

May 23rd, 2023

NIPPON SHOKUBAI Group and Chandra Asri signs MOU to Explore Green Chemical Business Opportunities Utilizing Renewable Raw Materials

NIPPON SHOKUBAI CO., LTD. (Headquarters: Osaka, Japan, President: Kazuhiro Noda, hereinafter "Nippon Shokubai"), PT NIPPON SHOKUBAI INDONESIA (Headquarters: Banten, Indonesia, President: Shinichiro Yoshimoto, hereinafter "NSI") and PT Chandra Asri Petrochemical Tbk (Headquarters: Jakarta, Indonesia, President: Erwin Ciputra, hereinafter "Chandra Asri") have signed a Memorandum of Understanding (MOU) to jointly explore green chemical* business opportunities.

Through this MOU, Nippon Shokubai as well as its affiliates, NSI, and Chandra Asri will explore the potential to produce 'bio' materials such as bio-naphtha, bio-olefins, and various products that use renewable energy, to produce sustainable derivative products such as acrylic acid, acrylic ester, and superabsorbent polymer (SAP). Study will be conducted to see the feasibility of producing a 'bio' feedstock and creating a new green supply chain in NSI and Chandra Asri's existing plants in Cilegon, maximizing the Company's asset footprint, core competencies, and technologies.

This initiative marks another key program incorporated within Chandra Asri's overarching Environmental, Social, and Governance (ESG) Framework launched in 2022 as part of the Company's focus to maintain its position, including the achievement to listed within the top 1 percentile of comparable peers, as rated by Sustainalytics, the global ESG rating agency. This bio' project is also planned to be certified by an independent certification body. This initiative is also in line with "Strategic Transformation for Environmental Initiatives" in the Nippon Shokubai Group's long-term vision, "TechnoAmenity for the future" and "Promoting the use of bio-based materials" in its roadmap for reducing GHG emissions by 2050.

It will also reduce CO₂ emissions throughout the product lifecycle, contributing to lower carbon emissions toward the Republic of Indonesia's long-term plan, "Indonesia's Long-Term Strategy for Low Carbon and Climate Resilience 2050."

*Green Chemical

A general term for all chemical products with low environmental impact that are obtained from renewable resources such as plants, agricultural products, their by-products, and wastes, and that replace conventional chemicals made from fossil fuels.

About NIPPON SHOKUBAI INDONESIA

Since established in 1996, NIPPON SHOKUBAI INDONESIA is a sole manufacturer of acrylic acid, acrylic ester and superabsorbent polymer in Indonesia, located in Cilegon, Banten. NIPPON SHOKUBAI INDONESIA is the largest overseas plant in Nippon Shokubai Group.

About Chandra Asri

Chandra Asri Petrochemical is Indonesia's largest integrated petrochemical company producing olefins and polyolefins. With a history of 30 years and over 2000 dedicated staff, the company incorporates state-of-the art technologies and supporting facilities located strategically in the country's petrochemical hub, Cilegon and Serang. As a Growth Partner, Chandra Asri is committed on creating high-value jobs, expanding the domestic petrochemical value chain, and serving the needs of the vibrant and growing Indonesian market. For more information, visit: <https://www.chandra-asri.com>.

About NIPPON SHOKUBAI CO., LTD.: Since 1941, Nippon Shokubai has grown up its business with unique catalyst technology. Nippon Shokubai has supplied, for example, ethylene oxide, acrylic acid, automobile catalysts, process catalysts and so on. Among all, our global market share of superabsorbent polymers is the largest in the world now (according to Nippon Shokubai research). Nippon Shokubai is a global chemical company operating under its corporate mission "TechnoAmenity-Providing affluence and comfort to people and society with our unique technology."

<https://www.shokubai.co.jp/en/>

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