Progress Report on SDG 9 Industry, Innovation and Infrastructure

The year 2024 demonstrated CCCDO's strong alignment with **Sustainable Development Goal 9 (Industry, Innovation and Infrastructure)** by building an academic ecosystem that links research, innovation, and technology-driven learning. Guided by the **Northern Mindanao Regional Development Plan** and the **National Innovation Agenda and Strategy Document**, CCCDO translated research into tangible institutional outputs—from industry partnerships and innovation workshops to international publications. This collective effort embodied the college's vision to serve as a local anchor institution for inclusive innovation, promoting sustainable infrastructure and capacity building within the region.

At the core of these initiatives was the collaboration with **DOST-X and NRCP** through the **RDLead Program Orientation**, which helped faculty researchers craft data-driven solutions for local communities. The program emphasized the "triple-helix model" of innovation—linking supply (research institutions), demand (MSMEs and industry), and enablers (government and policy makers). The resulting inter-agency synergy positioned CCCDO as a key knowledge partner in Region X's research and development landscape.

In parallel, the college actively participated in the **DOST Research and Development Agenda Workshop**, where Dr. Joel D. Potane and Prof. Jonathan A. Madronero advocated for collaboration that turns research into social impact through localized innovation frameworks.

Complementing these policy-driven initiatives was the college's strategic focus on digital transformation in higher education. In March 2024, CCCDO co-hosted **Microsoft Philippines' "Discovering AI in Higher Education"** webinar, which explored AI-powered teaching and student success tools such as Copilot for Microsoft 365 and Microsoft Learn. This activity marked a turning point for the institution's integration of emerging technologies, bridging SDG 4 (Quality Education) and SDG 9 (Industry and Innovation) through AI-driven pedagogical innovation.

At the international level, CCCDO gained recognition with a **Springer-indexed publication** titled *"Evaluating the Reliability and Impact of AI-Assisted Tools on Argumentative Writing Competency Among EFL Omani Learners."* Authored by Prof. Jonathan A. Madronero and co-researchers, the study validated AI tools as effective support for learning and psychological well-being, strengthening the college's academic profile in innovation-oriented research.

Collectively, these achievements highlight CCCDO's progress toward THE Indicator 9.4 (Research on Industry and Infrastructure), where innovation is embedded in both practice and policy.

To further amplify impact, CCCDO forged academic-industry linkages that anchor students to real-world applications of technology and enterprise. Through the **Technical Skills and Technology Institute (TSTI)**, students visited partner industries to observe operations in hospitality, ICT, and engineering fields. This hands-on exposure not only strengthened skills training but also cultivated entrepreneurial thinking—factors critical to achieving THE Indicator 9.3 (Industry Partnerships and Infrastructure Development). Likewise, faculty representatives attended the **2024 HETTOP National Convention**, focusing on sustainable innovation in Home Economics and Technology Education. Their active involvement demonstrated CCC-DO's commitment to mainstreaming sustainable practices within technical and vocational education.

The college also spearheaded the formation of the **RICEFIELD Consortium (Research and Innovation Consortium for Education, Future Initiatives, and Economic Learning Development)** on November 29, 2024. This pioneering initiative brought together LGU-led colleges across Region X to collaborate on research priorities, resource sharing, and capacity building. The consortium strengthens collective innovation ecosystems, ensuring that small local colleges can pool resources and expertise to drive inclusive industrial progress.
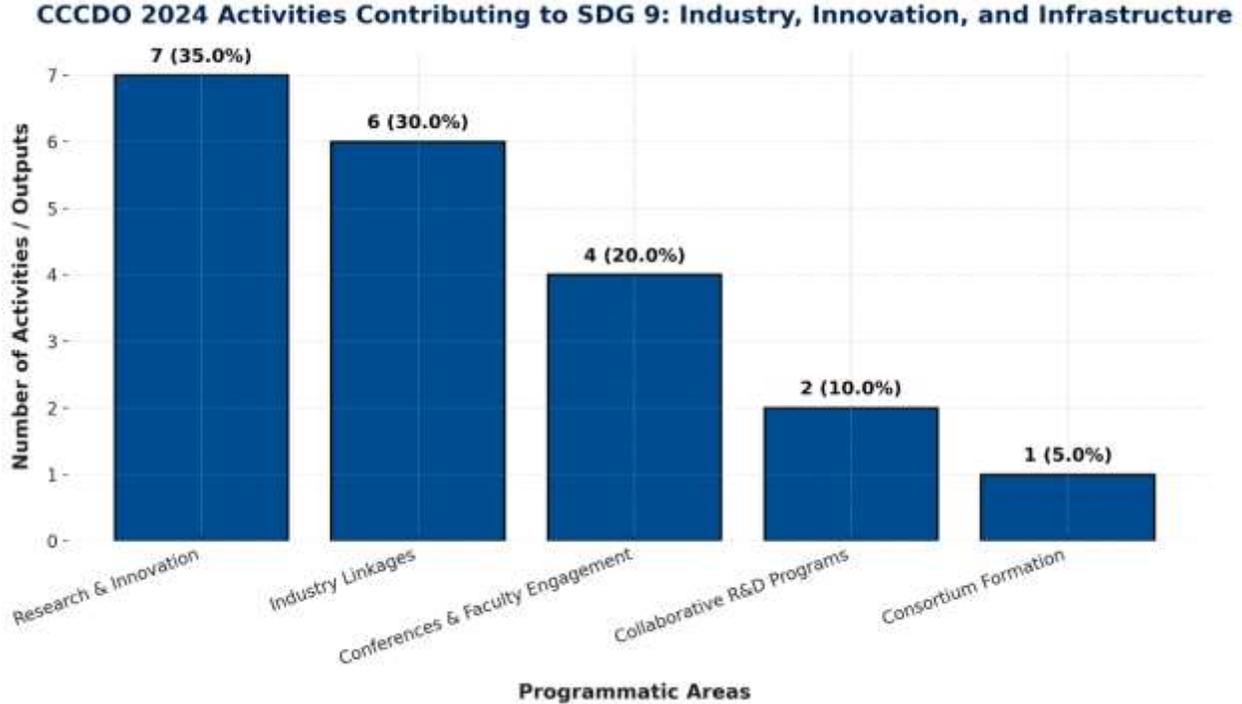
Through RICEFIELD, CCCDO demonstrated its leadership in regional innovation networks and capacity alignment with THE Indicator 9.2 (Support for Research and Development).

Quantitative Snapshot of 2024 Achievements

Program Area	Key Activities / Outputs	Frequency / Participants (2024)	SDG Alignment
Research Innovation and Publication	Springer-indexed AI-Assisted Writing Study	1 international paper / 6 authors	SDG 9 & 4
Industry Visits and Immersion	Hospitality & IT Exposure Trips via TSTI	3 batches / 120 students	SDG 9 & 8
Innovation Conferences	HETTOP National Convention 2024	3 faculty delegates	SDG 9 & 4
R&D Collaborations	DOST Agenda Workshop & RDLead Orientation	2 major programs	SDG 9 & 17
Regional Innovation Consortium	Launch of RICEFIELD Consortium for LGU Colleges	4 institutions involved	SDG 9 & 17

The graph below visualizes the college's balanced distribution of SDG 9 activities. Research and Innovation (35%) and Industry Linkages (30%) represent the largest shares, followed by Conferences and Faculty Engagement (20%), Collaborative R&D Programs (10%), and Consortium Formation (5%). This spread demonstrates CCC-DO's strategic allocation of efforts toward building a comprehensive innovation ecosystem. The dominance of research and industry activities confirms the college's transition from academic instruction to applied innovation, a core criterion in THE Impact Rankings for SDG 9.

More importantly, the graph underscores the college's multi-level integration of science, technology, and education. Each activity creates a loop of knowledge generation and application—from research that informs policy, to training that builds technical skills, to partnerships that translate innovation into practice. This holistic model ensures that CCC-DO's academic outputs contribute to industrial resilience and community empowerment.

CCCDO 2024 Activities Contributing to SDG 9: Industry, Innovation, and Infrastructure

Programmatic Area	Number of Activities / Outputs
Research & Innovation	7 (35.0%)
Industry Linkages	6 (30.0%)
Conferences & Faculty Engagement	4 (20.0%)
Collaborative R&D Programs	2 (10.0%)
Consortium Formation	1 (5.0%)

CCCDO's progress in 2024 presents a clear narrative of innovation in motion. Through research, digital partnerships, and infrastructure collaboration, the college strengthened its capacity to produce technology-driven graduates and data-literate faculty. The institution's ability to convene multi-sectoral partners—such as DOST, Microsoft, and LGU-led colleges—positions it as an emerging hub for industrial innovation in Northern Mindanao.