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PLANT HEALTH
A VITAL PILLAR OF THE *ONE HEALTH* APPROACH

SUMMARY

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The Government's Foremost Instrument for the *One Health* Approach

Government, instructed the allocation, in favour of the Zoonoses Program, of a budgetary envelope to cover the needs of its implementation for the 2024–2026 triennium.

This is a powerful gesture, warmly welcomed by the governing bodies of the One Health platform, within which reflections on the financial sustainability of the Zoonoses Program had already been initiated. Through this more-than-vital financial boost, the Cameroonian Government is reaffirming its ongoing commitment to an integrated approach to the management of public health problems in general, and to the fight against zoonoses in particular. Indeed, in a financial context marked by diverse priorities and the obligation to ration expenditure, it did not escape the attention of the multisectoral players engaged in the interventions of this platform that the significant decline in support from technical and financial partners, if not their scarcity, constitutes a pressing challenge for initiatives aimed at protecting people's health. Despite this, and in keeping with its commitments, the Cameroonian Government has, more than in the past, affirmed the relevance of the *One Health* approach and of the body responsible for its implementation, the Zoonoses Program.

Thus, in line with the guidelines of the quadripartite (FAO, UNEP, WHO, and WOAH), the national One Health platform has strengthened its actions with regard to coordination, collaboration, risk communication, and capacity building at the human–animal–environment interface. Beyond that, it is now extending its action to plant health. Moreover, the One Health platform, through the ongoing, regular, and relevant functioning of its governing bodies, is demonstrating progress marked by innovations such as COHIS, and is positioning itself as the government's instrument par excellence for coordinating actions in the promotion of the eponymous approach, and for providing decision-makers with sound scientific evidence to foster informed decision-making.

This strong presence was particularly marked during the first half of 2025 by the first high-level participation in the celebration in Cameroon of the International Plant Day in June 2025.

Enjoy your reading.

DJENY NGANDO Damaris Roxane
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Marburg Virus: Risk Assessment in Olamze

From 9 to 14 June 2025, the Zoonoses Program conducted a mission to assess the risk of introduction and the factors contributing to the spread of the Marburg virus in the Olamze Health District, on the border with Equatorial Guinea.

The related field survey, carried out by a multidisciplinary team, targeted 467 households, health facilities, zootechnical and veterinary centres, forestry posts, community leaders, and players in high-risk sectors such as hunters and bushmeat sellers. Moreover, the results of the Joint Risk Assessment (JRA) conducted on this occasion reveal a probability considered moderate to high, combined with a severe impact in the event of an outbreak.

In response, experts recommended the establishment of border health posts, the strengthening of stakeholders' capacities, the development of a regional response plan, and an increased community awareness effort.

Rift Valley Fever: Cameroon on Alert

Meeting on 12 and 13 February 2025 in Yaoundé, experts in human, animal, plant, and environmental health examined the risks of the introduction and spread of Rift Valley Fever (RVF) reported in the Central African Republic (CAR).

The Joint Risk Assessment (JRA) at the human-animal-environment interface, conducted on this occasion, revealed that the likelihood of herders in areas bordering the CAR being exposed to the virus is high, with a severe impact. Moreover, the probability of a consumer becoming infected after drinking raw milk remains low, though with a severe impact. At the end of the JRA, recommendations were made, including the development of a national response plan. The need to strengthen intersectoral collaboration and anticipate future health emergencies was also emphasised.

Collective Catering: Stakeholders trained in Best Practices

From 22 to 29 June 2025, the city of Douala hosted an awareness campaign on food hygiene, organised by the Ministry of Livestock, Fisheries and Animal Industries (MINEPIA) with the support of the Zoonoses Program.

The operation, which brought together stakeholders from the *One Health* Platform and Regional and Local Authorities, assessed the level of compliance with the implementation of the "5M" method (Material, Equipment, Manpower, Method, Environment) in twenty-two collective catering establishments. In these facilities, the main shortcomings in food safety concerned the lack of personal protective equipment (PPE), the absence of formalised hygiene procedures, and the inappropriate storage of foodstuff. To address these shortfalls, better support for actors in the sector was recommended,

notably through the establishment of a local consultation platform and the updating of the database of caterers

Collective Catering: Stakeholders Trained in Best Practices

The 31st session of the Technical Committee of the Zoonoses Programme, Cameroon's *One Health* Platform, was held on 23 January 2025 at the Prime Minister's Office. Chaired by the platform's Coordinator, Sali Ballo, the meeting reviewed the previous year's performance and outlined the key priorities of the 2025 Annual Budgeted Work Plan (ABWP).

Members unanimously approved the reports examined, commending the estimated 96.34% completion rate for 2024 activities, with expenditure estimated at four hundred and ninety-five million six hundred and ninety-seven thousand and twenty-one (495,697,021) CFA francs. These results were deemed encouraging, confirming the growing strength of the multisectoral system.

For 2025, the platform aims to consolidate its achievements and innovate in the fight against zoonoses and other public health threats (AMR, food safety, and environmental challenges) backed by an ABWP amounting to five hundred and five million (505,000,000) CFA francs.

The session also provided an opportunity to unveil the Cameroon *One Health* Information System (COHIS), a digital platform for analysing and visualising integrated health data. Its deployment is seen as a major strategic tool for enhancing intersectoral synergy.


SECTORS and DISCIPLINES
ENVIRONMENT
HUMAN
ANIMAL
Collaboration
Capacity building
ONE
Healthy ecosystems
Healthy animals


Communication
Coordination
SOCIETY
Rural, urban, mobile communities
Local and national
Inclusivity, equity and access
Regional and global
HEALTH
Healthy humans

One Health: The Strategic Orientation Committee Charts the Course for 2025

Meeting for its tenth session on 9 April 2025, at the Prime Minister's Office in Yaoundé, the Strategic Orientation Committee (SOC) of the Zoonoses Program gave its approval for the full-scale deployment of the One Health platform in 2025.

Chaired by the Deputy Secretary General of the Prime Minister's Office, Prof. M. Pascal NGUIHE KANTE, this ministerial session provided an opportunity to set the course for the Zoonoses Program's activities for the year. In the backdrop of this is the strengthening of coordination between the different sectors involved, with particular emphasis on integrating the guidelines of the Quadripartite, especially regarding plant health.

For this reason, the 2025 roadmap provides for the intensification of actions already underway. These include strengthening community involvement, boosting scientific efforts and improving intersectoral coordination. To this end, special attention will be given to greater involvement of community radio stations and the official inclusion of players such as the Ministry of Defense and local councils.

In a context marked by the withdrawal of major financial partners like USAID, the Strategic Orientation Committee encouraged the Permanent Secretariat to multiply initiatives aimed at securing new partnerships and, by extension, new sources of funding. To reaffirm the Cameroonian commitment to supporting the Zoonoses Program, the annual work plan, budgeted at 505 million CFA francs, was approved, with authorization granted for its immediate implementation. This decision followed a review and evaluation of activities carried out in 2024. Significant progress was noted across all strategic areas of the work plan, with 96% of planned activities completed.

These included the validation of the National *One Health* Action Plan and the expansion of awareness campaigns on Mpox and rabies. It should be noted that in 2024, particular attention remained on these two zoonoses, which recorded nine (09) human victims and seventeen (17) animal cases nationwide. Nonetheless, some structural challenges significantly affected the achievement of results last financial year.

Sectoral fragmentation, delays in funding, and a shortage of permanent staff, among others, continue to hinder the full implementation of the program. As zoonotic threats grow in scale, the SOC session served not only as a review, but also as a rallying call to key stakeholders. Thanks to sustained commitment, Cameroon's *One Health* platform is steadily shifting from a reactive approach to epidemics toward proactive and sustainable prevention.

Neglected Tropical Diseases: The need for concerted action

On 13 March 2025, the Zoonoses Program took part in a discussion hosted by the Ministry of Public Health on the elimination of zoonotic Neglected Tropical Diseases (NTDs).

NTDs are a group of infectious diseases that mainly affect tropical and subtropical regions. Rabies, echinococcosis, trypanosomiasis, and many other zoonotic NTDs impact more than one billion people worldwide every year. Rabies alone, a disease entirely preventable through vaccination, claims over 59,000 lives annually. In the first half of 2025, Cameroon recorded up to 514 suspected cases of animal trypanosomiasis.

These diseases disproportionately affect the poorest communities, often without access to healthcare, deepening social, economic, and health inequalities. Zoonotic NTDs also reduce livestock productivity, damage biodiversity, and weaken ecosystems.

Faced with this complexity, the *One Health* approach emerges as the most effective solution. By bringing together the human, animal, plant, and environmental health sectors, the webinar, entitled "*One Health* for the Elimination of Zoonotic Neglected Tropical Diseases," offered a platform to identify both challenges and solutions in tackling NTDs.

During the discussions, the PNPLZER presented strategies developed and implemented to combat zoonotic NTDs under the *One Health* framework. These include strengthening surveillance systems, targeted control of animal reservoirs and vectors, improving access to care and treatment, promoting public awareness and community engagement, as well as advancing research and innovation.

The Program also outlined the key challenges and opportunities in this fight: intersectoral coordination, limited resources, the need for sustainable funding, socio-economic and environmental hurdles, and restricted access to healthcare. On the opportunity side, they cited knowledge and technology sharing, integrated data management and the access to international funding.

The other players from the Ministry of Public Health present at the meeting presented protocols and strategies put in place to eliminate NTDs in general, with a particular focus on zoonotic NTDs.

More than ever, combating neglected tropical diseases demands a collaborative approach, with coordinated efforts at community, national, and international levels. By the end of the webinar, stakeholders welcomed the range of solutions already in place and committed to exploring new, multisectoral strategies aimed at eradicating these diseases once and for all.

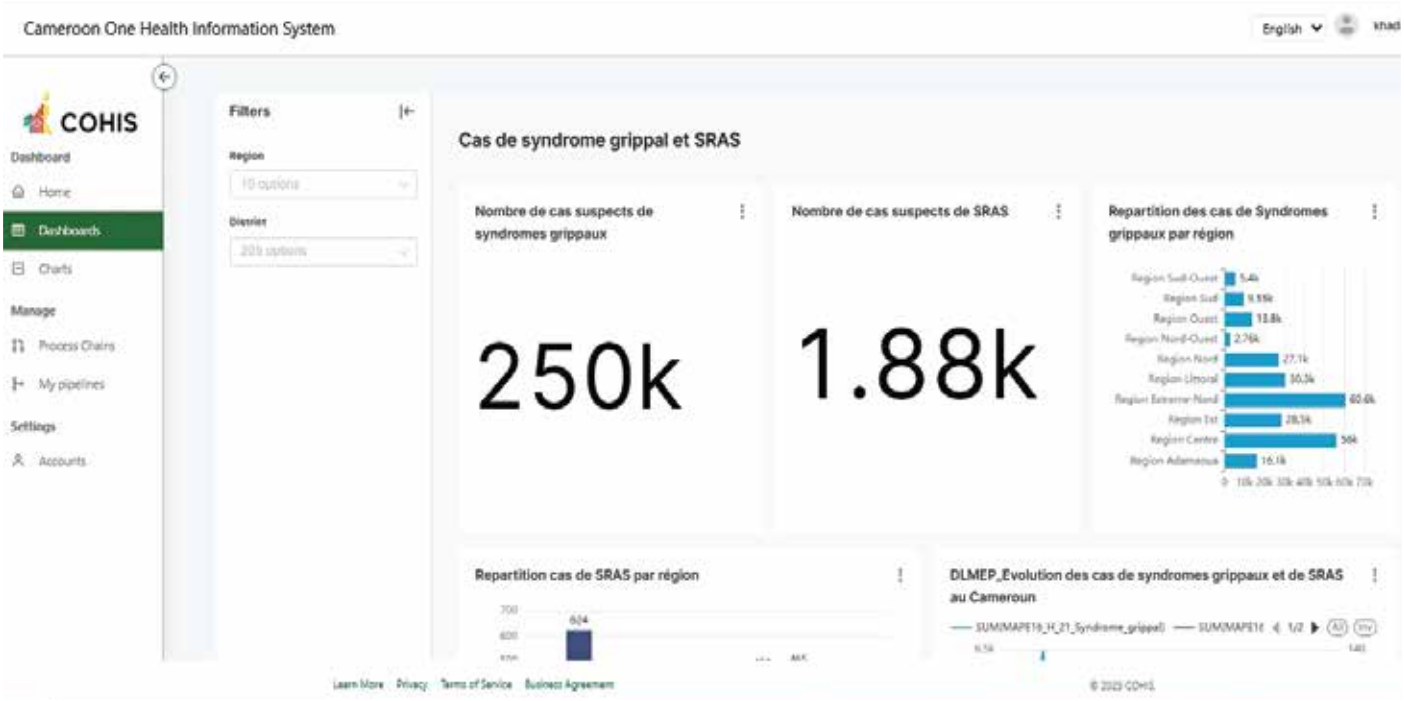
COHIS: A Game-Changer for Climate-Related Health Emergencies

Faced with the growing impact of climate change on public health, Cameroon is taking the lead by deploying the Cameroon One Health Information System (COHIS) to anticipate and combat epidemics exacerbated by climate disruptions.

At its core, COHIS is an interoperable system that allows real-time analysis and visualisation of multisectoral data.

One of the platform's major advances is the instant cross-referencing of climate data provided by the National Observatory on Climate Change (ONACC) with surveillance data on influenza and acute respiratory syndromes supplied by the human health surveillance system through the District Health Information System 2 (DHIS2).

Generated through Cameroon's *One Health* platform, this functionality provides public health experts with a powerful tool to identify correlations, understand disease transmission dynamics, and trigger early warnings, transforming a traditionally reactive approach into a proactive strategy.



Beyond surveillance, Cameroon is investing in predictive capabilities. In this context, two strategic training sessions held between April and May 2025 under the OHDAA (One Health Data Alliance Africa) project, with technical and financial support from GIZ, brought together managers from human, animal, plant, and environmental health sectors. These sessions equipped participants to clean and manage databases, laying the groundwork for predictive models across a wide range of diseases, including zoonoses like rabies, epidemic-prone diseases such as malaria, measles, and cholera, as well as critical plant diseases affecting food security, such as cassava mosaic disease and cotton fusarium wilt.

Predictive data for modeling the dynamics of disease vectors were also addressed. Ultimately, these predictive models will be integrated and visualized directly on the COHIS platform, enabling the anticipation of health risks based on climate and satellite data.

This collaborative initiative aligns with the Zoonoses Program's goal to strengthen disease surveillance at the human-animal-environment interface. It also represents a decisive step toward a more forward-looking, integrated health system.

ZOONOSES PROGRAM
ONE HEALTH PLATFORM

THE 10 PRIORITY ZOONOSES IN CAMEROON

WHAT ?

Zoonoses are diseases that are naturally transmissible from humans to animals and from animals to humans.

HOW ?

They can be transmitted directly (by contact with animals or their products, inhalation, etc.) or indirectly through a vector (insects, etc.
The 10 priority zoonotic diseases in Cameroon are:
Rabies, Anthrax, Highly Pathogenic Avian Influenza, Ebola Virus Disease, Bovine Tuberculosis, Salmonellosis, Monkeypox, Lassa Fever, Brucellosis and Trypanosomiasis.

WHAT TO DO?

Some practical tips to avoid zoonoses:

- Cook food well before eating it;
- Frequently clean and disinfect homes to keep rodents and other pests away (fleas, ticks, cockroaches, flies, etc.)
- Limit close contact with pets to protect yourself from bites and scratches;
- Wash your hands regularly, preferably with running water and soap, or use an alcohol-based disinfectant;
- Have animals vaccinated in accordance with the vaccination schedule;
- Wear personal protective equipment (mufflers, boots, gloves, etc.) before any contact with animals;
- Avoid eating food that has already been eaten by an animal
- Report any animal that is sick or found dead to the veterinary services
- Go to the nearest health center in the event of signs or symptoms of ill health.

coopération allemande
DEUTSCHE ZUSAMMENARBEIT

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Mpox Outbreak: Douala Hosts Intra-Action Review

The four-day evaluation meeting on the response to the Mpox outbreak, held in the city of Douala, highlighted systemic weaknesses, revealed surprising innovations, and mapped out a roadmap towards a stronger and better coordinated response

From 1 to 4 April 2025, Cameroon's health authorities, alongside a wide range of partners, including health professionals, military personnel, environmental agents, and international partners, gathered in Douala for an Intra-Action Review (IAR). The workshop served as a platform for a thorough, real-time assessment of the country's fight against the ongoing Mpox outbreak, particularly in the South West region. Participants also critically examined the operational systems in place and proposed updated measures to better protect communities.

Discussions focused on the resurgence of cases in Mbonge, Ekondo Titi, and Bamusso since 2022. One particularly worrying case illustrated the challenges encountered. It involved a 27-year-old community health worker, who, initially diagnosed as suffering from malaria and treated for it without improvement, moved across several health districts, inadvertently causing secondary infections and raising alarm. As his condition worsened, with the appearance of blistering rashes and swollen lymph nodes, he was finally diagnosed with Mpox and treated. This case, among others, highlighted critical weaknesses: delays in diagnosis, lack of community awareness, limited laboratory capacity, and logistical constraints such as the high cost of sea transport to remote areas.

The IAR was also an occasion to recognise notable successes, such as the establishment and functioning of temporary treatment centers and the mobilisation of community leaders. In addition, the "Kongossa surveillance" system, a local network for sharing information, was presented as a remarkable example of an appropriate response in a challenging context.

To sustain and strengthen these efforts, several actions were planned. These include boosting surveillance by training local health workers, upgrading laboratories, and improving coordination between the various health districts. There is also the need of ensuring the delivery of essential supplies and means of transport to hard-to-reach areas, as well as increasing public awareness campaigns tailored to cultural realities.

In the end, one consensus emerged: fighting Mpox demands the synergy of robust systems, community involvement, and early preparedness. These lessons learned, along with Cameroon's resilience and spirit of innovation, could serve as a valuable model for other nations facing similar health threats.

Mpox in Cameroon: Mobilisation and Resilience against the Zoonotic Threat

With more than 400 suspected human cases recorded since 2022, Cameroon is deploying a range of measures to tackle the disease, in line with the National Integrated Response Plan developed for this purpose.

Like many countries in Central and West Africa, Cameroon is grappling with the spread of Mpox. According to figures from the Department of Disease, Epidemics, and Pandemic Control (DLMEP) of the Ministry of Public Health, 43 suspected human cases have been recorded since the start of 2025. This marks a drop compared to previous years, when the country reported 115, 113, and 149 suspected cases in 2022, 2023, and 2024 respectively, with a total of five deaths over the three years.

The most affected regions remain the Centre, Littoral, North-West, and South-West. In 2024, a confirmed case was also reported in animals at the Mefou Park in the Centre Region. To curb this zoonotic disease, the country is rolling out a series of measures under its National Integrated Response Plan for 2023–2027. This strategy focuses on several priority areas: multisectoral coordination, epidemiological surveillance and response, communication and awareness-raising, biological surveillance, and research.

In terms of coordination, an Incident Management System (IMS) was activated as soon as the first cases were reported to steer the response. At the same time, advocacy efforts are underway to establish a dedicated budget line for public health emergencies in Cameroon. In the same vein, public awareness campaigns are being conducted in high-risk areas, in collaboration with community radio stations and local relays.

The country's surveillance system has been strengthened through the training of regional trainers in event-based surveillance and multisectoral investigations. Additionally, an Intra-Action Review (IAR) was carried out in the South-West region to serve as a basis for strengthening Mpox response across the country. In terms of communication, various players from the public and private sectors, civil society, researchers and the media have been made aware of Mpox. Communication materials (posters, leaflets, videos, motion graphics) have also been produced and disseminated, helping to promote best practices for disease control.

At the laboratory level, regional hubs for receiving biological samples have been set up, and the diagnostic capacity of laboratory staff for Mpox has been reinforced.

Despite these efforts, several challenges remain, including an insufficient number of health workers trained in case detection and reporting, poor community awareness of the disease, and limited financial resources to fully implement the response plan. Added to these are the lack of diagnostic laboratories in certain regions and the difficulty of accessing some high-risk, remote, and insecure health districts. These are hurdles the country is striving to overcome.

Benefits of **healthy plants**

1

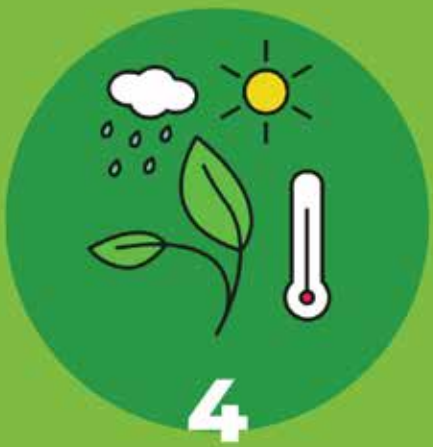
Provide nutritious food

2

Improve soil fertility

3

Supply clean air and water



4

Help mitigate climate change

5

Protect biodiversity

Food and Agriculture Organization of the United Nations

FAO

Plants, the Silent Allies

At the core of ecosystem stability, plants support the growth and development of every living creature.

Plant health touches on food security, public health, the economy, the environment, and even social stability. According to the Food and Agriculture Organization of the United Nations (FAO), more than 80% of products consumed by humans depend directly or indirectly on plants (including fruits, vegetables, cereals, and oils). In addition to providing shelter for animals, plants supply nearly 98% of the oxygen required by living organisms. Safeguarding plant health therefore contributes to achieving the Sustainable Development Goals (SDGs), such as SDG 2 on eradicating hunger and malnutrition, SDG 13 on climate action, SDG 14 on life below water, and SDG 15 on life on land.

It is worth noting, however, that like humans and all other living beings, plants too can fall ill or suffer deterioration. Damage caused by pests and plant-specific diseases can bring agricultural production to a halt and trigger food insecurity. At the same time, climate change continues to degrade ecosystems and create new niches where such threats can thrive. The combined effects of human activities and climate change place immense pressure on the environment, and consequently on plant health, agriculture, and food systems.

This is where the International Plant Protection Convention (IPPC) takes on its full significance. A multilateral treaty signed by more than 180 countries, the IPPC helps protect plant resources (both terrestrial and aquatic) against outbreaks of harmful organisms and plant diseases. It establishes International Standards for Phytosanitary Measures (ISPMs) and promotes safe trade and transport of plants and plant products. In doing so, it safeguards the environment while also protecting human and animal health.

Plant Health at the Heart of *One Health*

At the core of ecosystem stability, plants support the growth and development of every living creature.

Plant health covers emerging risks such as pests, diseases, and invasive weeds, and involves the prevention and control of threats that affect plants.

It is closely linked to human, animal, and environmental health and is therefore a vital component of the "*One Health*" approach. This framework highlights the negative impacts that poor plant health can have on overall well-being, for instance, by increasing the risk of zoonotic diseases or reducing the availability of quality food. Hence, the importance of raising awareness and sharing knowledge on the essential role of plant health within *One Health*.

During the 29th session of the FAO Committee on Agriculture, held in Rome on October 4, 2024, participants called for greater integration of plant health issues into the *One Health* approach. They stressed the effects of plant health on agricultural production, food security, economic growth, and sustainable development at all levels. To this end, initiatives such as the African Phytosanitary Programme (APP) were launched to help countries detect and counter pest outbreaks more effectively. Another example is the ePhyto solution of the International Plant Protection Conv-ention (IPPC), which ensures that plants, seeds, and agricultural products can be imported and exported without the intrusion of harmful organisms.

According to experts, plant health plays a pivotal role in the *One Health* approach. It boosts agricultural productivity and resilience, safeguards food sources, strengthens economies, and protects ecosystems.

JISV 2025 – A Colourful *One Health* Menu

The celebration of the 4th edition of the International Day of Plant Health (JISV) in Cameroon was marked by a series of awareness-raising and reflection activities involving key stakeholders.

Held every year on 12 May, this international day is dedicated to plant health. Its aim is to raise international awareness of the crucial role plant health plays in the fight against hunger, poverty, and the preservation of biodiversity. It also aims to encourage initiatives that promote and implement activities for the preservation and maintenance of the world's plant resources, while sensitising households, farmers, and livestock breeders on the importance of protecting plants in the face of global concerns. Under the theme "The Importance of Plant Health in the *One Health* Approach," this year's commemoration strengthened the capacities of actors in the agricultural sector on best practices and the impact of plant quality on both animal and human health. It also provided an opportunity to share strategies for implementing integrated *One Health* policies aimed at improving food security and sustainably preserving plant ecosystems.

The Minister of Agriculture and Rural Development (MINADER), Gabriel Mbairobe, used the occasion to draw attention to a number of threats facing plants, including emerging pests such as the armyworm, which attacks staple crops like wheat, rice, and sorghum. He also stressed the effects of climate change on yields, citing the example of locusts, capable of devouring the food of 35,000 people in a single day. Presiding over the official JISV celebration, the MINADER recalled that the *One Health* concept emerged precisely toaddress such challenges collectively, while finding solutions that link health and the environment.

Activities organised as part of JISV 2025 included the launch press conference and a panel discussion on the day's theme. In these exchanges, multisectoral experts underlined the central role plants play in maintaining ecosystem balance and the global health stakes tied to their protection. They emphasised the importance of this day in raising public awareness of the threats facing the plant kingdom and their far-reaching consequences.

These discussions served as a reminder that healthy plants are key to nutrient-rich food and a balanced environment. They also highlighted good agricultural practices as the foundation of national food security, while showing the impact of plant quality on both animal and human health.

The moment was equally used to advocate for stronger sectoral synergy, as preserving plant ecosystems is essential to preventing future pandemics. The celebration concluded with an agricultural and seed exhibition, showcasing the dynamism and innovation of local players.

«We invest in and encourage innovation to develop crop protection solutions that are more effective, targeted, and environmentally friendly»

1. What is the core mission of CropLife Cameroon?

Our primary role is to protect crops from diseases, pests, and weeds that threaten the country's food security. To achieve this, our essential mission is to promote sustainable and productive agriculture in Cameroon through the responsible and informed use of crop protection technologies. Our mission is equally to actively promote the safe and effective use of plant protection products, provide ongoing training for users in good agricultural practices, and defend the legitimate interests of the crop protection industry. All of this is carried out with a strong commitment to environmental preservation and public health protection.

2. What measures do you recommend to ensure plant health on a daily basis?

We invest in and encourage innovation to develop crop protection solutions that are more effective, targeted, and environmentally responsible. Strengthening farmers' capacity in good agricultural practices is key, particularly in the correct and responsible use of plant protection products. Our training programmes cover topics such as accurate dosing, optimal timing of product application and crop

rotation to prevent the build-up of resistance.

We promote integrated pest management, harmoniously combining biological, cultural, and chemical methods for sustainable and effective control of pests and diseases. Another priority is close collaboration with plant health services for ongoing monitoring of pests and diseases, enabling early diagnosis of emerging threats and rapid intervention. We also place strong emphasis on quality assurance, ensuring that plant protection products marketed by our members meet strict laid down safety and quality standards. Fighting counterfeit

and illegal pesticides is also a major focus. We work alongside MINADER to carry out field inspections and train key phytosanitary control personnel (inspectors, customs officers, law enforcement officers, and Ministry of Trade staff to dismantle illegal supply networks. Our work also promotes bio-pesticides and biotechnologies.

3. What does CropLife Cameroon specifically do to protect the environment as well as human and animal health?

We implement several measures, starting with adherence to the FAO's International Code of Conduct on Pesticide Management. This code sets strict standards for the responsible management of crop protection products throughout their life cycle. We systematically train farmers in the correct use of personal protective equipment (PPE), safe storage practices, and proper disposal of empty packaging. Our approach also promotes advanced, precise spraying technologies that significantly reduce runoff and drift, limiting unintended exposure.

CropLife also raises public awareness about the importance of carefully reading product labels and strictly observing pre-harvest intervals (PHIs) to ensure food safety. Managing potential risks associated with the use of crop protection products on the environment (water, soil, and biodiversity) alongside safeguarding the health of farm workers and consumers, is central to our mission.

4. Does your organization apply the One Health approach in its operations?

Absolutely. Plant, human, animal, and environmental health are intrinsically linked and inseparable. Our actions are specifically designed to reduce human health risks by ensuring the production of safe, nutritious, and hazard-free food in strict compliance with good agricultural practices. We protect animal health by effectively managing plant diseases that could indirectly affect livestock. We also work to preserve ecosystems, maintaining the quality of vital natural resources such as water and soil. By adopting this holistic, integrated approach,

CropLife Cameroon is firmly committed to building a future where Cameroonian agriculture is not only productive and prosperous, but also safe, resilient, and sustainable for all living beings and the environment.

5. What specific activities did you carry out for the International Day of Plant Health on 12 May?

To mark the International Plant Health Day, CropLife Cameroon raised public and media awareness about the importance of crop health and organised hands-on training workshops for farmers. These workshops addressed key topics such as good practices in using plant protection products, early identification of pests and diseases, and integrated pest management strategies. Open days allowed the public to interact directly with experts on the challenges and solutions in crop protection, while strategic partnerships were forged with key institutional players such as MINADER and research institutes.

Research Aligned with the *One Health* Concept

Now in its 5th edition, the Science Festival held in the Ma'an Council, Cameroon, was a great opportunity for exchange and the dissemination of scientific research focused on One Health research problems.

This scientific gathering, organized from 30 May to 1 June, 2025, in the South Region, was held under the theme: "*One Health*: Sustainably Managing Forest Ecosystems forGlobal Health." Discussions during the event highlighted research linking human, animal, plant, and environmental health. Beyond the Campo Ma'an National Park, Ma'an was chosen for its long-standing tradition of research carried out by the Centre for Research on Emerging and Re-emerging Diseases (CREMER) and the Institut de Recherche pour le Développement (IRD), in collaboration with other French institutions such as the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD) and France Volontaires.

Supported by IRD, the event brought together researchers from Cameroon and abroad (Congo, Gabon, France), as well as technical and scientific partners including the Centre for Research in Infectious Diseases (CRID), the World Wildlife Fund, the African Wildlife Foundation, and the conservation teams of Campo Ma'an National Park. The meeting aimed to share research project results with local communities in this forest area, raise awareness among youth and local producers about the *One Health* concept and sustainable development challenges, as well as promote the locality's heritage, culture, and traditions.

As a key player in the *One Health* approach in Cameroon, the Zoonoses Program played a key role in the discussions. It presented concrete actions carried out in South Cameroon, including multisectoral *One Health* investigation missions for the integrated surveillance of Marburg virus disease and Mpox, joint risk assessments for emerging diseases such as COVID-19, Ebola virus disease, and Lassa fever, the provision of laboratory equipment to Campo National Park, and awareness and communication activities for local populations on the *One Health* concept and priority zoonoses.

The scientific meeting also featured the launch of the IRD Alumni Network in Central Africa. The 5th edition of the Science Festival in Ma'an not only strengthened the connection between science and society but also highlighted the strategic importance of an integrated *One Health* approach in preserving global health. The celebration concluded with an excursion to the Memve'ele Dam in Nyabizan.

The One Health Approach: A Lever for Sustainable Healthcare Funding

Faced with the growing complexity of global health crises, the question of healthcare funding has never been more urgent. Going beyond traditional budgets, the One Health approach is emerging as a promising pathway to optimize resource allocation and ensure sustainable health security.

Traditionally, healthcare funding has been organised around silos, with separate budgets for each branch of the global health system. Yet science confirms daily that the health of humans, animals, and our ecosystems are deeply interconnected. This is where the *One Health* approach comes in, advocating for cross-sector and transdisciplinary collaboration in managing health risks. But how can this philosophy be translated into concrete funding terms?

Breaking Budgetary Silos for Greater Efficiency

The main challenge lies in dismantling budget silos. Funding *One Health* means allocating resources in a coordinated manner, recognising that investment in one sector can yield substantial benefits in others. For example, investing in animal health not only benefits livestock production but also serves as a frontline defense against zoonoses that could threaten human health and lead to far higher treatment costs. Similarly, funding ecosystem protection and waste management can reduce exposure to pathogens and pollutants, thereby preventing human and animal diseases. Consider also the development of integrated information systems such as the Cameroon One Health Information System (COHIS), which enables data sharing among *One Health* players. While these platforms require initial funding, they provide a comprehensive overview for early detection and rapid response, helping to avert costly epidemics.

Towards Preventive and Sustainable Funding

The *One Health* approach shifts the funding paradigm from a curative model, which is often expensive and reactive, to one that is preventive and proactive. Every dollar invested in prevention through this approach can help minimize the economic losses caused by epidemics. This includes creating dedicated funds or budget lines for *One Health initiatives*, integrating One Health objectives into national development plans and health strategies, strengthening public-private partnerships, particularly in research and the development of new vaccines or diagnostics, and promoting more sustainable agricultural and industrial practices. It also requires sustained technical and financial support from international partners. Funding health through the *One Health* lens is therefore not merely an expense, but a strategic investment in a safer, healthier future.

Tracking Variants: A New Integrated Framework Soon to be Available

Cameroon's national strategy for the genomic surveillance of pathogens with epidemic and pandemic potential has been revised to incorporate One Health aspects.

The development of this document was based on the Africa Centers for Disease Control and Prevention (Africa CDC) Genomic Strategy, a key reference framework for African Union Member States. The initial version was developed around lessons learned during the management of the COVID-19 pandemic, with the aim of leveraging resources acquired during that period. The value of this new tool lies in its openness to address other public health emergencies.

Six core areas form the backbone of this strategy. These include coordination, resource optimisation, data management, quality control, enhancement and dissemination of sequencing data, funding, and monitoring and evaluation.

Revising this document represents a major step forward in strengthening Cameroon's health system, as genomic surveillance of pathogens allows authorities to understand how viruses evolve, where they spread, and what methods are most effective to combat them.

By carefully reviewing and updating its national genomic surveillance strategy, Cameroon is not only strengthening its capacity for rapid disease detection and response but also asserting its leadership in the *One Health* approach for global health security. Genomic surveillance thus functions as a true early warning system.

This strategic instrument therefore serves as an essential roadmap for the sustainable protection of human, animal, plant, and environmental health. Cameroon is thus committed to consolidating these achievements and extending their application well beyond SARS-CoV-2.

Dr. Rhoda N. Bughe, Lecturer and Head of the Food and Drug Safety of the Biotechnology Laboratory for Public Health Research, University of Yaoundé I

«Where the risks are higher, food safety becomes even more necessary»

On 7 June 2025, Cameroon joined the rest of the world in commemorating International Food Safety Day under the theme: «Food Safety: Science in Action.»

What was the significance of this theme for Cameroon, and what was done at the national level to mark the occasion?

This theme was particularly relevant because Cameroon is experiencing population growth, an expanding agricultural sector, and ongoing public health challenges. Food safety, backed by science, is essential for protecting health, boosting the economy, and promoting sustainable development. It is especially necessary given that poor hygiene in markets, street food consumption, and unsafe food handling increase risks. Scientific research and surveillance are therefore crucial for detecting and controlling pathogens in food and water.

At the national level, through the Zoonoses Program, a sensitization campaign on the "five keys to safer food" was carried out in selected markets in the Mfoundi Division of the Centre Region.

What role does science play in strengthening safety measures for the food consumed by Cameroonians?

Science is central in several ways. First, it helps detect food contaminants. Studies conducted in markets in Yaoundé and Douala have revealed contamination in meat, fish, and vegetables, leading to targeted hygiene recommendations. Second, it enables the monitoring of zoonotic risks and antimicrobial resistance. Institutions such as LANAVET, Centre Pasteur, and universities conduct this monitoring and report to the Ministries in charge of public health and animal health. These data, grounded in scientific studies, inform food safety guidelines and regulatory policies, whether regarding fish smoking, milk pasteurization, or pesticide use.

Science also supports safer food handling practices. For example, research on street food vendors in several cities has shaped training programmes in hygiene and food handling. Similarly, in efforts to improve agricultural and livestock practices,

farmers are trained to reduce antibiotic misuse and improve the quality of animal feed. Finally, by training the next generation of food safety professionals (including veterinarians, microbiologists, food technologists, and nutritionists) at universities in Dschang, Buea, Yaoundé, and Ngaoundéré, science helps prevent dangerous residues in meat or eggs before they reach consumers.

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According to the FAO, bacteria, chemicals, and parasites cause at least 200 different diseases. What measures have been put in place to protect Cameroonians?

To safeguard what Cameroonians eat, inspections and laboratory analyses are the first steps. This allows for the early detection of harmful organisms or chemical substances in food and water, guiding rapid response.

In addition, the Ministries in charge of public health, livestock, agriculture, and environment, alongside WHO and FAO, actively monitor zoonotic and antimicrobial resistance risks under the *One Health* approach, detecting and controlling animal-borne diseases before they spread through food or direct contact. Ministries and NGOs also conduct public sensitisation campaigns to reduce contamination risks by improving hygiene practices on farms, in slaughterhouses, on means of transport, in markets, and in households. Municipal authorities and health inspectors regulate and inspect food sales points to prevent contamination at the point of distribution. Regarding national food safety policy and international partnerships, Cameroon works closely with FAO, WHO, Codex Alimentarius, and other bodies to establish legal frameworks and adopt policies to ensure sustainable enforcement of food safety measures. Finally, national water and sanitation programmes are in place to combat parasites and bacteria transmitted through contaminated water, which can compromise food safety.

Given the current situation, is food safety too idealistic in our context?

In many parts of the world, especially in low- and middle-income countries like Cameroon, food safety may seem idealistic, even unrealistic, given daily challenges. These include limited infrastructure for potable water, cold storage and laboratories, unregulated informal markets, low hygiene awareness, inadequate law enforcement, and poverty, which force some people to eat whatever is available. However, this does not make food safety impossible or pointless. On the contrary, where risks are higher, food safety becomes even more necessary.

World Food Safety Day

Food Safety: Science in Action

Five keys to safer food

Keep clean

- Wash your hands before handling food and often during food preparation
- Wash your hands after going to the toilet
- Wash and sanitize all surfaces and equipment used for food preparation
- Protect kitchen areas and food from insects, pests and other animals

Why?

While most microorganisms do not cause disease, dangerous microorganisms are widely found in soil, water, animals and people. These microorganisms are carried on hands, wiping cloths and utensils, especially cutting boards and the slightest contact can transfer them to food and cause foodborne diseases, including zoonoses.

Separate raw and cooked

- Separate raw meat, poultry and seafood from other foods
- Use separate equipment and utensils such as knives and cutting boards for handling raw and cooked foods.
- Store food in containers to avoid contact between raw and prepared foods

Why?

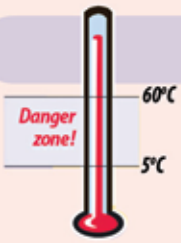
Raw food, especially meat, poultry and seafood, and their juices, can contain dangerous microorganisms which may be transferred onto other foods during food preparation and storage.

Cook thoroughly

- Cook food thoroughly, especially meat, poultry, eggs and seafood
- Cook foods like soups and stews to boiling temperature. This ensures that they have reached 70°C. For meat and poultry, make sure that juices are clear, not pink. Ideally, use a thermometer
- Reheat cooked food thoroughly

Why?

Proper cooking kills almost all dangerous microorganisms. Studies have shown that cooking food to a temperature of 70°C can help ensure it is safe for consumption. Foods that require special attention include minced meats, rolled roasts, large joints of meat and whole poultry.



Keep food at safe temperatures

- Do not leave cooked food at room temperature for more than 2 hours
- Refrigerate promptly all cooked and perishable food (preferably below 5°C)
- Keep cooked food piping hot (more than 60°C) prior to serving
- Do not store food too long even in the refrigerator
- Do not thaw frozen food at room temperature, use heat

Why?

Microorganisms can multiply very quickly if food is stored at room temperature. By holding at temperatures below 5°C or above 60°C, the growth of microorganisms is slowed down or stopped. Some dangerous microorganisms still grow below 5°C.

Use safe water and raw materials

- Use safe water or treat it to make it safe
- Select fresh and wholesome foods
- Choose foods processed for safety, such as pasteurized milk
- Wash fruits and vegetables, especially if eaten raw
- Do not use food beyond its expiry date

Why?

Raw materials, including water and ice, may be contaminated with dangerous microorganisms and chemicals. Toxic chemicals may be formed in damaged and mouldy foods. Care in selection of raw materials and simple measures such as washing and peeling may reduce the risk.

Food Safety is Everyone's Business

Food Safety
World Health Organization

Food and Agriculture Organization of the United Nations

Celebration of WFSD 2025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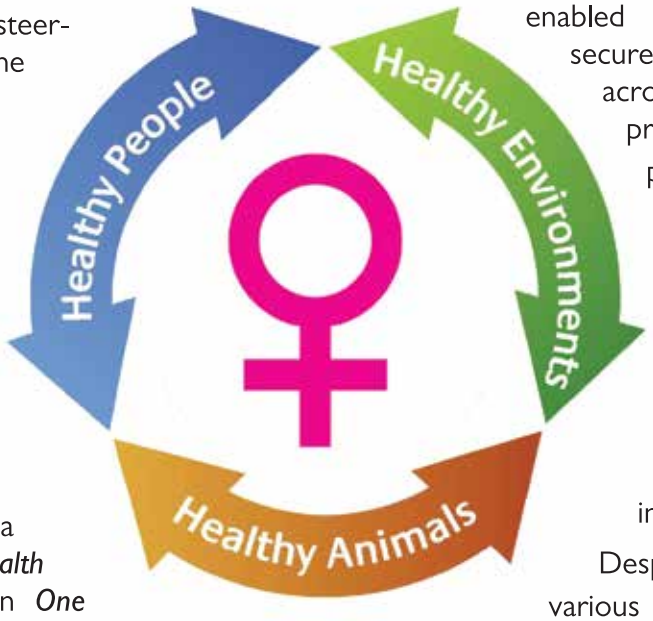
Women and *One Health*: Achievements in a Context of Challenges

From the marketplace to the laboratory, Cameroonian women are on the frontline of safeguarding human, animal, and environmental health.

From the marketplace to the laboratory, Cameroonian women are on the frontline of safeguarding human, animal, and environmental health. For several years, women's networks and associations have been advancing *One Health* within communities. In diverse settings, they are building bridges between public health, animal protection, and ecosystem preservation. From field awareness campaigns and community engagement to capacity-building for stakeholders, digital health initiatives, and advocacy toward authorities, no aspect of the *One Health* approach is left unattended. Women's leadership in *One Health* is visible in high-level decision-making and strategic steering bodies. Whether in the Strategic Orientation Committee, the Technical Committee, or the Permanent Secretariat of the Zoonoses Programme, women are making their mark through the development and implementation of *One Health* policies.



Marie Hélène Ebieline is a prominent figure in *One Health* and chairs the Cameroon *One Health* Organizations Network (ROOHCAM), which has been active for over four years. Under her leadership, and with the support of GIZ-PPOH, the Network implemented a food quality control project in markets. "Since most market presidents are women, the initiative was well-received and led to lasting behavioral changes. When women get involved, community dynamics change," emphasizes Marie Hélène.

Similar initiatives are part of this growing movement. For example, Women in Global Health Cameroon (WGH), founded by the renowned malariologist and 2023 Virchow Prize laureate Professor Rose Leke, advocates for strong female leadership in health. She actively promotes girls' education, women's entrepreneurship, and research scholarships. "We have provided targeted training to female professionals and students in public, veterinary, and environmental health to create a multidisciplinary female workforce," explains Dr. Nicole Fouda Mbarga, president of WGH. Cameroon Gender and Environment Watch (CAMGEW), led by Ernestine Leikeki Sevidzem, contributes significantly to environmental preservation and the fight against gender-based violence. Its achievements include planting over 86,000 trees, supporting 800 women victims of violence, and establishing several sustainable economic activities in the Northwest Region.

Meanwhile, the Lilagle initiative has enabled numerous women to secure 100 hectares of land across 18 villages and, to promote food security, has planted 60,000 fruit trees. More recently, associations like Women in *One Health* and Sustainable Development Initiative (WOHSDI) are carving out a space for themselves in promoting this integrated approach.

Despite their presence across various spheres, women in One Health still face numerous challenges. According to the UN, they occupy less than 30% of leadership positions in global health structures. In addition, access to funding for female-led projects remains limited. "*One Health* without women is an incomplete equation. It is urgent to institutionalise gender parity in *One Health* governance bodies and to specifically fund projects led by women or incorporating gender equality," suggests Nicole Fouda Mbarga.

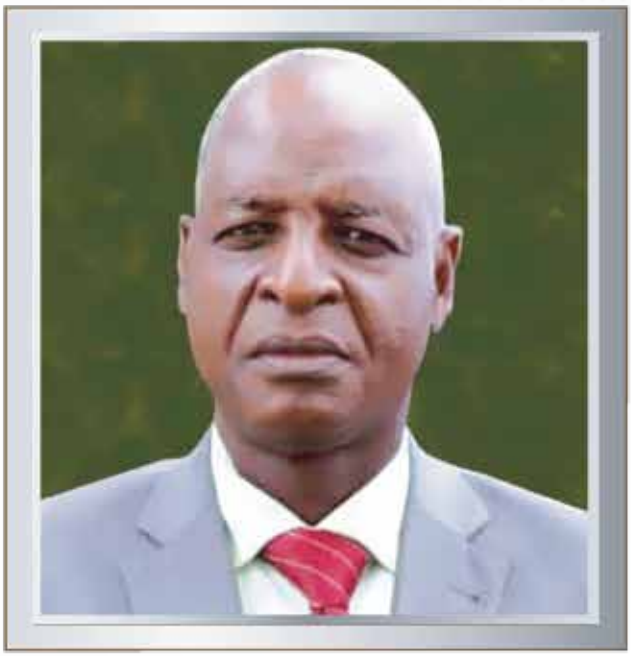
Mis en oeuvre par
giz Deutsche Gesellschaf
für Internationale
Zusammenarbeit (GIZ

From Data to Action: COHIS Strengthens Intersectoral Cooperation

In the first half of 2025, the implementation of the Cameroon *One Health* Information System (COHIS) reached a decisive milestone toward enhanced intersectoral collaboration. The focus was placed on developing the first concrete use cases through interactive dashboards designed by focal points from the human, animal, plant, and environmental health sectors. These tools make it possible to track, in real time, the evolution of zoonoses, cases of animal rabies, the management of toxic waste, monitoring of pesticide residues in plant-based food products, surveillance of diseases at points of entry, and the links between climate and respiratory illnesses.

At the same time, a framework for data governance and information security was developed, based on an audit carried out by the National Agency for Information and Communication Technologies. This framework is designed to ensure the responsible, secure, and compliant use of data exchanged within COHIS.

Initial artificial intelligence tests are underway to anticipate epidemic risks through early warning models that integrate human, animal, and environmental data. In this way, COHIS is demonstrating its potential to catalyse coordination across sectors in support of better prevention and response to health threats.



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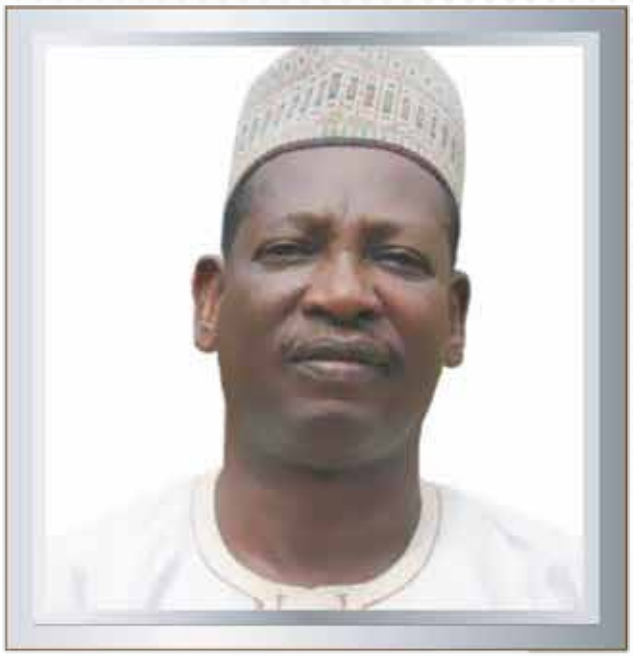

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