

Report

PART 1. HIGHLIGHTS AND/OR EXECUTIVE SUMMARY

Goal: Creating a common language to the academic community and industry

- COCI, within SAICM and now GFC (Global Framework on Chemicals) and SPP (Science Policy Panel), is conducting a multidisciplinary project. IUPAC will participate in GFC and SPP meetings subject to availability of funds.

Goal: Facilitating the exchange of best practice in chemistry and in chemistry education

- The Safety Training Program (STP) continues to provide environmental, health, safety, and security training to scientists from developing countries. During 2024, four projects have been executed: STP eLearning, STP-Asia, STP-Africa, and STP-LA. The activities included courses, workshops, and seminars. More than 531 participants from 26 African, Asian, Eastern European, and Latin American countries attended the activities. The STP also served to get new nations affiliated with IUPAC.

Goal: Liaising with key industry, science unions, and governmental and non-governmental partners, to ensure/deliver a more sustainable future

- The COCI reinforces the interaction with chemistry organizations (OPCW-), industry (e.g. ASQUR – Uruguayan Association of Chemical Industries), academia, and other relevant bodies (e.g., IYCN) to facilitate safety practices in chemistry.

Goal: Fostering outreach and engagement initiatives, notably those that contribute to the UN SDG

- COCI work in field of Chemistry Entrepreneurship. The objective of this is to create awareness about “Chemistry Entrepreneurship” and motivate chemistry students to become entrepreneurs.
- COCI take part in project “Systems Thinking in Chemistry for Sustainability: 2030 and Beyond AND Systems Thinking and Sustainability”

PART 2. PLANS AND PRIORITIES FOR THE REMAINDER OF 2024-2025 BIENNIUM, AND BEYOND

The Safety Training Program (STP).

- **STP:** Given the problems with face-to-face meetings and funding, we focused on a) e-learning b) additional funding from other organizations. The main items to discuss and decide on are the sustainability of STP eLearning (regarding the funds involved) and traditional STPs (regarding the difficulty of getting host companies and funds for travel). As a result, in 2021 COCI started a project with the financial support of Organization for the Prohibition of Chemical Weapons (OPCW). A STP Workshop was held during IUAPC General Assembly in Montreal, 2021. The plans include continuing with four projects. Also, STP activities should be carried out in Peru, Colombia, and Mexico to try to make these countries into new nations affiliated with IUPAC. Priorities are to get sustainability of STP eLearning relaunch traditional STP, and start creating capacity building within COCI to continue STP activities in future.
- **Chemistry Entrepreneurship:** We plan to continue with new Webinars during 2025. The next webinar will be held on 5 February, 2025. The participants are Dr. Amy S. Canon, Beyond Benign and Professor Francesca Kerton, Memorial University, New Foundland. The topic is "Entrepreneurial Vision in the Non-Profit Sector: Catalyzing systemic change in chemistry education through green chemistry"
- **Systems Thinking in Chemistry for Sustainability: 2030 and Beyond AND Systems Thinking and Sustainability:** in the remaining part of the year, emphasis will be given on chemical industry. There is discussion to extend the project beyond 2025.
- **SAICM, GFC and Science Policy Panel of UNEP:** The objective of SPP is to mirror what is running to deal with the 2 other major challenges that humankind is facing: Climate Change (IPCC); Loss of Biodiversity (IPBES). The active participation of IUPAC in SPP aims at increasing its international Recognition, and provide an opportunity for IUPAC's Committees and divisions to set up priority Issues for the SPP. The framework is now under development by different Working Groups and the next meeting of GFC will be held in Nairobi in June, 2025. Science Policy Panel to prevent pollution meeting was held in Geneva in June 2024 to discuss rules, regulations, membership etc. The next meeting will be held in Uruguay in June 2025 to officially establish the panel.

PART 3. OVERALL REPORT OF ACTIVITIES AND ACHIEVEMENTS OF DIVISION/COMMITTEE SINCE THE LAST REPORT TO COUNCIL AND ORGANIZED ACCORDING TO THE PRIORITIES LISTED IN THE GUIDELINES.

Goal: Facilitating the exchange of best practice in chemistry and in chemistry education

- **STP eLearning:** this activity is supported by OPCW financial support and ASQUR administrative support. The STP eLearning consists of a distance learning course of eight weeks, included mandatory tasks and tests. The second edition in English and the fourth in Spanish have been held. A total of 30 participants from 21 countries attended the two editions: 6 from Africa, 5 from Asia, 2 from East Europe, and 8 from Latin America. Participants submitted eleven knowledge application projects, which are currently being implemented.
- **STP-Asia:** five countries participated in this STP: Bangladesh, India, Iraq, Pakistan, and Sri Lanka. Two face-to-face seminars have been held in India and attended by more than 250 participants. One face-to-face seminar was held in Iraq and attended by 13 participants.
- **STP-Africa:** five countries participated in this STP: Kenya, Malawi, Nigeria, Uganda, and Zimbabwe. One workshop/seminar was held in Nigeria and attended by 29 participants. Three face-to-face seminars have been held in Uganda and attended by 24 participants. Two face-to-face seminars have been held in Zimbabwe and attended by 20 participants.
- **STP-LA:** One face-to-face seminars for two days was held in Guatemala and attended by 58 participants. One two-day face-to-face seminars have been held in Honduras and attended by 72 participants. One two-day face-to-face seminars have been held in Panama and attended by 33 participants. In addition, thanks to these activities, Honduras became an IUPAC affiliate, and Guatemala and Panama committed it.

Goal: Creating a common language to the academic community and industry

In September 2023 the official launch of the GFC took place in Bonn, Germany. The COCI members Jean Pelin and Bipul Saha represented COCI in SAICM, GFC and Science Policy Panel meetings convened by UNEP. SAICM is now replaced by “Global Framework on Chemicals for a Planet free of Harm from Chemicals and Waste. An official Bonn declaration was unanimously approved, according to which there is a universal commitment to "effective and efficient management of chemicals and waste through accountability, transparency, and access to information on chemicals relating to the health and safety of humans and the environment". In order to achieve these ambitious goals, 5 strategic Objectives, and 28 ey targets were included in the declaration.

Goal: Liaising with key industry, science unions, and governmental and non-governmental partners, to ensure/deliver a more sustainable future

Chemistry Entrepreneurship. COCI work in field of Chemistry Entrepreneurship is going very well.

- The first webinar was held on 10 September, 2024. IUPAC Past President Professor Javier Garcia Martinez. He was interviewed by Professor Jimenez Miguel. The topic was “Catalyzing Chemistry Entrepreneurship”. Professor Javier shared his personal experience as entrepreneur.
- The Second webinar was held on 22 November, 2024 . Dr. Vladimir Gubala, President, IUPAC “Chemistry and Human Health Division” had conversation with Dr. Lene Hviid of IUPAC “Committee on Chemistry and Industry”. The topic was “From Lab to Market, How Organic Chemistry Chemistry Sparks Entrepreneurship”. Dr. Gubala talked about his experience in setting up his own company.

Systems Thinking in Chemistry for Sustainability: 2030 and Beyond AND Systems Thinking and Sustainability.

This project “is progressing well

- A Special Symposium was held on July 16 and 17, 2024 in Thailand during ICCE2024. Currently, work is going on the application of “Systems Thinking” in Chemical Industry.

TABULAR MATERIAL:

List of Publications:

Pestology vol. 48 issue no. 1 january 2024. Report on the international conference on chemicals management: fifth session (iccm5)

Bipul B. Saha and Priyanka Sakhare, Status of Indian Agrochemical Industry, Chemical Industry Digest, 2024, 1, 36-40

Bipul B. Saha, V. Ram Naresh Kumar. Role of Emerging Technologies in Advancing Sustainability. Chemical Industry Digest, 2023, 6, 37-41.

List of COCI Current Projects

2024-002-2-022 - Safety Training Program eLearning

2024-005-2-022 - Building strong relationship between UNEP Science Policy Panel and IUPAC

2023-030-1-022 - Building strong relationship between SAICM, Global Framework on Chemicals and IUPAC

2023-019-2-022 - Safety Training Program in Asia

2023-018-2-022 - Safety Training Program in Africa

2023-012-2-022 - Chemistry Entrepreneurship

2020-015-1-022 - STP-LA3: IUPAC COCI Safety Training Program - Latin America, STP Associate Fellows Training (third edition)

2017-020-1-022 - IUPAC Safety Training Program Fellows Training at Host Company

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