PHilMech's Commitment to Advancing Sustainable Agricultural Mechanization through the Centre for Sustainable Agricultural Mechanization (CSAM) Governing Council

PHilMech envisions a sustainable future for agriculture, where mechanization and innovative technologies and practices play pivotal roles in **enhancing productivity, reducing losses, adding value to agricultural produce, improving resource efficiency, and building resilience**. Guided by this vision, PHilMech is committed to contributing meaningfully to the goals and priorities of CSAM as a member of its Governing Council.

Strategic Contributions to CSAM's Priorities:

- **Promotion of Sustainable Agricultural Mechanization:** PHilMech prioritizes the adoption of environmentally friendly, climate-smart, and resource-efficient mechanization technologies that align with CSAM's focus on **reducing the carbon footprints of agriculture**. By integrating climate-smart machinery and practices into the agricultural value chain, PHilMech supports gender-responsive sustainable land management, reduces postharvest losses, and promotes long-term productivity.

  For instance, the *Facility Management and Field Operations Division (FMFOD)* implements the **Rice Competitiveness Enhancement Fund - Mechanization Program**, introducing advanced rice transplanters and combine harvesters.[1] These cost-effective and fuel-efficient technologies have significantly reduced labor dependency yet strengthened resiliency of smallholder farmers, increased productivity, and minimized postharvest losses fully aligning with CSAM's goals.

- **Digital Innovations and Databases through AFMechERN:** PHilMech plays a pivotal role in managing the **Agricultural and Fisheries Mechanization and Engineering Resource Network (AFMechERN)**, a national database system established under the Republic Act No. 10601: Agricultural and Fisheries Mechanization (AFMech) Law. This initiative aligns with CSAM's emphasis on **leveraging data and technology for sustainable agricultural development**.

  The AFMechERN serves as a centralized resource base for agricultural and fisheries mechanization data. It provides critical information for resource analysis, planning, policy development, and decision-making. The system also facilitates the registration of agricultural and fisheries machinery and equipment through the **Registration of Ownership of Agricultural and Fisheries Machinery and Equipment System (RAFMES)**, ensuring transparency and accessibility for stakeholders.

  By making mechanization data accessible, AFMechERN supports CSAM's evidence-based approaches to promote sustainable agricultural mechanization, which inherently relies on the collection, analysis, and application of data to formulate policies, plans, and programs.

- **Capacity-Building and Knowledge Exchange:** PHilMech actively engages in capacity-building initiatives, providing technical training to farmers, agribusinesses, and other stakeholders. The *Technology Management and Training Division (TMTD)* and the *Enterprise Development Division (EDD)* equip smallholder farmers with the knowledge and skills to operate and maintain advanced technologies, ensuring they maximize the benefits of sustainable mechanization. Meanwhile, the *Applied Communication Division (ACD)* encourages youth participation in the agricultural workforce by providing mechanization-focused training programs that champion sustainable practices and drive innovation, ensuring a resilient future for the Philippine agriculture sector.

---

[1] In 2019, the functions and objectives of PHilMech were significantly expanded when Republic Act No. 11203 designated the agency as the primary implementing body for the Mechanization Component of the Philippines' Rice Competitiveness Enhancement Fund.

- **Innovation and R&D:** PHilMech invests heavily in research and development to explore cutting-edge technologies that improve efficiency and adaptability across the agricultural value chain. These include initiatives in gender-inclusive localization of technologies and climate-smart agriculture, ensuring that the sector remains competitive and sustainable.

  For example, PHilMech's **Greenhouse Solar Dryer Project** integrates renewable energy into postharvest drying processes. This project reduces reliance on fossil fuels, lowers carbon emissions, and enhances the efficiency of drying agricultural products, contributing to **climate-resilient farming systems**.

  Led by the *Bioprocess Engineering Division (BPED)*, the **Cacao Pod Husk Utilization Project** converts agricultural waste, such as cacao pod husks, into briquettes and other value-added products. This initiative exemplifies PHilMech's dedication to **waste reduction and sustainable resource utilization**.

- **Rural Livelihoods and Community Empowerment:** PHilMech aligns with CSAM's vision of empowering rural communities by improving access to affordable technologies and delivering targeted training programs for marginalized farmers and underserved communities. For instance, the establishment of **Shared Processing Facilities** under PHilMech's implementation of the **Coconut Farmers and Industry Development Program** provides coconut farmers with opportunities to engage in profitable enterprises.[2]

- **Regional Cooperation and Global Partnerships:** PHilMech brings extensive experience in collaborating with international organizations. One such initiative is the **Agricultural Machinery Design and Prototyping Center (AMDPC),** developed in partnership with the Korea International Cooperation Agency (**KOICA**). The AMDPC aims to enhance the local capability for designing, developing, and manufacturing agricultural machinery, contributing to the modernization and sustainability of the Philippine agricultural sector. In addition, the **PHilMech-KAMICO Technology Exchange Program** is a collaborative initiative between PHilMech and the Korea Agricultural Machinery Industry Cooperative (KAMICO) that aims to strengthen agricultural mechanization in the Philippines by leveraging advanced technologies and expertise from South Korea.

  By sharing best practices and co-developing strategies, PHilMech strengthens regional ties and aligns with CSAM's priority of promoting cross-border collaboration.

A Shared Commitment to Agricultural Progress:

As a prospective member of the Governing Council, PHilMech is well-positioned to bring its expertise and collaborative spirit to CSAM, driving initiatives that empower gender-inclusive rural communities, promote environmental resilience, and enhance agricultural productivity across Asia and the Pacific. Through its dedication to sustainable mechanization and broader aspects of agricultural development, PHilMech offers a unique and valuable perspective to the CSAM Governing Council, ensuring its contributions leave a lasting and transformative impact in the region.

---

[2] In 2021, Republic Act No. 11524 mandated PHilMech to implement establishment of shared processing facilities, as one of the components of the Philippine's Coconut Farmers and Industry Development Plan.