



Minister Gilbert KABANDA launches the PAN-CBRN validation process

Science, Technology and Innovation
NSC President Prof. Pius MPIANA
TSHIMANKINDA attends South
Africa-DRC workshop

Introducing the KABANDA
stand-alone electric generator

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educational reform and scientific
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Scientific research, the spearhead of lasting peace

In an increasingly dynamic world, scientific research is a key player in human development. Beyond its technological advances and its contributions to improving living conditions, scientific research also plays a crucial role in building a peaceful future. In the Democratic Republic of Congo (DRC), where security challenges are numerous, the scientific community has mobilized to make its contribution to the building of peace, through its publications and actions in the field. Scientific publications are an essential vehicle for disseminating knowledge and promoting peace.

Researchers have multiplied their work on topics related to peace, conflict resolution and reconstruction. These publications provide a better understanding of the root causes of conflict by analyzing the socio-economic, political and environmental factors at the root of tensions. They thus help to enlighten decision-makers by supporting the efforts of the country's authorities, who are sparing no effort in line with the 16th Sustainable Development Goal (SDG-16) aimed at promoting peaceful and inclusive societies for sustainable development. This is why the Sciences and Technological Innovations Bulletin is often the standard-bearer for these efforts, in particular those of the President of the Republic, Head of State, His Excellency Félix-Antoine TSHISEKEDI, Her Excellency the Prime Minister, Head of Government, Judith Suminwa, and His Excellency the Minister of Scientific Research and Technological Innovation, Dr Gilbert KABANDA.

In addition, these publications foster intercultural dialogue by sharing different perspectives on peace issues, promoting mutual understanding and strengthening ties between communities. Finally, these publications have helped to identify innovative solutions for preventing conflict, managing crises and rebuilding societies, through the exploration of new approaches.

Numerous examples illustrate the Congolese scientific community's commitment to peace. Such is the case of the "Trilogy of Truth, Justice and Reconciliation: the basis for lasting peace in Ituri", which is developed in this issue. This study highlights the importance of the search for truth, the struggle for justice and reconciliation between communities as essential conditions for lasting peace in Ituri. These results are in line with the findings of other studies on natural resource management, memory, transitional justice and social trust-building, all of which demonstrate the importance of these dimensions in preventing and resolving conflicts.

By supporting the efforts of the Congolese authorities and enlightening political decision-makers and all those involved in peace-building, scientific research is helping to build lasting peace in the DRC. The study of the "truth, justice and reconciliation" trilogy provides a valuable analytical framework for understanding conflict dynamics in a conflict zone, and for devising appropriate peace strategies.

Similarly, publications on natural resource management, for example, have highlighted the link between the exploitation of these resources and conflict in the DRC. Congolese researchers are working on sustainable and equitable management models to reduce tensions. In addition, work on memory, transitional justice and building social trust is helping to foster national reconciliation. Finally, research into violence risk factors and prevention programs is helping to put in place effective strategies to protect civilian populations.

It should also be noted that, in the words of the writer Romain Vegetius, "he who wants peace, prepares for war", science and technology must be placed at the service of our armed forces and security services in order to deter aggressors and maintain a lasting peace. The Congolese Scientific



*Professor Pius MPIANA TSHIMANKINDA
NSC President.*

ic Genius Conclave and Forum organized by the Ministry of Scientific Research and Technological Innovation, under the leadership of H.E. Minister Gilbert Kabanda, over the past two years have shown that Congolese researchers are capable of meeting this challenge. Only strategic preparation and the ability to defend oneself can avert threats and guarantee long-term security.

In short, science is a powerful tool for building a better future. In the DRC, the scientific community plays a leading role in the quest for peace. Through its publications, it contributes to enlightening debates, promoting dialogue and proposing innovative solutions. It is essential that we continue to support scientific research and promote the work of our researchers, in order to make science a real lever for development and peace.

*Prof. Pius MPIANA TSHIMANKINDA
President of the National Scientific Council*



Family photo: HEM/SRTI Gilbert KABANDA, the SG at SRTI Odon NDAMBU, the President of NSC Prof. MPIANA TSHIMANKINDA Pius, the Dircaba of the Minister of SRTI Prof. MUDOGO, the Vice-President of CNPRI Prof. Odette KABENA, the Coordinator of CCBRNCE Prof. Thierry and the Advisor of the Minister of SRTI BUHENDWA.

Activity of the Minister of SRTI

Minister Gilbert KABANDA launches the PAN-CBRN validation process

The Minister of Scientific Research and Technological Innovation, Dr Gilbert KABANDA KURHENGA, launched the validation of the National Action Plan for the Management and Mitigation of Chemical, Biological, Radiological and Nuclear Risks (PAN-CBRN/RDC, 2025-2029), on February 05, 2025 in Kinshasa.

The workshop was organized by the Centre d'Excellence Chimique, Biologique, Radiologique et Nucléaire (CoE-CBRN). It brought together a number of experts to carry out the latest updates with a view to validating the plan. This is a long-awaited instrument.

In his welcome address, CCBRNE Coordinator Professor TANGOU TABOU Thierry noted that the threat posed by chemical, biological, radiological and nuclear hazards is a reality that requires a collective, coherent and proactive response.

"The challenges we face resemble a pandemic, in other words, a phenomenon that knows no borders. It is by combining our efforts that we will be able to overcome them and ensure our own security. The validation of this NAP is an important step that the country has taken", he added.

In his speech, Minister Gilbert KABANDA recalled that chemical, biological, radiological and nuclear (CBRN) risks have been a global concern for several decades.

From the first alerts linked to the use of chemical weapons during the world wars, through major nuclear accidents such as those at Chernobyl and Fukushima, to emerging biological threats, the whole world has gradually become aware of the issues linked to these complex and potentially catastrophic risks," he noted.

Before concluding, the head of Research pointed out that the PAN-CBRN/RDC plan



The Minister for Scientific Research talks to experts

is part of a global effort to guarantee safety, public health and environmental protection in the face of risks that transcend borders. It is therefore an essential pillar of the DRC's CBRN risk management strategy.

He also noted that this Action Plan is a strategic framework that will enable us to coordinate our efforts on a national scale to anticipate, prevent, detect and manage crises linked to CBRN risks. It is not just a question of responding to potential threats, but also of putting in place a set of measures to strengthen our resilience in the face of these dangers, with an emphasis on science, technological innovation and inter-institutional cooperation. In conclusion, the Minister praised the key role played by the European Union and UNICRI in drawing up global strategies for the prevention and management of CBRN risks. He also noted their involve-

ment in the creation of the CBRN Center of Excellence (CCBRNE) as an essential pillar enabling states to build their capacity to prevent and manage CBRN threats.

It should be noted that the NAP-CBRN will make it possible to strengthen national capacities, in terms of both infrastructure and human resources, and to ensure ongoing training to cope with the constant evolution of threats.

MAZONO MPIA/NSC and Communication Unit of the Minister of SRTI



Family photo of the DRC-RSA delegations

NSC Activities

Science, Technology and Innovation

NSC President Prof. Pius MPIANA TSHIMANKINDA attends South Africa-DRC workshop

The President of the National Scientific Council (NSC), Professor Pius MPIANA TSHIMANKINDA, took part in the South Africa - DRC workshop on Consulting and Prosperity in Science, Technology and Innovation, in Pretoria from November 30 to December 9, 2024.

The Forum was jointly organized by the South African Department of Science, Technology and Innovation (DSTI) and the Science Diplomacy Capital for Africa (SDCFA) initiative, a South African institution that promotes scientific collaboration across Africa and beyond to harness technological innovation and connect it to humanity.

This collaboration integrates a culture of learning, supported by strong governance. The theme developed during the 2024 edition of the Science Forum was: "Igniting conversations about science-Innovation and science for humanity".

The aim of the Forum was to spark a dynamic debate on the role of science in society, between all stakeholders - Scientific Communities, Governments, Industries and Civil Society as a whole. The Forum's program consisted of opening and closing plenary sessions sparking conversations and discussions involving eminent South African and international Scien-

tists, Experts and Opinion Leaders.

The program brought together over 4,500 participants for discussions and debates, with exhibitions and public awareness activities in the field of Science, Technology and Innovation.

The Forum offered participants full days of Round Tables, as well as Sessions that took place on the bangs of the Forum. The Round Tables were structured along the following lines :

- Youth in Science, Technology and Innovation (STI) and Africa;
- Science, technology and innovation partnerships in the G20 ;
- Linking science and economic diplomacy in policy-making;
- Shaping innovation and revitalizing the industries of the future ;
- Global science at the service of humanity, agriculture, health, climate change, just transition ;
- Bringing together science communication and science journalism.

In addition to the above, an exhibition was also held at the Forum, featuring key South African Institutions and Partners of the National Innovation System,

as well as international exhibitors.

Overall, the South African Science Forum has always been a major African platform for showcasing Science, Technology and Innovation as a key driver of sustainable development. The event is recognized as a dynamic space where diverse voices come together to explore solutions to global challenges.

The Forum is therefore a movement to amplify the role of Science in solving the pressing challenges of our time, from poverty alleviation to climate action; a renowned event that has always attracted Opinion Leaders, Researchers, Academics, Policy Makers and Innovators from all over the world, all united by a common goal: to advance Science for societal impact..

MAZONO MPIA Christian/NSC



Echoes of Research Institutions

The AEC organizes a greetings exchange with its agents

The General Commissariat for Atomic Energy (GCAE), organized the exchange of good wishes ceremony on January 31, 2025 in Kinshasa. The ceremony began with a minute's silence observed by all GCAE staff in view of the security situation in Goma, and a brief address by GCAE's General Commissioner, Professor Stève MUANZA.

During the event, the head of the CGEA strongly condemned the atrocities

taking place in this part of the DRC, especially as his institution, the CGEA, has branches in the town of Goma.

The General Commissioner then offered his best wishes to all GCAE staff, and asked them to work together to enable the organization to carry out its missions.

He also promised to support and organize a fund-raising campaign for the compatriots of Goma, who are unjust-

ly suffering atrocious hardship. He also thanked those present at the ceremony.

Finally, a cocktail was offered for the occasion. The GCAE is the public institution in charge of nuclear research..

Mélanie MWAMINI/GCAE



Rosie Esther, President of WOMEN IN CBRN

Let's talk

The EC presents the "WOMEN IN CBRN" women's network

The women of the Chemical, Biological, Radiological and Nuclear Center of Excellence "WOMEN IN CBRN" held their first meeting at the Geographical Institute of Congo (GIC) in Kinshasa on January 18, 2025..

The meeting was attended by the CCBRNE Staff Officer, Teddy BOYIKA (Representative of the Coordinator and National Focal

Point of CoE-CBRN/DRC), women from the EC and women working in the CBRN field from other structures, such as Madame Ginette from Win DRC and Doctor Mireille.

The event was chaired by Ms Rosie Esther, President of this organization, who in her presentation described Women in CBRN as a network of women working to mitigate and

reduce chemical, biological, radiological and nuclear risks. She asserted that the objectives of WOMEN IN CBRN are to increase and motivate women's participation in decision-making, research and concrete action in the CBRN field.

She stressed that it is imperative for the pioneers to work hard to develop concrete, achievable and bankable projects



Le représentant du coordinateur aux assises et La Cheffe de Section Organisation et Animation

On behalf of the Coordinator and Focal Point of CCBRNE, the personnel manager thanked the women for making this initiative a reality, and reassured them of his support for the organization's success.

The official launch of "Women in CBRN" is scheduled for March 2025. It should be noted that women's access to decision-making positions is an ongoing challenge, with the aim of making their voices heard and asserting themselves. With this in mind, the women of the Chemical, Biological, Radiological and Nuclear

that can perpetuate and carry high the banner of the Women in CBRN network.

To this end, a roadmap has been drawn up to ensure the effectiveness of preliminary activities, including the setting up of targeting groups by field - Chemical, Biological, Radiological and Nuclear - to identify priority locations and sectors linked to CBRN risks, and the choice of dates for monthly meetings.

In addition, the organization of an efficient structure requires the legalization of its status and the setting up of a Quality Management Committee capable of making the right decisions. With this in mind, the organization's members voted at a general meeting to approve its statutes and legalize it. The statute adopted presents the structure as a non-governmental organization, headed by a president, a vice-president, a secretary, administrative advisers, a finance officer, a communications officer, a project development officer and a monitoring and evaluation officer, all of whom will be voted in by the



Ms Stéphanie BAKOMBA, Secretary-Taleteller, summarizing the recommendations of the conference

network's members to ensure transparency.

To close the activity, the president, Madame Rosie, drew the attention of the members of the "Women in CBRN" women's network to the contribution of each one to the success of this organization, which passes by the work to be done and the massive adhesion of women in the field within the structure.

Center of Excellence have initiated the creation of a women's network called "Women in CBRN", enabling them to express their views on CBRN risk issues and to take action on related matters.

Julia Falangani
Women in CBRN" Communication Unit

Introducing the KABANDA stand-alone generator

The KABANDA stand-alone generator is an innovative solution that revolutionizes the way electricity is generated. Designed to meet today's energy challenges, it is an ecological and autonomous alternative, perfectly in line with the quest for sustainability and energy self-sufficiency.



Inspirations and Values

The choice of the name KABANDA is not insignificant. It pays tribute to His Excellency Gilbert KABANDA, Minister of Scientific Research and Technological Innovation. Indeed, under his impetus, the Democratic Republic of Congo has taken a quantum leap forward, positioning itself on the world stage in scientific research and innovation. The name also reflects the values of robustness and reliability, while remaining deeply rooted in our cultural and scientific heritage.

Technical specifications
The KABANDA stand-alone electric generator features :

- Energy efficiency: Designed to optimize energy consumption while providing the right power for different needs.
- Autonomy: powered by renewable energy sources, allowing operation without dependence on traditional grids.
- Convenience: Easy to use and maintain, it's ideal for a wide range of applications, whether for households or businesses.

Ecological impact

One of the main advantages of the



KABANDA stand-alone generator is its reduced carbon footprint. By promoting the use of renewable energies, it contributes to the fight against climate change and helps users to adopt more environmentally-friendly behaviors.

Conclusion

The KABANDA stand-alone generator is much more than just a power-generating device. It's a sincere tribute to innovation, sustainability and national pride. By choosing KABANDA, you're opting for energy that's reliable, environmentally friendly and rooted in collective prog-

ress. Let's work together towards a sustainable and enlightened energy future!

BELESI Consort/NSC

Trilogy of Truth, Justice and Reconciliation: the basis for lasting peace in Ituri

For more than two decades, the province of Ituri has been plagued by uninterrupted violence. Massacres, population displacements and atrocities of all kinds have left their mark on the daily lives of the inhabitants. The situation may seem desperate, but there are still glimmers of hope. Experts and civil society players agree that a comprehensive approach based on truth, justice and reconciliation is needed to break the vicious circle. This approach was advocated and developed by Professor Sumbuso Bamarakizi Azalia, Research Fellow at MDCR/Bunia.

For this researcher, the conflict in Ituri has deep roots, as the causes of this crisis are multiple and complex. Inter-community tensions, linked in particular to the struggle for control of natural resources,



Okapi, endemic animal of the Ituri rainforest, DRC



For Professor Sumbuso, the search for peace involves Ron-sard's allegory of the blindfolded woman.

were exacerbated by an unstable political context and foreign intervention.

Armed militias have taken advantage of the chaos to spread terror throughout the region. The humanitarian consequences are disastrous: thousands of people have been killed, hundreds of thousands displaced, and civilian infrastructures,



including the exceptional okapi wildlife, have been systematically destroyed.

Okapi, endemic animal of the Ituri rainforest, DRC. This situation calls for a global approach. To restore peace and security in Ituri, it is essential to tackle the roots of the conflict. Finding out the truth about the

atrocities committed is an indispensable first step. Victims need to know the truth if they are to grieve and rebuild their lives. At the same time, it is imperative to bring those responsible for these crimes to justice, in order to break the cycle of impunity and deter future perpetrators.

Reconciliation is also key. It involves sincere dialogue between communities, the promotion of forgiveness and the construction of joint projects. Transitional justice, which combines judicial and non-judicial mechanisms, can play an essential role in this process.

Restoration initiatives show promise, but challenges persist. In recent years, several initiatives have been launched to promote peace in Ituri. Civil society organizations, supported by the international community, are carrying out mediation, awareness-raising and reconstruction activities. However, many challenges remain. Lack of resources, mistrust between communities and the involvement of certain political players in the conflict are hampering the implementation of these initiatives.

Both the victims and the alleged perpetrators must be questioned by indepen-

dent investigators. Rigorous field investigations, combined with documentary research and hearings, will establish the truth. A detailed report will record the events and propose reparation measures for the victims. At the same time, the commission will identify the institutional dysfunctions at the root of these atrocities. It will propose reforms to prevent further human rights violations.

A Truth, Justice and Reconciliation Commission will be tasked with understanding the root causes of these crimes and fostering reconciliation. It must not only establish the facts, but also propose ways of restoring justice and trust between communities. The State has a crucial responsibility in this process, by facilitating access to documents and supporting the prosecution of perpetrators of international crimes.

A call to action is essential. To break the deadlock, international support for the DRC must be stepped up as a matter

of urgency, particularly in terms of justice and reconciliation. The Congolese authorities must also assume their responsibilities and implement public policies aimed at promoting peace and sustainable development in Ituri.

For Professor Sumbuso, the quest for peace is rooted in Ronsard's allegory of the blindfolded woman.

Underscoring the depth of the notion of 'justice', Professor Sumbuso reminds us of the symbols that Ronsard associated with it as early as 1555. For the poet, Justice was personified by a blindfolded woman holding scales and a sword. The blindfold symbolized the impartiality of the judgment: Justice was not to see in any defendant a particular person, but to judge everyone equally. The scales, meanwhile, represented fairness: facts, whether committed by the powerful or ordinary citizens, were to be weighed objectively, without bias. Finally, the sword symbolized pun-

ishment: Justice was to punish the guilty in proportion to their misdeeds.

This allegorical image, applied to Ituri, would go some way towards contributing to peace in this part of the country. Without a doubt, the province of Ituri is at a turning point in its history. Instead of choosing the spiral of violence, it would be wise for the country to look towards a future of peace and prosperity. The "Truth, Justice, Reconciliation" trilogy is the foundation of such a process.

Jean-Luc BALOGIJE SELENJE/RCMD/BUNIA



Artificial intelligence: a lever for educational reform and scientific development in the DRC

The reform of the university education program in the Democratic Republic of Congo (DRC) must imperatively integrate artificial intelligence (AI) to meet contemporary challenges and prepare a new generation of scientists capable of taking control of the country's destiny. By revising its educational paradigm, the DRC can create human intelligences capable of solving local problems through innovative technological solutions. AI, as a strategic tool, must be used to train students not just to consume technol-

ogy, but to develop it, particularly in key sectors such as agriculture, health, energy and infrastructure.

Moreover, the DRC possesses a considerable wealth of strategic minerals for digital applications, such as cobalt, coltan and lithium, and the country is called upon to make judicious use of them to boost its technological and industrial development. The State and international partners must play a crucial role in this reform, supporting universities and facilitating access to modern resources to enable young Congolese

to acquire the necessary skills. This paradigm shift, with its emphasis on innovation and creativity, is essential if the DRC is to become a major player in the technological revolution of the 21st century, and respond effectively to its socio-economic challenges. Artificial intelligence (AI) is a field of computer science that seeks to create systems capable of performing tasks that normally require human intelligence, such as speech recognition, decision-making, complex problem-solving, machine learning and natural language understanding. AI is

based on algorithms and mathematical models that enable a machine or software program to analyze data, draw conclusions and adapt to new situations, often autonomously. There are several subfields of AI, such as supervised learning, unsupervised learning, natural language processing, computer vision and robotics, which have varied applications in sectors such as medicine, automotive, finance, military and many others.

AI is playing an increasingly central role in the armed forces, transforming many aspects of military operations. It enables the development of autonomous systems, such as drones and unmanned vehicles, for surveillance, reconnaissance or attack missions, often more effective and faster than human interven-

tion. AI is also used to analyze massive volumes of data from sensors, satellites and other devices, in order to detect potential threats and improve strategic decision-making. In the field of cyber security, it helps prevent cyberattacks by rapidly detecting abnormal behavior and reacting instantly to protect military systems. AI also optimizes defense systems, such as missiles or missile shields, by improving their accuracy, and is used in military training via realistic simulations.

Finally, it plays a key role in logistics optimization, by predicting resource requirements and improving the management of military infrastructures. However, its use in the military raises ethical concerns, particularly with regard to autonomous decision-making in combat situations,

prompting debate on the regulation and supervision of these technologies. In short, AI is profoundly transforming military capabilities.

Prof. NGBOLUA KOTO-TE-NYIWA, PhD

Sanction regime and scientific production in the DRC: the example of HSRC 2017 to 2024

The Scientific Director of the Human Sciences Research Center (HSRC) Professor BOBO B. KABUNGU published a scientific article in Kinshasa entitled "Sanction regime and scientific production in the DRC: the example of the Centre de Recherche en Sciences Humaines 2017 to 2024".

According to the author, the dynamics of today's world are such that the first to have information gets ahead of the others. Any economic catch-up or development depends on the speed with which an organization, even a state, gathers data likely to enable it to solve society's problems ahead of the competition. As a result, research and development has taken pride of place in the investments made by companies and countries alike, and one of the best places to promote these socially profitable investigations is the research center. The latter's mission is to seek out, advance, disseminate and transfer knowledge, with a focus on innovations likely to contribute to the positive transformation of society.

To achieve this, research centers rely on staff selected on the basis of their skills and passion for discovery. Highly qualified scientists with a natural propensity for curiosity, researchers devote most of their work to fundamental or applied research, experimentation, the major issues in their field of research and the advancement of their discipline.



Professor BOBO B. KABUNGU, Scientific Director HSRC

Sanction: the concept and its effect on (scientific) production. The concept of sanction is etymologically linked to an action of reprimand, a measure of repression. Over time, however, management has also given it a meritorious meaning (rewarding the achievement of a feat, etc.), while retaining its corrective component (an element of constraint following a deviation or failure in relation to an expectation or objective). From then on, the sanction calls for an obligation of result, i.e. the duty of the contractor (the debtor of the obligation) to carry out his mission in full, and not in part. It is imperative that the expected result be achieved, on pain of fault.

As a managerial measure subsequent to the assessment of an employee's work by his or her hierarchy, sanction aims to influ-

ence the agent's behavior in order, on the one hand, to discourage or dissuade him or her from an unproductive attitude (negative sanction) or, on the other hand, to encourage or persuade him or her to remain on a path beneficial to the organization (positive sanction). As with any employee, sanctions help to shape the researcher's attitude to his scientific production obligation. The better he fulfils it, the more he is praised. If he is inactive, his peers discredit him and his employer reconsiders his relationship with him.

With particular reference to positive sanctions, which have their roots in relational management, it's worth pointing out that, mainly in the scientific field, they are based on emulation, that disposition of the mind

which drives people to match or surpass the competition in the acquisition and contribution of knowledge to the resolution of problems facing society. It is an incentive to quality work, a stimulus designed to increase productivity.

Sanctions at HSRC

In addition to the disciplinary system applicable to civil servants in the DRC in

general, and to scientific and administrative staff in the scientific research and technological innovation sector in particular, the HSRC Management Committee in place since 2020-2021 applies a system of sanctions, the main features of which can be summarized in Table 1 below.

Table 1. Penalties applied by HSRC since 2020-2021

N°	Sanctions	
	Positive	Negatives
1	Publication of quality articles in an in-house magazine, free of charge	Rejection of articles deemed unpublishable after objective evaluation
2	Support for promotion requests	Rejection of application for promotion to a higher grade if criteria not met
3	Plea for payroll alignment of base and (especially) premium pay	Extirpation from the list of bonus beneficiaries and denunciation of deserters
4	Distinctive merit-based awards for researchers	Non-renewal of contract/tenure for unproductive researchers

Source: The author, through documentary research and participatory observation

This sanctions regime is part of a new management dynamic that has enabled HSRC to rise from the ashes of the National Office for Research and Development (NORD), with revitalized departments, a regular and motivated (mainly scientific) staff (although demands for improved pay and ergonomic conditions remain), as well as a sanitized working environment that is currently being rehabilitated. All this in a context of no operating costs, as the supervisory ministry has only a minimal share of the state budget. It should be noted that this scheme has been communicated internally at all levels, in order to win the support of staff as stakeholders and beneficiaries, thus establishing a new form of governance in which

top management takes decisions after consulting/preventing and involving its army of success workers in the decision, so as to cultivate in them a loyalty to the work.

HSRC's scientific performance before and since the sanctions regime

1.1. Elements of method

There are numerous methods for assessing the effectiveness of a decision or reform, but economists have a penchant for regressions. In the case of a study such as the present one, which seeks to capture the impact of several measurable characteristics on a variable of interest, multiple linear regression is ap-

propriate, and the ordinary least squares (OLS) method is widely used. This regression makes it possible "to analyze the links between a quantitative dependent variable to be explained and several independent quantitative explanatory variables". Table 2 shows the variables used in this case, with the observation period running from 2017 to 2024 (monthly data).

Table 2. Presentation of study variables

N°	Variable	Type	Value	Calculation	Source
1	Scientific performance (SP)	Indice composite	Between 0 and 1	Arithmetic mean of three indices (existence of a journal, journal indexation, level of departmental activity)	Scientific management
2	Useful researchers (UsR)	Indice	Between 0 and 1	Number of senior researchers/number of junior researchers	Administrative and financial management
3	Sanctions (SANC)	Variable dummy	0 or 1	Existence = 1 Absence = 0	Author's comments
5	Payroll assessment (PaAs)	Indice	Between 0 and 1	Comparative rating of base and bonus pay (UHE vs SRTI)	Administrative and financial management and union bench
6	Work environment assessment (WEAs)	Indice	Between 0 and 1	Comparative score on ideal comfort	Internal survey

Source : The author

With scientific performance as the explained variable, the model specification would be as follows, with the expected signs being positive :

$$PERF_t = \beta_0 + \beta_1 CHER_t + \beta_2 SANC_t + \beta_3 PAIE_t + \beta_4 CADRE_t + \varepsilon_t$$

Model estimation, results interpretation and hypothesis testing

Estimation using Eviews 10 revealed that the model is good overall (with R2 and adjusted R2 approaching 100.0%) and that all variables have significant coefficients in terms of their probability values. As for the signs obtained, all are positive and therefore in line with predictions, with the exception of that of the variable PAY. This sign can be explained by the fact that, on the one hand, despite the ongoing clean-up of the personnel file thanks to rigorous controls which have led to the detection of dupli-

cates, forgers, deserters and unproducers, the number of employees remains high (1,218 compared with 1,600 five years ago).

On the other hand, the breakdown sent to the Payroll Department of the Ministry of the Budget clearly shows that many agents work without being aligned to the bonus pay, while full mechanization to benefit from the base is not easy and the pay gap between teaching and research, at equivalent grades, is slow to be closed in favor of the second branch.

On the other hand, the analysis was worth

its weight in gold in revealing that the work environment, the ratio of senior researchers to junior researchers and the sanction system (variable of interest) each (and overall) have a positive, significant and important impact (albeit at different levels) on scientific performance. The HSRC Management Committee should therefore continue to improve working conditions, recruit accomplished and/or promising researchers (in the doctoral phase) and thank those who are unproductive.

MAZONO MPIA/NSC



Read for you

The DRC mobilizes the population to fight cancer

The Government of the DRC affirms its engagement to continue its contribution in the fight against cancer through its technical arm, namely the National Center of Fight against Cancer (NCFC)", announced on February 04, 2025, the General Secretary in the Public health Hygiene and Prevention of the DRC, Sylvain YUMA RAMAZANI at the time of the world day of fight against cancer, celebrated on February 04 of each year .

During this activity, the General Secretary in the Public health Hygiene and Preven-

tion of the DRC invited all congolais them to accompany the Government in the fight against this pathology, become a serious problem of public health in DRC.

In the name of the Minister of supervision, Sylvain Yuma ensured the commitment of the Government to continue to support the fight against cancer through his technical arm which is the National Center of Fight against Cancer. He asked thereafter each one, in what relates to it, and at various levels of the medical pyramid, to contribute from the point of view of the prevention and the assump-

tion of responsibility and support in terms of palliative care.

It is the resultant of all these efforts which will make that the country comes to end from this pathology which is cancer, pointed out the General Secretary in the Public health

The ceremony of celebration of the world day of fight against cancer was organized by the national Center of fight against cancer (NCFC) at the National Institute Controls Teaching of Sciences of Health (NICTSH), in Kinshasa .

Medical students of the sensitized PUC

More than 50 students of Faculty of Medicine of the Protestant University in Congo (PUC) were sensitized, this Monday, on the fight against the various types of cancers. In the initiative of the Ministry for the Public health, this conference-debate was ensured by the National Center of Fight Against cancer (NCFC). The majority of the participants greeted the relevance of this session.

This conference-debate was organized under the topic "Linked in the single one" in order to lead the participants to include/understand the risks related to cancer.

The organizers say to want to imply these medical students in the fight against cancer, become a problem of public health in DRC.

They let know that cancer is guérissable and requires a catch of load in special-

ized hospital structures.

Students and other curious having taken share with this activity affirm to have learned much on this pathology.

MAZONO MPIA Christian/NSC/ and Radio okapi



Sight of the lake Kivu in the province of the South-Kivu June 2024

Moïse ALYGERA: the DRC must make up for its lost time in the exploitation of the lake oil tablecloths divided with the close countries.

"the Democratic Republic of Congo (DRC) has to accelerate the exploitation of its oil tablecloths divided with Uganda and Rwanda", declared responsible for Studies to the Legal Pool of and the Durable Development Department of the Environment in DRC, Moïse ALYGERA.

According to the expert Moïse Alygera, Uganda already started to exploit its oil in the lake Albert, a stretch of water shared with the DRC. Since 2022, Uganda launched the production of oil in this zone. In addition, Rwanda envisages to benefit from the 13 oil blocks recently discovered in the lake Kivu, thus reinforcing its ambitions in the sector of hydrocarbons.

During this time, the DRC remains in withdrawal, in spite of first discovered oil

in the area which goes back to 2006, deplores this expert. ¶ This inaction, according to Alygera Brace, puts in danger the economic interests of the country.

Moïse Alygera exhorte thus the government congolais to act quickly:

"I ask the government to plan and begin the exploitation of the oil tablecloths of the lake Albert in Ituri and the lake Kivu in North-Kivu. ¶ That will make it possible to safeguard our economic interests while preserving the environment "

It also insists on the importance to accelerate the process of adhesion of the DRC to Convention on the protection and the use of the transborder rivers and the international lakes. This adhesion, according to him, would make it possible the DRC to defend its rights and to solve

possible litigations before the International Court of Justice.

In spite of the opportunities offered by these resources, several challenges continue to slow down exploration and the exploitation oil in DRC. These obstacles include problems of gouvernance, a lack of adapted infrastructures, and environmental concerns.

To finish, it stressed that the DRC is already late compared to its neighbors and that it is urgent to make up for this lost time to guarantee the economic sovereignty of the country.

MAZONO MPIA Christian/NSC/ and Radio okapi

PUBLIC-SECTOR RESEARCH CENTERS AND INSTITUTES IN THE D.R. CONGO

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1. to deliberate on the guidelines and priorities of the scientific and technological research plans and programs to be carried out in the country ;
2. to deliberate on the allocation of resources from the State budget to scientific and technological activities;
3. supervising the financial management of research centers and institutes
4. approving the budgets of the Research Institutes and Centers and submitting them to the Minister for Scientific Research for approval
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