reflects again the strategic importance of public-private partnership in scientific research (Appendix 4).

3.2 Collaborations between Researchers and the Private sector

The survey found relatively decent collaboration between the private sector and the researchers in Ivory Coast. The current problem facing academia and industry is the skill mismatch of graduates. This has necessitated a partnership between the private sector and the academia. The Universities produce qualified graduates but they usually lack competent skills that match the demand of labour on the market. Then also, some of the research conducted by the academia do not fit into the direct needs of the private sector. The CGECI has therefore established collaboration with academia through the Ministry of Higher Education by having a representation on all University Councils in Ivory Coast to help breach the skill gap.

CGECI has instituted the price of the employers (award) which is an award to encourage research, invention and innovation at the university level which awards researchers who have done research into creating new technologies, products etc which are available for industry to assess and adopt. The best research work is sponsored by the CGECI and implemented with the funds of the award scheme.

The employers Award is about the research and innovation section, which is encouraged by the CGECI, which since 2013 has decided encourage students and add value to the fruit of the research.

Then also, there are much collaborative efforts in ensuring the development of curricular that satisfy both academia and industry.

At the educational funds level, CGECI is on a project with the UFHB for the establishment of a Master in Project Creator, Company developer. This is to enrich the knowledge and skill sets the working class likely or willing to divert into entrepreneurship. This program has a special feature of providing students with mentors from industry who will advise entrepreneurs to ensure likely success of business ideas.

3.3 State of collaborations with other SGCs

The study found no official collaborations between the SGC and other SGCs. However there is an unofficial collaboration. The SGC noted that the SGCs in Ghana, Burkina and Senegal have started an unofficial arrangement to collaborate on joint research of regional connotation.

On the other hand, the Ministry of Higher Education and Scientific Research noted a seeming agreement between Ghana and Ivory Coast on research on coffee and cocoa. Ivory Coast collaborates with Ghana to find solutions to eradicate the cocoa related disease. Results from such research are shared between the two countries.

4. Factors constraining and enabling collaboration and Knowledge transfer between SGCs and the Private Sector in Ivory Coast

The following were identified as constraints to the collaboration and knowledge transfer between SGC and other SGCs:

- i. Lack of regional laws to back and encourage transnational collaborations
- ii. Unnecessary rivalry between countries
- iii. Lack of trust amongst some countries

The following were identified as constraints to the collaboration and knowledge transfer between the SGC and the private Sector:

- i. Lack of national laws to back and encourage transnational collaborations
- ii. Low interest in the research findings by the private sector
- iii. Single source of funding for the SGC

5.1 SGC Capacities and Capabilities

The SGC has a staff strength of nine (9). The team is made up of graduates in Law, economics and management.

Then also, there is a scientific council which draws expertise from varied fields that manages all scientific issues and also serves as advisory committee to the SGC.

5. Recommendations

The study makes the following recommendations:

- i. Regional bodies must enact laws to back and encourage transnational research collaborations
- ii. Countries must find common grounds of interest and encourage collaborations of transfer of knowledge in these areas.
- iii. Ivory Coast must enact laws to back and encourage collaborations between researchers and the private sector
- iv. The SGC must find other sources of funding in other to increase their fund base so as to enable the SGC provide more funds to researchers.

APPENDIXES

Appendix 1: Team Composition

<u>Name</u>	<u>Institution</u>	<u>Title</u>
Frank Adjei	Association of African Universities	Accountant
Rose Nintin	Association of African Universities	HAQAA Project Assistant

Appendix 2: Institutions and individuals visited in Ivory Coast

<u>Name of Institution</u>	<u>Contact Person</u>	<u>Position in Institution</u>	<u>Contact</u>
PASRES	Prof Adohi-Krou Viviane	Member Of The Scientific Council	Vkrou@Yahoo.Fr
CGECI	Mme Attia Eugenie Mr. Leopold Bodo	CGECI Representative At PASRES Social And Training Cluster Coordinator	 Leopold.Bodo@Cgeci.Ci
CNF (UFHB)	Dr Konan Yao	Researcher	Yao83konan@Gmail.Fr Konan.Yao@Cnf-Ufhb.Ci
MESRS	Dr. Messoum Francis Gustave Mr. Jean Luc Angan	Deputy Director Of Research Program Officer Responsible For The Study	Fmessoum@Yahoo.Fr Jeanlucangan@Yahoo.Fr
IRD	Dr. Jean-Marc Hougard	IRD Representative In Cote D'ivoire	Jeanmarc.Hougard@Ird.Fr

Programme d'Appui Stratégique à la Recherche Scientifique (PASRES)

PASRES is the Strategic Support Program for Scientific Research in Côte d'Ivoire. The SGC is under the joint supervision of the Ministry in charge of scientific research in Côte d'Ivoire and the State Secretariat for Education and Research (SER). It is administered in Côte d'Ivoire by 3 main bodies: one (1) decision-making body (Steering Committee), one (1) advisory body (Scientific Council) and one (1) executive body (Secretariat Executive).

The Objectives of PASRES

PASRES has strategic and specific objectives that fall within the overall framework of the Sustainable Development Goals (SDGs).

The strategic objectives are:

- ✓ The reduction of extreme poverty and hunger
- ✓ Improving human health
- ✓ The protection of the environment and the sustainable management of natural resources

The specific objectives are:

- ✓ The realization of high quality research and development projects
- ✓ The increase in the number of doctoral research students
- ✓ The increase in postdoctoral work promoting young researchers and teacher-researchers
- ✓ The capacity building of research structures by multiform support
- ✓ Strengthening South / South and North / South training and exchange activities
- ✓ The emergence of a National Fund for Science, Technology and Innovation (FONSTI).

La Confédération Générale des Entreprises de Côte d'Ivoire (CGECI)

The CGECI is a confederation of employers, it is comprised of at least 1500 private companies and which commenced with 19 professional groups of the largest employers of Ivory Coast but the number has increased to 24. It also works with SMEs and is recognized as the voice for the private sector. The CGECI was established in 2005 with 35 employees.

The General Confederation of Enterprises of Côte d'Ivoire (CGECI) is a union between the professional groups, the unions and professional associations of industry, commerce, services and agriculture, governed by the Labour Code. Its mission is, among others:

- ✓ Promote freedom of enterprise and the market economy;
- ✓ To ensure the necessary cohesion of the members;
- ✓ To express its opinion on any question of an economic and social nature;
- ✓ Strengthen social dialogue with social partners, the state and development partners;
- ✓ Represent and defend the member companies as well as those belonging to the professional organizations members of the CGECI, in particular with the public authorities and national, regional and international joint bodies;
- ✓ Bring to its members all competitions and services in order to increase the overall efficiency;
- ✓ Communicate any information to promote and develop the private sector.

The National Centre for Floristics (CNF)

The National Center for Floristics (CNF) is a scientific research on floral diversity of Côte d'Ivoire and West Africa. The CNF was created by Decree No. 73-347 of July 11, 1973. Located in the University Felix Houphouet Boigny, it is administratively attached to the UFR Biosciences. It is also a unit in UFHB. It houses the database of several countries in the African sub-region. Its mission is the conservation and protection of the flora through the realization of botanical studies:

- ✓ Development of vegetation maps
- ✓ Execution of all studies on medicinal plants
- ✓ In situ and ex situ nature protection
- ✓ Conservation and strengthening of the National Herbarium and Botanical Garden
- ✓ Constitution of a botanical museum and a specialized library of systematic and taxonomic books

L'Institut de recherche pour le développement (IRD)

IRD researchers have been pursuing an almost uninterrupted collaboration with Côte d'Ivoire since 1946. As a multidisciplinary institute, the IRD asserts the specificity of its approach by conducting research in line with the needs of the populations of the South. Focusing on the relationship between humans and their environment in tropical and Mediterranean regions, research themes are defined jointly with teams and partners from the South. The IRD also encourages its partners in the North to commit to the South and ultimately aims at empowering local teams. The results obtained take the form of co-publications, patent filings and systematically lead to the sharing of knowledge.

In Ivory Coast, the IRD focuses its research on four scientific priorities that correspond to major issues at both global and local level:

- ✓ **Climate:** variability, risks, modelling, ocean-atmosphere interactions,
- ✓ **Populations and societies:** the political and the religious, the economy, the resilience of the populations, the demography,
- ✓ **Health:** vector-borne diseases, social sciences applied to health,
- ✓ **Environment and resources:** water resources, marine resources, plant resources, plant breeding.

Its research and training activities are carried out in partnership with universities and research institutes, mainly from Cote d'Ivoire.

Appendix 3: Liste des Membres du Comite de Pilotage Du PASRES 2017

1.	Prof KONARE Abdourahamane	MESRS	Président
2.	Prof Jürg UTZINGER	Swiss TPH	Vice-président
3.	Prof BONFOH Bassirou	CSRS	Vice-président délégué
4.	M. TRAORE Seydou	Ministère de l'Economie et des Finances (MEF)	Membre
5.	Me HOEGAH Théodore	Confédération Générale des Entreprises de Côte d'Ivoire (CGECI)	Membre
6.	Prof BIAKA Zasséli Ignace	Université FHB	Membre observateur, Président du Conseil Scientifique
7.	Dr SANGARE Yaya	Secrétaire Exécutif PASRES	Membre observateur, Secrétaire de séance

Appendix 4: Liste des Membres du Conseil Scientifique du PASRES 2017

1	Prof BIAKA Zasséli Ignace Professeur Titulaire	Sciences Humaines	Université FHB
2	Prof ADOHI-KROU Viviane Professeur Titulaire	Sciences Exactes	Université FHB
3	Prof SANGARE Séga Ibrahima Professeur Titulaire	Santé Publique	Université FHB
4	Prof BONFOH Bassirou Directeur de Recherche	Agriculture et Sécurité alimentaire	CSRS
5	Prof KAMANZI Kagoyire Professeur Titulaire	Environnement et Biodiversité	Université FHB
6	Prof OUATTARA Mama Professeur Titulaire	Economie	CIRES
7	Prof TOURE Siaka Professeur Titulaire	Energie	Université FHB
8	Prof KAKOU Alain Claude Maître de Conférences	Sciences Juridiques	Université FHB
9	Mme KASSI Eugénie	Secteur Privé /ONG	CGECI

	Directrice Générale des Etablissements YESIAMA		
10	M. YEO Guéfala Ingénieur Agro-alimentaire	Ingénierie et Technologie	Consultant international, ex-DG de I2T

Appendix 5: Liste des Membres du Secretariat Executif du PASRES 2017

	NOMS ET PRENOMS	FONCTIONS
1	Dr SANGARE Yaya	Secrétaire Exécutif
2	Dr OUATTARA Annette	Assistante du Secrétaire Exécutif
3	Dr Eric TRABI	Chargé d'Etudes
4	Mlle OUATTARA Zeinebou	Chargée de Suivi-Evaluation
5	M. DAN Oulaï	Informaticien
6	Mme KODJO Evelyne	Contrôleur de Gestion
7	Mlle COULIBALY Fatou	Stagiaire du Chargé d'Etudes
8	M. DIOMANDE Mamadou	Chauffeur-coursier
9	M. KOKOU Nomayo	Chauffeur-coursier

Appendix 7: Organogram of PASRES

