SHAH ALAM: Progressive Impact Corporation Bhd (PICORP)'s environmental monitoring, consultancy and services (EMCS) faced unprecedented challenges during Covid-19 but has since bounced back and is now positioned stronger than ever, ready for sustained future growth.

Group executive director Datuk Dr. Lukman Ibrahim expressed optimism, noting that the EMCS segment had recovered after a turbulent period.

"The segment was heavily affected by the pandemic, but as things return to normalcy, we are picking up the pace this year and eyeing further growth in the years to come, driven by sustained demand for its services," said Lukman.

Eyes on the Environment

In Malaysia, PICORP's EMCS journey began with environmental monitoring through its subsidiary Alam Sekitar Malaysia Sdn Bhd (Asma), focusing on monitoring water, air, and environmental systems.

"The business remains a core focus for us, as environmental monitoring remains pivotal in addressing the nation's ever-pressing environmental issues," said Lukman.

He added that with stricter imposition of Environmental Quality Act 1974 (EQA) regulations, along with increasing demand for ESG adoption, the landscape is rapidly evolving.

"We believe there is a critical need for improved monitoring. This, driven by stricter environmental regulations and government and ESG-related initiatives, will boost the demand for environmental monitoring systems and services" he said.

He stated that addressing environmental issues requires more than just treatment; it necessitates preventive measures that begin with improved monitoring.

For water monitoring, Lukman emphasised that it remains the best way to assess water quality levels and prevent recurring pollution incidents.

"Water monitoring plays a crucial role in detecting pollution sources, including industries that illegally discharge waste into rivers and waterways.

Early detection through monitoring systems helps authorities take immediate action, holding perpetrators accountable and preventing further environmental degradation,"

"For now, we have installed 190 units of online water quality monitoring systems. Additionally, we are also the first company to install an online monitoring system for the drinking water distribution network in the country for Air Selangor, as well as an online lake water quality monitoring system for Putrajaya Lake and Wetlands" he added.

For air monitoring, he noted that as population growth places industrial premises closer to residential areas, stricter actions on air pollution drive the demand for air monitoring services, requiring industries to proactively manage their emissions.

"We are particularly well-versed in emissions monitoring, having extensive expertise and experience from over 30 CEMS-related and 10 PEMS-related projects approved by the Department of Environment (DOE) nationwide,

"Additionally, we offer CEMS audit services through our QAL2-CVT automation system, which ensures data integrity by mapping, integrating, and validating CEMS data, and synchronising it with SRM data for automated report generation."

This enhances time efficiency, reduces errors, improves data accuracy, optimises resource usage, and ensures better compliance for large industrial plants, he added.

"Moreover, we have also been providing biodiversity monitoring for Putrajaya Lake and Wetland since 2001, helping maintain the ecological systems that support clean air, water, plant pollination, pest control, and wastewater treatment in Putrajaya" said Lukman.

Expanding EMCS Offerings to Water and Wastewater Solutions

In addition to monitoring, the company is also focusing on water and wastewater treatment by providing solutions that address both areas.

"Despite Malaysia being a water-rich country, the situation has shifted from one of relative abundance in clean, treated water to one of scarcity, exacerbated by a surge in demand driven by population growth, urbanisation, industrialisation, and the expansion of irrigated agriculture" said Lukman.

"We observe that even with the availability of raw water, there is still an inability to provide sufficient clean and treated water, especially in rural areas, due to several factors, one of which is the complex treatment processes,"

"This, compounded by pollution from industrial players due to poor wastewater management, worsens the issue, causing ongoing water shortages and dwindling reserves" he added.

He further pointed out that industries requiring a large quantity of high-quality water and facing rising tariffs are finding it increasingly difficult to manage water resources, which is set to increase their operational costs and put their long-term sustainability at risk.

"This is where we, as a water treatment solutions provider, aim to help everyone achieve water security. With the launch of our new MyHERO series, designed to address effluent compliance issues and recycle industrial wastewater, we are ready to resolve these challenges,"

"By helping industries manage their wastewater effectively through innovative solutions that promote circular water use, we not only provide long-term sustainable options but also reduce water pollution due to untreated wastewater discharge, benefiting all stakeholders."

Providing safe and clean water for 12,000 people in Kelantan

Recently, the company successfully completed a water treatment plant using their proprietary technology, known as Intelligent Aqua, in Kelantan.

The water treatment plant is designed with high-level automation, requiring minimal operator intervention. It is fitted with our own technology, which is approved by Suruhanjaya Perkhidmatan Air Negara (SPAN), capable of producing 4 million litres of water per day (MLD).

"With the completion of the water treatment plant, it will serve approximately 12,000 people.” said Lukman.

Reaching Remote Communities

Additionally last year, the company managed to deliver a water treatment plant for a remote community plagued by hard water caused by high levels of minerals, particularly calcium and magnesium, compounded by elevated levels of iron and manganese.

Lukman explained, "This hard water can pose adverse health effects on the community, such as skin irritation, dry hair, and exacerbation of conditions like eczema. Moreover, the buildup of minerals in plumbing can reduce water flow, damage household appliances, and increase maintenance costs for the residents."

In solving this issue, the company faced significant logistical challenges. "It was crucial for us to manage the entire logistical process effectively, given the location's limited accessibility,"

"However, the compact design of our system allowed for easy transport and adaptation to different locations, ensuring that the plant could be relocated if necessary, such as in the event of a well drying up," he added.

The flexibility and efficiency were key for them in successfully delivering the water treatment plant, capable of producing 30,000 litres of clean, treated water per hour to the community.

Extending EMCS to the Land of the Two Holy Mosques

In Saudi Arabia, PICORP, through its subsidiary Saudi Asma Environmental Solutions LLC (SAES), has established itself as a key player in Integrated Pest Management (IPM), recognised as a leading entity by the Ministry of Municipal and Rural Affairs of the Kingdom of Saudi Arabia.

"We have been providing pest surveillance as well as operation and maintenance of public health pest laboratory to the government sector in Saudi Arabia since 2008" he noted.

Pest Surveillance

As Saudi Arabia implements its Vision 2030, the country is experiencing rapid urban development and increased social and cultural activities, highlighting the need for enhanced public health management, including integrated pest management.

Lukman stated that IPM is not a single method, it involves a series of pest management evaluations, decisions, and controls,"

"Hence, in major Saudi cities like Makkah, Jeddah, Riyadh, and Madinah, municipalities split pest management contracts into three areas: pest control, pest surveillance, and public health pest lab operations. SAES has been working with several of them on surveillance and pest lab management. "

He emphasised the importance of pest surveillance in ensuring effective pest control management.

"SAES will report to the municipalities, helping determine when pest control is needed, if preventive methods have failed, and assess the best control methods for both effectiveness and risk,"

"Along with surveillance, we also manage the public health pest lab for municipalities, a specialised service not commonly available commercially due to its required expertise" he added.

Pest Control

The company has also expanded its integrated pest management (IPM) scope to include pest control services for the private sector.

Lukman said: "Beyond surveillance, we handle pest control ourselves, collaborating with Public Investment Fund (PIF) companies like SELA to support public health and safety in tourist hotspots such as Jeddah and Riyadh,

"We are also working with the Saudi Binladin Group on pest control operations in the third extension areas of Masjidil Haram, Mecca."

He added that the successful securing of these contracts has been due to the positive references received from the municipalities it has served for the past one and a half decades.

'With SAES's expertise in pest surveillance and pest lab management, we are confident in delivering top-tier pest control services, ensuring a cleaner and safer environment. This is crucial for the millions of Hajj pilgrims, as our efforts reduce disease risks, enhance hygiene, and maintain a pest-free experience in sacred areas. " he added.

Waste Management

The company has also seized other opportunities within the environmental sector, having secured a contract for the provision of waste management solutions.

"Recently, we secured a project from Kidana Development Company to provide 20 units of waste compactors to Site 38 at Mina pilgrimage area," Lukman said.

"Each compactor can hold more than 100m³ of uncompacted waste, allowing for space savings. They require minimal installation time, and the large container size enables longer emptying intervals, resulting in both cost and ecological savings,

"These compactors not only improve operational efficiency but also contribute to a cleaner environment, benefiting the health and well-being of pilgrims by modernising the waste management system" he added.