



The OPCW Africa Bulletin

Volume 4

JANUARY 2025

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- *Cover photo: Group photo of participants at “The Global Conference on the Role of Artificial Intelligence in Advancing the Implementation of the Chemical Weapons Convention” held in Rabat, Kingdom of Morocco, from 22 to 24 October 2024.*
 - *Pictures illustrating OPCW online training events are courtesy of the participants and partners in the organisation of these events.*
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Message from the Director-General

Dear Readers,

I warmly welcome you to the fourth edition of the OPCW Africa bulletin, and I thank you for your interest in the cooperation between the OPCW and Africa.

The Secretariat continued in 2024 to devote special attention to the African region through the Africa Programme, with a view to providing targeted support to African States Parties for national implementation of the Chemical Weapons Convention (CWC).



The Programme continued to expand and innovate this year. Besides the delivery of 67 capacity building and technical assistance activities addressing all Programme objectives and including 37 activities specific to Africa, the Secretariat devised 10 new extrabudgetary funding projects addressing the region's specific needs in terms of chemical safety, security and development. The Secretariat also launched two brand new training initiatives specifically for Africa, and focusing on investigation of chemical emergencies and maintenance of laboratory equipment.

The OPCW Centre for Chemistry and Technology has been playing an important role in the delivery of our support and assistance. Twenty-six capacity building activities conducted involving the ChemTech Centre in 2024, benefitting participants from all regions, including Africa.

The year was marked by the acquisition by the National Institute of Criminalistics and Criminology of the Gendarmerie Nationale of Algeria of the OPCW designation, thereby equipping Africa with an OPCW Designated Laboratory for the first time since 2006, and the successful co-organisation and hosting by Morocco of the first-ever Conference on Artificial Intelligence and its role in advancing the implementation of the Convention.

Projects and activities leading to such progress would not have been possible without strong support from all stakeholders. I would like to acknowledge the African National Authorities and Permanent Representations, as well as our partners and donors.

With an average of 44 African Member States involved annually in OPCW capacity building activities and increasing attention from both the region and contributing partners, Africa is now more engaged than ever in achieving the goals of the Convention.

Details regarding these and other developments are presented in this edition of the bulletin. The bulletin also includes inspiring feedback and insights from African National Authorities and Alumni of capacity-building activities. I thank all authors for their enriching contributions.

I close by thanking you once again for your interest. I wish you an enjoyable read and I take this opportunity to wish you all the very best for 2025.

Fernando Arias, OPCW Director-General

Main Developments in the OPCW Africa Programme in 2024

The Secretariat continued in 2024 to address the specific needs of the Africa region in relation to the Chemical Weapons Convention (CWC) through the OPCW Programme for Africa. The implementation of the sixth phase of the Programme, covering the period 2023 to 2025, has been progressing apace.

In 2024, sixty-seven capacity building events and support activities organised by the Secretariat benefited some 750 participants from at least 44 African States Parties. These activities included 37 activities organised specifically for the Africa region.

Activity focus ranged from enhancing national implementation of the Convention to improving controls over cross-border transfers of scheduled chemicals, to developing assistance and protection capabilities against chemical emergencies, to advancing chemical safety and security management, to upgrading laboratory competencies across the continent, and to promoting the development of knowledge of peaceful chemistry and its exchange.



Glimpses of capacity building support provided to African Member States in 2024

In terms of the advancing the CWC national implementation, intensified efforts were deployed by the Secretariat in 2024 to assist African Lusophone Member States develop and enhance their national legislations. A special focus was also put on assisting several individual Member States, namely: Angola, Kenya, Sao Tome and Principe and Seychelles.

Two brand-new capacity building initiatives have been launched in 2024 specifically for African Member States, namely: the training cycle on investigation of chemical emergencies for law enforcement agencies and the course on laboratory equipment maintenance.

A major achievement this year was the acquisition in April by the National Institute of Criminalistics and Criminology of the Gendarmerie Nationale of Algeria (INCC/GN) of the OPCW designation status for the analysis of authentic environmental samples. The Bundeswehr Research Institute for Protective Technologies and CBRN Protection of Germany (WIS) and the Finnish Institute for the Verification of

the Chemical Weapons Convention (VERIFIN), through established OPCW capacity-building support programmes, have been key partners in this achievement. Following the designation of the INCC/GN, Africa, for the first time since 2006, has an OPCW designated laboratory. This is in line with a key objective of the sixth phase of the Programme. OPCW designated laboratories are now again present in all continents of the world.

It is noteworthy that over the past years, the Institute has also been playing a vital role in promoting capacity building by supporting key OPCW capacity-building initiatives under the Africa Programme such as sampling courses and the “CHEMEX Africa”, held in Algeria. In November, in recognition of its significant contribution to OPCW priority areas, the Institute was awarded the 2024 OPCW-The Hague Award, together with the Indian Chemical Council.



OPCW Designation of the National Institute of Criminalistics and Criminology of the Gendarmerie Nationale of Algeria: Certificate Awarding Ceremony (OPCW HQ, 16 July 2024)



The 2024 OPCW-The Hague Award ceremony (25 November 2024).

Another key development this year was the co-organisation with and hosting by Morocco of the first-ever Conference on the “Role of Artificial Intelligence in Advancing the Implementation of the CWC”, in Rabat, in October. The world-class Conference was highly successful and allowed for a better understanding of the benefits and risks of AI on the implementation of the Convention and how the

OPCW should respond to them. An important contribution by African experts and participants was registered in this key event.



The Global Conference on the Role of Artificial Intelligence in Advancing the Implementation of Chemical Weapons Convention, co-organised and hosted by Morocco (Rabat, 22-24 October 2024)

The activities conducted in the framework of the Africa Programme continued to be funded through the OPCW regular budget with additional voluntary contributions utilised to further achieve the objectives of the Programme.

In this connection, the Secretariat achieved significant progress in the implementation of the first batch of seven special projects for extrabudgetary funding under the Africa Programme. As a result, six out of the seven projects have been delivered by end 2024. The implementation of the only remaining project entitled “Strengthening mitigation and preparedness to respond to chemical incidents and attacks in French-speaking West African States Parties to the CWC” has been progressing at a fast pace.

Considering this progress, the Secretariat has also developed a new set of extrabudgetary project proposals in 2024. Ten special projects, with a total estimated budget of nearly €2.5 million, were designed. They address the three overarching areas of needs defined by African Member States for the Africa Programme:

- Firstly, strengthening control over transfers of toxic chemicals on the continent;
- Secondly, boosting response capacities against chemical incidents and attacks including by terrorists; and,

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- Developing capacities of African laboratories, including for the analysis of biotoxins.

As part of the resource mobilisation efforts for these projects, the Secretariat organised on 5 July 2024 an information session for all Member States announcing these projects and calling for voluntary contributions. The Secretariat continues its endeavours to secure necessary funding and support for these projects.

Cooperation continued throughout the year with a variety of partners to organise activities and to explore new synergies and initiatives in the framework of the Programme. The list of partners features relevant national, regional, and international organisations.

The African Union's Commission for Political Affairs, Peace and Security has been kept abreast of developments in the Programme. Interactions with the Commission have been ongoing with a view to revitalising the cooperation between the OPCW and the African Union, and building on the outcome of the working visit in 2023 to the OPCW by H.E. Ambassador Bankole Adeyoe, African Union Commissioner for Political Affairs, Peace and Security, and his productive meeting with the OPCW Director-General.

Separately, the Secretariat has also been maintaining and further developing the OPCW Africa Network. The Network which counts today over 1250 members, including African chemistry professionals and CWC stakeholders, is a platform for networking, exchange of knowledge and professional opportunities in connection with the CWC and peaceful chemistry.

The Africa Programme Steering Committee, including African Member States and regular donors to the Programme, has continued to monitor and support the Programme implementation in 2024. Chaired by H.E. Ambassador Madeleine Liguemoh Ondoua of Cameroon, the Committee met twice, in June and November. It has reviewed in detail the developments in the Programme and commended the advancement accomplished in the implementation of the 6th phase.



10th meeting of the Steering Committee of the OPCW Programme for Africa (OPCW HQ, 18 November 2024)

Projects and activities under the Programme would not have been possible without the positive engagement of all stakeholders. The Secretariat expresses its gratitude for all contributions received, whether technical, logistical, or financial.

Experience-Sharing by African States Parties and Feedback Received from Alumni of the Africa Programme

This section of the bulletin is aimed at sharing experiences from African States Parties in connection with the national implementation of the Convention and support to the work of the OPCW.

These experiences highlight some of the best practices identified as well as key challenges faced by concerned States Parties notably in relation to the domestication of the Convention and the functioning of their National Authorities.

Publicising such national experiences contributes effectively to knowledge sharing and awareness raising among National Authorities and other CWC stakeholders. It also stimulates more cooperation among States Parties.

For this edition, the CWC National Authorities of Algeria, Burundi, Morocco, Togo, Uganda, and Zambia contributed insightful articles.

In addition, this part of the bulletin also includes feedback received from alumni of ICA capacity-building activities under the Africa Programme, namely Mr Dirk Clote of Namibia and Mr Joseph Oland of Tanzania. Each reflect on their participations in OPCW events and share updates on their follow-up activities.

The National Institute of Criminalistics and Criminology of the Algerian National Gendarmerie (NICC/NG) obtains OPCW designation; Africa now has its own Designated Laboratory



Introduction

In 2024, the NICC/NG has obtained, after its successful participation in the OPCW Proficiency Tests, the status of an OPCW designated laboratory for the analysis of authentic environmental samples, making it the only laboratory on the African continent to hold this status so far.

This designation demonstrates the institute's commitment for excellence and for the highest standards in chemical warfare agent's analysis. It is a recognition of the Institute's scientific competence. It also reflects the dedication and hard work of the NICC/NG staff and the continued support of the Algerian National Authority and the Permanent Representation of Algeria to the OPCW.

An OPCW designated laboratory entails a recognition by the OPCW for its capacity to carry out specialized analysis of chemical weapons, their precursors, as well as their degradation products. A designated laboratory is a central actor in verification and compliance with the Convention on Chemical Weapons. Joining the organization's selected group of designated laboratories, grants the NICC/NG the opportunity to actively support the OPCW in its noble mission to promote global peace and security by implementing the Convention on the Prohibition of Chemical Weapons.



NICC/NG main building

The process of achieving OPCW designation for analyzing CWC-Related Compounds

The NICC/NG is an important institute of forensic sciences and criminology under the authority of the Algerian Ministry of National Defense (the National Gendarmerie), dedicated to strengthening the country's capacity to combat crime through scientific methods. The OPCW

designation will support the Institute in assuming its duties considering its crucial role in integrating advanced scientific techniques into the judicial and criminal process.

The idea started in 2014, when the NICC/NG was tasked with analyzing substances related to the Chemical Weapons Convention (CWC) as part of a long-term objective for achieving OPCW designated laboratory status and strengthening Algeria's national capacities in the field of the detection and identification of chemical warfare agents and related products.

Aware that obtaining such status requires a high level of technical expertise and advanced instrumentation, the NICC/NG has invested considerable financial resources to improve its analytical capabilities by acquiring state-of-the-art laboratory equipment and by training its scientific staff.

After that, a technical assessment visit conducted by OPCW experts concluded that the institute had the necessary capabilities in terms of infrastructure and a significant background in term of knowledge and expertise. Moreover, the OPCW team recognized the NICC/NG strong commitment to strengthening its capacities and developing the skills and expertise necessary to obtain the status of an OPCW designated laboratory.

It is worth to remind that in parallel, the NICC/NG has started to participate in the OPCW-competency testing program (CCACT-02, 03, 04, 05, 07, 09, 11 and 14) and obtained grades varying between good and very good. As a follow-up, it was decided to participate in the OPCW - Proficiency Tests (PT) and consequently, develop an elaborated analytical approach.

The role of International Cooperation: NICC/NG's Engagement in the OPCW Capacity Building and Laboratory Twinning Programs.

The process of designation was realized in a progressive way and went through a collaborative approach. After acquiring baseline knowledge and building experience through participation in the OPCW-competency testing program (CCACT), the obtained encouraging results lead the NICC/NG specialists to go further by participating in the OPCW Proficiency tests.

In this process, the activities carried out by the NICC/NG experts within the framework of the OPCW capacity-building programs have been beneficial, particularly the specialized fellowships carried out at the Finnish Institute for Verification of the Chemical Weapons Convention (VERIFIN).

Additionally, in 2016, the NICC/NG submitted an expression of interest to benefit from the laboratory twinning initiative, aimed at strengthening its capabilities by developing a partnership with an OPCW designated laboratory. Indeed in 2021, the NICC/NG engaged in a twinning project with the German Research Institute of the Federal Defense Forces, on protective technologies and CBRN protection (WIS) within the framework of the twinning and assistance from OPCW laboratories supported and monitored by the Technical Secretariat.

This collaboration provided valuable support and expertise, helping NICC/NG experts improve their skills and scaling-up existing procedures through interactive training and knowledge exchange with their German counterparts.

In 2022, the NICC/NG reached an important milestone by obtaining accreditation in accordance with the ISO/IEC 17025 standard; by the Algerian accreditation body “ALGERAC”, in the field of analysis of compounds related to the CWC. Subsequently, and thanks to its successful participation in the OPCW proficiency tests, notably the 52nd, 53rd and 54th PTs, the NICC fulfilled, all the requirements for obtaining the OPCW Designated Laboratory.



Laboratory Analysis of CWC-Related Chemicals

NICC/GN's key role in Algeria – OPCW Cooperation



The NICC/NG stands as a Center of Excellence, thanks to its contributions in the organization of several OPCW trainings and capacity building activities at the national and regional levels. The institute has a central role in strengthening the cooperation between Algeria and the OPCW, especially in upholding the implementation of the CWC at the African level.

This is demonstrated by the fact that the NICC/GN actively participates in the joint organization along with the OPCW of capacity building activities, within the framework of South-South cooperation, illustrated by the organization of the annual “Training Course on Conducting Sampling and Analysis in a Highly Contaminated Environment for African States Parties”.

The NICC experts and teams provided an outstanding contribution in the different phases and activities of the Pan- African multi-component Exercise "CHEMEX Africa 2023", held in Algiers, from 23 September to 05 October 2023, which was the first large-scale emergency response exercise ever organized by the OPCW.

It is worth mentioning that as part of the cooperation program for capacity building in the areas of peaceful applications of chemistry, the NICC/NG is carrying out with the OPCW a research project aimed at strengthening the analytical capacity of toxins.

Additionally, the NICC/NG has contributed to the OPCW analytical database, OCAD, which is the only database used during official OPCW inspections.

These actions demonstrate the proactive role of the NICC/NG and that of the Algerian Government in the activities of the OPCW, and more importantly their willingness to continue the efforts towards reinforcing national capacities and promoting regional cooperation.



Highlights of the CHEMEX Africa 2023

Perspectives of cooperation

In fact, the obtention by the NICC/NG of the OPCW designation is not an end but a new beginning for more diversified and fostered cooperation between Algeria and the OPCW. It will open the door for several perspectives of bilateral and regional cooperations, built on skillful and professional basis.

The status of OPCW Designated Laboratory gives an added value to the NICC/GN which is ready to share its experience with other African institutions.

It qualifies it to become the “Regional Center of Excellence for training on assistance and protection against Chemical weapons for the North -Africa and Sahel Region”, within the OPCW initiative aiming to create regional Centers of Excellence.

We should recall that Algeria has supported this initiative and has officially offered, since its launch, to host the dedicated Centre for North Africa and Sahel region.

The Algerian Government remains steadfast in its commitment to upholding the values of peace, security and scientific excellence by inter alia, leveraging the NICC/NG expertise to actively contribute to the vital mission of the OPCW. We believe that together we can have a real impact on protecting the world from the threats linked to chemical weapons.

Implementation of the Chemical Weapons Convention in Burundi



By Bernard CAKWERI, Advisor in the Ministry of Foreign Affairs and Development Cooperation & Coordinator of the CWC National Authority of Burundi

SITUATION OF BURUNDI REGARDING THE CONVENTION

Uncontrolled/poorly controlled chemical weapons constitute one of the serious security challenges facing the entire world today.

To deal with this problem, Burundi has taken various measures and undertaken initiatives to control and ban chemical weapons on its soil by adhering to the various national and international legal instruments against these deadly products.

Burundi signed the Convention on the Prohibition of Chemical Weapons on January 13, 1993 and ratified it by Decree-Law on June 10, 1997. By becoming a State Party, Burundi undertook to implement all the provisions of the Convention, in particular by incorporating them into its national legislation and to review existing legislation to identify, where applicable, any incompatibility with the Convention.

Burundi implemented Law No. 1/01 of February 17, 2009 implementing the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their destruction.

Article 39 of the aforementioned Law determines the establishment and composition of the National Authority responsible for the implementation of the Chemical Weapons Convention. The members of this National Authority come from 11 technical Ministries, whose coordination is ensured by the Ministry of Foreign Affairs and Development Cooperation.

Burundi does not have chemical weapons and joined the Convention mainly because it wanted to develop its chemical industry and participate in scientific exchanges with a view to the peaceful use of chemistry.

Burundi does not have any factories producing listed toxic products. It is only at the level of imports that we can notice certain chemical products or precursors such as pharmaceutical and veterinary products, fertilizers, laboratory products, paints, pesticides, etc.

Burundi has already signed and ratified a number of Protocols and International Conventions dealing with chemical issues, there are some legal bases for the control of chemicals such as: the national code of conduct for the regulation of products and the national code of conduct for the management of chemicals.

Quite a few Burundians have already participated in activities often organized by the OPCW. This would include training in the areas of laboratories, civil protection in the event of chemical incidents, medical assistance, entry and exit control of chemicals, etc.

In Education Field, notions of Chemical Weapons Convention have been introduced since 2014 in Scientism and Technical Sections of secondary schools.

The European Union CBRN Risk Mitigation Center of Excellence for the Central and Eastern Africa region, in collaboration with the Coordination of the National Authority of Burundi, organized an online training workshop on chemical risks and their reduction, from March 23 to 24, 2021.

Thanks to the training courses offered by the Secretariat of the Organization for the Prohibition of Chemical Weapons, Burundi has a few expert trainers in the field of civil protection who are often called upon by the OPCW to provide training for trainers on the African continent.

Some of these experts are part of the Burundian team which participated in relief operations in Turkey following an earthquake which devastated the south of this country on the night of February 5 to 6, 2023.

Internally, these experts have already provided training to the staff of the Brewery (BRARUDI) and FOMI (Organo-Mineral Fertilizers), chemical fertilizer manufacturing plant, on how to protect themselves against chemical products/incidents in the workplace.

These experts also provided training for a team of 25 first responders from the Civil Protection Police, from March 22 to 26, 2021.



Training of first responders of Civil Protection

On April 14, 2021, the CBRN team from the Ministry of Foreign Affairs and Development Cooperation as well as the Civil Protection and Education executives carried out a visit to evaluate the status of chemical waste from laboratories stored in a secondary school.

Internally, these experts have already provided training to the staff of the Brewery (BRARUDI) and FOMI (Organo-Mineral Fertilizers), chemical fertilizer manufacturing plant, on how to protect themselves against chemical products/incidents in the workplace.



Training of BRARUDI and FOMI Staff

FUTURE STEPS

Given that almost all the technical Ministries have just updated their Focal Points, if the means are available, it is envisaged to organize an awareness workshop for all stakeholders, namely: government agencies, industries, research institutions, laboratories, transport companies, customs agencies, etc., to take ownership of the implementation of the Convention on the Prohibition of Chemical Weapons in their respective services.

CHALLENGES TO BE ADDRESSED

The main challenges relate to the lack of modern equipment such as scanners that can easily detect chemicals at borders. In addition, the personnel involved in such controls do not have sufficient knowledge about these chemicals, hence the need to seek capacity building training at several levels.

Burundi also needs techniques and equipment for destroying chemical waste which are scattered across several laboratories in the country.

Global Conference on Artificial Intelligence (AI) and its Role in the Implementation of the Chemical Weapons Convention (CWC) Rabat, 22-24 October 2024



The Kingdom of Morocco hosted the first-ever Global Conference on Artificial Intelligence (AI) and its Role in the Implementation of the Chemical Weapons Convention (CWC) from October 22 to 24, 2024, in Rabat.

This pioneering event was co-organized by Morocco and the Organisation for the Prohibition of Chemical Weapons (OPCW), bringing together nearly 200 participants from 46 States Parties, along with representatives from international and regional organizations, industry leaders, Moroccan and international experts from around the world.



The conference explored the transformative potential of AI in enhancing the implementation of the Chemical Weapons Convention and its impact on global peace and security. The conference was inaugurated by H.E. Nasser Bourita, the Minister of Foreign Affairs, African Cooperation, and Moroccan Expatriates, who co-chaired the event alongside H.E. Fernando Arias, Director-General of the OPCW. In his opening remarks, H.E. Bourita emphasized Morocco's long-term vision, guided by the strategic directives

of His Majesty King Mohammed VI, to accompany the ongoing technological revolution and to adapt to and contribute to these innovations. The Minister underscored the importance of exploring AI's potential to enhance the global peace agenda, while simultaneously mitigating the risks posed by such emerging technologies.

The conference also highlighted Morocco's leading role in the responsible governance of artificial intelligence. H.E. Bourita reaffirmed Morocco's commitment to making AI a tool for peace, security, and sustainable development in accordance with the principles of the CWC.

The conference was underpinned by four major objectives, which guided the discussions and interactions among the participants:

-Exploring New Dimensions of Multilateral Disarmament: The integration of AI into disarmament mechanisms to enhance transparency, trust, and accountability among States Parties.

-Enhancing Understanding of the Risks and Opportunities of AI: Addressing the potential malicious uses of AI, such as its exploitation by non-state actors and terrorist groups, and the urgent need for robust ethical frameworks to regulate these risks.

-Promoting AI as a Lever for the CWC: Optimizing verification mechanisms and improving cooperation among States Parties to better enforce the CWC and advance its goals.

-Contributing to the Sustainable Development Goals (SDGs): Leveraging AI for peaceful applications in chemistry, with a focus on supporting sustainable development and ensuring that chemistry serves the common good.

Addressing AI's Risks and Benefits in the Conference:

One of the key themes of the conference was the dual nature of AI technology, which presents both tremendous opportunities and significant risks. AI's capacity to transform global disarmament mechanisms is undeniable, but its potential misuse is equally concerning. The conference highlighted the urgent need for international cooperation to develop robust regulatory and ethical frameworks that ensure AI is used exclusively for peaceful purposes.

A critical challenge discussed at length was the environmental impact of AI infrastructure. Developing and deploying AI requires vast computational power, which has a significant ecological footprint. This environmental burden, the conference noted, disproportionately affects developing countries, which already struggle with the challenges of technological underdevelopment and environmental degradation. As such, the conference called for collective efforts to minimize AI's ecological impact and to ensure that the benefits of AI are shared equitably across the globe.

The conference explored the unique role AI can play in enhancing the verification and transparency mechanisms of the CWC. By leveraging AI's capabilities in advanced data processing and anomaly detection, the implementation of the CWC could be significantly strengthened. This includes the



monitoring of chemical supply chains, improving reporting mechanisms, and detecting violations more efficiently. However, the conference also stressed that AI's potential for peace must be carefully managed to prevent its malicious use, particularly by non-state actors who may seek to exploit these technologies for harmful purposes.



The conference also highlighted the importance of fostering greater cooperation among States Parties through the use of AI. AI can help streamline communication, optimize resource allocation, and promote collaboration between countries, thereby strengthening the collective effort to prevent the use of chemical weapons. Moreover, the ethical implications of AI in the context of disarmament were discussed in depth, with an emphasis on ensuring that AI's use aligns with the strict prohibition of chemical weapons under the CWC.

The conference also addressed the need for capacity-building efforts to ensure that AI is accessible and beneficial to all countries, particularly those in the Global South. Morocco stressed that AI should not widen the gap between developed and developing nations but should be used as a tool to empower all countries to contribute to the non-proliferation agenda. In this context, Morocco's role in the OPCW Africa Program and its support for the Partnership and Mentorship Program (MPP) were highlighted as key initiatives aimed at helping African countries harness the opportunities presented by AI.

Guided by the High Directives of His Majesty the King Mohammed VI to "accompany the technological revolution, adapt to it, and contribute to it", the Government of the Kingdom of Morocco has a profound sense of duty to engage in this new and critical debate surrounding AI, not only within the framework of the Chemical Weapons Convention but also through parallel platforms.

Morocco's efforts in AI Governance:

As the first African and Arab country to implement UNESCO's Recommendation on the Ethics of AI, Morocco has played a significant role in international AI initiatives, including the co-sponsoring the first two UN resolutions on AI, focusing on AI opportunities for Sustainable Development and AI capacity building efforts.

Also, Morocco and the United States have launched the « Group of Friends on Artificial Intelligence for Sustainable Development » that aims to mobilize efforts for accelerating the implementation of the Sustainable Development Goals (SDGs); an area where the combined peaceful use of AI and chemistry could play a decisive role;

Being dynamically engaged in these processes, Morocco conveys a message that highlights the necessity of addressing two critical challenges in the development of a responsible and equitable AI that truly represents the entire global population:

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- First, we face a significant technological divide between the Global North and the Global South, with Africa being particularly affected. The disparities in technological advancements and available resources are immense, resulting in data that is often not representative of Southern countries and, consequently, biased AI outcomes.
 - Second, we must recognize the considerable environmental impact of developing AI infrastructure. This impact disproportionately burdens Southern countries, which not only bear the consequences of this technological divide but also suffer from environmental degradation that favors developed nations.

Therefore, Morocco calls to strengthen South-South, North-South, and triangular cooperation that will help to build AI capacities in developing countries and reduce these digital disparities.

In this spirit, the Kingdom of Morocco hosted the first ever Global Conference on Artificial Intelligence and its Role in the Implementation of the Chemical Weapons Convention to bring together leaders and experts from around the world and to explore these issues on African soil and enhance inclusivity in the process of building AI governance and multiplying its opportunities.

Implementation of the Chemical Weapons Convention in Togo



Pr. Moursalou KORIKO, 1st Vice-President of Togo CWC National Authority, Chemistry Teacher of University of Lomé-Togo



Dr. Tchein NINKABOU, Diplomat, Permanent Secretary of Togo CWC National Authority

Introduction

Togo took an active part in the entire process leading to the adoption of the Chemical Weapons Convention (CWC) on April 29, 1997. Adopting the fundamentals of this international instrument, Togo was at the Paris conference on January 13, 1993, for the signing of this Convention.

Following the signing of the Convention, Togo promulgated, on June 12, 1996, Law No. 96-006 authorizing the ratification of the CWC.

This is what allowed it to deposit its instruments of ratification of the Convention on April 23, 1997. On the same day, the Convention entered into force, as well as with respect to Togo. Responding to the obligations of Article VII of the Convention, the Togolese Government established, on November 4, 2015, by Decree No. 2015-082 / PR, the National Authority for the Prohibition of Chemical Weapons in Togo (ANIAC-TOGO).

On September 29, 2017, ANIAC-TOGO officially launched its activities, coupled with the commemoration of the 20th anniversary of the OPCW. Several ministers including the Minister of Foreign Affairs and representatives of diplomatic and consular missions took part in this launching ceremony.



Ceremony marking the commemoration of the 20th anniversary of the OPCW in Togo and the launching of the ANIAC-Togo's activities

ANIAC-TOGO is a public institution attached to the Presidency of the Republic in accordance with Article III of Law No. 2023-003 prohibiting the development, production, storage and use of chemical weapons and their destruction, adopted on March 2, 2023. ANIAC-TOGO's mission is to assist the government in the design and implementation of the national policy on the prohibition of chemical weapons and their destruction, as well as on the use of chemicals for purposes not prohibited by the Convention.

The National Authority has the following organs: the General Assembly, the Presidency, the Committee of Experts and the Permanent Secretariat.

In order to strengthen the legislative framework in the implementation of the Convention, the Togolese Government promulgated Law No. 2023-003, on March 2, 2023, prohibiting the development, production, storage and use of chemical weapons and their destruction.



Togolese deputies unanimously voted for Law n°2023-003 on March 28, 2023

Togo's Cooperation with the OPCW

Togo actively participates in OPCW meetings and training activities. It has benefited from several OPCW cooperation programs. From 2020 to the present day, more than one hundred Togolese have been laureates to the OPCW training programs as shown in the table below.

<i>Years</i>	<i>Number of OPCW training courses</i>	<i>Number of Togolese trained</i>
<i>2020</i>	<i>07</i>	<i>13</i>
<i>2021</i>	<i>22</i>	<i>56</i>
<i>2022</i>	<i>14</i>	<i>22</i>
<i>2023</i>	<i>07</i>	<i>10</i>
<i>2024</i>	<i>05</i>	<i>07</i>
<i>Total</i>	<i>59</i>	<i>108</i>

Table 1: Number of Togolese who have benefited from OPCW training programs

At the invitation of the OPCW Technical Secretariat, a Togolese delegation participated in the program called "Influential Visitors Program" held in The Hague (Netherlands), from May 27 to 29, 2019.



Togolese delegation in The Hague, OPCW Headquarters, as part of the Influential Visitors Program from May 27 to 29, 2019



A Togolese delegation in Morocco during the working visit from October 16 to 19, 2018



Working visit of the Moroccan Commission to Lomé, from March 25 to 29, 2019

Togo had the honor of organizing the regional general course on the Chemical Weapons Convention and the obligations of National Authority personnel and relevant stakeholders from August 23 to 25, 2022.



Regional General Course on the Chemical Weapons Convention and the Obligations of National Authorities and Relevant Stakeholders, Lomé, Togo, August 23 to 25, 2022

Specific projects and possible follow-up activities

To comply with the provisions of the CWC, ANIAC-TOGO has created a framework for the national implementation of the Convention (NIF) through the adoption of administrative and legislative measures and the development of a national framework document.

Indeed, this national framework document for the implementation of the Convention is structured around several sections, in particular, the purpose and objectives targeted in the framework document, those responsible for implementing the Convention, the presentation of the situation and the context of the listed chemicals, the stakeholders, the gaps, identified priorities and objectives and the National Action Plan accompanied by the analysis of the situation and the overall context.

- **Purpose and objectives set out in the National Implementation Framework document**

The National Implementation Framework document for the implementation of the Convention on the Prohibition of Chemical Weapons is a tool for framing the actions that Togo will carry out over a period of three (03) years with the aim of meeting the main provisions of the Convention.

- **Specific project**

Within the framework of integrated chemicals management, and in accordance with the provisions of Article X, the National Authority has developed and validated the national plan, called the "Strategic Plan for Chemicals Management". This strategic plan is intended to provide a comprehensive assessment of the administrative, institutional, legal and technical framework for chemicals management in Togo.

Challenges and best practices for the implementation of the CWC in Togo

- **Challenges**

The CWC National Authority of Togo is experiencing some difficulties in implementing the Convention. These difficulties are linked to:

- Submission of declarations to the OPCW;
- Development of a chemical incident emergency and relief plan.

- **Best practices for the implementation of the CWC in Togo**

ANIAC-TOGO has a framework document for the implementation of the CWC. This three-year document (2023-2025) defines for each year strategic priority axes broken down into activities and programmes in an annual work plan and budget, which serves as guidance and monitoring tool for the implementation of activities.

These activities carried out revolved around workshops for information sharing, awareness-raising and fight against the use of chemicals for criminal purposes, for the commemoration of the anniversary of the Convention, in collaboration with the Faculties of Sciences of the Universities of Togo, in addition to capacity-building events for public and private actors involved in the management of chemicals.

Uganda, a Centre of Excellence in East Africa for Training Instructors of First Responders to Chemical Emergencies



Oyaró Franco, Alternate Coordinator, Uganda CWC National Authority

Ogwal Alex, Member, Uganda CWC National Authority

Uganda, a landlocked country located in East Africa, signed the Convention on the Prohibition of the Development, Production, Stockpiling, and Use of Chemical Weapons and on their Destruction (the Chemical Weapons Convention or CWC) on 13th January 1993 and ratified it on 30 November 2001.

The Government of Uganda upon signing the Convention established the CWC National Authority with its Secretariat in the Department of Occupational Safety and Health, in the Ministry of Gender, Labour and Social Development to serve as the national focal point for effective liaison with the OPCW and other States Parties (in February 2002).

To align its domestic laws with the requirements of the Chemical Weapons Convention, Uganda enacted national legislation that criminalizes activities prohibited under the Chemical Weapons Convention. This legislation not only prohibits the development and use of chemical weapons but also establishes mechanisms for monitoring and verifying compliance with the CWC within Uganda's borders.

Despite having a young chemical industry, Uganda has been actively involved in global efforts to advocate for the sound management of chemicals. Uganda's accession to the Chemical Weapons Convention has increased the country's desire to promote the peaceful use of chemistry.

During the 20th session of the Conference of State Parties held from 30 November to 4 December 2015, Uganda volunteered to host an Operational Training for first responders and instructors under the OPCW program for strengthening Chemical Emergency response, planning and management for the East African Community (EAC) partner States. By end 2024, seven (7) operational trainings have been successfully held. We have already created a team of EAC instructors who have proven their skills as instructors of national and international events. Some of the EAC instructors facilitated ably at the CHEMEX Africa 2023 event.



Highlights of the 6th operational training held in December 2023 at the Uganda Rapid Deployment Capability Center (URDCC) in Jinja, Uganda

Besides spearheading the training of first responders to chemical emergencies in the EAC, Uganda participates actively in the various seminars, courses, and workshops organized by the Technical Secretariat of the OPCW or jointly with other State Parties. Furthermore, Uganda has co-organized with the OPCW Technical Secretariat some events to promote the implementation of CWC, for example, Uganda hosted Regional Workshop on Enhancing National and Sub-National Protective Programmes against the Use of Chemical Weapons and Toxic Industrial Chemicals as Warfare Agents in the East African Community Partner States, from 14 to 16 May 2024. The workshop enhanced the EAC State Partners' understanding of the OPCW Online Self-Assessment Tool (OSAT), which enables countries to take stock of chemical security threats and devise improvement measures.

Amidst all the above-highlighted achievements, Uganda is faced with challenges in the implementation of CWC. The notable ones include:

- Porous borders: Puts Uganda at high risk of illegal trafficking of chemicals;
- Lack of coherent information on chemicals: Awareness of possible risks posed by chemicals is still low among major segments of the Uganda population;
- Mindset: The risk of chemical weapons in Uganda is regarded as insignificant or ludicrous;
- Inadequate analytical equipment in the only one customs laboratory and field equipment for rapid testing and trucking of chemicals at the ports of entry.



Regional Workshop on Enhancing National and Sub-National Protective Programmes against the Use of Chemical Weapons and Toxic Industrial Chemicals as Warfare Agents in the East African Community Partner States, from 14 to 16 May 2024

Needless to mention, Uganda through its CWC National Authority is committed to bridging the gaps and meeting its obligations under the CWC. At the National level, the Secretariat of the National authority organizes annual meetings that bring together all the members to discuss issues related to the implementation of the CWC. This is among the best practices that have increased awareness of chemical weapons among the public. The government of Uganda is also exploring developing a CWC National Implementation Framework (NIF) and entering the OPCW Mentorships/ Partnership Program (MMP) to further strengthen the National Implementation of CWC.

National Implementation of the Chemical Weapons Convention in Zambia

Overview of the Zambia National Authority on The Chemical Weapons



by Mr. Susiku Akapelwa, Director, Zambia Anti-Personnel Mines Action Center (ZMAC), Ministry of Foreign Affairs and International Cooperation and Chairperson of the Zambia National Authority on the Chemical Weapons Convention

“Zambia’s steadfast adherence to the Convention and its integration of national legislation represents a significant milestone in the country’s commitment to the ideals of the Convention”

Zambia signed the CWC on 13th February, 1993 and ratified it on 9th February, 2001. In 2007, Zambia established the National Authority on the Chemical Weapons Convention under the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons Act No. 2 of 2007. The National Authority is chaired by the Ministry of Foreign Affairs and International Cooperation and coordinated by the Zambia Anti- Personnel Mines Action

Centre (ZMAC) which is domiciled in the Ministry and is composed of representatives from various government institutions.

The primary functions of the National Authority include:

- Developing and reviewing policies on chemical weapons prohibition;
- Acting as Zambia's primary liaison with the OPCW and other State Parties, ensuring compliance with the CWC;
- Overseeing the enforcement of the Act;
- Implementing and enforcing the Convention nationally;
- Providing the OPCW and other State Parties with necessary data and information;
- Safeguarding confidential information received during implementation.

Like many other African countries, Zambia continues to benefit from many training programs organised by the OPCW, which has been immensely instrumental towards enhancing our national implementation capabilities of the Convention in addition to playing an active role in the overall Convention machinery.

Zambia’s steadfast adherence to the Convention and its integration of national legislation represents a significant milestone in the country's commitment to the ideals of the Convention.

Cooperation of Zambia with the OPCW



By Mr. Mumbi Mutale, OPCW focal point at the Ministry of Foreign Affairs and International Cooperation

1. Mentorship Partnership Programme (MPP)

“Zambia was paired with the UK National Authority, with an initial visit by the UK National Authority to Zambia in June 2023 and a reciprocal visit from Zambia to the UK, in September 2023.”

Zambia identified some gaps in its national implementation of the Convention and subsequently engaged OPCW, which culminated in capacity building through the OPCW’s Mentorship Partnership Programme (MPP), an initiative that pairs National Authorities to share knowledge and expertise.

Zambia was paired with the UK National Authority, with an initial visit by the UK National Authority to Zambia in June 2023 and a reciprocal visit from Zambia to the UK, in September 2023.

Both visits featured detailed discussions, stakeholder meetings, and presentations, facilitating a mutual exchange of knowledge and experience. The MPP was beneficial for both National Authorities, fostering a deeper understanding of each other’s strengths, challenges and opportunities. The objectives and outcomes of the mentorship included:

- Enhancing ZNA staff expertise in CWC-related issues, particularly in OPCW declaration and verification;
- Improving engagement with non-governmental stakeholders and the chemical industry;
- Developing guidance documents, standard operating procedures, and checklists for CWC implementation;
- Gaining knowledge in the safe handling of hazardous chemicals and managing chemical incidents, especially during transportation;
- Creating a National Implementation Framework (NIF) for effective CWC application in Zambia;
- Establishing a robust knowledge management system to retain and utilize lessons learned;
- Upgrading Zambia’s laboratory and analytical capabilities.



Figure 1: The UK National Authority paid a courtesy call on the Permanent Secretary of Administration at the Ministry of Foreign Affairs and International Cooperation (C) Mrs. Hope K Situmbeko at her Office



Figure 2: Group Photo of the UKNA and ZNA at the Office of the Disaster Management & Mitigation Unit in Zambia MPP

2. **National Implementation Framework (NIF):** The development of Zambia’s National Implementation Framework (NIF), which serves as a strategic guide for the effective implementation of the CWC was one of the key outcomes of the MPP, resulting in the UK and Zambian National Authorities collaborating closely in the drafting of this framework in line with the Convention’s objectives and Zambia’s specific needs.

3. **Chemical Safety and Security Management (CSSM):** Zambia, in collaboration with the Technical Secretariat of OPCW, hosted a Chemical Safety and Security Management (CSSM) seminar for African Member States in Lusaka from 19 to 21 March 2024, which was funded through the European Union. The seminar had representation from National Authorities, government agencies, chemical industry associations, and managers responsible for chemical safety and security in the sector.

The seminar promoted best practices in chemical safety and security management, with a particular emphasis on supporting small and medium-sized enterprises in Africa and also raised awareness among State Parties on innovative approaches to chemical safety and security management. It further highlighted strategies to enhance the overall safety of the chemical industry across Africa.



Figure 3: Group Photo of the Participants of the Chemical Safety & Security Management Workshop. The picture was taken during a field visit of a chemical facility

4. **Basic Training Course in Assistance and Protection:** Zambia in collaboration with the Technical Secretariat of the Chemical Weapons Convention, hosted a basic training course on assistance and protection for Anglophone State Parties in Africa from 10 to 14 July 2023. The training was part of the Assistance and Protection Branch's training cycle intended to enhance the protective capabilities of 34 participants from across Africa, representing various agencies and institutions against chemical incidents, including those involving chemical warfare agents or toxic industrial chemicals. The training covered key topics such as:

- Article X provisions
- chemical agents, personal protective equipment, contamination control, and Detection, Identification, and Monitoring (DIM) techniques.
- Theoretical lessons and hands-on field exercises.
- Deliberations and strategies for improving emergency responses to chemical incidents.



Figure 4: Group Photo of the Participants for the Basic Training in Assistance and Protection for Anglophone State Parties in Africa. Picture was taken during a field Exercise

My Experience as Namibian Alumnus of OPCW Capacity Building Activities in areas of Chemical Emergency Response



By Mr Dirk Cloete, Fire and Emergency Safety Manager, Mariental Municipality, Namibia

‘Goeie Dag’! My name is Dirk Cloete. I am the fire and emergency safety manager for Mariental local authority, located in beautiful Namibia.

I am a firefighter with 22 years’ experience. My current responsibilities are the management of activities and operations the fire department, and disaster risk management centre, including the development and implementation of safety systems and services to ensure compliance with relevant legislation and policies.

In relation to these tasks, I hold qualifications and training in the fire and rescue operations, pre-hospital emergency medical care and hazardous materials (CBRN) fields, with special focus on technical vocational education and training.

I remain passionately involved in the professional development of the emergency services profession in my country. One of my proudest achievements was being part of the development of the first ever Namibian unit standards and qualifications for firefighters, and the Bachelor of Emergency Medical Care programme for the Namibia University of Science and Technology, also ensuring the qualification of emergency medical practitioners at an advance level, locally.

Key participations in OPCW capacity building activities

Since May 2022, I had the privilege to benefit from several capacity building programmes offered by the OPCW in the areas of preparedness and response against chemical emergencies. Key activities attended include the following:

- Sub-regional basic course on emergency response to chemical incidents for the OPCW Member States in the Southern African Development Community (SADC), Swakopmund, Namibia, 9-13 May 2022;
- Basic course on response to incidents involving chemical warfare agents and toxic industrial chemicals, Murcia, Spain, 7-11 November 2022;
- International training course for incident commanders, Lázně Bohdaneč, Czech Republic, 15-27 May 2023;
- Chemical emergency response capacity-building exercise for the Africa region -CHEMEX Africa-, Algiers, Algeria, 23 September - 4 October 2023.



Sub Regional Course on Emergency Response to Chemical Incidents for the SADC region (Swakopmund, Namibia, 9-13 May 2022)



Basic course on response to incidents involving chemical warfare agents and toxic industrial chemicals (Murcia, Spain, 7-11 November 2022)

These courses tremendously developed my knowledge and skills in terms of protection and response against incidents associated with the intentional or accidental release of chemical warfare agents or toxic industrial chemicals. The training received covered individual and team procedures, tactics, and processes to deliver required operational readiness and understand the complexity of hot zone management during a chemical incident. The courses also served as a meeting and exchange forums with fellow first responders and international instructors from Africa and elsewhere, which allowed us to exchange experiences and best practices, network and discuss improving emergency response involving chemical substances.

Main activities in follow-up on my participation in OPCW capacity building

Having benefited from all these capacity-building opportunities, I have the continual responsibility to use the knowledge and skills that I have gained and engage in follow-up actions for the benefit of other stakeholders of the Chemical Weapons Convention in Namibia and elsewhere. My post-participation activities include the following:

- Participation in a Stakeholder Consultative Workshop on the National Assessments Tool for All Chemical Weapons Agents and Toxic Industry Chemicals (Windhoek, Namibia, 9 June 2022): I was proud to actively contribute to this workshop which facilitated a joint review of the national self-

assessment of chemical preparedness and response capacities in Namibia, with a view to developing a national chemical emergency preparedness and response plan for my country.

- Participation as Instructor in the Integrated Advanced course and exercise on Assistance and Protection against Chemical Weapons for Anglophone States Parties in Africa (Windhoek, Namibia, 12-16 March 2024): This course was the continuation of the training cycle for Anglophone States Parties in Africa in which I participated in 2023. As participant, I refreshed the knowledge I acquired in the preceding basic level training course and expanded that expertise to include more comprehensive chemical emergency functions. Markedly, the course also positioned me as part of a pool of OPCW-trained instructors to assume training roles and support the Technical Secretariat's experts in delivering this training and provide lectures.



Integrated Advanced Course and Exercise on Assistance and Protection Against Chemical Weapons for Anglophone States Parties in Africa, Windhoek, Namibia, 12-16 March 2024

- Facilitation of Emergency response equipment donation from Spain to Namibia: As a highlight of my participation in basic course held in Spain in November 2022, I was able to engage discussions with the Municipal Council of Murcia. These discussions paved the way for their generous donation of two light pumper vehicles to the Mariental Fire Department in Namibia.



Her Worship the Mayor of Mariental (Namibia) and His Worship the Mayor of Murcia (Spain) during the official handover of donated firefighting vehicles in Murcia Spain

- Participation as Instructor in an Integrated Advanced course and exercise on Assistance and Protection against Chemical Weapons for States Parties in Asia (Kuala Lumpur, Malaysia, 19-23 August 2024): As part of the OPCW Assistance and Protection Instructor Development and Exchange Programme, I was also invited as Africa's representative to this course. I was fortunate to contribute to

building and enhancing the capabilities of participating emergency professionals from Asia. This was another highlight of my professional career, being able to instruct and to share experiences at an international level.



*Advanced Course on Emergency Response for First Responders in Asia
(Malaysia, 19-23 August 2024)*

- Contribution to Namibia's Local Authorities Emergency Preparedness Simulation Exercise (SIMEX 2024, Mariental, Namibia, 5-9 August 2024): The Exercise was developed and implemented by the Mariental Local Authority Disaster Risk Management Committee and the Ministry of Urban and Rural Development. SIMEX simulated a release of a highly toxic industrial chemical during a train accident, to validate and enhance our emergency preparedness and response plans.

I was appointed as Incident Commander, and was put in charge of all emergency response teams (police; emergency medical teams; private sector; hospitals; technical mutual aid response companies). These teams had specific roles such as conducting recon to establish how many persons were injured and what type of assistance they required; identifying the substance that was involved, rescue teams and the hazmat team that was responsible for diking/diverting/damming. The knowledge and skills acquired during the OPCW capacity building exercises, greatly assisted me in fulfilling this key role.



SIMEX, Mariental, Namibia, 5-9 August 2024

Follow-up on my participation in an OPCW Analytical Chemistry Skills Development Course in 2023



Mr Joseph Olang, analytical chemist, Government Chemist Laboratory Authority, United Republic of Tanzania

Hello! My name is Joseph Olang. I am an analytical chemist at the Government Chemist Laboratory Authority of the United Republic of Tanzania.

I had the chance to participate in the course on the Enhancement of Laboratory Skills organised by the OPCW in collaboration with the “Finnish Institute for Verification of the Chemical Weapons Convention” (VERIFIN), at the premises of the Institute in Helsinki, from 11 to 22 September 2023.

VERIFIN is an important partner for the OPCW in strengthening capabilities of laboratories in Member States, promoting understanding of chemicals related to the Convention, and enhancing international collaboration to ensure that chemistry is used only for peaceful purposes.

The course equipped me with further experience and practical knowledge in terms of analysis of chemicals related to the Chemical Weapons Convention through Liquid Chromatography- Mass Spectrometry (LC-MS).

It also increased my awareness and knowledge in relation to the adoption of good laboratory practices. The course covered several aspects including the preparation of samples; the theory of LC and LC-MS; demonstrations of LC and LC-MS techniques; practical exercises; and quality assurance and the maintenance of instruments.



Course on the Enhancement of Laboratory Skills (Helsinki, Finland, 11-22 September 2023)



*Group picture of the course on the Enhancement of Laboratory Skills
(Helsinki, Finland, 11-22 September 2023)*

Upon returning from Helsinki, I shared with my colleagues the knowledge and skills I learnt through peer-to-peer training and lectures.

In addition, I reviewed the sample preparation procedures in my laboratory by adopting VERIFIN samples procedures for environmental samples.

I also introduced modifications to the analysis method used in my laboratory (gradient, run time, Collision Energy) and facilitated the adoption of good practices related to maintenance, troubleshooting and handling of LC-MS equipment.

Moreover, I introduced quality control considerations to ensure the validity of analysis results.

The course has tangibly benefitted me and my laboratory. I am thankful for the OPCW and VERIFIN for this training opportunity as well as my laboratory and the Tanzanian authorities for endorsing my application to this course.



The OPCW Centre for Chemistry and Technology (ChemTech Centre)

Related Resources

- [Chemical Weapons Convention](#)
- [OPCW Basics multilingual videos](#)
- [OPCW Centre for Chemistry and Technology](#)
- [OPCW Africa Programme](#)
- [OPCW Africa Network](#)
- [OPCW International Cooperation and Assistance Programme E-learning modules](#)

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